Appendix A

Focus on the *Shahnama*
Project Plan

1. Background

This project aims to digitise a complete, illustrated *Shahnama* manuscript, dating from the Safawid period. The high resolution images will be uploaded into the Rylands digital image collections which use the Luna software platform. They will be freely available for purposes of research, teaching and learning. The Cambridge *Shahnama* project previously digitised the illustrated pages; this project will reunite those pages with the full text of this epic. The project will also create a dedicated web page to signpost to the images and provide contextual interpretation of the manuscript's significance in Islamic culture.

The project will be sponsored by The Islamic Manuscript Association[1] (TIMA). At its inaugural conference TIMA affirmed its aspiration to facilitate the digitisation, accessibility and study of Islamic manuscripts. As it states, digitisation can "assist in the conservation of manuscripts, render them more accessible to scholars and offer new tools for codicology and textual criticism". Many digitisation projects concentrate solely on the highly visual, i.e. the illustrated pages of a manuscript. This project closely adheres to TIMA's ambition to open access to textual resources.

"This beautiful manuscript of Firdousi's immortal poem was the finest in the library of the King of Oude"; thus was Rylands Persian MS 932 described by Turner Macan in a note on folio 1a of the manuscript. It is dated to year 949 of the Hegira (CE 1542). There are 604 folios, with 4 columns of 23 lines to each page. In addition to beautiful illumination, there are 38 miniatures in the Shiraz style, ascribed by Robinson[2] to Painter A and Painter B. The text of this manuscript is of particular significance as it was one of the copies used by Macan when collating the first European edition of the Shahnama. A digitised version will provide free international access to this manuscript for Islamic scholars wherever they are based.

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[1] http://www.islamicmanuscript.org/
[2] B.W. Robinson, *Persian paintings in the John Rylands Library: a descriptive catalogue* (London: Sotheby Parke Bernet, 1980) p.163

2. Aims and Objectives

2.1 Aim

The projects aims to create and publish digital surrogates of Rylands Persian MS 932 to support teaching and learning, to develop new research opportunities, and to make this important manuscript accessible to wider audiences.

2.2 Objectives

The objectives are to:

- Digitise a complete Shahnama manuscript, including all folios and bindings, totalling approx. 1,200 high-resolution images;
- Make a high-resolution facsimile of the manuscript available on-line, taking advantage of the advanced delivery and display functions of Luna Insight 6;
- Produce metadata for each image using Luna Inscribe software;
- Create an attractive dedicated website with links to the images and metadata, and other online resources;
- Integrate the manuscripts into new teaching, learning and research opportunities;
- Internationally raise the profile of the Rylands Persian manuscript collections;
- Enable access, whilst reducing the need to handle the original, thus aiding preservation; and
- Create a pilot for a large-scale project to electronically catalogue our collection of Persian manuscripts (c.1, 000).

3. Overall approach

3.1 Secondment
Carol Burrows will direct the project and report to TIMA. Records will be created and populated by Suzanne Fagan (Cataloguing Assistant), seconded 10 days FTE over a period of 12 weeks. The photographer, James Robinson, will also be seconded 10 days FTE over a period of 12 weeks. Mark Furness (Conservator) will be seconded for 2 days and technical support for 1 day to set up the website. There will be no new posts created as a result of this project, therefore no need for recruitment.

3.2 Conservation
Mark Furness (Conservator), a member of the JRUL's Collection Care team, will assess the manuscript prior to and post digitisation, and undertake any remedial work required. A full condition report will be included in the project documentation.

3.3 Image Capture
The JRUL has a dedicated imaging studio at its Deansgate site. Using a Phase One camera with a P65+ digital back, the photographer will capture, process, and name approximately 1,200 images during 10 working days. Each processed image will be between 80 – 120 MB. Our previous experience of digital image capture of fragile manuscripts has shown that this is a

realistic target when working with such large files. Each image will include a Kodak colour strip and scale rule. The photographer will import a copy of each processed image into our proprietary image management system, *Luna Insight*[3] via its *Studio* software, which creates a JPEG2000 file for viewing purposes.

