



Project Document Cover Sheet

Project Information			
Project Acronym	Crystal Palace		
Project Title	Resurrecting the Past – Virtual Antiquities in the Nineteenth Century		
Start Date	1 st Oct 2008	End Date	30 th Sep 2009
Lead Institution	University of Bristol		
Project Director	Shelley Hales		
Project Manager & contact details	Shelley Hales Dept of Classics & Ancient History, University of Bristol, 11 Woodland Road, Bristol. BS8 1TB. Tel: 0117 928 9807 shelley.hales@bristol.ac.uk		
Partner Institutions	n/a		
Project Web URL	http://sydenhamcrystalpalace.wordpress.com/		
Programme Name (and number)	Enriching Digital Collections		
Programme Manager	Alastair Dunning		

Document Name			
Document Title	Project Plan		
Reporting Period	n/a		
Author(s) & project role	Shelley Hales, Project Manager		
Date	4 th Nov 2008	Filename	Project Plan.doc
URL			
Access	<input type="checkbox"/> Project and JISC internal		<input type="checkbox"/> General dissemination

Document History		
Version	Date	Comments
1	4 th Nov 2008	This is the first full version of the Project Plan.
2	19 th Nov 2008	Second version responding to Alastair's comments



JISC Project Plan

Overview of Project

1. Background

This project is run by Shelley Hales (SH) and Nic Earle (NE) of the University of Bristol. Its main aim is to meet a need to make accessible to the public a collection of the material displayed in and produced in response to the Pompeii Court, one of the exhibits of the Crystal Palace. The new Crystal Palace was rebuilt in Sydenham, South London, in 1854 as a 'museum to receive, instruct, amuse and interest' which featured reconstructions of buildings from past civilizations. Of all of those, the Pompeii Court, a replica house which housed a collection of copies of Pompeian painting and domestic objects was amongst the most eagerly received and generated a host of responses alongside the official publications of the Crystal Palace Company. It had only recently been fully restored following the Palace's requisitioning during WW1 when the Palace burnt down in 1936. The majority of contents were lost and, despite the efforts of amateur groups and a surge of academic interest in the Palace (the subject of an exhibition at the Dulwich Picture Gallery and a monograph by Jan Piggott), no formal, full collection exists to record them.

The Palace was an important experiment in combining entertainment, education and academic research and we wish to explore precisely these features in our project. Following the gathering of the collection data, a **Model** of the Court will be exhibited in Second Life, a popular virtual world, which is increasingly being used to test new approaches to education (e.g. the University of Edinburgh's virtual campus), entertainment and enterprise in a challenging social context of diverse users. The reconstruction will serve as an archive of the objects displayed within the Court and the textual and visual material produced by the press and by the Crystal Palace Company in response to it. It will also act as an interactive space, in which visitors will be able to tour the Court and interact with us, other visitors, the archive and the objects on display.

This project intends not only to make accessible in one place the material but, in doing so, to investigate the effects of 'immersive' techniques of activating classical antiquities and displaying digitised collections. Interest grows in the potentialities of virtual reality for archaeological reconstruction. New fora such as the Digital Classicist seminars (Institute of Classical Studies) consider the impact of technology on Classics and on wider perception of the classical world. There has been significant research into the use of 3D models to reconstruct and render realistic images of incomplete sites and artefacts. Numerous projects have created less detailed 3D models that can be accessed via the internet and explored in real time (e.g. *Parthenon*, Oxford LACE Multimedia Programme 1994). However, these unpopulated worlds generally offer less detail and interaction is limited to navigation. More recently, real-time multi-user 3D environments, such as Second Life, in which visitors are represented by an avatar, offer potential for an extremely high level of interaction with other visitors, the world itself and objects within it as well as the possibility of incorporating other media such as photographs, audio and video. This project will draw on pioneering work on the educational possibilities of these environments, e.g. the recent EduServ project 'Learning from Online Worlds; Teaching in Second Life' as well as contributing to it through NE's **Conference Paper**. Despite this proliferation of projects, however, few are currently using virtual technology to host a digitised collection and few are openly reflective in discussing with their users the contingency of their 'reconstructions'. The nearest equivalents are the projects run by King's Visualisation Laboratory,

which specialises in high spec. computer modelling of historic buildings. We continue to consult with KVL to draw on their expertise.

This particular format has been chosen because the questions of authenticity and the responsibility of reconstructors raised by such virtual models echo questions faced by the creators of the Crystal Palace themselves. In this respect, the project allows consideration to be given to the links between the content of the collection and the mode of its delivery. How do the failures and successes of Victorian projects affect the way we might approach digital opportunities and how might our understandings of nineteenth and twenty first century reconstructions inform each other? How might the social and interactive possibilities of online multi-user 3D virtual environments be harnessed to support learning of, and improve access to Classics, as well as to enable scholarly research, in the twenty first century? These questions will be addressed in SH's **Conference Paper**.

2. Aims and Objectives

Aims:

- to make accessible to the public knowledge of the Crystal Palace and its collections.
- to increase awareness of and stimulate research into the Crystal Palace and to broaden our understanding of the place and perception of Classics in the nineteenth century beyond the universities and museums by reconstructing the collection and display techniques of a private speculative enterprise that shaped and reflected mid century ideas of classical taste.
- through dissemination and evaluation of our project to stimulate new approaches to teaching & learning, to encourage dialogue between academic institutions and the wider community and to encourage the increasing use of digital technology within the Arts and Humanities to reach its full, interactive potential.

Objectives:

- to develop and digitise at the University of Bristol a **Collection** of material of the Pompeii Court of the Crystal Palace in order to increase access to up until now scattered and vulnerable but rich resources for use in teaching, learning and research.
- to make that **Collection** useful and engaging to a range of different user groups across UK education sectors, research communities and heritage industry through an interactive, online **Virtual Model**, presented in the popular virtual platform Second Life, and a **Website**.
- through developing a number of innovative, interface techniques within Second Life to help different user groups engage with the material in the **Model**.

3. Overall Approach

3.1 Strategy & Methodology

The strategy for delivering the project is arranged around a simple sequence of development, digitisation, piloting, evaluation and dissemination.

Development

The data collection by SH will involve gathering photographs, catalogues and press cuttings scattered across various London archives, in particular the *National Art Reference Library*, *Bromley Library* and the *Crystal Palace Museum*. These contain images and literature produced by the Palace Company (including journals e.g. *Illustrated Crystal Palace Gazette*) as well as reviews in the popular press. The University of Bristol holds all the official guidebooks to the Palace and some key contemporary journals e.g. *Illustrated London News*. Recent digital databases such as the JISC funded British Library 19th Century Newspapers project, also offer searchable access to contemporary resources.

Digitisation

The **Model** will be built by NE in 3D Studio Max before importation into Second Life. Textual material for the archive will be transcribed into Word documents and visual material scanned and stored as JPEGs. Metadata may be digitised as text files or as audio or video clips. Throughout the project, the project PC housing all the data will be automatically backed up every 24 hours via the University's backup cycle as will any data temporarily stored on our workstations. This ensures that if Second Life crashes and its back system fails, everything can be reinstated from the models stored on the project PC. In planning this project, NE and SH have consulted widely within the University of Bristol: with the High Performance Computing Team, with academics from the Dept of Computer Science and with the Research and Development Office and senior academics within the School of Humanities. Externally, we have had extensive discussion with King's Visualisation Laboratory (KVL), the London Development Agency and the Curator of the Crystal Palace Museum. We are guided by the London Charter.

