

Concerning the Paradox of Paradata. Or, “I don’t want *realism*; I want *magic*!”

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Abstract

Traditional written historical investigation and analysis have from the beginning consisted of a sometimes unstable mixture of fact and conjecture, hard evidence and inspired imagination. To encourage 3-D modelling of cultural heritage artefacts to be taken seriously as historical scholarship this inevitable and ambiguous balance can be highlighted and to a significant degree documented and modulated by London Charter principles. This enhances the scholarly integrity of these models as examples of serious research based historical investigation, and helps avoid the dangers of inflated or unverified “media hype” which can compromise or discredit such work.

Key words LONDON CHARTER, PARADATA, 3-D MODELLING

1. Defining our terms

Paradox is “a statement or proposition that seems self-contradictory or absurd but in reality expresses a possible truth”.

Paradata according to the London Charter (employing the term coined by my CVL colleague, Drew Baker) is “Information about human processes of understanding and interpretation of data objects. Examples of paradata include descriptions stored within a structured dataset of how evidence was used to interpret an artefact, or a comment on methodological premises within a research publication. It is closely related, but somewhat different in emphasis, to ‘contextual metadata’, which tend to communicate interpretations of an artefact or collection, rather than the process through which one or more artefacts were processed or interpreted.”

So what might be thought of in our context here, as paradoxical about paradata? We can approach this by briefly considering two terms conveniently uttered in the quotation in my title by Blanche Dubois in Tennessee Williams’ work of 1947, *A Streetcar Named Desire*; “I don’t want realism; I want magic.” She goes on to say, by way of defining “magic”; “Yes, yes, magic. I try to give that to people. I do misrepresent things. I don’t tell truths. I tell what ought to be truth.”

So when we speak about the (possibly paradoxical?) quality of paradata, and its role in the 3-D modelling and documentation process whose nature and methodology is defined and stipulated by the London Charter, where am I suggesting that “realism” or “magic” come in, and what might be the relationship between them?

Magic is “the art of producing illusions as entertainment by the use of sleight of hand, deceptive devices”. We should perhaps usefully bear in mind Arthur C. Clarke’s Third Law: “Any sufficiently advanced technology is indistinguishable from magic.” And its corollary: “Any technology distinguishable from magic is insufficiently advanced”. Is this a proposition that those of us working in the area of 3-D modelling, need to take to

heart? And if so, does such an aspiration serve to further underscore the central importance of paradata, to enable those viewing the results of our technology, to be able to discern facts from fiction, or if you will, magic from realism?

This brings us to our final term, **realism**. Amongst various choices, perhaps the definition most appropriate to our topic here would be: “treatment of forms, colours, space, etc., in such a manner as to emphasize their correspondence to actuality or to ordinary visual experience”

(<http://dictionary.reference.com/browse/realism>).

Alternatively, for a working definition of realism, we might turn to the 1951 US Popular Culture TV series *Dragnet*. It began with the announcement: “The story you are about to see is true. Only the names have been changed to protect the innocent.” As its protagonist, Sergeant Joe Friday, famously said: “All we want are the facts, ma’am, just the facts”.

2. Looking at History

The relationship between realism and magic is not always as one might think at first, a straightforward dichotomy of opposites, but can involve as well a rather more subtle cognitive blending of various and ostensibly incongruent mental conceptions (and visual perceptions), and this blending itself has an extensive history in the history of “history” or more accurately, in historiography.

The writing of history from the very beginning, as pointed out and practiced by Herodotus (who has been called both the “Father of History”, as well as the “Father of Lies”), was to a significant degree itself a form of creative writing. Often he gives several alternative but incompatible versions of the same event, with a nod towards what we might now term “paradata”. “This is what they say, but in my opinion it is just one of those tall stories of the Egyptians”.

Antiquity, for us – all of us -- is itself an imagined construct. A great “Lost Continent” populated by cultural, aesthetic and imaginative notions and associations, cluttered with our current and accumulated histories, and to use a plain word: scholarly “make-believe”. We visit that Continent via the mind’s eye (or the computer screen) bearing with us an enormous amount of cultural “luggage”; lots of steamer trunks and extravagant hatboxes. We return too, in the company of ghosts; rather like persistent holiday acquaintances, we can’t shake them off.

The greatest of these encumbrances is history itself; indeed the very “idea of history”. One definition of realism according to Webster’s Dictionary is, “Fidelity to nature or to real life; representation without idealization, and making no appeal to the imagination; adherence to the actual fact”. Such a characterisation is analogous to the view asserted by Otto von Ranke in the 19th Century that history was first and last dependent upon objective facts: “das Ding an sich” (the thing itself); “wie es eigentlch gewesen” (as it essentially was); a phrase which we post-positivist know-it-alls (adamantly insisting that in facts we know nothing) -- cannot hear without smiling, or use without blushing. (VON RANKE, 1874: VII).

