



# Versatile Digitisation Framework (VERDI) Project Plan

## *Overview of Project*

### **1. Background**

In common with many other universities, the University of Kent has an extensive range of specialised material contained within its Special Collections and embedded within its research centres and projects. The University has limited resources available for the preservation, processing and dissemination of this material and such resources that are available are used to support the most important collections which are managed to high professional standards. A significant amount of material is therefore in storage awaiting processing and still more is held by research groups and individual research staff. Although some of this material is indexed and available for inspection, much is currently hidden from the wider academic community even within the institution. It is believed that the experience at Kent reflects a similar experience across the entire sector and that significant research and teaching resources are not being exploited as a result.

The recent JISC-funded British Cartoon Archive Digitisation project (BCAD) has allowed the University of Kent to significantly widen access to a unique and important collection of socio-political cartoons. This has been achieved through the digitisation of previously un-digitised material to archival standards, its cataloguing to recognised standards and the establishment of an accessible and functionally rich web interface.

The BCAD project developed an architecture which is underpinned by open standards and by well-established and widely used applications employed across many archives, libraries and digital collections compatible with the JISC's technical standards. It is believed that this architecture can be extended to support other digital collections across the University by enhancing the framework and then by piloting the framework on three different collections.

The standards-based approach adopted in the BCAD project, will ensure that the framework and the digitisation work undertaken within this project, as well as future digitisation activity prompted by this project, is also standards-based, meets JISC's Information Environment requirements, is user focused, offers a high-quality user experience and is sustainable.

### **2. Aims and Objectives**

Aims:

- 1) to extend the BCAD architecture, to make it more generic and useable by multiple collections
- 2) to demonstrate the applicability of the framework in a range of scenarios

Central to this project is the development of a flexible technical framework created by generalising the infrastructure and standards used for the BCAD project in order to make them suitable for any digital collection. An adopter of the resulting framework will be able to use it to digitise, catalogue and present the digital resources to JISC standards via a searchable web-based interface that can be embedded into existing special collections and departmental or project websites.

Project Acronym: VERDI  
Version: 1a  
Contact: L Weller  
Date: 31 October 2008

The BCAD framework is built on two widely used products: CALM (a well established commercial cataloguing system) and FEDORA (an open source digital object repository). These products are widely used across the sector and have formed the basis of other JISC funded work. CALM is affordably licensed and this project will extend the framework to link to a second widely used cataloguing system (MODES) which will be used with the Windmills collection (see below).

The extensions to the technical architecture developed in the BCAD project will be achieved on the whole through minor modifications such as modularisation, increased parameterisation of scripts and limiting the default set of fields searchable to basic ISAD(G)/Dublin Core fields. In so doing we believe that the architecture can support almost any collection and allow digitisation outputs to be made easily and efficiently accessible and searchable on the web. The modularisation will allow federated searching of all local collections as well as specific collections or groups of collections. This flexible approach will facilitate future development of clusters of content by specifying sets of collections based on themes etc.

Objectives:

- 1) modify the BCAD architecture so that it can accept and store material from other digital collections in an organised manner
- 2) create search functionality based on the BCAD searching to enable searching of one or more specified collections
- 3) define and standardise a default set of fields (based on ISAD(G) and mapped to Dublin Core) which will be searched and displayed
- 4) create a module for the University's website which can be embedded in web pages to search one or more specified collections
- 5) document and disseminate the project and framework to academics at the University as well as to the wider community

In order to demonstrate the applicability of the framework in a range of scenarios, and to address key objectives in the JISC's Digital Strategy covering accessibility, support of learning and teaching, inspiring new approaches and allowing difficult to fund work to take place (JISC Digitisation strategy 2008, point 5), the framework will be used within the project to digitise and unlock three collections and embed these within Kent's website.

### **Sporting cartoons by Tom Webster (1886-1962)**

The British Cartoon Archive (BCA) holds 3,982 of Webster's original *Daily Mail* drawings. They have been neither digitised nor catalogued, and are currently impossible to study, as students and researchers cannot be given direct access to the fragile originals. Digitisation and detailed cataloguing provide the only possible method of accessing the whole collection. They are a major resource for the study and understanding of British sports history in the inter-war period, from 1919 to 1939. Sports history is a growing research interest among UK academics, and will continue to expand as the 2012 Olympics approach. The Webster collection directly serves this established research interest.

The Webster collection will be the first non-political UK cartoon collection to be digitised and catalogued, and will inspire new avenues of research and teaching. It will open new areas of exhibition and display for the BCA, and different possibilities for using BCA online materials in teaching.

It will significantly add to the volume of research and teaching materials available on UK sports history, adding to the critical mass of available data within this area, and extending the type of material available. Other academic disciplines for which this material is relevant include Kent's specialisation in social psychology with support for themes such as humour and attraction.

This small-scale pilot digitisation and cataloguing mini-project will demonstrate how the framework can be used to digitise, catalogue and deliver previously un-digitised resources and enhance an existing collection, supporting JISC's strategic imperatives: 14a – pilot and small-scale digitisation,

Project Acronym: VERDI  
Version: 1a  
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making the hidden visible, addressing a recognised gap, mapping to a particular area of the curriculum or research interest and inspiring new avenues of research.

Objectives:

- 3) to catalogue the Webster collection
- 4) to digitise the Webster collection
- 5) to provide access to the digitised items from the BCA website [www.cartoons.ac.uk](http://www.cartoons.ac.uk)

### **Renfrew Orkney Islands excavation**

History of archaeology is an emerging field which aims to understand how archaeology developed historically, directing knowledge through the creation of tools and procedures and formulating questions, theories and agendas. The study of the history of archaeology allows us to understand how the discipline contributes to knowledge about history, cultures, civilizations and, indeed, empowers us to use archaeology more effectively in the future.

The bequest of the archives of two leading archaeologists – Professor Lord Colin Renfrew and Professor Anthony Snodgrass - and the support of a number of other eminent archaeologists from around the world has created a unique teaching and research resource that will contribute to the development of the history of archaeology as a discipline.

As they become accessible, these collections are being used within Kent's Centre for the History of Archaeology as a resource to promote research and teaching in the area, with specific support of projects related to the collections and in the field of the history of archaeology. To date, the processing of these collections has provided limited access, consisting mainly of un-catalogued digitised photographs.

By enabling staff within the centre to apply the framework to a collection of photographs of the Renfrew Orkney Island Excavations, currently partially available through basic HTML pages with limited metadata, the project will demonstrate how the framework can be used to make accessible collections where there is a lack of professional archival support and limited technical expertise, supporting JISC's strategic imperatives: 14b – enhancement of existing collections, addressing a recognised gap within teaching and research provision, mapping to a particular area of research interest and inspiring new avenues of research.

