

MAKING SPACE :
A Methodology for Tracking and documenting the
Cognitive Process in 3-dimensional Visualisation-based Research

PROGRESS REPORT, 26 JUNE 2006

Drew Baker (Senior Research Fellow, King's Visualisation Lab) is currently completing a report, "Documenting and Disseminating Intellectual Capital in 3D Visualisation-based Research", in which he proposes the term "paradata" to denote the intellectual capital generated during research. The report highlights the very great deal of information, which is essential for the understanding and evaluation of 3D visualisation methods and outcomes, that is currently being lost, and proposes approaches to documentation. An evaluation of the potential extensibility of the Pentacle Rapid Prototyping Method has been completed. A second report, on "Supporting Arts and Humanities Research through 3d Visualisation" is also in progress. This work has been aided by a proof-of-concept trial undertaken by Martin Blazeby (Senior Research Fellow, KVL) on the Odeon of Agrippa at Athens, and by analysing the results of two visualisation experiments designed and conducted by Baker with the assistance of a significant number of participants.

In February 2006, the project convened a Symposium, "Making 3D Visual Research Outcomes Transparent", at the British Academy, jointly sponsored by the AHRC ICT Methods Network and EPOCH. Over a two-day symposium, 50 delegates debated approaches to the issue of transparency. A volume, jointly edited by Baker and Denard (Associate Director, KVL) will be published in 2007 as part of the AHRC ICT Methods Network's series of Methods Guides.

On the day immediately following the Symposium, an Expert Seminar was convened in the Centre for Computing in the Humanities, KCL, again co-sponsored by the Methods Network and EPOCH, in which a smaller, international group discussed the first 'discussion document' phase of *The London Charter for the Use of 3-dimensional Visualisation in the Research and Communication of Cultural Heritage*. The London Charter – a major, previously unanticipated, outcome of the Making Space project – seeks to establish what is required for 3d visualisation to be, and to be seen to be, as intellectually rigorous and robust as any other research method.

The London Charter Initiative, which is strongly supported by EPOCH, is jointly chaired by Richard Beacham and Franco Niccolucci, while Denard will direct the Secretariat of the Charter, provided by the new JISC 3D Visualisation in the Arts and Humanities Network, as the Charter goes through a period of community-wide consultation and re-drafting over the next few years, during which we hope it will act as a focal point for debate about key methodological issues.

The hope is that the Charter will acquire sufficient standing to be adopted as an international benchmark for 3d visualisation projects in Arts and Humanities and Cultural Heritage research. The first draft of the Charter is available through EPOCH website under the section on "Standards": http://public-repository.epoch-net.org/TheLondonCharter_v1.pdf. The London Charter Website will shortly become available at: <http://www.londoncharter.org>.

The Expert Seminar also concluded that a number of case studies were needed in order to see what kind of paradata could or should be recorded in 3D visualisation projects, and how this might best be effected. As a first step, a number of researchers have undertaken systematically to observe how we reflect upon, choose, and communicate 'traditional' research methods. This will enable us to create a profile of the kinds of methodological and processual information that is considered necessary to document in non-ICT methods, and to base our recommendations for 3d visualisation methods on the principle that they should be comparable, in certain key respects, with established academic practice. Currently undertaking case studies are:

- Graeme Earl (University of Southampton)
- Sorin Hermon (VAST Lab PIN)
- Daniel Pletinckx (Visual Dimension)
- Donald H. Sanders (Institute for the Visualization of History)
- King's Visualisation Lab (King's College London)

As a further development, the "Making Space" project, together with the 3D VISA Network, will commission a series of Guides, which will explore, at subject level, the implications of implementing the London Charter.

MAKING SPACE

DISSEMINATION (as of 26 JUNE 2006)

Events

Symposium on "Making 3D Visual Research Outcomes Transparent" convened by the AHRC "Making Space" Project, British Academy, London. Co-sponsored by the AHRC ICT Methods Network and EPOCH, 23-24 February 2006

Expert Seminar on "Methods and Standards for 3D Visualisation in Cultural Heritage Research" Centre for Computing in the Humanities, King's College, London. Co-sponsored by the AHRC ICT Methods Network and EPOCH: European Research Network on Excellence in Processing Open Cultural Heritage, 25 February 2006

Panel on "3D Visualisation in the Arts and Humanities: New Initiatives in Methods, Standards and Networking" chaired by Richard Beacham. Digital Resources in the Humanities and Arts Conference, Dartington, September 2006.

