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#### **COLLABORATION IN ART HISTORICAL RESEARCH: LOOKING AT PRIMITIVES**

#### Introduction

This paper reports on work conducted in the context of *Preparing DARIAH: Preparing for the construction of the Digital Research Infrastructure for the Arts and Humanities*, a collaborative European project co-funded by the ESFRI e-Infrastructures programme, aiming at providing the foundations (strategic, financial, legal, technological and conceptual) for the timely design and construction of the digital infrastructure requisite for scholarly research in the arts, humanities and cultural heritage in Europe.<sup>1</sup> The Digital Curation Unit-IMIS, *Athena* Research Centre is currently engaging in a two-pronged research programme within the conceptual modelling work-package of DARIAH consisting: a) of the formulation of a conceptual model for scholarly research activity suitable for the representation of actual information practice in scholarly work, and b) of an empirical study of scholarly research activity, based on the elicitation, transcription, encoding, analysis and interpretation of open-question interviews with humanities scholars across Europe.

## **Empirical Research in DARIAH**

## <1>

From January to June 2009, 24 interviews were conducted; most interviews were conducted face-to-face in Greece, either in Greek or in English; a further round is planned across Europe, based on Skype and/or telephone interviews. Survey participants had to be researchers doing advanced research in the field of the arts and humanities. They were selected according to expertise and were members of academic departments or research institutes.

## <2>

Interviewees covered a wide scope of disciplines within the arts and humanities, ranging from history (ancient, modern, contemporary), history of art, Byzantine studies, archaeology (iconographic research, experimental archaeology, archaeological site-based research, archaeological survey) and anthropology (anthropology of material culture, ethnomusicology). They were at different career stages, ranging from doctoral candidates to full professors, and held both academic and non-academic positions. They displayed widely varying familiarity and intensity of use of ICT tools, ranging from laggards to early adopters

and innovators according to the Rogers Adoption/Innovation curve.<sup>2</sup> Thirteen of the interviewees were male, the rest female. About two thirds were Greek. The largest groups of interviewees by discipline were archaeologists (11, albeit of widely diverse specialties, from iconography to site survey), historians (5), humanities/cultural studies (3) and literature scholars (3).

#### <3>

All interviews were recorded with the consent of the participants, transcribed into written form, segmented according to topic, and tagged by two members of the research team (one analyst and one classical archaeologist/ancient historian). The duration of the interviews ranged from 45 to 90 minutes, depending on the interviewees' personal interests, research methodology employed, and reports of other activities which we considered would be relevant to the research, such as, notably, academic teaching: an activity that frequently coexists with scholarly research, in as much as academic teachers are, as a rule, involved in active research. Interviews were conversational, and based on an open questionnaire, encouraging the elicitation of further information when this was justified by the scope of the present research. Despite known difficulties arising in the analysis of free text interviews, the open questionnaire format helped identify important differences between specific methodological perspectives and thematic interests within and across disciplines.

### **Background work on Scholarly Primitives**

#### <4>

For this paper we choose to use the term >activity< with the meaning of >method< as, according to our belief, it is more applicable to the research done in the humanities than the term >primitive<. A recent account of scholarly information process, by Palmer and associates,<sup>3</sup> defines five >scholarly activities<: *searching, collecting, reading, writing and collaborating.* These, as well as a bucket of >cross-cutting primitives< are further refined to a more detailed, and useful, list of twenty granular >scholarly primitives<; of these, *browsing, collecting, re-reading, assembling, consulting* and *notetaking* were found to be particularly common in the humanities, while *chaining, accessing, assessing, disseminating* and *networking* were seen as equally applicable to the humanities as well as other disciplines. *Chaining,* in particular, was identified as the most notable activity among humanists as they seek information. In addition, *probing* and *translating* activities were found to be most common in interdisciplinary research, a noteworthy finding considering the frequently interdisciplinary nature of work in the arts and humanities.<sup>4</sup> Nevertheless, what seems to be

emerging is that John Unsworth's<sup>5</sup> notions and Palmer's ideas were not in fact >primitives< in the aforesaid sense; rather, these are processes *per se*, which describe kinds of activities.