Objectives:

- 6) to transfer and supplement, as required, the catalogue information to a suitable database accessible within the framework
- 7) to transfer the digital images to the framework
- 8) to provide access to the digitised items from the within the website of Kent's Centre for the History of Archaeology at <http://www.kent.ac.uk/secl/researchcentres/histarchaeology/>

### **Muggeridge collection of windmills and watermills**

The University of Kent holds a unique collection of mill photographs dating from the early part of the 20th century onwards. It is particularly rich in black & white photographs of windmills & watermills, and other aspects of rural life, from a time just prior to the enormous changes which took place in agriculture and its associated technology during the latter part of the century.

Initial work has taken place on the digitisation and cataloguing of the most fragile material and digitised photographs are available on a web site, although not searchable. The existing BCAD framework will be extended to interface with MODES (a cataloguing system used widely within museums and used by some archives) and metadata will be updated to ISAD(G) standards. A handful of records also have GIS coordinates; these will be added to a representative selection of records and a proof-of-concept page created that uses GIS coordinates to place mill locations on a map, allowing future GIS-related functionality to be developed.

Project Acronym: VERDI  
Version: 1a  
Contact: L Weller  
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By allowing an existing unique special collection of mill photographs, currently available on basic web pages, to be fully digitised, catalogued and made searchable, the project will demonstrate how the framework can be used to enhance an existing collection and interface to alternative cataloguing software, in support of JISC's strategic imperatives: 14a – pilot and small-scale digitisation, addressing a gap in research provision, contributing to creating critical mass within a given area and preserving material which is in danger of deterioration.

Objectives:

- 9) update metadata to ISAD(G) standards
- 10) digitise items not already digitised to current standards
- 11) proof of concept page utilizing GIS information
- 12) provide searchable access to the collection from within the new Special Collections website

### **Embedding the framework and exemplar collections at Kent**

It is important that the future support of the resulting framework and the exemplar collections be addressed and this will be achieved at Kent through the adoption of the framework within our own Special Collections section and the integration of the exemplar collections. To achieve this the University will fund the redevelopment of the Special Collections website which will be run as a separate internal University project.

## **3. Overall Approach**

### **Strategy and/or methodology and how the work will be structured**

The project is essentially divided into four independent strands;

Three strands related to cataloguing and archiving:

- Webster Collection
- Muggeridge Collection
- Renfrew Orkney Island Photographs

One strand related to technical development

- generalization of the BCAD architecture

While each strand will benefit from sharing knowledge and lessons learned, there is very little overlap in functionality and resources. Therefore, each strand will be allowed to run independently – reporting to the Project Manager and reviewed by the Steering Group.

There are no significant dependencies within each workstream except that the Muggeridge collection needs to be digitised before it can be catalogued since the negatives are too small to catalogue without a print or digital image.

### **Important issues to be addressed, e.g. interoperability**

The proposed interoperability between MODES and Fedora is based on automated XML exports from MODES into Fedora. It is possible, based on existing software versions and network configurations that this may be more complex than anticipated and workarounds such as a periodic / manual export will need to take place.

The BCAD framework will be generalized so that it can support material from other collections. Ideally this should be implemented in a way that additional collections can easily be added with minimal configuration. This will involve understanding and planning for possible uses outside of the collections involved in this project.

**Scope and boundaries of the work, including any issues that will not be covered.**

Cataloguing will, at a minimum, include the required ISAD(G) metadata but each collection may include additional metadata as we feel it is necessary to accurately describe the material. The new modules will search and display the minimum required ISAD(G) fields.

Items which are already digitised (e.g. the Renfrew Orkney Island photos and some of the Mugeridge Collection) will not be re-digitised even if the digital images are not up to current standards. The best quality image will be considered to be the archival surrogate and treated accordingly.

When digitising, the original digital archival surrogate is assumed to be an image of sufficient quality that significant post-processing will not be required.

Finally standards such as accessibility and HTML will apply to all new functionality/pages but legacy pages in which search functionality may be embedded may not be upgraded to adhere to the standards.

**Critical success factors**

The success of the project should result in additional departments and individuals utilizing the framework to make their digital collections available, enabling academics to apply for funding involving digitisation but not primarily focused on digitisation, as well as allowing people to more easily find, access and use the digitised material. However, in order for these benefits to be possible, the following critical success factors must be realized:

- Successful digitisation, to the required standard, of items in the Webster Collection and the Mugeridge Collection
- Organisational commitment to the project including the Steering Group
- Cataloguing of all the digitised items
- Making the digital images searchable and available on the web
- Technical development which can be sufficiently generic to support multiple collections with minimal configuration
- Good project management

## **4. Project Outputs**

**Tangible deliverables**

The project's primary deliverable is the technical framework which is closely based on the proven infrastructure used to deliver the BCAD project. The framework will be documented and supplemented with the development of digitisation and cataloguing guides to be used by those adopting the framework. In order to test the framework, it will be used to generate exemplars.

Digitisation framework

- Description of the framework, detailing its design and application, with links to exemplar sites.
- Procedure documents covering the application of standards and approaches and detailing naming conventions, image size considerations, adding metadata to images.
- Module to export standard ISAD(G)/Dublin Core fields and import the data into FEDORA from two standard cataloguing applications (CALM and MODES).
- Script/module to upload archival masters, resize them to web-quality images and move them to required locations
- Search module to allow collections to be specified (or not) and to search the standard Dublin Core fields, returning results as thumbnails.
- Display page to show larger image with metadata.

Project Acronym: VERDI  
Version: 1a  
Contact: L Weller  
Date: 31 October 2008

- Search results pages showing detailed metadata to be accessible (WAI AA) and XHTML compliant.
- An API/templates for interfacing web elements of the framework to existing websites.

#### Digital archive

- Three digitised and accessible exemplar collections comprising an archival surrogate in digital form of some 10,753 images (3,982 Webster, 550 Renfrew, 6,221 Muggerridge)
- Metadata for the above individual images

#### Web presence

- Increased use of the collections and availability of the digital resources through multiple routes including:
  - A central University search returning results from all items in the framework. It is envisaged that this will reside in University of Kent library pages.
  - Collection specific search returning results for the collections specifically related to the location of the search page (e.g. the Centre for History of Archaeology will have a search which only returns results from the Renfrew Orkney Island photos (plus any centre-related digital resources available in the future) and Special Collections will offer a search limited only to items in their collection which are part of the framework).

#### New image digitization and cataloguing systems which will:

- Provide improved digitization, submission, and modification of images and data
- Enhanced storage, indexing and maintenance systems;
- Improved tools for users to search, access, and view images and data (including the watermarking and provision of thumbnails, medium resolution, and high resolution images).
- Integration with the Web Publishing System to allow appropriate members to add images to the catalogue or add/edit existing data.

#### Dissemination and expertise

- A project website.
- A website describing the framework and how a staff member can begin to enter their material.
- Project report and case study.
- A conference/seminar presentation/paper.
- Academic bulletin for University of Kent research groups promoting the framework.

