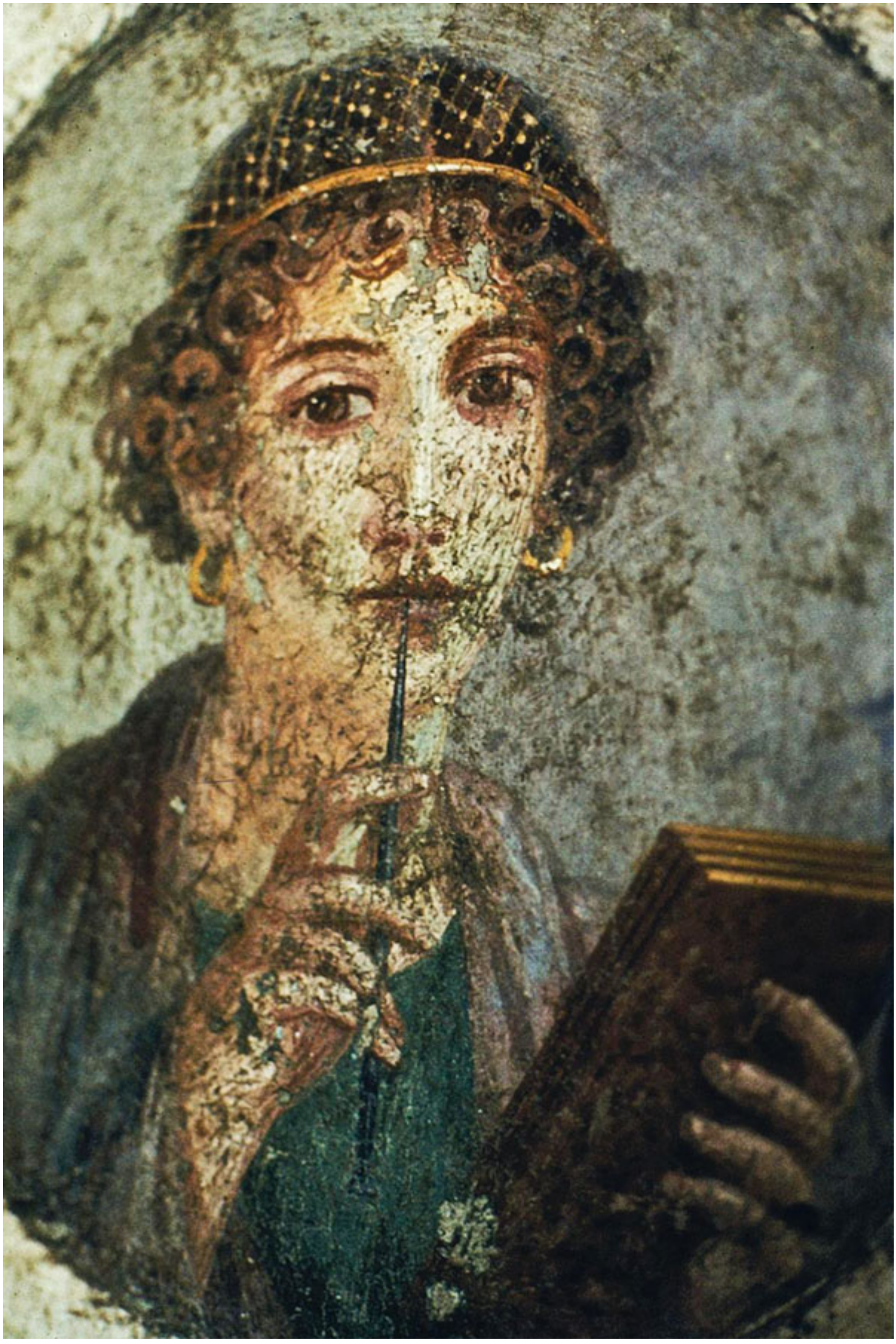
INFORMATION IS A VERB



Information is a verb and we need an archaeology of information.

University of California Irvine
at the UC Humanities Research Institute



Occasion – a colloquium on the future of the humanities in a digital world.

Attending – people from university humanities centers across the US, librarians, some government people, IT people (various supercomputing centers), and from the IT industry.

There are some big initiatives planned or underway – to take the digitization of libraries further, to have digital copies of every book and document available online, to digitize museums.

Most of the discussion was around a classic archaeological matter – cultural preservation – creating archives and catalogues, digital libraries and museums of cultural goods – literature and art especially. This is not a new project at all, of course, whatever the implications of information technology. It reminds me of some of the great defining projects of archaeology – to create vast museum collections; but also data repositories – catalogues of ancient sites and civilizations. Corpus Vasorum Antiquorum – a series of catalogues of ancient ceramics in every museum in the world. Pauly-Wissowa – Realencyclopaedie der classischen altertumswissenschaft – the last, multivolume, word on classical antiquity. At least these were the dreams of their creators.

Now though, the custodians of culture, (Culture capitalized), have the resources, or at least the technology, they think, to realize the great encyclopedic goals of modernity. Make it all digital and open to everyone from the comfort of their home PC (in the nineteenth century it was the rail network and no admission charges to the British Museum).

More specifically, most discussion was around the design of the information to be archived, and the machinery of preservation – scanning books (what of physical objects?), recording metadata, what kind of hardware infrastructures?

Here are some of the issues that came up.

The machinery of preservation and information design. Archives and museums, though based around physical artifacts (books, papers and all sorts of other things, including CPUs, hard drives and monitors), are usually seen as information systems. So, for many, the question is how to design a database for eternity, or at least one that can be updated – if we are going to digitize everything, lets make sure

the database is designed the right way. Technically and administratively this is an issue of metadata standards and interoperability.