Evaluation & Dissemination

Stakeholders, represented by the Project Steering Group and user groups, will be engaged at key points throughout the project to offer formative and summative evaluation. This will allow us both to improve the project as we go along and reflect on the final outputs. The Model will be piloted with at least one representative user group (or two where one group is internal to Bristol) from each of our key Stakeholder Groups.

3.2 Scope & Boundaries

Data Collection

Whilst general information on the Crystal Palace will be offered as introductory, contextualising material, the data and metadata will relate solely to the entirely self-contained Pompeii House. This ensures that we will not be attempting to gather an unmanageable amount of data within the time frame of the project and will allow us to focus more on strategies of display.

The data to be collected and presented via the Model are the transcribed texts all the available press reviews, guidebooks, photographs and sketches of the Pompeii Court. This material will be digitised and made accessible via the Model by clicking on objects and areas within it. The data, particularly the visual material, will also inform the building of the Model.

Virtual Model

There have been many investigations into the use of virtual worlds for education. We are interested in these within the specific context of how they (and the interface techniques within them) can engage audiences in the collection and not for their own sake. The questions we wish to ask of the relation between the **Collection** and the medium of its delivery (the **Model**) are explicitly shaped by the concerns of the original model in the Victorian Pompeii Court, in particular by the attempt to mix education and entertainment.

The Model will be the medium for the delivery of the collected data. It will also include metadata giving information on the Pompeian origins of the material and comment on the Victorian interpretation of the Pompeian material.

Stakeholders & Evaluation

The key Stakeholder Groups have been identified below. In all cases 1 (or 2 where one group is internal to Bristol) representative user groups will be used. Evaluation will focus on these representative groups.

3.3 Critical Success Factors

- Completing the **Virtual Model** housing the **Collection** of the Pompeii Court.
- Securing the participation of representative user groups from each Stakeholder Group.
- Demonstrating that two thirds of our user group participants find the **Model** to be appropriate for their needs either as it is or with a few specified modifications.

4. Project Outputs

4.1 Deliverables

Data Collection

The project will involve gathering from a variety of sources, both public and private, a full archive of the Pompeii Court of the Crystal Palace. It will include a full collection of the paintings and contents of the Court drawing on the photographs, illustrations, daguerrotypes and stereoscopes made of the Palace as well as a collection of guidebooks to the Court, reviews and articles from the press.

Virtual Model

The **Virtual Model** will serve as both a navigable, interactive reconstruction of the Pompeii Court and its collection and as a full archive of relevant Crystal Palace Company Literature (data). It will also contain information regarding the Pompeian origin of each object (metadata) and an explanation of the process of building the reconstruction (paradata). In addition, it provides an opportunity to explore the potential of media rich online multi-user environments and to evaluate strategies of innovative teaching techniques in virtual space. Eventually also accessible via a **Website**, the **Model** will provide a lasting resource for those researching both the Crystal Palace and the classical pasts it tried to reconstruct, whilst also allowing the team to study the role of immersive environments and reconstruction in twenty first century contexts.

Website

The **Website** will house images of the **Model** while it is under construction and act as a repository for the reports and **Conference Papers** generated during the project. The **Website** will act as both a dissemination and evaluation tool. It will communicate the progress of the project to a wider audience. The competition (see Dissemination) will be launched on the **Website** and visitors will be invited to offer their responses to the project and to fill in surveys whilst webserver logs will monitor use of the site. After the project, the **Model** and associated meta and paradata will be permanently accessible through the **Website**.

Final Event

This event, to be held within the virtual space of the **Model**, to which our JISC programme manager will be invited, will offer a chance for final reflection and bring together the different Stakeholder user groups for discussion of their diverse experiences. It will showcase the finished **Model**, review the project, share the results of our evaluation and present the competition winners' work.

4.2 Knowledge & Experience

Conference Papers & Posters

An important part of the dissemination plan is to inform and engage two key Stakeholder Groups, Learning Technologists and Classicists involved in teaching and research, through **Papers** delivered at the disciplines' national conferences. SH will present a poster introducing the **Model** and relation to its prototype at the Classical Association Conference, as well as using the **Model** to illustrate a research paper at the Roman Archaeology Conference at Ann Arbor, Michigan. NE will present a paper reviewing the benefits and challenges of the **Model** and its learning activities at the 2009 Alt-C Conference. The **Papers** will be held by JISC and hosted on our **Website**.

Participation in Workshops

In addition to JISC events, the project will share knowledge and raise awareness of the project at a number of internal and national events e.g. the University of Bristol Teaching & Learning Event and a Workshop in Innovative Teaching Spaces hosted by the Subject Centre for History, Classics & Archaeology.

Website

The **Website** will hold our final analyses of the evaluation process and copies of the **Papers** and presentations undertaken during the year.

Interaction with Stakeholders

Testing and evaluation with user groups from our key Stakeholder Groups will allow us to share ideas with stakeholders in the sectors which are best equipped to take forward use and awareness of the **Collection** and the display and learning methodologies associated with it.

5. Project Outcomes

In addition to the tangible outputs (see Deliverables), the team envisage the following outcomes:

- a better understanding of the potential value of digitising collections in an imaginative and interactive manner using VR technology.
- an insight into ways in which a collection can be made accessible, engaging and useful to a wide range of users, an insight which leads to reflection on how to enable further cross-sector collaboration.
- an improvement of public access to the material in order to spread knowledge of the Crystal Palace.
- stimulation of further academic research into the Crystal Palace.

6. Stakeholder Analysis

Stakeholder	Interest / stake	Importance
UG Students & HE Lecturers	This group is looking for an intellectually challenging medium through which to explore Pompeian painting, Roman houses and Victorian modes of display. Their support is crucial to evaluation and future embedding of the Collection and Model .	High
School Teachers & Students	This group needs an accessible and free interactive teaching resource for use in key areas of the curriculum (in Bristol KS2 History 'Romans' and GCSE Classical Studies 'Pompeian Houses' and in Sydenham, the KS2 History 'local history' requirement). Their support is crucial to evaluation and insight into future roles for the Collection and Model .	High
Learning Technologists	This group is involved in experimentation with and evaluation of teaching and learning possibilities of emerging technologies. Their approval of the quality of the methodology and outputs of the project is important for the	Medium/High

	reputation and credibility of the Model .	
JISC Projects	Other projects within the 'Enriching Digital Resources' theme may be interested in sharing ideas and methods in the pursuit of best practice. As above, their approval is important for the reputation and credibility of the Model .	Medium
Humanities Researchers	This group require access to a full, reliable database contextualised and notated by an expert. Their support is needed in order to give the Collection and Model intellectual credibility, to ensure the viability of the Collection by seeding further investigation of the research questions and by making possible future research funding bids.	High
Local Community & Heritage Sector	This wide group desire full access to and the means for innovative and engaging interaction with historical material relating to the Sydenham Palace site. The input of this sector is crucial in evaluating the Model 's use beyond the education sector. The adoption of the Model by the heritage may be the route to further funding for long term sustainability and expansion of the Collection .	High.