#### **Less tangible**

- Staff will benefit from learning new techniques and technologies related to digitisation and displaying collection on the web
- Staff will learn about the latest metadata and related standards and will be able to apply these to other collections
- Support for the framework within the University of Kent.

## **5. Project Outcomes**

- One search facility on the University website enabling users to search all the collections in the framework at once allowing people to see, access and be aware of digital items across the University. This should make it easier for people to find resources including hidden and unexpected resources.
- There will be a search facility on web pages related to each strand that will only search their collections. This will assist people interested in specific topics to easily find and search those resources.

- Encouragement of the use and re-use of images in teaching, research and study. New images of exciting material will become available. Usage of existing digital material should increase due to easier and more flexible access.
- A facility to allow departments or individuals to upload their digital collections with minimal system configuration and training. This will allow people who already have digital collections to easily make them web accessible and searchable. It will also encourage them to use better standards which will make future interoperability easier and thus more likely. It will enable academics to apply for funding where the digitisation is not a major part of the project and thus cannot justify large allocation of the proposed funding to produce the digital resource.
- Good precedent for the dynamic use of collections endowed to Kent. People will be more encouraged to give Kent research material if they can see how it can quickly and flexibly be made available.
- Benchmark for other collections, thus encouraging higher standards. By implementing best practices, providing documentation and experience, and technical support, other projects or collections will be encouraged to raise their standards.
- Providing knowledge and experience of JISC projects to people and departments in the University who have not encountered JISC before. JISC projects are formally run to high standards which might frighten those not familiar with project management. They also often involve some technical work and many academics may not know how to start building a team. Demonstrating how departments can work together on future educational-related projects should encourage ideas and collaborations for which funding can be obtained.
- Staff will benefit from learning new techniques and technologies related to digitisation and displaying content on the web.
- Staff will learn about the latest metadata and related standards and will be able to apply these to other collections.

## 6. Stakeholder Analysis

| Stakeholder                                       | Interest / stake  | Strand                             | Importance |
|---|---|------------------------------------|------------|
| Research & Enterprise Board, University of Kent   | Development of research collections at Kent   | Muggeridge/<br>Webster/<br>Renfrew | High       |
| International Wind & Watermill research community | Increased access to research materials on wind and watermills in the UK                                     | Muggeridge                         | High       |
| Historians of science and technology/agriculture  | Increased access to research materials relating to the history of wind and water technologies and their use | Muggeridge                         | Low        |
| Local history researchers                         | Increased access to significant local history materials   | Muggeridge                         | Medium     |
| University of Kent                                | Promote the framework to staff and students   | All                                | High       |

| Stakeholder   | Interest / stake  | Strand                             | Importance |
|---|---|------------------------------------|------------|
| Copyright holders   | Dissemination of material   | Muggeridge/<br>Webster/<br>Renfrew | High       |
| JISC  | Funder  | All                                | High       |
| Teachers/Students/Academics   | Access to new resources   | Muggeridge/<br>Webster/<br>Renfrew | High       |
| Academics at University of Kent   | New resources which could be used to support their digitisation activities                    | All                                | High       |
| Research Centres / Departments  | Resources which could be used to support digitisation activities, and access of new resources | All                                | High       |
| Fedora / Calm / Modes user group  | New uses and sharing knowledge  | Technical                          | High       |
| Enthusiasts   | Access of new resources   | Muggeridge/<br>Webster/<br>Renfrew | Medium     |
| Museums and galleries   | Exhibition material   | Webster                            | Low        |
| People interested in sport  | Access to historical sporting material  | Webster                            | Medium     |
| Archaeological institutes including but not limited to: Archaeology Cotson Trust, Institute for Aegean Prehistory, Society of Antiquaries the Society of Antiquaries Scotland Orkney archaeological trust | Access to material  | Renfrew                            | Medium     |
| Professor Lord Colin Renfrew  | Dissemination of his work   | Renfrew                            | High       |

## 7. Risk Analysis

Our experience with the BCAD project and our experience of working with this type of material combine to reduce the risks to this project.

| Risk  | Probability (1-5) | Severity (1-5) | Score (P x S) | Action to Prevent/Manage Risk   |
|---|-------------------|----------------|---------------|---|
| Staffing: Several new posts will need to be recruited and there is a chance that suitable candidates will not be available. | 1                 | 4              | 4             | British Cartoon Archive, Special Collections and Web Team staff are currently in place with relevant experience.  |
| Organisational: The University does not adequately support the project and provide the promised resources.                  | 2                 | 3              | 6             | Dissemination of clear information and agreement for support from Heads of School and appropriate senior managers |

| <b>Risk</b>   | <b>Probability (1-5)</b> | <b>Severity (1-5)</b> | <b>Score (P x S)</b> | <b>Action to Prevent/Manage Risk</b>   |
|---|--------------------------|-----------------------|----------------------|--|
| Technical:<br>'Generalisation' may require more resources than have been budgeted for | 1                        | 2                     | 2                    | Technical challenges have been largely addressed through the BCAD project. Project staff have experience of adapting and interfacing a range of technologies including those used within the project |
| Technical: Fragile glass plate negatives may prove difficult to digitise              | 1                        | 4                     | 4                    | Staff in post experienced with handling glass plate negatives  |
| Legal: Data protection, privacy software licensing                                    | 1                        | 2                     | 2                    | Use of open-source software and open standards where possible. Already cleared IPR   |
| Legal: Material cannot be made available due to copyright                             | 1                        | 4                     | 4                    | Copyright owned by the University or has obtained permission.  |
| External suppliers:<br>Required equipment cannot be supplied on time                  | 1                        | 4                     | 4                    | All equipment needs costed in project plan and multiple vendors are available.   |
| External: engagement is not at an appropriate level                                   | 1                        | 2                     | 2                    | Develop good communication with other projects (JORUM, JISC Online Information Environment) and suppliers. Good relationships already in place to build on   |