R. G. Collingwood, in the middle of the last century, as he so ingeniously merged history into philosophy, asserted instead that the idea of history was indeed a history not of pure facts, but of thought, and consequently could not remain untouched by the imagination. He saw “The objective fact as the inseparable correlative of the subject’s thought”. (COLLINGWOOD, 1924: 287). Such thought is generated in the first instance by our confrontation when we perceive the facts: “In perception we are immediately aware of our object, which is a concrete and therefore historical fact: perception and history are identical. But the immediacy of perception does not exclude mediation; it is not abstract immediacy (sensation) but implicitly contains an element of mediation (thought)... History is thus as a specific form of experience, identical with perception.” (COLLINGWOOD, 1924: 204-205).

As Collingwood went on to point out (235), thought, in facing the facts, seeks of course to make sense of them, and ultimately to tie them together into comprehensive knowledge and understanding. This was essential; otherwise the contemplation of historical events risks becoming mere entertainment. “Take away the conception of a universal history in which every special history finds its place and its justification, and you have committed the first and deepest sin against history, you have confused it with art: you have denied it any concern with truth and made it a mere thing of the imagination”.

3. Looking at Looking

Collingwood confessed early in his career, “I have found in my historical inquiries that I can never determine the exact truth about any historical fact, but have to be content with an account containing a large and unverifiable amount of what I know to be conjecture.” (COLLINGWOOD, 1925: 146) And this brings us face to face with the sort of issues that we confront in fashioning virtual reconstructions of historical artefacts, and by extension with the role that the London Charter may provide in helping us both to be aware of, and to address them. Our 3-D modelling might in an ideal form aspire to depict “wie es eigentlch

ausgesehen hat” (as it essentially appeared). But we know that just as Collingwood could identify no pure fact, untouched by

conjecture, the same is true of our efforts to identify the facts, as we convey them visually, of spatial structure and appearance.

We are all aware how easily – and how often –some practitioners, including, it must be said, from time to time even established and reputable scholars, have been tempted by the publicity and hype of “Virtual Reality” as an element of popular culture, to slip into what might be called the “B. T. Barnum” syndrome, in which scholarship takes second place to showmanship. Models are produced and launched with media hype, articles in the press, and the like, and in the process, too often questions of accuracy and the scholarly basis for such models are displaced by the undeniably compelling “magic” of them. In the long run, although such dubious scholarship may draw attention (and even vital funding) to those creating the models, ultimately it carries the risk of discrediting the integrity of the research-based process which must be fundamental if such 3-D models are to be perceived and taken seriously by scholars as the extraordinarily valuable “publications” they undoubtedly have the potential to be.

Seneca described the “arts of entertainment (*ludicrae*) which give amusement to the eye and ear... Amongst these you may count the engineers (*machinatores*) who contrive a structure that soars up by itself, or floors that rise silently into the air, and many other unexpected devices such as objects that fit together which come apart, or things separate which automatically join together, or objects which stand erect then slowly collapse. The eyes of the ignorant are astonished by such things” (*Epist. Mor.* 88.22). Scholars who have pursued such aspects of “show business” in the field of 3-D modelling are at least in a venerable tradition and company. Cicero also called attention to the particularly compelling and seductive nature of visualisation even for those with what he called “*oculos eruditos* (educated eyes): “you stand gaping spell-boundwhen I see you gazing and marvelling and uttering cries of admiration, I judge you to be the slave of every foolishness (*Paradoxa Stoicorum*, 5.38.2).

4. Making Space

The “London Charter” initiative seeks to establish what is required for 3-D visualisation to be, and to be seen to be, as intellectually rigorous and robust as any other research method. As Franco Niccolucci (together with me one of the Chairs of the London Charter initiative) has pointed out, “this document and the related activity is a much needed milestone as far as the use of 3-D visualization in archaeological interpretation, presentation and reconstruction is concerned. After several years of theoretical debate on this issue, the Charter finally proposes robust and authoritative guidelines for this important interdisciplinary subject and has to be seen in the context of what has become a constant burning issue in 3-D visualisation circles: “transparency”.

(<http://www.londoncharter.org/history.html>)

Transparency is crucial if 3-D visualisation is to “mature” as a research method and acquire widespread acceptance within subject communities. In particular, it must be possible for those communities to evaluate the choice of a given visualisation method, and how it has been applied in a particular case without

having to rely exclusively on the “authority claims” of the author, however eminent, experienced (or media-savvy) s/he might be. A significant amount of work has been done in this area, and there is now an extensive bibliography on this and related issues. There had been a number of previous initiatives in the field. They included:

- The establishment of the CAA Virtual Archaeology Special Interest Group (VASIG), that first met in Sweden 2001.
- The founding of the Cultural Virtual Reality Organisation (CVRO) launched at the Virginia Association of Science Teachers (VAST) in November 2000 (and which now appears to be inactive).
- The publication of the British Arts and Humanities Data Service Guide on creating and using virtual reality.
- the publication of the AHDS “CAD” guide.