7. Risk Analysis

Risk	Probability (1-5)	Severity (1-5)	Score (P x S)	Action to Prevent/Manage Risk
Staffing: There may be an issue with retainment of staff and staff skill levels. Problems in this area would lead to the failure to complete individual workpackages.	1	5	5	There are no recruitment issues attached to this project as we are managing the project and undertaking the technical work ourselves, taking training where necessary. Both of us are on permanent contracts, have the full support of our line managers and are committed to the project. The Steering Group ensure that extra expertise is on hand to guide us.
Organisational: What if we can not find representatives	2	4	8	The number of Stakeholder Groups spreads the risk of failure to recruit.

of each Stakeholder Group to take part in the evaluation process? The result would be an inability to deliver in full our Evaluation and Dissemination programme.				Within each Stakeholder Group, we are only looking for 1 or 2 representative user groups and, within each Group, there are a good number of possible users from which to select. In addition, we have already secured relationships with a number of key users in planning the proposal.
Organisational: The project might prove unachievable within the set time limit because of difficulties in developing the Model , using the software or of gathering the quantity of data needed for the Collection . The result would be that the project would fail to deliver its outputs.	1	5	5	SH has been researching and publishing on the Pompeii Court for several years and has built up a considerable archive of material. NE's experience of building the pilot house and our extensive research and consultation regarding the technology has given us a realistic sense of the challenges involved.
Technical: The lack of an existing, coherent Crystal Palace archive could result in gaps in knowledge and content, causing, at best a shortage of data, at worst a gap in the architectural skin.	2	5	10	The risk is mitigated by the fact that the Pompeii Court was the most well documented of all the Fine Arts Courts. The University of Bristol holds a number of key publications whilst SH is already familiar with other material spread across a number of institutional collections and the team's network of private collectors and interest groups (e.g. the Paxton Society). In the event of missing details of the Court's architecture, the paradata will offer full explanation of how the team has negotiated that gap, whether by 'best guess' reconstruction or by leaving the area blank.
Technical: There is a risk that the chosen technology (particularly Second Life) proves unsuitable due to difficulties of loading information and accessibility for target audiences, resulting in the inability to build the Model in virtual reality.	4	2	8	NE has already built a simple, pilot building in Second Life and the team have consulted widely within the Second Life community, the university and with experts at the King's Visualisation Laboratory. He will build the Model in 3D Studio Max using skills developed in his PhD, which will be enhanced by further training. Members of the Steering Group specialise in the role of technology within education and computer graphics and will be on hand to offer guidance. Beyond the project team, the University of Bristol offers institutional support from Information Services, the Learning and Technology Support Service and the Institute of

				Research, Learning and Technology. Throughout the project the team will also monitor alternative systems and software.
External suppliers: There is a risk that Second Life could become obsolete caused by the emerging popularity of competitor VR environments, the withdrawal of the service or its supercedence by emerging technologies, resulting in the loss of the host format.	3	2	6	The creation of the contents of the collection in 3D Studio Max and Word will allow for easy data transfer and the Website will provide a permanent home. Throughout the project we are monitoring other emerging alternatives, particularly Open Sim. Migration would entail some work in the realignment of the models but would be entirely possible.
Legal: Will any key images or texts have associated copyright or reproduction restrictions that might limit our use of or, more likely, require payment for use?	2	3	6	All the contemporary material is out of copyright and the ownership by Bristol of key texts means that we have no reproduction rights to obtain in these cases. Should any key items need payment for use, we can apply to the Faculty Research fund for this purpose.

8. Standards

Within the University we are guided by the Education, E-Learning, IS and Widening Participation Strategies. In the absence of a JISC 3D standard for a multi-user online environment and associated scripting language, the prominent Second Life platform will be used. This has been selected over the limited number of other possible platforms (e.g. Active Worlds) due to its popularity and subsequent superior support community. All other technical standards that will be used in the implementing both the project **Website** and the **Virtual Model** appear in the JISC's Standards Catalogue and are listed in the table below.

Name of standard or specification	Version	Notes
XHTML	1.0	The most prominent standard for creating web pages. It will be used to implement the project Website . Code compliance will be handled by the WordPress blog system that will drive it. This standard will also be used to present text meta data in the Virtual Model .
CSS	2.1	The most common standard for controlling presentation of web pages. It is used by the blog system we are using, i.e. WordPress..
GIF	89a	This image format may be used for graphics on the Website .
JPEG	1.2 or 2000	This image format will be used when digitising images for archiving and presenting them on the Website .
AVI	2.0	May be used if video is used in the Virtual Model

MPEG	2.0 or 4.0	May be adopted if video is used in the Virtual Model or/and on the Website .
MPEG	3.0	May be adopted if audio is required for either the Virtual Model or the Website .
WAV	unknown	May be used if audio is required for either the Virtual Model or the Website .
RSS	1.0 or 2.0	Will be used if data feeds are required later in the project from or to our Website and the Virtual Model .
TRAGA	unknown	The primary image format used by the Second Life platform to create texture maps. It will therefore be used in the multi-user Virtual Model .
DOC	Word 7	Textual information such as object meta data will be stored using this format.

9. Technical Development

Our project does not intend to develop any technical infrastructure. Instead, we are using someone else's infrastructure (i.e Linden Lab's Second Life multi-user virtual environment) to digitise the collection and experiment with ways in can be used to educate learners at different levels.

10. Intellectual Property Rights

The University of Bristol adopts and imposes UK Statute for its Intellectual Property Rights Policy for staff. The IPR of this project will belong to the University of Bristol, in accordance with the standard practices of the university. The University Research and Enterprise Development Office, with whom the team have consulted throughout the development of the project, specialises in the provision of expert help and advice on the protection of Intellectual Property.

The third party material in this project involves the written and visual evidence we will be gathering in order to provide evidence on which to base the **Model** and from which to build the data and metadata of the **Collection**. This material all dates from the mid-nineteenth century and so will be out of copyright. All material will be checked to ensure that the reproduction rights have not passed to another party by virtue of ownership (e.g. a private collector, museum) as it is gathered and, where this is the case, full permissions will be sought and acknowledged. SH will take responsibility for ensuring that any copyright issues are appropriately dealt with and in order to do so, will liaise with Library Staff and the university lawyers. TASI are located in Bristol and available for consultation if needed. The team will also consult J LIS and have read JISC and AHDS material regarding these issues.

Project Resources

11. Project Partners

This project is run entirely within the University of Bristol. We do not have any external partners.

12. Project Management

Project Management Framework

The team (SH and NE) meet weekly for three distinct purposes, to:

- report on progress of workpackages.
- discuss creative ideas for the **Model**.
- review the project timetable and budget.

The Progress Report blog on our **Website** includes an account of our weekly activities. In addition, twice a term we consult members of the Steering Group.

Project Steering Group

The Project Steering Group is an advisory board of Bristol colleagues who will be consulted twice a term to:

- review progress and offer formative evaluation through regular discussion.
- act as champions of the project in the university.
- offer advice as needed both as a group in meetings and as individual experts when needed.