#### <5>

The validity of the aforementioned primitives or pactivities as tools in conceptualizing and understanding arts and humanities research has been recently challenged, and so has the question on whether these comprise applicable components of the research cycle.<sup>6</sup> Seamus Ross convincingly argued that what should be perceived as primitives would be archetypical processes that give rise to specific instances of tasks in the context of specific research endeavours, namely: a) question making, b) hypothesis formulation and explanation, c) method selection, d) data and information gathering, e) sense making, f) representation and communication, g) review and discourse and then, new question making.<sup>7</sup>

#### <6>

The key point raised by Ross is that research primitives need to be differentiated from information seeking processes, and perhaps systematically related with them. As scholars think and communicate on the basis of their understanding of research process, it is important to provide an explicit identification of methods that corresponds to how they understand specific stages and processes of their research cycle. While the specific »research primitives suggested by Ross correspond to a particular conceptualization of research, typically exemplified by logical positivism based on hypothesis testing and (in the field of social and human sciences) statistical inference, the approach could be generalized on the basis of alternative epistemological viewpoints such as that of critical realism.

#### <7>

In concrete terms, this new account links scholarly primitives, in our model of scholarly research activity, with the notion of *methods*, rather than that of *activity* or *procedure*. A review of research methods from the methods taxonomy developed as part of the British AHRC Methods Network project, in fields such as art history, or archaeology, allows us to find meaningful correspondences between such methods and specific stages of scholarly research.

### **Art Historical Research**

#### <8>

In general terms, humanities are a field which is characterized most by the gathering of evidence. This regards every item – preferably, however, primary resources – that could be useful to a scholar while doing his/her research<sup>8</sup> or when building his/her collection. More

specifically, examination of research methods in the field of art history revealed that the creation of personal collections is based on the primary and secondary resources needed for a specific research and could include both analogical and digital material.<sup>9</sup> This is always assessed by scholars regarding its usefulness, reliability and appropriateness. So, in this particular discipline, as well as in the humanities in general, the collection of information objects is considered a default activity,<sup>10</sup> carried out for specific reasons and involves many personalized ways of organizing information.

#### <9>

Palmer discovered that the aforementioned collections constitute mainly documents rather than row data, as well as that they could be useful to other researchers. Especially collections which include visual reproductions of works of art are of particular importance to art historians. The reason is that the activity of collecting could help resolve many problems scholars face such as copyright issues, incompatibility of metadata, duration and strength of items.<sup>11</sup>

#### <10>

Regarding the first stages of research, while searching for the information objects, suggestions made by colleagues or fellow researchers on bibliographic sources and information material about the research subject is one of the most effective methods of finding information objects.<sup>12</sup> Even discussions with colleagues from different fields may generate ideas for new research projects or different ways for developing the existing ones.<sup>13</sup> Moreover, as it is already noted, while trying to collect all the information needed, another researcher's personal collection could perhaps prove useful,<sup>14</sup> just like criticism of colleagues is a key factor during the process of evaluation of sources.<sup>15</sup> Palmer's observation that researchers evaluate their evidence based on factors such as interest, originality, quality, timeliness, availability and criticism of their colleagues is also quite interesting.<sup>16</sup> The opinion of colleagues and their advice is frequently taken under consideration in the humanities, and especially in art history.<sup>17</sup> The advisory role of colleagues is a particular feature in the field of art history<sup>18</sup> and takes place alongside various stages of research.<sup>19</sup>

#### <11>

Another stage of research that the digital era could enhance is writing. Writing in the humanities is considered a solitary research activity,<sup>20</sup> unlike other disciplines such as the social sciences, in which the whole process of research is usually teamwork.<sup>21</sup> On the other hand, we could not avoid mentioning an exception noted by Bakewell and associates in their

research's results.<sup>22</sup> While most respondents answered that art historians do not collaborate with colleagues, two of them revealed that they have tried writing a project with another person, and with relative success. Furthermore, the fact that, nowadays, cooperation through writing and publishing on the web has increased seems rather encouraging.<sup>23</sup>