## 8. Standards

| <b>Name of standard or specification</b> | <b>Version</b>                    | <b>Notes</b>  |
|--|-----------------------------------|---|
| <b>Web Standards</b>                     |                                   |   |
| HTTP                                     | 1.1                               |   |
| Web accessibility standards              | WAI level A                       | Level A is a minimum and the project will strive for level AA                                       |
| HTML/XHTML, CSS & DOM                    | HTML 4.01, XHTML 1.0, CSS Level 2 | Latest W3C recommendations  |
| <b>Interoperability</b>                  |                                   |   |
| XML for data storage and transfer        |                                   | XML will be used to transfer data from Calm and Modes into the Fedora for web searching and display |

| Name of standard or specification   | Version | Notes   |
|---|---------|---|
| SOAP (using XML)  |         | For exchanging structured information   |
| WSRP  | WSRP    | For services deployed as Web services   |
| Shibboleth  | 1.2     | For multi-institutional access to restricted areas  |
| EDUCAUSE LDAP   |         | For multi-institutional access to restricted areas  |
| JSR-168 and/or JSR-286  |         | This will be investigated for possible integration with the new University of Kent Portlet.   |
| <b>Digital Resources</b>  |         |   |
| Persistent URI's  |         | For unique identification of items as specified by the JISC IE network service  |
| Image formats   |         | Open source standards such as TIFF, JPEG and PNG will be used for images. LZW compression issues will be avoided. TASI guidance will be followed.   |
| <b>Metadata</b>   |         |   |
| ISAD(G)   | 2nd     | Required fields plus any considered suitable for the specific collection and purpose; <a href="http://www.icacds.org.uk/eng/ISAD(G).pdf">http://www.icacds.org.uk/eng/ISAD(G).pdf</a>   |
| Dublin Core /Simple Dublin Core   |         | <a href="http://www.dublincore.org">www.dublincore.org</a><br><br>ISAD(G) fields will be mapped to Dublin Core  |
| Controlled subject vocabulary   |         | Using such schema as Library of Congress Subject Headings or Art and Architecture Thesaurus (AAT) as suitable for each collection   |
| Metadata Encoding and Transmission Standard (METS) for libraries of digital objects |         | For libraries of digital objects<br><a href="http://www.loc.gov/standards/mets/">http://www.loc.gov/standards/mets/</a>   |
| OAI-PMH   |         | Open Archives Initiative - Protocol for Metadata Harvesting   |
| Google crawling   |         | Recommendations for configuring open-access scholarly repositories for full-text Google crawling<br>( <a href="http://www.earlham.edu/~peters/fos/googlecrawling.htm">http://www.earlham.edu/~peters/fos/googlecrawling.htm</a> ) |
| IESR  |         | Information Environment Service Registry (IESR) metadata schema for Collections, Services and Agents  |
| <b>Software</b>   |         |   |
| Open source   |         | Wherever possible open source software will be used to avoid vendor lock-in. Such as: Java Servlet and JSP standards, Apache Webserver and Tomcat servlet engines, MySQL databases  |
| Fedora (repository software)  | 2.2     | Migrating to version 3 will be investigated in the course of the project.   |
|   |         |   |

## 9. Technical Development

The BCAD development has shown that a flexible and iterative development approach to this type of requirement can be very successful. The work packages identified for the technical development are expected to produce final releases of the related functionality at their completion.

All development will adhere to the standards described in Section 8 above.

Project Acronym: VERDI  
Version: 1a  
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The technical staff involved in the project will be encouraged to participate in the mailing lists and user-groups of the chosen technology.

## 10. Intellectual Property Rights

All project generated code, templates and documentation will be made freely available to the community.

The copyright of the material being digitised is either owned by the University of Kent or has been cleared with the copyright holders for reuse within UK education.

## *Project Resources*

### 11. Project Partners

None

### 12. Project Management

A project Steering Group, chaired by the Director of Information Services, has been established to oversee the project's progress, the preparation of regular reports to the JISC and to support the Project Manager in addressing any issues likely to impact on the successful delivery of objectives or ultimate success of the project.

Dedicated project management resource has been included to ensure that the needs of VERDI can be properly prioritised. Where the project is dependent on existing Kent resource, project objectives have been aligned with University of Kent strategic objectives and planned work ensuring a high degree of synergy between VERDI and other operational objectives. The role of the BCAD Project Manager has been extended to include this project to ensure continuity in management and development of the framework.

Day to day decision making will be devolved to the Project Manager who will work directly to the Director of Information Services. Support will be offered at the highest level within the department with four Information Services senior management team members joining the Steering Group.

The project team has considerable experience of successfully delivering JISC-funded projects containing similar outputs. The work streams have been designed to exploit the proven infrastructure and processes developed on the BCAD project; and to be independent of one another in order to compartmentalise any scheduling problems.

The project is being supported by staff from across Information Services as well as academic staff with a specific interest in the project deliverables. The project objectives are closely tied to objectives on the Information Services annual operational plan and support our strategic objectives.

#### Project Team

| Person       | Role                              | Strand     | Contact details  |
|--------------|-----------------------------------|------------|--|
| Sue Crabtree | Special Collections co-ordination | Muggeridge | <a href="mailto:S.A.Crabtree@kent.ac.uk">S.A.Crabtree@kent.ac.uk</a> |

Project Acronym: VERDI  
 Version: 1a  
 Contact: L Weller  
 Date: 31 October 2008

| Person                  | Role                                  | Strand     | Contact details  |
|-------------------------|---------------------------------------|------------|--|
| Bonnie Ferguson         | Technical advisor                     | Technical  | <a href="mailto:B.Ferguson@kent.ac.uk">B.Ferguson@kent.ac.uk</a>     |
| Dr Evangelos Kyriakidis | Archaeology co-ordinator              | Renfrew    | <a href="mailto:E.Kyriakidis@kent.ac.uk">E.Kyriakidis@kent.ac.uk</a> |
| Jane Newton             | British Cartoon Archive co-ordination | Webster    | <a href="mailto:J.M.Newton@kent.ac.uk">J.M.Newton@kent.ac.uk</a>     |
| Spence Scott            | Photographer                          | Muggeridge | <a href="mailto:S.Scott-21@kent.ac.uk">S.Scott-21@kent.ac.uk</a>     |
| Lydia Weller            | Project Manager                       | All        | <a href="mailto:L.Weller@kent.ac.uk">L.Weller@kent.ac.uk</a>         |
| Michael Wilcox          | Web project manager                   | Technical  | <a href="mailto:M.D.Wilcox@kent.ac.uk">M.D.Wilcox@kent.ac.uk</a>     |
| TBD                     | Developer                             | Technical  |  |
| TBD                     | Cataloguer/Digitiser                  | Webster    |  |
| TBD                     | Cataloguer/Digitiser                  | Muggeridge |  |
| TBD                     | Cataloguer                            | Renfrew    |  |

The University recognises the challenge of trying to undertake external recruitment to a project with limited timescales. It is therefore our intention to offer the Cataloguer/Digitiser posts by extending contracts with existing staff members or offering existing staff additional hours. The Developer post will be an internal secondment opportunity.