The members are:

Professor Elizabeth Prettejohn, History of Art, a specialist in the nineteenth century classical tradition.
Doctor Richard Brawn, Graduate School of Education, a specialist in the role of primary education.
Doctor Erik Reinhard, Computer Science, a specialist in computer graphics.

Programme of Steering Group Meetings

Consultation 1 (Nov): Introduction to project & overview of timetable.

Consultation 2 (Jan): Progress report on methods of displaying meta and para data in the **Model**.

Consultation 3 (Feb): Presentation of Pompeii Court **Model** & review of building process.

Consultation 4 (Apr): Discussion of proposed pilots with school groups.

Consultation 5 (Jun): Discussion of plans for summative evaluation & dissemination.

Consultation 6 (Sep): Review of project success and signing off exit/sustainability strategy.

JISC Programme Manager

The third aspect of our management team is the interaction with the JISC programme management structure. This allows us to liaise fully with and learn from central management structures as well as communicate with other programme projects.

Team Roles

SH, Project Manager & Principal Investigator (15 hours a week). Her role is to:

- manage the team, oversee the budget, implementation of Objectives and creation of Outputs.
- call and chair steering group consultations and weekly team meetings.
- liaise with and respond to JISC, particularly the Programme Manager.
- prepare project plans and reports and **Website** content.
- research the data and metadata of the Pompeii Court for the **Collection**.

Project Acronym: Crystal Palace
Version: 2
Contact: Shelley Hales
Date: 19th Nov 2008

- collaborate with NE on compiling the paradata on the **Model**.
- write and present a **Conference Paper** introducing the **Model** and its relation to its prototype.

Contact: Dr Shelley Hales, Senior Lecturer in Art & Visual Culture, Dept of Classics & Ancient History, University of Bristol, Bristol. BS8 1TB.

NE, Technical Manager & Co-Investigator (15 hours a week). His role is to:

- manage the technical aspects of the project, overseeing the construction of the **Model**.
- Oversee digitisation of data.
- take the lead on research questions concerning the educational use of the technology.
- create and maintain the project **Website**.
- collaborate with SH on compiling the paradata on the **Model**.
- write and present a **Conference Paper** on the process of creating the Model and its learning activities.

Contact: Dr Nic Earle, University E-Learning Co-Ordinator, Education Support Unit, University of Bristol, 8/10 Berkeley Square, Bristol. BS8 1HH

Training Needs:

SH: Expert project management advice is available on demand from the University Research & Enterprise Development office whilst training in Prince 2 methodology is freely available as part of University of Bristol staff development.

NE: Top-up training on using 3ds max in conjunction with Second Life has been allocated in the budget. NE received his training from King's Visualisation Lab in late September.

13. Programme Support

We would most value programme support in terms of guidance on Standards and Quality Assurance. In compiling this project plan, we have already sought advice from our Programme Manager.

14. Budget

See Appendix A.

15. Workpackages

See Appendix B.

16. Evaluation Plan

Timing	Factor to Evaluate	Questions to Address	Method(s)	Measure of Success
Oct-Sep	The robustness of the timetable and workpackages and the ability of team to carry out	Are we on course to meet our Milestones? Is our timetable working? Are we completing	Weekly meetings in which SH will review success of week's actions.	We meet all our Milestones within the project time and on budget.

	allocated tasks.	our workpackages effectively?	Self-reflection and self-evaluation recorded on weekly blogs on the Website .	
Oct-Sep	The strength of the project infrastructure.	Are we meeting our Milestones? Are we managing the project effectively?	Peer Review obtained through the 6 consultations with our Steering Group	Consensus reached by Steering Group and Team at end of each consultation exercise on way forward.
Nov	The appropriateness of our chosen priorities for the Model 's contents and functionality.	Are we making the right decisions about the content of the Model ? Would we be meeting different users' needs through our chosen method of displaying the Collection ?	Questionnaire distributed to representative user groups from the key Stakeholder Groups, asking for their desired functionalities in such a Model and the perceived usefulness of such a Model .	75% of the respondents reply that such a Model has potential to be useful for their needs and are able to envisage how it might be developed for use in their sector.
March	Operability of the Model . Engagement of HE students & Effectiveness of Model for HE sector.	Can the Model meet the demands of HE teaching of identified modules?	Observation of Bristol and Liverpool students during classes (3 in Bristol, 1 in Liverpool) Interview with Liverpool and Bristol teacher (SH) after class Online Survey of Bristol and Liverpool students Focus group with Bristol students after classes, reflecting on the learning process.	Observation findings show the whole class find the Virtual Model easy to use and understand what the learning activities require them to do. Both teachers confirm that they would use the Model in their classes as it is or with specified modifications to the Model or learning activities. Surveys report at least 75% of students can see learning benefits of the Model either as it is or with specified modifications.
Apr	Operability of the Model . Engagement of School Stakeholders & Effectiveness of Model for KS2	How do the designed learning activities engage KS2 and GCSE students? How does the content map onto KS2 and GCSE	Observation of children during the class (1 in Bristol, 1 in Sydenham) Interview with teacher after class	Observation findings show the whole class find the Virtual Model easy to use and understand what the learning activities require

	and GCSE teaching & learning.	objectives?		<p>them to do.</p> <p>Teachers report that the class achieved at least 75% of KS2 or GCSE learning outcomes, or had the potential to do so if a few specified modifications to the Model and or learning activities were made.</p> <p>60% of students report that they found the experience engaging and worthwhile from a learning perspective.</p>
Jan-May	Engagement of wider community and effectiveness in disseminating awareness of the Collection and the issues raised by its display in the Virtual Model .	How successful are we in raising awareness of the Model and the issues it raises nationally?	Competition launched on Website (inviting school students to submit audio/visual/written material for inclusion in the Model) and advertised nationally via press, professional journals and email lists.	<p>Over 50 students get involved in the Competition.</p> <p>(The standard of entries and extent to which they engage with the themes of the project will be a qualitative indication of success).</p>
Jun	<p>Operability of the model.</p> <p>Engagement of local community & heritage sector. Effectiveness of Model for presenting the Collection to an audience beyond the education sector.</p> <p>Quality of Model and Paradata.</p>	How does the Model and its Content (the Collection) meet expectations of users from the local community and heritage groups? Do heritage groups	Interview and Focus Group with heritage & community groups	<p>Surveys report at least 75% of students can see learning benefits of the Model either as it is or with specified modifications.</p> <p>75% register satisfaction with the quality and veracity of the Model (within the context of our aims and objectives) and explanations offered in Paradata.</p>