## **Communication & Collaboration in Art History**

#### <12>

As for cooperation in the field of art history, the status is the same as the one prevailing in other humanities disciplines. According to research conducted by Bakewell and associates<sup>24</sup> only few of the art historians who participated in the interviews had attempted some kind of collaboration with other colleagues. While, therefore, the network of colleagues is very important for a researcher in art history,<sup>25</sup> most scholars, still, tend to work alone.<sup>26</sup>

## <13>

Two of the main communication methods among researchers are publishing and presenting the results of their research at seminars or conferences.<sup>27</sup> Publishing a part of a research project before its completion aims to welcome criticism and advice from the academic community. Preprints on the web are another part of the publishing activity not yet exploited at present in the area of the humanities, which could possibly prove to be a very useful service.<sup>28</sup> Specifically, the trend, but also the need, for publishing individual chapters before the final version of their work in order to receive criticism and advice of colleagues<sup>29</sup>, could be covered in the digital era by preprints on the web.

### <14>

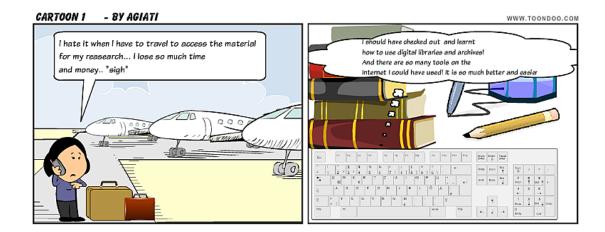
But, according to Palmer's considerations,<sup>30</sup> the distribution and communication of data to the research community is a bit problematic for those scholars who have tried hard to gather their material, not yet published their work or concerned about intellectual property issues. In this group are clearly included scholars in the humanities – and art historians as well. Having often traveled far in order to collect their material, scattered all over the world, art historians feel more hesitation in the idea to share it with others.<sup>31</sup> We can also understand that from the negative attitude they have towards a possible exchange of collections with other researchers.<sup>32</sup>

### <15>

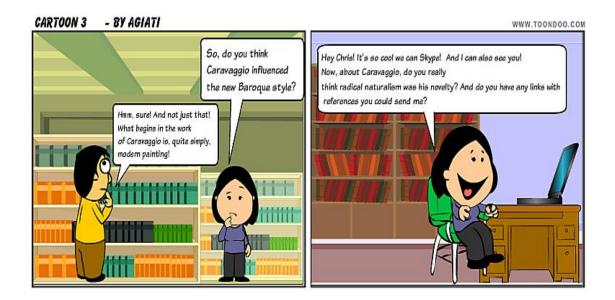
Usually, before starting a partnership, it is necessary to establish relationships between colleagues, an activity which, today, can be benefit and highlighted by new technologies.<sup>33</sup>

Firstly, surveys show that building relationships between colleagues is an area in which researchers in the humanities are very active, developing the so-called informal communication.<sup>34</sup> Developing and maintaining a network of people, from the same discipline or not,<sup>35</sup> can contribute to the advancement of a scholars' research output. Advice and criticism, ideas for new research projects, the enrichment of personal collections of bibliographic and other kind of material, as well as the retrieval of information about the new trends in the field are some of the main advantages of contacting a wide circle of people.<sup>36</sup> Moreover, in art history, the maintenance of a wide network of people can serve as a policy to avoid potential misunderstandings. For example, updating colleagues on a study or a specific research topic, previously examined or researched by others, may prevent misunderstandings and possible future embarrassment.<sup>37</sup>

# Are art historians familiar with IT tools? To what extent? (DARIAH/cartoon) – stress status quo in Europe







## **Tools for supporting collaboration**

## <16>

Based on the idea that in the humanities the informal communication is often of greater value than the official,<sup>38</sup> it is worth mentioning the dissemination of information through conferences and personal exchange of views and advice between the research community<sup>39</sup> and how it is enhanced by the use of new technologies. The use of technology, for example at conferences, through electronic presentations of research projects, and the possibility of online meetings have clearly facilitated the process of exchanging views. By this way many restrictions that prevailed until recently have broken, such as the geographical and technical.<sup>40</sup> The use of electronic mail, blogs, discussion lists and forums, open a new field of study in the humanities,<sup>41</sup> that of communication and cooperation.