In July 2005 the Visualisation Lab at King’s College London began a project called “Making Space”. Its objective was to investigate “a methodology for tracking and documenting the cognitive process in 3-D visualisation-based research”, funded by the ICT Strategy Projects scheme of the British Arts and Humanities Research Council. My colleague Drew Baker proposed the term “paradata” (which we discussed earlier) to denote the intellectual capital generated during research, and highlighted that a great deal of the information essential for the understanding and evaluation of 3-D visualisation methods and outcomes is currently being lost. The project subsequently convened a Symposium and Expert Seminar at the British Academy and the Centre for Computing in the Humanities at King’s College London in February 2006. Over a two-day symposium, 50 delegates debated various approaches to the issue of transparency and, on the third day, a smaller group of experts produced the first “discussion document” phase of the draft London Charter.

Aims of the London Charter

The objective is to establish the London Charter as an EU and international benchmark. The initiative does not aim to make radical new proposals. Rather, it seeks to consolidate the major principles which have been published by diverse authors, but not yet fully taken up by the community. That is why the idea of a “Charter” seemed appropriate. It is also why it is important that it should emerge out of, and evolve through, discussions within the target communities. The fundamental principles (each elaborated in further detail within the body of the Charter) are:

Principle 1- Implementation

The principles of the London Charter are valid wherever computer-based visualisation is applied to the research or dissemination of cultural heritage.

Principle 2 - Aims and Methods

A computer-based visualisation method should normally be used only when it is the most appropriate available method for that purpose.

Principle 3 - Research Sources

In order to ensure the intellectual integrity of computer-based visualisation methods and outcomes, relevant research sources should be identified and evaluated in a structured and documented way.

Principle 4 - Documentation

Sufficient information should be documented and disseminated to allow computer-based visualisation methods and outcomes to be understood and evaluated in relation to the contexts and purposes for which they are deployed.

Principle 5 - Sustainability

Strategies should be planned and implemented to ensure the long-term sustainability of cultural heritage-related computer-based visualisation outcomes and documentation, in order to avoid loss of this growing part of human intellectual, social, economic and cultural heritage.

Principle 6 - Access

The creation and dissemination of computer-based visualisation should be planned in such a way as to ensure that maximum possible benefits are achieved for the study, understanding, interpretation, preservation and management of cultural heritage.

5. The Future of the Past

The London Charter is being widely translated and taken up throughout the community of modellers, funders, and cultural heritage stakeholders, to provide guidelines for assessing project proposals prior to their funding; for the actual modelling process itself; and to review and evaluate work upon its completion. It represents the broadest consensus on the principles that should underwrite heritage visualisation, and has the potential for wide take-up and dissemination, and indeed for extension into additional modelling or visualisation environments. Currently Martin Blazeby of King’s Visualisation Lab and Beatrice Rapisarda of the University of Pisa’s Informatica Umanistica programme are the Principal Investigators leading a 9-month collaborative project to take the principles of the Charter into the Second Life online virtual world. The project is funded by The British Council and the Italian Ministero dell’Università e della Ricerca under the Cultural Heritage Conservation theme of the 2008-9 British-Italian partnership programme for young researchers. It will address the complex tasks of developing usable tools and guidelines for implementing Charter guidelines into Second Life, as well as establishing visual conventions, e.g. for distinguishing in a 3-D reconstruction of an historical artefact between what is known and what remains hypothetical. These are necessary to enable the historical and intellectual validity of heritage visualisations within the Second Life platform to be communicated and evaluated and will provide a model for the development of guidelines, tools and visual conventions for other MUEs. The project outcomes will thus have wide-reaching relevance and impact within both cultural heritage and heritage informatics communities.

At the same time that we conscientiously pursue “reality” using Charter as a major “reality checking” instrument, it is important that we retain a due regard and openness -- if not to the expectation of “magic” -- then at least to the appearance of new and surprising discoveries that our work in this still relatively unexplored realm of 3-D modelling may uncover. As in any field of research (and particularly, as we have noted, in the case of

history) we must be prepared from time to time to lose our moorings from the strictest (and safest) readings of the texts, or interpretation of the physical evidence, to see where possibly we might intimate new insights and in the process, create new knowledge. We rarely have the knowledge we need fully to understand the ancient phenomena we presume to discuss -- there are vast black holes and vacuums. But it is important to remember, that such vacuums do NOT mean that "nothing" was there: something was. Joined up -- or even lateral -- thinking (and the new forms of knowledge that it can enable) very often

in the absence of direct connections and absolutely safe conjunctions of meanings, requires us to make some imaginative leaps in the dark; always as securely as possible, and with safety nets in place (qualifications, an indication where fact ends and hypothesis begins etc.). It may be of course that the fleeting fact we are trusting to find on the opposite trapeze will not join hands with us, and we will plunge like Icarus to the earth. But just as often we may actually, as we leap out into the dark, almost magically find something there to catch and hold us, and even dazzle the eyes of our onlookers.

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