Jun	<p>Operability of the model.</p> <p>Effectiveness of Model for presenting the Collection.</p> <p>Quality of Model and Paradata.</p>	<p>Is the Model effective at presenting the Collection for researchers? Do the interface techniques interfere with academic research? Do researchers value the quality of the Model?</p>	<p>Interviews with Researchers following their carrying out of set information retrieval tasks and own free exploration of the Collection and Model.</p>	<p>Researchers register high satisfaction with the quality and veracity of the Model (within the contexts of our aims and objectives) and explanations offered in Paradata.</p> <p>Researchers report ability to navigate the Model and ability to carry out the set tasks within a 30 minute timeframe.</p>
Feb-Aug	<p>Impact & Effectiveness of Project.</p>	<p>How many people are using the Website? How are they navigating it? What aspect of the project is receiving most attention?</p>	<p>Webserver log.</p> <p>Optional Survey on Website.</p> <p>Messages left on Website.</p>	<p>Over 1000 individuals visit the Website during the evaluation period.</p> <p>90% surveyed individuals report they had no problems navigating the Website. 75% agree that the objectives of the project are clear.</p>
Feb-Aug	<p>Operability of the Model.</p> <p>Effectiveness of Model to display the Collection and engage the public.</p>	<p>How easy it is to navigate the Model outside structured class room sessions? Do visitors understand the aims of the project and leave feeling they have learned something about Pompeii and the Crystal Palace?</p>	<p>Optional Survey in Model.</p>	<p>75% surveyed individuals report they find the model easy to use.</p> <p>50% agree that the objectives of the project are clear.</p>
Aug-Sep	<p>Impact & Effectiveness of Project.</p>	<p>How did the project go? Did we achieve our critical success factors?</p>	<p>Analysis of evaluation data.</p> <p>Final Report to JISC and Steering Group.</p>	<p>All critical success factors met.</p> <p>Analysis of all the evaluation suggests that two thirds of our user group participants find the Collection to be appropriately displayed in the</p>

				Model for their needs either as it is or with a few specified modifications.
--	--	--	--	---

17. Quality Plan

The University of Bristol is dedicated to conducting research to the highest possible standards, a document entitled 'Guidelines on Good Research Practice' which covers the responsibilities of all staff at the University of Bristol in all aspects of research including ethics, is available on request.

Quality, in this project, will be monitored by the formative and summative evaluation offered by the Project Steering Group and by full observation of institutional and national standards. The quality criteria to be applied to our main outputs appear in the table below.

Output Timing	Website		Evidence of compliance	Quality responsibilities	Quality tools (if applicable)
	Quality criteria	QA method(s)			
Oct-Sep	Easy to use	<p>Draw upon NE's experience of website design and good practice.</p> <p>NE and SH will collaboratively develop the site using the WordPress Blog system, adopting and adapting one of its default web site templates, which are designed to help structure a visitor's experience of the Website.</p>	<p>Obtain verbal feedback from the project Steering Group during consultations, as well as from other User Groups during evaluation activities.</p> <p>Enable visitors to add feedback comments to any web page or blog entry.</p>	NE	WordPress
Nov-Jun	Technically robust	<p>Ensure all technical standards are those recommended in the JISC's Standards Catalogue.</p>	<p>The Website and all of its content will be fully accessible to any visitor using any web browser.</p> <p>Confirmation will be obtained by consulting the project's Steering Group and User</p>	NE	WordPress Blog

			Groups.		
Nov-Sep	Content must be appropriate to the aims of the project. In particular, paradata, must be made available, to ensure transparency.	Consulting the project's Steering Group, various User Groups and the JISC's various guidance documents.	Obtain feedback from the projects expert advisory group, the various user groups and the JISC. Enable visitors to add feedback comments to any web page or blog entry.	NE & SH	

Output Virtual Model					
Timing	Quality criteria	QA method(s)	Evidence of compliance	Quality responsibilities	Quality tools (if applicable)
Nov-Jun	Development of the Virtual Model must follow good practice.	Consultation with experts at Kings Visualisation Lab has led us to adopt their Pentagonal Method. Consultation with TASI Consultation with project Steering Group	Obtain feedback from the project's expert Steering Group. Evaluation data from pilots with user groups.	NE	
Nov-Jun	Metadata about the digital Collection , and paradata about the Virtual Model must be accessible via the Model in an intuitive way.	Compliance with the London Charter Consultation with project's Steering Group.	Obtain feedback from the project's expert Steering Group. Evaluation data from pilots with user groups.	NE & SH	
Nov-Jun	Virtual Model must be technically stable.	Use a well established and supported multi-user virtual world infrastructure, i.e. Second Life.	Evaluation data from pilots with user groups.	NE & SH	

18. Dissemination Plan

Timing	Dissemination Activity	Audience	Purpose	Key Message
---------------	-------------------------------	-----------------	----------------	--------------------

Nov-Sep	The Website is our principal dissemination tool.	All our Stakeholder Groups, the public.	Raise Awareness Inform Engage Promote	Aims & Objectives of the Project. Information on Pompeian & Victorian Content of the Project. Success of Evaluation and Dissemination strategies.
Nov	Appearance on JISC Programme Website.	Other JISC projects.	Raise Awareness	Aims & Objectives of the Project.
Nov	JISC Programme Meeting. We are very eager to participate in any possible collaborative dissemination events organised by JISC or with individual other JISC funded projects.	Other JISC projects.	Raise Awareness Engage	Aims & Objectives of the Project.
Dec	Workshop Presentation, Warwick University. Subject Centre for History, Classics & Archaeology. Liaison with our subject centre is a key dissemination tool. We continue to liaise on possible collaborations and involvement in subject centre activity.	HE teachers of the covered disciplines interested in sharing ideas on innovative use of teaching an learning environments.	Raise Awareness Inform Engage	Aims & Objectives of the Project. Information on Pompeian & Victorian Content of the Project. Proposed HE use of the Collection & Model .
Dec	Presentation to University Court.	University of Bristol senior management, council, senate and lay members.	Raise Awareness Inform	Aims & Objectives of the Project. Role of project in enhancing public engagement.
Jan-Feb	Posting on discipline specific mail lists e.g. UK Classics List.	Classicists internationally.	Raise Awareness	Completion of the Model .
Apr	Conference Poster at Classical Association, Glasgow (after the conference, this will be stored on the Website and with JISC).	Classicists: researchers, postgraduates, teachers.	Raise Awareness Inform Engage	Aims & Objectives of the Project. Information on Pompeian & Victorian Content of the Collection.
Jan	Display at University of Bristol Teaching & Learning Event.	Lecturers throughout university, senior administrators, university education support	Raise Awareness Inform Engage	Aims & Objectives of the Project. Proposed Use & Evaluation of Model with

		staff and learning technologists.		different User Groups. Role of project in enhancing public engagement.
Jan-	Launch of Schools Competition Engage school students nationwide with the project and with questions arising about the display of material from the Roman world.	The competition will be advertised through the Website but also by placing adverts in leading teacher and WP publications such as <i>Omnibus</i> , <i>Journal of the Joint Association of Classics</i> and <i>Iris</i> and by press releases from the UoB Press Office.	Raise Awareness Inform Engage	Information on Pompeian & Victorian Content of the Collection . Awareness of Value and Problems of Reconstruction. Reflection on strategies for mixing entertainment and education.
Mar	Testing at Liverpool University	Classical Studies undergraduates and Lecturing Staff.	Inform Engage	Information on Pompeian & Victorian Content of the Collection . Awareness of Value and Problems of Reconstruction.
Apr	Evaluating Model by teaching KS2 and GCSE classes in Bristol and Sydenham.	KS2 and GCSE school students and their teachers.	Inform Engage	Information on Pompeian & Victorian Content of the Collection . Reflection on strategies for mixing entertainment and education.
Jun	Evaluating Model with user groups from the local community and heritage sectors.	Local heritage workers at institutions such as the Crystal Palace Museum and local interest groups (e.g. Joseph Paxton Society).	Inform Engage	Information on Pompeian & Victorian Content of the Collection . Quality and Veracity of Model.
Jun	Evaluating Model with Arts & Humanities researchers.	Volunteer researchers sought from Arts and Humanities in Bristol and	Inform Engage	Information on Pompeian & Victorian Content of the Collection .