## <17>

Digital services and tools can, in turn, help build research communities and contest the perception of lack of cooperation in the humanities.<sup>42</sup> For instance, electronic mail is appreciated for its speed, contributing in this way to maintain contact and facilitate collaboration with colleagues and publishers.<sup>43</sup> Also, discussion lists are suitable for scholars in order to keep updated on the latest news in the field and identify colleagues working on the same or similar topics. Finally forums are perfect for discussion and advice exchanging.<sup>44</sup>

#### <18>

As for the history of art, Grindley<sup>45</sup> refers to some digital tools and services that could highlight and improve communication and cooperation. Telephone or e-mail<sup>46</sup> are no longer the only means of communication among the community. According to Grindley,<sup>47</sup> communication through digital tools and services such as Skype, Instant Messenger and iChat, and the increasing use of wikis and blogs based on ongoing research projects, may open new horizons for cooperation among art historians, but also more widely in the fields of arts and humanities.

#### <19>

In conclusion, after identifying the role of new media in enhancing networking, we could result that, in this case, the various digital services have begun to play a key role in facilitating communication between researchers.<sup>48</sup> So, in the future, collaboration may possibly become more frequent among researchers in art history during all stages of research, including the less enhanced, such as writing.<sup>49</sup> But, regarding new technologies and their application in arts and humanities, more changes should occur in order for all scholars in the field to trust and get more familiar with them.

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3 Palmer, C.L. et al., 2009, »Scholarly Information Practices in the Online Environment. Themes from the Literature and Implications for Library Service Development«, Graduate School of Library & Information Science (GSLIS), Center for Informatics Research in Science & Scholarship (CIRSS), University of Illinois at Urbana-Champaign, OCLC Research, Dublin.

<sup>1</sup> Constantopoulos, P., Dallas C., Doorn, P., Gavrilis, D., Gros, A., & Stylianou, G., 2008, »Preparing DARIAH«, in *Proceedings of the International Conference on Virtual Systems and MultiMedia* (*VSMM08*), Nicosia, Cyprus. Retrieved from http://www.dcu.gr/dcu/Documents/documents/preparing-dariah/en/attachment.

<sup>2</sup> Rogers, E. M., 1995, »Diffusion of innovation«, Free Press.

<sup>4</sup> Palmer et al., 2009.

<sup>5</sup> Unsworth, J., 2000a, »Scholarly Primitives: what methods do humanities researchers have in common, and how might our tools reflect this?«, Symposium on »Humanities Computing: formal methods, experimental practice«, King's College, London, May 13, 2000. Retrieved from <u>http://www3.isrl.illinois.edu/~unsworth/Kings.5-00/primitives.html</u>.