3.4 Data Capture
The Cataloguing Assistant will create a record for each image using Luna's Inscribe software. The image-level metadata, embedded in each image, will include any significant details about the folio, plus image capture information. Each record will be approved by the Project Manager prior to publication. Metadata for each image is held in an Oracle 10 database which underlies the Luna Image Management System. Both metadata and images can be downloaded or printed directly from Luna, or links embedded into web-based materials. Luna supports full Unicode to allow inclusion of non-roman scripts in the data records.

3.5 Website
We will employ a web designer to set up a dedicated website. Initially a spotlight on this particular manuscript, the website will have the potential to be further developed into a *Shahnama* web exhibition for 2010. The website will include an EAD-compliant description (Encoded Archival Description) of the manuscript. It will also provide links to related resources, such as the Cambridge *Shahnama* Project, and will credit the sponsorship of TIMA. Images will be displayed by the new LUNA viewer provided as part of Insight 6.0 software. LUNA is a web-based front end to Luna Insight, offering Web 2.0 concepts such as embedding and linking.

3.6 Timetable

Action	Jan 09	May 09	June 09	July 09
Conservation report on manuscript				
Image capture				
Cataloguing Assistant makes initial records				
Image processing				
Images uploaded into Luna				
Records upgraded and authorised				
Web page construction				
Web page and images published				
Conservation report on manuscript				
Exit strategy				
Dissemination / Publicity				
Report to TIMA				

The Project Manager will oversee the progress of the project, liaising with team members and TIMA and monitoring workflow. She will be responsible for approving publication of the images, their records, and the website. She will manage the publicity and dissemination, liaise with the academic community and write the final report to TIMA.

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[3] Supplied by Luna Imaging Inc.

4. IPR

Copyright in unpublished manuscripts is perpetual under current UK legislation. However, the subject of this proposal was produced in the 16th century and is physically owned by the JRUL. We therefore regard the potential for a claim for rights infringement to be infinitesimally small. The photographer is an employee of the University of Manchester, and will therefore have no claim to copyright in the images.

5. Standards

Our basic standard for image capture follows JISC Digital Media's 'Guidelines for Image Capture and Optimisation'. Images will be catalogued to a locally developed application profile, based on and compliant with VRA 3.0 metadata standards. It is also UK-LOM Core and Dublin Core compliant and mapped to the Getty Crosswalk. Library of Congress Subject Headings and the Getty Thesaurus of Geographical Names are used for authority control. We adhere to JISC Digital Media's guidelines for the preservation of images. EAD is based on ISAD(G), the international standard for the description of archives. EAD has been adopted internationally as the standard encoding system for online finding aids. The use of an EAD Schema will enable us to embed a TEI (Text Encoding Initiative) Schema directly into EAD instances. This will allow us at a future date seamlessly to incorporate full-text transcriptions and editions of the manuscript into the EAD record.

6. Exit Plans

6.1 Sustainibility
The JRUL is a member of the Digital Curation Centre (DCC) Associates Network and DCC Forum, and we are in touch with their advice on best practice in the preservation of digital assets. A raw 48-bit file of each image will be archived on tape. 24-bit processed TIFF files will be archived on hard drives and on University servers. The University IT Services Division manage the data back-up system. The images will be included in the main Rylands Collection, managed by the Project Manager, who will also take responsibility for maintaining the web page.

6.2 Dissemination
Proposals for dissemination include:
- Website;
- Blog;
- Paper to 5th TIMA conference on creating a digital resource with due regard for conservation issues (if accepted);
- Article in *News from the Rylands*;
- Article in TIMA newsletter and on Projects web pages;
- Engagement with the University's Press Officer to publicise the project;
- Integration into research and teaching & learning activities of the School of Languages, Linguistics & Cultures, Middle Eastern Studies at the University of Manchester;

- Integration into public & web exhibitions to celebrate 1,000 years of *Shahnama* in 2010.

Digitisation is a two-way process with the research community.   In return for making available such a resource we hope to encourage scholarly investigation and use the conclusions of the researchers to upgrade our records and improve our own understanding of the manuscripts in our care.