		elsewhere (e.g. Birkbeck, Exeter).		Quality and Vercaity of Model. Awareness of Value and Problems of Reconstruction.
Jun	Opening of Model to Second Life Community.	Second Life users.	Raise Awareness Inform Engage Promote	Aims & Objectives of the Project. Information on Pompeian & Victorian Content of the Collection . Reflection on strategies for mixing entertainment and education. Awareness of Value and Problems of Reconstruction.
Sep	Event in Pompeii Court. A chance to present and gain reflections on the summative evaluations of the project.	Steering Group, invited stakeholders, JISC programme manager.	Promote	Reflection on strategies for mixing entertainment and education. Success of evaluation and dissemination strategies.
Sep	Conference paper Alt-C (the paper will be lodged on our Website and with JISC) and reflect on successes and challenges of project.	Learning Technologists across the country.	Raise Awareness Inform Promote	Aims & Objectives of Project. Reflection on strategies for mixing entertainment and education. Success of evaluation and dissemination strategies.

19. Exit and Sustainability Plans

Project Outputs	Action for Take-up & Embedding	Action for Exit
Data Collection	Collection material to become a core	Final review of all material to

	part of selected taught units at Bristol for academic year 2009-10.	ensure that IPR issues do not necessitate removal of items for which we have obtained only limited display rights.
Virtual Model	Dissemination activities during the project to include encouragement of future use of the Model . Use of discipline email lists, such as the Classics List, to remind people of its functionalities and potential for classroom use.	In the event that, at the end of the project, Second Life or an equivalent system is no longer available, or funding is not secured to rent space (see Sustainability), the Virtual Model will be reformatted using 3D Studio Max, delivered as a VRML file and placed onto the Website . This 3D format will not enable visitors to interact with each other but they will be able to navigate and interact with the model and access the meta and paradata. Another possibility would be to migrate to an open source environment such as Open Sim.
Website	At the end of the project, the team will ensure that all preparations have been made to ensure the Website's integrity and accessibility for at least the next three years.	To mark the end of the project, all of the evaluation reports will be uploaded onto the Website . Liaise with university IS staff on plans for future maintenance and back-up of the Website .
Conference Papers	After the conferences, our Papers will be available on the Website to ensure ongoing accessibility.	Copies of all Papers and Presentations to be lodged with JISC.

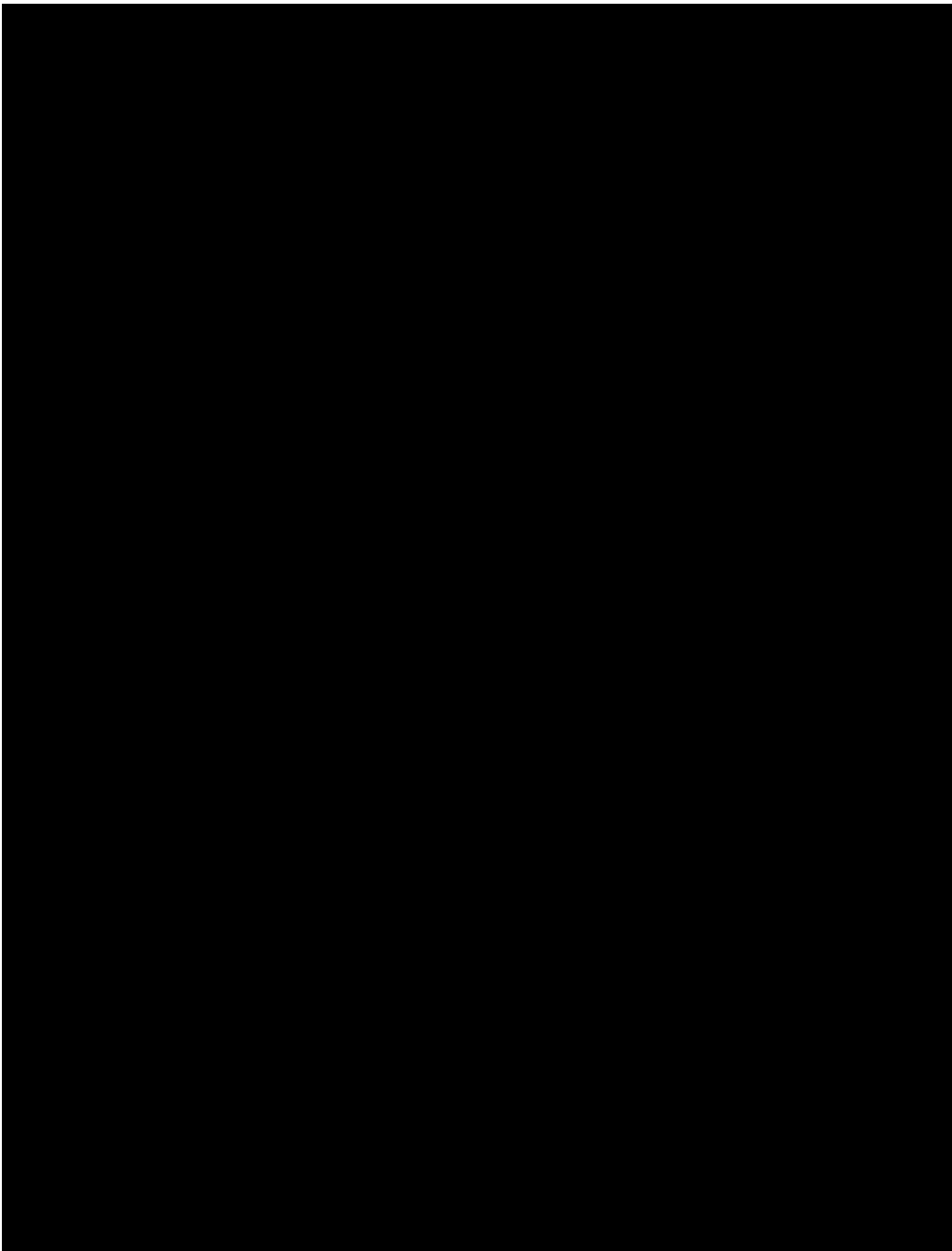
Project Outputs	Why Sustainable	Scenarios for Taking Forward	Issues to Address
Data Collection	The Collection data will be sustainable in the long term as it will all be stored on university systems as standard audio, text and image files as well as being attached to the Model .	The Collection could continue to be displayed through the Model or other media of display could be developed such as a more traditional database or even paper publication. The team will also be seeking out further internal and external funding opportunities in order to develop the most successful areas of the project.	Have we had to sign any permissions that only allow a resource for a limited time or in one form only? Has the Model been successful enough to suggest the Collection is best displayed via the Model ? What funding opportunities are available for further development?
Virtual Model	The completed Model will belong to the University of Bristol as a self-	If the Model is to stay on Second Life, further funding will have to be sought to pay the rent of	Do we want to expand the Model ? Do we want to stay