### Steering Group

| Person                  | Role  | Role              | Contact details  |
|-------------------------|---|-------------------|--|
| Stephen Holland         | Head of IS Academic Liaison and Research Services | Member            | <a href="mailto:R.S.Holland@kent.ac.uk">R.S.Holland@kent.ac.uk</a>   |
| Dr Nicholas Hiley       | Head of the British Cartoon Archive               | Member            | <a href="mailto:N.P.Hiley@kent.ac.uk">N.P.Hiley@kent.ac.uk</a>       |
| Dr Evangelos Kyriakidis | Archaeology co-ordinator                          | Member            | <a href="mailto:E.Kyriakidis@kent.ac.uk">E.Kyriakidis@kent.ac.uk</a> |
| John Sotillo            | Director of Information Services                  | Chair             | <a href="mailto:J.Sotillo@kent.ac.uk">J.Sotillo@kent.ac.uk</a>       |
| Gill Woodhams           | Head of Planning and Administration               | Budget management | <a href="mailto:G.Woodhams@kent.ac.uk">G.Woodhams@kent.ac.uk</a>     |
| Lydia Weller            | Project Manager                                   | Member            | <a href="mailto:L.Weller@kent.ac.uk">L.Weller@kent.ac.uk</a>         |
| Michael Wilcox          | Web project manager                               | Member            | <a href="mailto:M.D.Wilcox@kent.ac.uk">M.D.Wilcox@kent.ac.uk</a>     |

## 13. Programme Support

We would welcome support in the following areas:

- Advice and information on the experience of similar projects

## 14. Budget

See Appendix A

## Detailed Project Planning

### 15. Workpackages

See Appendix B for a detailed project work plan

|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|---|---|---|---|---|---|---|---|---|---|----|----|----|
|  | S | O | N | D | J | F | M | A | M | J | J  | A  | S  |
| <b>1. Recruitment</b>  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 1.1 Recruit technical staff  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 1.2 Recruit cataloguers/operators  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>2. Generic Framework</b>  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.1 Create requirements and specification documents                        |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.2 Module to upload images  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.3 Export of ISAD(G) fields to Fedora                                     |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.4 Search modules   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.5 Testing  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 2.6 Integration with library website                                       |   |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>3. Webster Collection</b>   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 3.1 Catalogue cartoons   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 3.2 Digitise cartoons  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 3.3 Add mini-biographies   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 3.4 Add Webster pages to the website                                       |   |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>4. Renfrew Orkney Photos</b>  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 4.1 Add metadata to Calm   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 4.2 Upload archive masters and web images                                  |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 4.3 Integrate search module in History of Archaeology website              |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 4.4 Update History of Archaeology content pages                            |   |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>5. Mugeridge Collection</b>   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 5.1 Investigate MODES-to-FEDORA metadata transfer                          |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 5.2 Digitise glass negatives and film                                      |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 5.3 Upload archive masters and existing web images                         |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 5.4 Catalogue items and include GIS coordinates on a sample set of records |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 5.5 Integrate search module in Special Collections micro-site              |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 5.6 Update Special Collections content                                     |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 5.7 Develop GIS proof of concept   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>6. Steering and User Groups</b>   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 6.1 Establish a Steering Group   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 6.2 Hold regular SG meetings   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| <b>7. Project management</b>   |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 7.1 Management framework established                                       |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 7.2 Project Plan submitted and agreed                                      |   |   |   |   |   |   |   |   |   |   |    |    |    |

|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|---|---|---|---|---|---|---|---|---|---|----|----|----|
|  | S | O | N | D | J | F | M | A | M | J | J  | A  | S  |
| 7.3 Create and update project web-site |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 7.4 Progress reports submitted         |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 7.5 Budget reports submitted           |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 7.6 Submit final report and Case Study |   |   |   |   |   |   |   |   |   |   |    |    |    |
| 7.7 Dissemination activities           |   |   |   |   |   |   |   |   |   |   |    |    |    |

## 16. Evaluation Plan

Generally, the success of the project will be assessed by measuring the delivery of defined outputs and progress against the work programme with outputs being delivered on time and within budget.

| Timing                | Strand                       | Factor to Evaluate   | Questions to Address   | Method(s)  | Measure of Success  |
|-----------------------|------------------------------|--|--|--|---|
| Oct 2008 – Sept 2009  | Muggeridge                   | Digitisation methodology   | Quality of equipment and images  | Ongoing monitoring of digital image production/Liaison with users              | Confirmation of image and metadata quality by users                             |
| June 2009 – Sept 2009 | Muggeridge                   | Integration and presentation of Muggeridge images on new Special Collections website | Ease of access to images<br>Quality of search module<br>Usefulness of enhanced images to users       | User focus group   | User confirmation of the quality and usefulness of enhanced image data          |
| Oct 2008 – Sept 2009  | Webster                      | Digitisation methodology   | Quality of equipment and images  | Ongoing monitoring of digital image production/Liaison with users              | Confirmation of image and metadata quality by users                             |
| Aug 2009 – Sept 2009  | Framework                    | User evaluation and feedback   | Are other academics who have digital assets interested in the framework and will it meet their needs | Hold a workshop demonstrating the framework and get feedback after the session | Users are interested in the framework as is or see use with minor modifications |
| Sept 2009 – onwards   | Webster /Renfrew /Muggeridge | Site statistics  | Has the availability and flexibility of access increased usage                                       | Site statistics  | More people are accessing the material  |

Longer-term success will be measured by how embedded and sustained the project outputs are, and careful alignment with University objectives and strategies will help ensure that this longer-term success is achieved. The development of the Special Collections website and adoption of the framework are outputs which will ensure longer-term success which will be measured during the scope of the project.

## 17. Quality Plan

| Timing  | Quality criteria                                | QA method(s)   | Evidence of compliance   | Quality responsibilities                                    | Quality tools (if any) |
|---------|---|--|--|---|------------------------|
| Ongoing | Images meet the specifications set (Muggeridge) | 100% of images are checked for orientation, format, and completeness. Image is examined when catalogued in MODEs   | Image is catalogued  | Special Collections co-ordination / University Photographer |                        |
| Ongoing | Images meet the specifications set (Webster)    | 100% of images are checked for orientation, format and completeness. Images are sampled for quality and consistency and spot checked through cataloguing | Images are uploaded to the framework   | BCA co-ordination   |                        |
| Ongoing | ISAD(G)   | Catalogue records are sampled  | Test results   | BCA co-ordination / Special Collections co-ordination       |                        |
| Ongoing | Accessible and standard compliant               | Automated and manual testing   | Reports from Evaluation Section. WAI level AA and valid code testing by project team   | Web Project Manager   |                        |
| Ongoing | Platform independence                           | Test with most common browsers on different platforms  | Checklist of test completed with each browser. Compatible with IE, Firefox, and Safari browsers on PC, Linux and Mac platforms, tested by the project team | Web Project Manager   |                        |
| Ongoing | Metadata accurately exported/imported           | Test cases developed   | Test results   | Web Project Manager   |                        |