- 6 Digital Curation Unit (DCU), Expert Forum on Scholarly Activity and Information Process, Athens, June 2010.
- 7 Ross S., 2010, »Expert Forum on Scholarly Activity and Information Process«, June 2010, Athens.
- 8 Palmer et al., 2009, p. 17-18 and Brockman, W.S. et al., 2001, »Scholarly Work in the Humanities and the Evolving Information Environment«, Digital Library Federation and Council on Library and Information Resources, Washington, D.C. Retrieved from <u>http://books.google.com/books?id=prqCue465pYC&printsec=frontcover&hl=el&source=gbs\_navlink</u> <u>s\_s#v=onepage&q=&f=false</u>, p. 8.
- 9 In fact, it may include the entire range of the information objects which are a source of information for historians of art, from text documents and visual art reproductions to audiovisual materials in analogical or digital form.
- 10 Palmer et al., 2009, p. 17-18; Brockman et al., 2001, p. 14 and Challenger, J., 1999, »Information-Seeking Behavior of Professors in Art History and Studio Art«, Master's Research Paper, Kent State University. Retrieved from <u>http://www.eric.ed.gov/PDFS/ED435405.pdf</u>, p. 7.
- 11 Grindley, N., 2006, "What's in the Art-Historian's Toolkit?«, A Methods Network Working Paper, AHRC ICT Methods Network. Retrieved from <u>https://wiki.projectbamboo.org/download/attachments/2361434/art-historians-toolkit.pdf</u>, p. 6.
- 12 Palmer et al., 2009, p. 28; Brockman et al., 2001, p. 11; Unsworth, 2000a and Unsworth, J., 2000b, »The Scholar in the Digital Library«, Institute for Advanced Technology in the Humanities (IATH), University of Virginia. Retrieved from <a href="http://www3.isrl.illinois.edu/~unsworth/sdl.html">http://www3.isrl.illinois.edu/~unsworth/sdl.html</a> for humanities. Considering history of art, Reed, M., 1992, »Navigator, Mapmaker, Stargazer: Charting the New Electronic Sources in Art History«, Library Trends, 40, 4, p. 733-755, p. 752; Bakewell, E. et al., 1988, »Object, Image, Inquiry. The art historian at work«, J. Paul Getty Trust, United States of America, p. 75-78; Challenger, 1999, p. 8; Reed, B. & Tanner, D.R., 2001, »Information Needs and Library Services for the Fine Arts Faculty«, The Journal of Academic Librarianship, 27, 3, p. 229-233, p. 231 and DCU, interview with the art historian D.K., 3/2009, in the context of the European Project »Preparing DARIAH«. Also, in Bakewell et al., 1988, p. 41 it is noted that one of the informal methods for searching bibliographical resources for some art historians is taking participation in scientific meetings or meeting publishers in personal.
- 13 Palmer et al., 2009, p. 28. It is particularly noted that the advisory role of researchers from other scientific disciplines is of crucial importance for scholars of interdisciplinary fields. Also see interview carried out by Agiatis Benardou on behalf of DCU with the art historian D.K. on March 2009, in the context of the European Project »Preparing DARIAH«. More specifically, in this interview it is mentioned that the discussion between young researchers is often more loose, and that even discussion with researchers from different scientific fields can prove useful in developing new ideas.
- 14 Palmer et al., 2009, p. 16, 28.

- 15 Brockman et al., 2001, p. 3, 8, 26; Dallas, C., 1998, "Humanistic Research, Information Resources and Electronic Communication«. Retrieved from <u>http://library.panteion.gr:8080/dspace/bitstream/123456789/792/1/dallas+2.pdf</u>, p. 222-223; Borgman, C.L., 2007, "Scholarship in the Digital Age. Information, Infrastructure and the Internet«, The MIT Press, United States of America, p. 59; Bakewell et al., 1988, p. 41, 65 and DCU, interview with the art historian D.K., 3/2009, in the context of the European Project "Preparing DARIAH".
- 16 Palmer et al., 2009, p. 20. For historians, one more reason that counts is the context of an information object, as well as its relation with the other items in a collection.
- 17 Bakewell et al., 1988, p. 41, 65 and DCU, interview with the art historian D.K., 3/2009, in the context of the European Project »Preparing DARIAH«.
- 18 Palmer et al., 2009, p. 28, 44. Both in the text on page 28 and the table on page 44 is highlighted the importance of the advisory role in the humanities in contrast with the sciences. Also, noteworthy is the relationship maintained between students and professors, whose advisory role influences even the research methods of new scholars. For example, the importance of these relationships is indicated in Bakewell et al., 1988, p. 75 for art historians.
- 19 Palmer et al., 2009, p. 28.
- 20 Brockman et al., 2001, p. 11.
- 21 Brockman et al., 2001, p. 11 and Dallas, 1998, p. 211.
- 22 Bakewell et al., 1995, p. 77-78.
- 23 Palmer et al., 2009, p. 23. Regarding the articles published on the web (hyperauthorship), she notes that although many authors may be referred, usually not all of them have participated in the writing process. Some may have participated in the research before that.
- 24 Bakewell et al, 1988, p. 77.
- 25 Bakewell et al, 1988, p. 75-78.
- 26 Reed, 1992, p. 752 and Beeman, A., 1995, »Stalking the Art Historian«, in Shields, M.A., *Work and technology in higher education: the Social Construction of Academic Computing*, Routledge, USA, p. 89-102, 94, p. 101.
- 27 Palmer et al., 2009, p. 23, Borgman, 2007, p. 47-53 and Dallas, 1998, p. 229.
- 28 Dallas, K., 2000, »Digital resources in archaeology and art history: perspectives and challenges for research and education«, in Art Libraries: Their Role and particularity, Athens, Publication of the School of Fine Arts' Library: 130141, p. 136; Dallas, 1998, p. 224 and Brockman et al., 2001, p. 26. Moreover, in Borgman, 2007, p. 49-52 more information can be found about the role of preprints in sciences in general.
- 29 Brockman et al., 2001, p. 25-26.