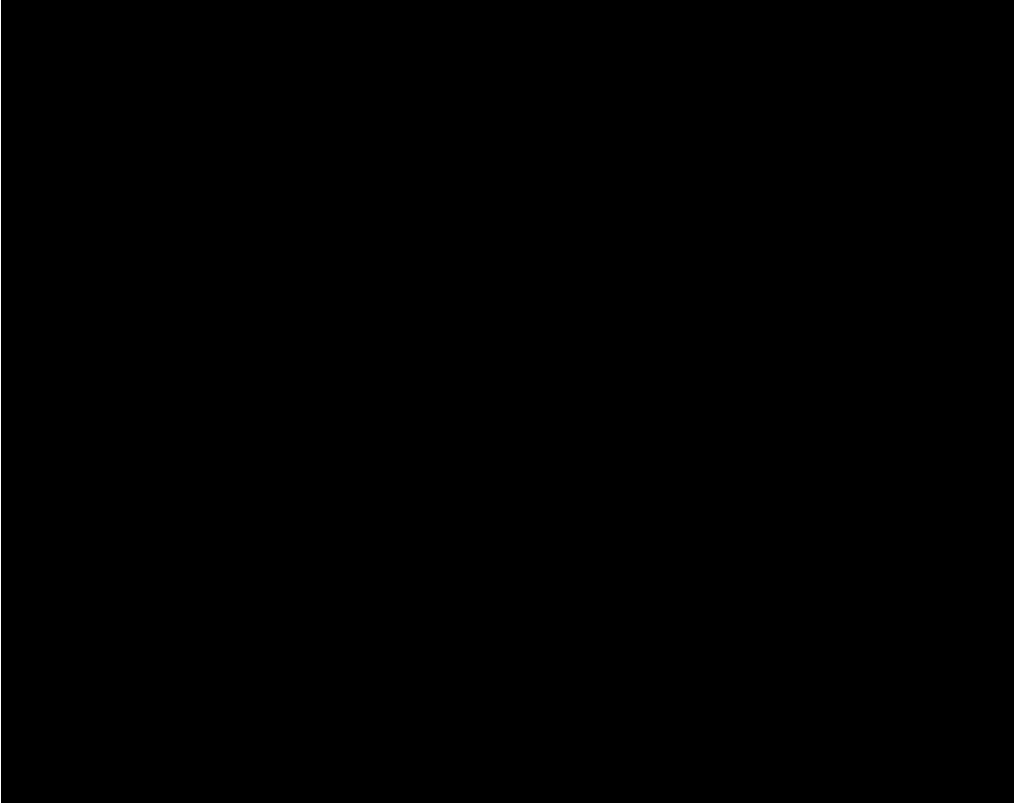
	standing entity. Having been developed in 3ds Max, it is fully migratable. Versions of the Model hosted on the University server will be permanently backed up.	the virtual space. As above, the team will be seeking out further internal and external funding opportunities in order to develop the most successful areas of the project.	with Second Life or explore a new environment, such as Open Sim? What funding opportunities are available for further development?
Website	In accordance with JISC practice, we have agreed to host the Website for at least three years.	Post project, the team will continue to post on the Website blogs reflecting on and papers concerning issues relevant to the project.	Who will be responsible for site maintenance? Will we update the site or keep it as an archived resource?
Conference Papers	The quality of the Papers is assured by the peer review process of accepting papers. They will be permanently backed up on University systems as standard text, visual and audio files as appropriate.	The Papers will be available on our Website and through JISC. SH & NE will continue to seek appropriate events at which to present our project and its findings. We will also look for publication opportunities.	What other events/conferences and workshops are coming up beyond the timeframe of the project? At what audience should a published form of the papers be addressed?

Appendixes

Appendix A. Project Budget (see page 23)

Appendix B. Workpackages (see page 25)





¹ If the institutional contributions include a contribution towards the direct costs of the project please complete a table along the lines of the example overleaf
Page 24 of 31
Document title: JISC Project Plan
Last updated: April 2007



JISC WORK PACKAGE

Formatted: Left: 72 pt,
 Right: 72 pt, Section start:
 Continuous, Suppress
 Endnotes, Width: 841.7 pt,
 Height: 595.45 pt, Header
 distance from edge: 36 pt,
 Footer distance from edge: 36
 pt, Different first page

WORKPACKAGES	Mon th	1	2	3	4	5	6	7	8	9	10	11	12
1: Project Management		x	x	x	x	x	x	x	x	x	x	x	x
2: Compiling Data			x	x	x	x							
3: Building the Model		x	x	x	x	x	x						
4: Quality Assurance		x	x	x	x	x	x	x	x	x	x	x	x
5: Dissemination		x	x	x	x	x	x	x	x	x	x	x	x
6: Evaluation			x	x	x	x	x	x	x	x	x	x	
7: Exit Strategy							x	x	x	x	x	x	x
8:													
9:													
10:													

Project start date: *1st October 2008*

Project completion date: *30th September 2009*

Duration: 12 months

				Milestone	Responsibility
YEAR 1					
WORKPACKAGE 1: Project Management	Oct 2008	Sept 2009			
Objective: To ensure the successful and effective completion of outputs within the time and budget limits of the project.					
1. Drawing up Project Plan	Oct 2008	Oct 2008	Project Plan	2	SH
2. 1 st Steering Group consultation – overview of project objectives	Nov 2008	Nov 2008	Internal report on recommendations of Steering Group		SH
3. Attendance at JISC meeting	Nov 2008	Nov 2008	Blog entry on website reflecting on key elements of the meeting and possible synergies with other projects		SH
4. 2 nd Steering Group consultation – feedback on model progress	Jan 2009	Jan 2009	Internal report on recommendations of Steering Group		SH
5. 3 rd Steering Group consultation – feedback on final model	Feb 2009	Feb 2009	Internal report on recommendations of Steering Group		SH
6. Writing Project Progress Report	Mar 2009	Mar 2009	Project Progress Report	4	SH
7. 4 th Steering Group consultation – plans for working with schools	Apr 2009	Apr 2009	Internal report on recommendations of Steering Group		SH
8. 5 th Steering Group consultation – initial review of evaluations, discussion of final dissemination/exit plans	Jun 2009	Jun 2009	Internal report on recommendations of Steering Group		SH
9. 6 th Steering Group consultation – final review and looking forward	Sep 2009	Sep 2009	Final written report by SH to Steering Group		SH
10. Final Report	Sep 2009	Sep 2009	Final Report	7	SH