## 18. Dissemination Plan

| Timing                   | Dissemination Activity                                       | Audience   | Purpose   | Key Message  |
|--------------------------|--|--|---|--|
| Oct 2008                 | Project website  | Internet users interested in digitisation, University projects, Fedora, Calm/Modes                 | Raise awareness   | Framework to create and search digital assets will be available to academics |
| Nov 2008                 | Press release  | National Press   | Raise awareness   | Funding secured  |
| Aug 2009 – Sept 2009     | Publish case study   | Academics at Kent  | Raise awareness and provide support for digitisation activities                 | Example use of the framework   |
| Sept 2009 – onwards      | Using the resources in teaching and student coursework       | Students   | Raise awareness   | Resources are available  |
| Sept 2009 – onwards      | Using the resources and highlight them in Lectures and talks | People who attend the Centre for the History of Archaeology events                                 | Raise awareness of the material and the possibility to digitise other resources | Resources available<br>New resources can be added                            |
| Dec 2008 – onwards       | Establishment of a blog                                      | People interested in any aspect of the project including Fedora, cartoons, windmills, archaeology. | Raise awareness, share knowledge  | The University and project staff are doing new and exiting things            |
| Oct 2009 - onwards       | Teaching workshop  | Academic community and particularly research groups, particularly Kent                             | Share knowledge and raise awareness   | Resources are available and this is how they can be used                     |
| Oct 2009 – onwards       | Bulletins  | Academic community and particularly research groups, particularly Kent                             | Raise awareness   | Resources are available  |
| Oct 2009 – onwards       | Seminars   | Academic community and particularly research groups  | Share knowledge and raise awareness   | Resources are available and this is how they can be used                     |
| October 2008 – onwards   | Postings to relevant mailing lists                           | Subscribers of the mailing lists   | Share knowledge   | The areas we are involved in.  |
| May 2009– September 2009 | Liaising with the British Society of Sporting History        | Members  | Raise awareness   | This material is available digitally and for exhibitions                     |
| May 2009– September 2009 | Liaising with the Heritage Lottery funded Mills Archive      | Staff of the archive   | Raise awareness   | This material is available   |

| Timing                  | Dissemination Activity                          | Audience                                       | Purpose         | Key Message  |
|-------------------------|---|--|-----------------|--|
| May 2009-<br>Sept 2009  | Archaeological Data Service (ADS)               | People who use the service                     | Raise awareness | This material is available                           |
| Oct 2008 –<br>Sept 2009 | Attendance at relevant conferences and seminars | People who attend the conferences and seminars | Raise awareness | This is what we are doing and the material available |

## 19. Exit and Sustainability Plans

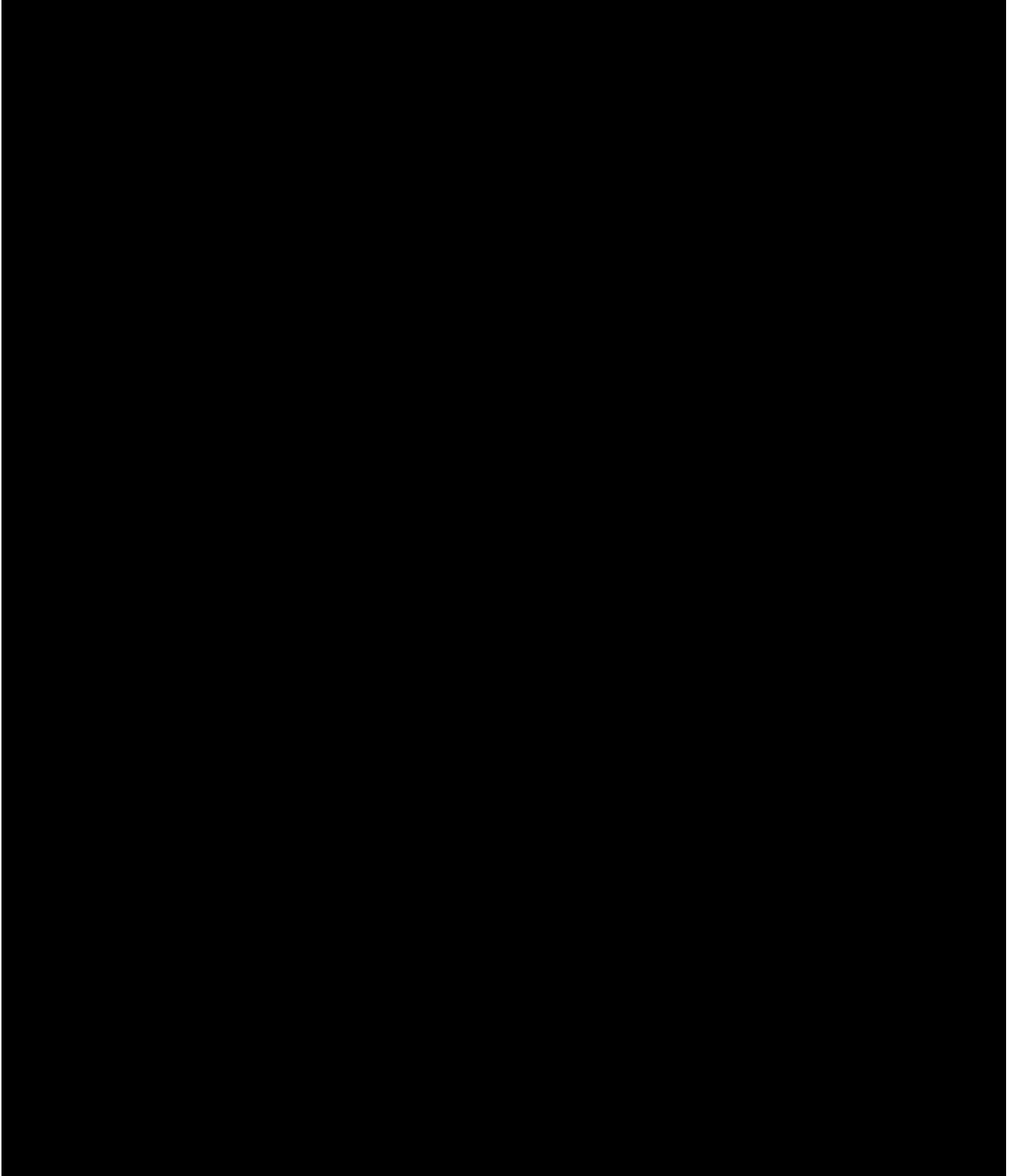
| Project Outputs                            | Action for Take-up & Embedding  | Action for Exit   |
|--|---|---|
| Digitised images                           | Images will be stored on a mirrored disk array and will be included in the University's backup strategy   | Ensure that the new locations are being backed up   |
| Digitised images                           | All image versions will be easily accessible to authorised University staff. This will encourage image use in new ways since the best quality image (for posters, publications etc) will be accessed as easily as the web-versions. | Ensure that staff know how to access all versions of the image  |
| Documentation on digitising and metadata   | Documentation will be ongoing throughout the project and will be on a SharePoint project site. The project site will remain available for at least 3 years. Links from other project sites or an index can be created.              | Sort the documentation so that final versions are easily identified   |
| Technical documentation                    | Code will be stored in the standard University code repository. User documentation will be stored in the SharePoint project site.   | Ensure the final code is checked in and correctly labelled and commented. Sort the user documentation so that final versions are easily identified. |
| Metadata                                   | The source of the metadata is assumed to be Calm and Modes (not Fedora). Both these databases are used by other collections and are part of the standard University backup strategy.  | Ensure that Calm and Modes are being backed up  |
| Ongoing technical support                  | All servers are already integrated into the University server farms and should already be part of the University maintenance plans  | Ensure Systems are aware of any new requirements or configurations which need to be maintained and patched  |
| Access to collections via the web searches | Pages are the responsibility of each department site and will be maintained as part of those sites  | Nothing required.   |
| Project website                            | Project website will be within the University website   | Ensure that the information is up to date   |