#### 30 Palmer et al., 2009, p. 33. Also, Borgman, 2007, p. 8.

- 31 Beeman, 1995, p. 95; Cohen, K., 1997, »The Nina, the Pinta, and the Internet« in *Digital Culture and the Practices of Art and Art History*, Art Bulletin, 79, 2, p. 187-191, p. 187, 190 (f. 15); Bakewell et al., 1988, p. 26-28, p. 86-90, Durran, J., 1997, »Art History, Scholarship and Image Libraries: Realizing the Potential of the Digital Age«. Retrieved from <a href="http://www.scribd.com/doc/3799275/Art-History-Scholarship-and-Image-Libraries-Realising-the-Potential-of-the-Digital-Age">http://www.scribd.com/doc/3799275/Art-History-Scholarship-and-Image-Libraries-Realising-the-Potential-of-the-Digital-Age</a>, p. 8; Grindley, 2006, p. 6 and Bailey C. & Graham, M.E., 2000, »The Corpus and the Art Historian«, CIHA, Thirtieth International Congress of the History of Art, London. Retrieved from <a href="http://www.unites.uqam.ca/AHWA/Meetings/2000.CIHA/Bailey.html">http://www.unites.uqam.ca/AHWA/Meetings/2000.CIHA/Bailey.html</a>.
- 32 Beeman, 1995, p. 95; Cohen, 1997, p. 187, 190 (f. 15); Bakewell et al., 1988, p. 26-28, p. 86-90; Durran, 1997, p. 8; Grindley, 2006, p. 6 and Bailey & Graham, 2000.
- 33 Palmer et al., 2009, p. 27.
- 34 Dallas, 1998, p. 220-22; Dallas, 2000, p. 136 and Brockman et al., 2001, p. 11.
- 35 Brockman et al., 2001, p. 11; Bakewell et al., 1988, p. 76 and Challenger, 1999, p. 7.
- Brockman et al., 2001, p. 11-13; Unsworth, 2000a; Unsworth, 2000b; Grindley, 2006, p. 4-6;
  Challenger, 1999, p. 8; Reed & Tanner, 2001, p. 231.
- 37 DCU, interview with the art historian D.K., 3/2009, in the context of the European Project »Preparing DARIAH«.
- 38 Dallas, 1998, p. 220-221 and Dallas, 2000, p. 136.
- 39 Brockman et al., 2001, p. 11.
- 40 Borgman, 2007, p. 52, 55. In addition, in Grindley, 2006, p. 5-6, the use of a tool called Access Grid is suggested, through which online meetings can be organized in real time, such as an online conference, with the difference that it may include all geographical sites and make easier the free exchange and circulation of archives via the network. Of course, it requires the installation of specific software and for that reason financial support from an institution is needed. This application is considered to enhance communication and cooperation among researchers in art history, by making easier the exchange of material, usually scattered around the world.
- 41 Brockman et al., 2001, p. 12-13 and Dallas, 1998, p. 221, 226.
- 42 Brockman et al., 2001, p. 11; Dallas, 1998, p. 229 and Grindley, 2006, p. 4.
- 43 Brockman et al., 2001, p. 12; Dallas, 1998, p. 226 and Beeman, 1995, p. 99-100.
- 44 Brockman et al., 2001, p. 12-13. Although it is noted that, in general, there is not much excitement about discussion lists. Also, Dallas, 1998, p. 226.
- 45 Grindley, 2006, p. 4-6.
- 46 DCU, interview with the art historian D.K., 3/2009, in the context of the European Project
  »Preparing DARIAH«. There is a separation here on how communication between younger and

older researchers is achieved. Contact with the oldest is made by phone or in person, while younger people communicate each other via e-mail.

- 47 Grindley, 2006, p. 4.
- 48 Palmer et al., 2009, p. 28.
- 49 The need for applying the conventional research activities to the new media, as it is mentioned by Beeman, 1995, p. 91-92, helps us contemplate similar actions in the future.