<p>WORKPACKAGE 2: Researching & Compiling, Data, Metadata and Paradata for the Collection and Virtual Model</p> <p><i>Objective: To gather a full Collection of material pertaining to the Pompeii Court and to design its appropriate and effective display</i></p>	Nov 2008	Feb 2009			
11. Researching the Collection data and meta data in Bristol and London libraries	Nov 2008	Jan 2009	Blog entries on Website reflecting on libraries visited		SH
12. Checking no IPR issues connected to any of the material to be displayed in the Model	Nov 2009	Feb 2009	Any permissions needed to be acknowledged and recorded alongside the relevant item in the Collection		SH & NE
13. Digitisation of Collection data for inclusion in the Model	Nov 2008	Jan 2009	Images scanned and stored as JPEGs, texts transcribed as word documents will be archived and displayed via the Model		SH & NE
14. Researching & writing/recording metadata	Dec 2008	Feb 2009	Metadata explaining Pompeian origins of objects in the Court will be available in the Model as text or as audio/video clips		
15. Ongoing compilation of paradata	Nov 2008	Feb 2009	Paradata recounting challenges of and explaining decisions made in building the Model, particularly with relation to its accuracy, will be fully accessible from the Model and on the Website		SH
<p>WORKPACKAGE 3: Building the Model</p>	Oct 2008	Mar 2009			

Objective: To use the gathered resources to build within 3ds Max as full a model as possible					
16. Consultancy and training with KVL	Oct 2008	Mar 2009	Blog entries on Website detailing NE's experiences at KVL		NE
17. Investigate existing and relevant research and projects	Oct 2008	Nov 2008	Blog entries on Website detailing sources used and useful ideas and methods learned from them		SH & NE
18. Building architectural skin & texture maps	Nov 2008	Jan 2009	Images used to create texture maps will be lodged on our Website and attached to the Model as part of the metadata		NE
19. Development of learning activities, reacting to evaluative responses	Nov 2008	Apr 2009	Blog entries detailing reasoning and decisions made in creating the activities		SH & NE
20. Population of Model with associated data and metadata	Dec 2008	Mar 2009	Virtual Model complete	3	NE
WORKPACKAGE 4: Quality Assurance Objective: To ensure that our technical outputs, the Website and Model, are of a high quality and meet full accessibility and operability standards	Oct 2008	Sep 2009			
21. Consultancy with KVL to ensure the project complies fully to the London Charter	Oct 2008	Mar 2009	Reports on blog		NE
22. Reacting to response of peer review provided by Steering Group	Oct 2008	Sep 2009	Blog entries detailing outcomes of each Steering Group consultation		SH & NE
23. Reacting to evaluation from Stakeholders	Nov 2008	Aug 2009	Final evaluation report will include reflection on the gathered responses		SH & NE
24. Testing and experimenting of interface techniques	Dec 2008	Jan 2009	Blog entries detailing testing and any amendments made as a result		NE

<p>WORKPACKAGE 5: Dissemination</p> <p><u>Objective:</u> To ensure that awareness of the project and of the knowledge and experience arising from it are communicated to our key stakeholders</p>	<p>Oct 2008</p>	<p>Sep 2009</p>			
<p>25. Identification of and initial consultation with key stakeholders</p>	<p>Oct 2008</p>	<p>Nov 2008</p>	<p>Stakeholder user groups listed on Website</p>		<p>SH</p>
<p>26. Set up project Website & create initial content</p>	<p>Oct 2008</p>	<p>Nov 2008</p>	<p>Website</p>	<p>1</p>	<p>SH & NE</p>
<p>27. Presentation at Workshop, Warwick University (sponsored by Subject Centre for History, Classics & Archaeology)</p>	<p>Dec 2009</p>	<p>Dec 2009</p>	<p>Presentation Paper Report on event on blog</p>		<p>SH & NE</p>
<p>28. Presentation to University Court</p>	<p>Dec 2009</p>	<p>Dec 2009</p>	<p>Report on event on blog</p>		<p>SH</p>
<p>29. Stand at University of Bristol Teaching & Learning Fair</p>	<p>Jan 2009</p>	<p>Jan 2009</p>	<p>Report on event on blog</p>		<p>SH & NE</p>
<p>30. Launch of nationwide competition for school students</p>	<p>Jan 2009</p>	<p>May 2009</p>	<p>Competition Page on Website Press Releases</p>		<p>SH</p>
<p>31. Poster at Classical Association Conference, University of Glasgow</p>	<p>Apr 2009</p>	<p>Apr 2009</p>	<p>Poster detailing project</p>		<p>SH</p>
<p>32. Opening of Model to Second Life community</p>	<p>Jun 2009</p>	<p>July 2009</p>	<p>Report on blog</p>		<p>SH & NE</p>
<p>33. Final Event within Model</p>	<p>Sep 2009</p>	<p>Sep 2009</p>	<p>Advertising on Website Advertising within Second Life Report on Website</p>		<p>SH & NE</p>
<p>34. Conference Paper at Alt-C Conference</p>	<p>Sep 2009</p>	<p>Sep 2009</p>	<p>Conference Paper</p>		<p>NE</p>
<p>WORKPACKAGE 6: Evaluation</p> <p><u>Objective:</u> To collect and react to feedback from key stakeholders in order both to improve and to</p>	<p>Nov 2008</p>	<p>Aug 2009</p>			

reflect on the Project					
35. Initial formative evaluation of our plans for the model	Nov 2008	Dec 2008	Compilation of interviews and questionnaires from user groups and Steering Group		SH
36. Working with university classes in Bristol and Liverpool	Mar 2009	Mar 2009	Transcript of interview with teacher Report on observation of class in progress and of focus group Results on online survey		SH & NE
37. Working with KS2 and GCSE classes in Bristol and Sydenham	Apr 2009	May 2009	Transcript of interview with teacher Report on observations of class in progress		SH & NE
38. Working with Heritage sector	May 2009	Jun 2009	Transcript of interviews, surveys		SH & NE
39. Working with Humanities researchers	May 2009	Jul 2009	Transcript of interviews		
40. Judging and analysis of contributions to competition	May 2009	Jun 2009	Results announced on Website Report reflecting on success of competition		SH & NE
41. Analysis of evaluation data & publication on Website	Jul 2009	Aug 2009	Evaluation Report lodged on Website	5	SH & NE
WORKPACKAGE 7: Exit/Sustainability Objective: To ensure that the Model is assured in the medium term and to maximise chances for long term sustainability and development	Aug 2009	Sep 2009			
42. Preparation of bids for further funding from internal and external funding bodies e.g. Leverhulme, the JISC.	Mar 2009	Sep 2009	Applications		NE
43. Models and final evaluation reports to be loaded onto Website	Aug 2009	Sep 2009	Website		SH
44. Exit strategy reacting to evaluation report and recommendations of Steering Group	Sep 2009	Sep 2009	Report on Website explaining exit strategy		SH

Project Acronym: Crystal Palace
Version: 2
Contact: Shelley Hales
Date: 19th Nov 2008

45. Any material for which permission has been given for a limited period to be removed	Sep 2009	Sep 2009	Paradata will explain any changes		SH
46. Collection to be integrated into selected units at Bristol	Sep 2009	Sep 2009	Unit handbooks		SH
47. Postings on discipline email lists, e.g. Classics List, to remind people of its functionalities and potential for classroom use.	Sep 2009	Sep 2009	Email announcements		SH & NE
48. Liaison with IS staff to ensure ongoing accessibility	Sep 2009	Sep 2009	Website		NE

Members of Project Team:

SH =Shelley Hales, NE = Nic Earle