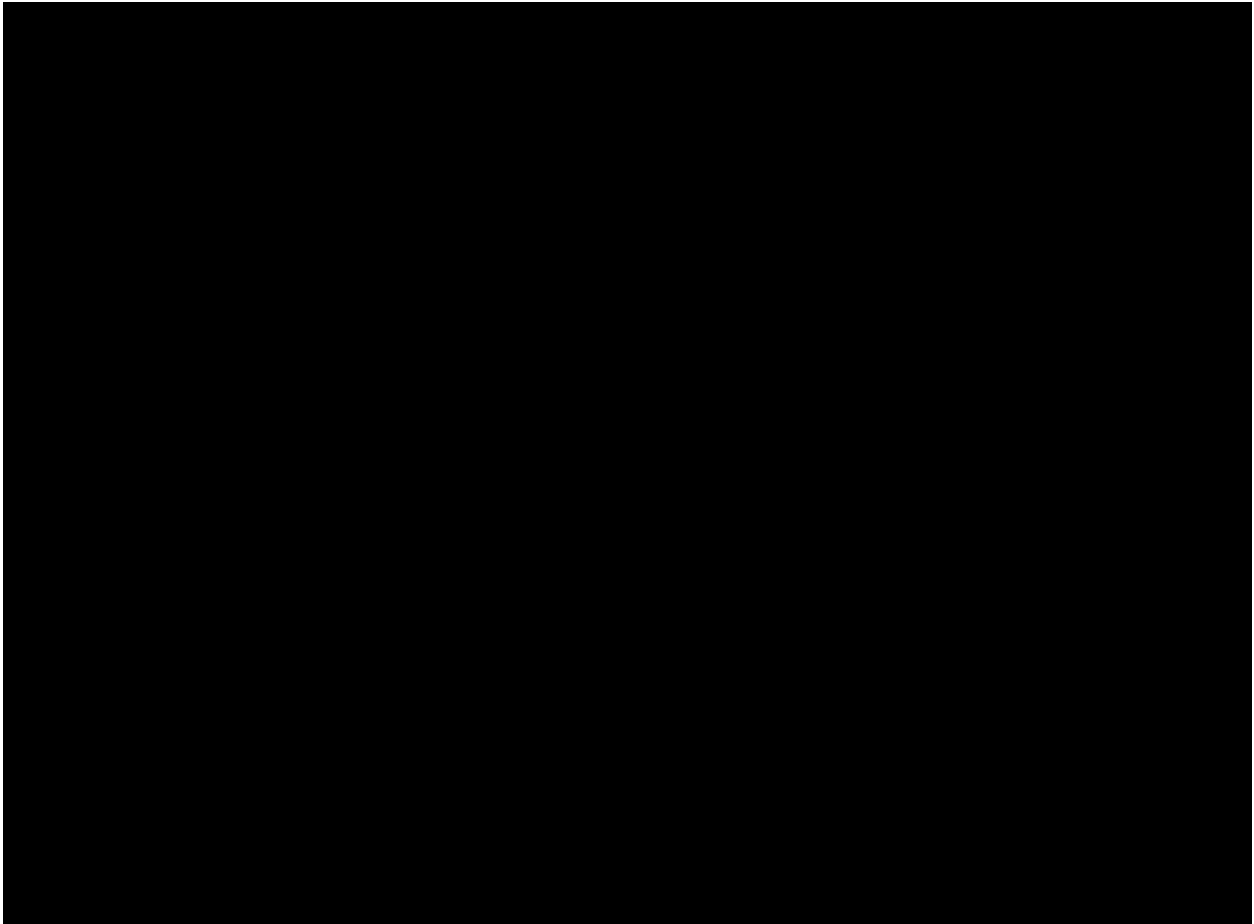
| <b>Project Outputs</b> | <b>Why Sustainable</b>  | <b>Scenarios for Taking Forward</b>  | <b>Issues to Address</b>   |
|------------------------|---|--|--|
| Digital images         | These are static and do not need to be changed or updated                             | Ensure they are accessible via some type of search so that they can always be found and used   | None   |
| Metadata               | This will mainly be static but can be updated as required or new information acquired | Ensure that the metadata is part of any future data migration  | There should be no issues since the metadata is in databases containing more metadata than just those records related to this project  |
| Code                   | The functionality provided will not become obsolete                                   | Ensure there are people in the university who have the required skill sets or can develop the required skill sets to maintain the code. Ensuring that the framework is used as extensively and flexibly as possible will help ensure that staff with suitable skills are available | Although the functionality will always be useable, it may not be up to future current standards. Additionally the new versions of the platforms and software will be released and the coding may not be compatible |

Project Acronym: VERDI  
Version: 1a  
Contact: L Weller  
Date: 31 October 2008

## ***Appendixes***

### **Appendix A. Project Budget**





## Appendix B. Work Package

Project start date: 1 October 2008

Project completion date: 30 September 2009

Duration: 12 months

| Work package and activity   | Earliest start date | Latest completion date | Output (clearly indicate deliverables & reports in bold) | Milestone | Responsibility |
|---|---------------------|------------------------|--|-----------|----------------|
| <b>YEAR 1</b>   |                     |                        |  |           |                |
| <b>WORK PACKAGE 1: Recruitment</b>  |                     |                        |  |           |                |
| <b>Objective:</b> <i>To arrange to have suitable staff members in post when they are required based on the work packages.</i>       |                     |                        |  |           |                |
| 1.1 Recruit technical staff   | Sept 2008           | Oct 2008               | Suitable staff member recruited or identified            | No        | MW             |
| 1.2 Recruit cataloguers/operators   | Sept 2008           | Oct 2008               | Suitable staff member recruited or identified            | No        | NH/SC/EK       |
|   |                     |                        |  |           |                |
| <b>WORK PACKAGE 2: Generic Framework</b>  |                     |                        |  |           |                |
| <b>Objective:</b> <i>To enhance the BCAD framework so that it images and metadata from different collections can be maintained.</i> |                     |                        |  |           |                |