Publications

Baker, Drew. "Visual-based Research: the need for transparency" in Baker, Drew and Hugh Denard (Eds.) *Making 3D Visual Research Outcomes Transparent: An Advanced ICT Methods in Arts and Humanities Research Methods Guide*. Co-editor, Drew Baker (2006, forthcoming)

Baker, Drew. "Paradata, and beyond: tracking cognitive processes in 3-dimensional visualisation-based research." *Performance Research* Vol. 11 No.4 (Digital Resources) December, 2006 (forthcoming).

Baker, Drew and Hugh Denard (Eds.) *Making 3D Visual Research Outcomes Transparent: An Advanced ICT Methods in Arts and Humanities Research Methods Guide*. Co-editor, Drew Baker (2006, forthcoming)

Beacham, Richard. "Making Space: caught between the monster and the wall" in Baker, Drew and Hugh Denard (Eds.) *Making 3D Visual Research Outcomes Transparent: An Advanced ICT Methods in Arts and Humanities Research Methods Guide*. Co-editor, Drew Baker (2006, forthcoming)

Beacham, Richard. "Towards a Poetics of Paradata" in Hazel Gardiner (Ed.) *Virtual History and Archaeology: An Advanced ICT Methods in Arts and Humanities Research Methods Guide* (2006, forthcoming)

Beacham, Richard; Hugh Denard; Franco Niccolucci "The London Charter: A Proposed Benchmark for the use of 3D Visualisation in Cultural Heritage Research" Proceedings of VAST Conference, Cyprus, November 2006.

Denard, Hugh. *The London Charter for the Use of 3-dimensional Visualisation in the Research and Communication of Cultural Heritage* Drafts 1 (5 March 2006) and 1.1 (14 June 2006)

Denard, Hugh. "The London Charter Initiative" *Performance Research* Vol. 11 No.4 (Digital Resources) December, 2006 (forthcoming).

Tolmie, Julie. "The London Charter for the Use of 3-dimensional Visualisation in the Research and Communication of Cultural Heritage" Charter Website.
<http://www.londoncharter.org>.

Papers (including those subsequently prepared for publication)

- Baker, Drew. "Visual-based Research: the need for transparency" Symposium on "Making 3D Visual Research Outcomes Transparent" British Academy, London. February 2006.
- Baker, Drew. "Paradata, and beyond: tracking cognitive processes in 3-dimensional visualisation-based research." Digital Resources in the Humanities and Arts Conference, Dartington, September 2006.
- Beacham, Richard. "Making Space: caught between the monster and the wall" Symposium on "Making 3D Visual Research Outcomes Transparent" British Academy, London. February 2006.
- Beacham, Richard. "Process and Transparency in the Creation of 3D Architectural Models" VAST 2005: 6th International Symposium on Virtual Reality and Cultural Heritage, Pisa, November 2005.
- Beacham, Richard. "Towards a Poetics of Paradata" AHRC ICT Methods Network Expert Seminar, Sheffield, April 2006
- Beacham, Richard and Hugh Denard "The London Charter Initiative", EPOCH Workshop on Standards, Florence, April 2006.
- Beacham, Richard and Hugh Denard. "'The Visionary Company': New Initiatives in 3D Visualisation Methodologies and Standards" University of Brighton, May 2006.
- Beacham, Richard; Hugh Denard; Franco Niccolucci "The London Charter: A Proposed Benchmark for the use of 3D Visualisation in Cultural Heritage Research" VAST Conference, Cyprus, November 2006.
- Denard, Hugh. "The London Charter Initiative" Digital Resources in the Humanities and Arts Conference, Dartington, September 2006.
- Tolmie, Julie. "The London Charter and the importance of Transparency of 3D Visualisation Research Methods in the Arts and Humanities", Institute of Archaeology and Antiquity & HP Visual and Spatial Technology Centre, University of Birmingham, June 2006.