Interdisciplinary fields are prominent in people's thinking. So – how do we get scientists together with humanists? Here this is usually taken to mean techies, providing the databases and hardware, and content people, the authors, artists and academics. Several of the IT people called out for it to be realized that they have the solutions – the machines are available, the storage capacity, the software expertise, the science – if only the content people would just give them the goods.

Infrastructures. What is needed to achieve the great archive of everything? Do the big amounts of data need grid strategies and distributed resources? Here we are into institutional policy. Many were concerned about being at the table in policy decisions that addressed grand top-down strategies.

MaterialitiesWith respect to physical things – some were concerned about creating digital museums (based upon objects as well as texts). And, of course, there are many examples of web sites and museum exhibits that use IT to access collections. But they are limited and the task of creating complete digital versions of collections was unanimously considered too great – too much time and labor involved.

Bioinformation – clearly this is going to be a major component of information networks in the future. What is to be done with it? This leads to questions of access, digital divides, copyright and creative commons.

Digital impacts on society. While the archivists were interested in preservation and record, others were very aware of the implications of digital authorship. For the academics it means looking to digital publishing – e-publication – as the medium of scholarship. Many journals already rely on on-line access. University promotions committees will soon have to recognize a web site as grounds for tenure, rather than a monograph published by the likes of Cambridge University Press.

Here now, it started getting more interesting for me, with questions like – what might interdisciplinary humanities do?

And, more abstractly – what are the underlying metaphors, appropriate, inappropriate? Many are spatial – D spaces, sites. Or physical – records.

My line?

I am very wary of the old dreams (call them metanarratives) underlying these discussions. Many rely on modernist and romantic notions of the triumph of technology. So some of the *techies*, and this is how they see themselves – as problem solvers, were saying we can do whatever you want, we have the tools, it will not be an issue of hardware, we can make everything available, after we decide on the standards. The, unvoiced, corollary is that, as custodians of culture, we are facing loss. An alliance of scientists, policy makers and administrators can engineer social memory – a utopia in the face of loss, forgetting, and maybe a digital dark ages. The barbarians may even be at the gates.

We think of archives, libraries and museums as store houses – monumental and static, maybe even dusty. We think of archives, libraries and museums as store houses – monumental and static, maybe even dusty. No – this is an antiquarian emblem and just the appearance that overlays the immense efforts of curation that they embody.

Information lives. Information is a verb. Data are best conceived as events – series of queries and decisions about appraisal, value, curation, what to keep, what to just leave, what to let go. Tim Lenoir, as a historian of digital technologies is absolutely right to emphasize what we all know – that the life of particular media today is minimal. Many data formats, file types, hardware media are now inaccessible, even with the original machinery and in the hands of those who generated and worked with the original data – it was always a skill to get things to work, and those skill sets don't necessarily persist. We need an archaeology of the information age.

What lasts? Stone tools, clay tablets, but even then only with the work of archaeologists to recover and conserve, and with the effort of decryption, analysis, interpretation, relocating in the archaeological present.

Information design? Is it a case of crafting the perfect digital record card? Of anticipating users' queries fifty years ahead, and thus ensuring the useful life of the information? I think such a project is doomed to failure. I think it is a utopian dream to imagine that we can come up with a design that will have significant persistence, that is without actions performed upon the archive,

without curation.

Here we do well to distinguish preservation from conservation. Think of one of my Molly's jokes. How do you preserve wildlife? Pickle a squirrel. Conservation, as curation, requires a persistence of acts of intervention, looking after things and everything, ecologically, they connect with. In this way data are active and require energy to persist in their cultural ecologies.

An anecdotal and academic point – archaeologists have been collecting and publishing their finds for two centuries and more. The vast majority of stuff in museums and data published in journals and monographs is useless to the contemporary archaeologist. Why? Because archaeologists today are not interested in the same questions as prompted the collection and publication back then. But this is not just to say that people's int

erests change. Past and present archaeological interests are connected. Data are different today precisely because of the work of archaeologists a century ago.

Another way of seeing this life of the archive is to realize that an eternal life for information is not an option. We need to be able to let go of the past. And what remains is changed. Just as memory is not a record of what happened in our past – it is the act of recollection in present circumstances. And these circumstances change what we recall and how we treat it.

So how might we imagine the work of these cultural archives. What are these acts of curation? Apart from the obvious – the need to constantly look after stuff and translate it into current purpose and interest. We can start by switching from a custodial project to one of active authorship. Sam Schillace is always on at me about the significance of open source production, of iteration and adaptational strategies at the heart of creative and useful software design.

So we can come at the question of digital culture from the opposite direction to that of that utopian information design I have described. For example, with processing power and storage very cheap, and becoming greater and cheaper, the best approach to the archive is surely one that works with messy data, constantly accreting and changing, and relies on smart searching – new kinds of search engines. Local and site specific relationships with information (rather than global design solutions). We can think of the implications of disintermediation, of

distributed and decentralized storage and curation. Here browsing and searching are curatorial interactions with the archive, interventions that relocate specific information sets.

On digital media – I see too much focus on the digital as a distinct, rather than hybrid medium, rather than as optionally different modes of engagement. So in shifting from custodial model of digital information to an emphasis on active authorship, we need to work upon the heterogeneity of the digital, dealing with the physicality of relationship, of engagement. Acts of curation are also performative engagements. And text on a screen is not text upon a page, though the alphabetic encryption may be identical. A screen upon a wall is not a theater, just as a TV screen is not a handheld PDA, even though they all may transmit the same content. I am starting to wander off the point now.

To end – the point I constantly make about archaeology – archaeologists don't discover the past – they work on what is left behind.