| Work package and activity  | Earliest start date | Latest completion date | Output (clearly indicate deliverables & reports in bold)   | Milestone | Responsibility |
|--|---------------------|------------------------|--|-----------|----------------|
| 2.1 Create requirements and specification documents                              | Oct 2008            | Nov 2008               | Requirements document created  | Yes       | LW/MW          |
| 2.2 Develop module to upload images  | Nov 2008            | Dec 2008               | Module developed and user documentation created  |           | MW             |
| 2.3 Export ISAD(g) fields to Fedora  | Jan 2009            | Feb 2009               | Mechanism to export ISAD(G) fields and import them into Fedora created and documented                    |           | MW             |
| 2.4 Develop module to search across all collections and by specified collections | Mar 2009            | Apr 2009               | Module to allow collections to be specified and searched   | Yes       | MW             |
| 2.5 Testing  | May 2009            | June 2009              | Workflow of uploading images, updating catalogue content and searching is tested                         |           | MW             |
| 2.6 Integration with library website   | July 2009           | Aug 2009               | Search form to search across all digital collections in the framework exists on the Library website      | Yes       | MW             |
|  |                     |                        |  |           |                |
| <b>WORK PACKAGE 3: Webster Collection</b>  |                     |                        |  |           |                |
| <b>Objective:</b> <i>To digitise and catalogue the Webster artwork.</i>          |                     |                        |  |           |                |
| 3.1 Catalogue cartoons   | Jan 2009            | July 2009              | 3982 Webster records are in Calm   | Yes       | JN             |
| 3.2 Digitise cartoons  | Apr 2009            | July 2009              | 3982 Webster images exist of the artwork   | Yes       | JN             |
| 3.3 Add mini-biographies   | May 2009            | July 2009              | Sample mini-biographies have been created and linked to catalogue entries                                | Yes       | JN             |
| 3.4 Add Webster pages to the website   | July 2009           | Sept 2009              | Webster artwork is searchable and viewable on <a href="http://www.cartoons.ac.uk">www.cartoons.ac.uk</a> | Yes       | JN             |
|  |                     |                        |  |           |                |

| Work package and activity   | Earliest start date | Latest completion date | Output (clearly indicate deliverables & reports in bold)                                   | Milestone | Responsibility |
|---|---------------------|------------------------|--|-----------|----------------|
| <b>WORK PACKAGE 4: Renfrew Orkney Photos</b>  |                     |                        |  |           |                |
| <b>Objective:</b> <i>To make the Renfrew Orkney Island photos available in a searchable manner.</i>                 |                     |                        |  |           |                |
| 4.1 Add metadata to Calm  | Dec 2008            | Feb 2009               | Metadata for the photos is in Calm   | Yes       | EK/LW          |
| 4.2 Upload archive masters and web images   | Mar 2009            | Apr 2009               | Existing images are uploaded to the framework  | Yes       | EK/LW          |
| 4.3 Integrate search module into the History of Archaeology website   | May 2009            | July 2009              | Search is available in the Research Centre's micro-site                                    | Yes       | EK             |
| 4.4 Update History of Archaeology content pages   | July 2009           | Aug 2009               | Static pages related to the collection of photos are updated                               | Yes       | EK             |
|   |                     |                        |  |           |                |
| <b>WORK PACKAGE 5: Muggerridge Collection</b>   |                     |                        |  |           |                |
| <b>Objective:</b> <i>Update metadata and complete digitisation for integration into Special Collections website</i> |                     |                        |  |           |                |
| 5.1 Investigate MODES-to-FEDORA metadata transfer   | Oct 2008            | Nov 2008               | Confirmation that information will be able to be exported by MODES in a suitable manner    | Yes       | MW/LW          |
| 5.2 Digitise glass negatives and film and QA images   | Nov 2008            | July 2009              | Archival surrogates exist  | Yes       | SS             |
| 5.3 Upload archive masters and existing web images  | June 2009           | July 2009              | Archival surrogates and best quality existing images are uploaded                          | Yes       | SS / SAC       |
| 5.4 Catalogue items and include GIS co-ordinates on a sample set of records   | Nov 2008            | July 2009              | Standardised metadata established for all images and catalogue records exist for all items | Yes       | SAC            |

| Work package and activity  | Earliest start date | Latest completion date | Output (clearly indicate deliverables & reports in bold)             | Milestone | Responsibility |
|--|---------------------|------------------------|--|-----------|----------------|
| 5.5 Integrate search module in Special Collections micro-site  | Jul 2009            | Aug 2009               | Digitised material fully integrated into Special Collections website | Yes       | MW             |
| 5.6 update Special Collections content related to Muggerridge  | Jul 2009            | Aug 2009               | Muggerridge related content is up-to-date                            | Yes       | SAC            |
| 5.7 Develop GIS proof of concept   | Jul 2009            | Sept 2009              | A web page showing the location of selected windmills on a map       | Yes       | MW             |
| <b>WORK PACKAGE 6: Steering Groups</b>   |                     |                        |  |           |                |
| <b>Objective:</b> <i>To establish suitable institutional support, monitor the project and provide advice</i>   |                     |                        |  |           |                |
| 6.1 Establish a Steering Group   | Sept 2008           | Sept 2008              | Steering Group convened  | Yes       | JS             |
| 6.2 Hold regular SG meetings   | Sept 2008           | Sept 2009              | Meetings held at least monthly                                       | Yes       | LW             |
| <b>WORK PACKAGE 7: Project Management</b>  |                     |                        |  |           |                |
| <b>Objective:</b> <i>To establish suitable project management procedures, monitor the project and in ongoing manner and meet internal and external reporting requirements of the project</i> |                     |                        |  |           |                |
| 7.1 Management framework established   | Sept 2008           | Sept 2008              | Roles of Steering Group members and project team established         | Yes       | LW             |

| Work package and activity              | Earliest start date | Latest completion date | Output (clearly indicate deliverables & reports in bold)                        | Milestone | Responsibility |
|--|---------------------|------------------------|---|-----------|----------------|
| 7.2 Project Plan submitted and agreed  | Sept 2008           | Oct 2008               | Project Plan agreed with JISC Programme Manager                                 | Yes       | LW             |
| 7.3 Create and update project web-site | Oct 2008            | Sept 2009              | Website exists , is accessible and content is current                           | Yes       | LW             |
| 7.4 Progress reports submitted         | Mar 2009            | Apr 2009               | Progress reports accepted by JISC Programme Manager                             | Yes       | LW             |
| 7.5 Budget reports submitted           | Mar 2009            | Apr 2009               | Budget Reports accepted by MISC Programme Manager                               | Yes       | LW             |
| 7.6 Submit final report and Case Study | July 2009           | Sept 2009              | Final report accepted by JISC Programme Manager<br>Case study posted to website | Yes       | LW             |
| 7.7 Dissemination activities           | Oct 2008            | Sept 2009              | Stakeholders are made aware of the project                                      | Yes       | LW             |
|  |                     |                        |   |           |                |

Members of Project Team:

[e.g. MW =Michael Wilcox, LW = Lydia Weller, SAC – Sue Crabtree, SS – Spencer Scott, SH – Steve Holland, EK – Evangelos Kyriakidis, NH – Nick Hiley, JN – Jane Newton]