

## Rivista del digitale nei beni culturali

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## Digitisation of Western Medieval Manuscripts at the British Library

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British Library

• he Medieval and Earlier Manuscripts Section at the British Library holds one of the richest collections of medieval and renaissance manuscripts in the world. These collections include over 25.000 western medieval manuscript books, over 3.000 Greek papyri and over 50.000 medieval charters and rolls. In recent years, the Medieval and Earlier Manuscripts Section of the Library has worked with Leipzig University Library, Saint Catherine's Monastery on Mount Sinai and the National Library of Russia to deliver the Codex Sinaiticus Project http://www.codexsinaiticus.org. This Website was first launched in July 2008 and updated in July 2009 to include full digitisation of Codex Sinaiticus, the fourthcentury Greek biblical manuscript which includes the earliest text of the complete New Testament. The Website offers a new electronic transcription of the whole text of this heavily corrected manuscript, in which every word in the transcription is linked to the corresponding word in the images. This transcription was produced by a team based at the Institute for Textual Scholarship and Electronic Editing at the University of Birmingham. The Website also includes the results of a detailed page-by-page examination of all the physical characteristics of the manuscript undertaken by conservators in each location. In addition, the images captured for the Website have been reused to produce a full printed facsimile of the manuscript, to be published in January 2011.

Another digital project run by the Medieval and Earlier Manuscripts Section at the British Library is the Catalogue of Illuminated Manuscripts http://www.bl.uk/catalogues/illuminatedmanuscripts which was first released in July 2003 and which has been updated regularly since then with additional content so that it now provides a searchable database of illuminated and decorated manuscripts in the Arundel, Burney, Egerton, Hargrave, Harley, Henry Davis, Hirsch, King's, Lansdowne, Sloane, Royal, Stowe and Yates Thompson collections. The searchable catalogue records include selective digitisation of pages containing illumination and decoration. The latest items to have been added to the catalogue are illuminated manuscripts from the Royal collection, a selection of which will be displayed in a major temporary exhibition at the British Library opening in November 2011. Moving on from both of these projects, the Medieval and Earlier Manuscripts Section has been developing a longer-term plan to digitise the Library's western medieval manuscript collections in full. As a first step towards this goal, in 2009, the Library initiated an 18-month pilot project, generously funded by a grant from the Stavros Niarchos Foundation, to digitise manuscripts written in Greek. The aim was to digitise completely 250 manuscripts, but by the end of the project 284 Greek manuscripts had been digitised in full. The new online resource, Digitised Manuscripts, was launched on 26 September 2010 and is freely available at http://www.bl.uk/manuscripts.

The 284 manuscripts currently available comprise over a quarter of the British Library's collection of around 1.000 Greek manuscript volumes which, together with the Library's collections of papyri, ostraca and Greek printed books, form part of one of the largest and most important resources for the study of Hellenic culture outside Greece. The Library's Greek manuscripts contain unique and outstandingly rich information for researchers working on the literature, history, science, religion, philosophy and art of the whole of the Eastern Mediterranean in the Hellenistic, early Christian, Byzantine and Ottoman eras. These manuscripts are in regular use by researchers in the Manuscripts Reading Room at the British Library in London. The 284 manuscripts selected for this project are representative of the broad range of manuscripts in Greek held by the Library and include some notable highlights of the collection, including:

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Figure 1. The Theodore Psalter: BL Add. MS 19352, f. 91v

- The Theodore Psalter (Add MS 19352). Produced in Constantinople in 1066, this highly illustrated manuscript of the Psalms is arquably the most significant surviving manuscript illuminated in Constantinople. One of the greatest treasures of Byzantine manuscript production, it is of pivotal importance for the understanding of Byzantine art. Made for Abbot Michael of the Studios monastery, it is named after its scribe and illuminator, the monk Theodore who produced 435 marginal illustrations that act as a commentary on the text of the Psalms.





- Illuminated Gospels (Harley MS 1810). A late twelfth century gospel book which unusually integrates seventeen narrative images of the life of Christ and the saints into the Gospels. Whereas portraits of the evangelists became a traditional feature of copies of the Gospels in Greek, narrative images were much rarer.

- Dialogues of Lucian (Harley MS 5694). This early tenth century manuscript is the oldest surviving manuscript of the works of second-century author, Lucian. The text of the Dialogues is accompanied by marginal commentaries, or scholia, in the

Figure 2. Illuminated Gospels: BL, Harley MS 1810, f. 261v

hand of the first owner of the manuscript, Arethas of Patrae, Archbishop of Caesarea from 902. They illustrate the deep interest of a prominent Byzantine churchman in classical antiquity and its pagan literature.

- Babrius's fables (Add MS 22087). The discovery of this manuscript on Mount Athos in 1842 gave rise to the first edition of Babrius's fables in 1844 and this manuscript remains the principal source for this text. It contains 123 Aesopic fables and was corrected by the great Byzantine scholar, Demetrius Triclinius.
- Breviarium Historicum (Add MS 19390, ff. 24-55). A late ninth-century manuscript of the history of the Byzantine Empire from the death of the Emperor Maurice in 602 to 713, by Nicephorus, Patriarch of Constantinople. Only one other manuscript of this history survives in the Vatican Library. These two manuscripts preserve a very rare attempt by a Byzantine author to write what would be accepted as proper history.

Prior to digitisation, the 284 manuscripts selected for the project were carefully assessed by one of the Library's conservators and a detailed risk assessment was conducted. Owing to the rarity and fragility of the manuscripts, particular care was taken in the handling of the material for the project; additional training for staff involved was provided and improved digitisation cradles were created. This ensured that any risk of damage to the objects during the digitisation process was minimised. Additionally, following an initial condition assessment, twenty-seven of the manuscripts selected received further conservation treatment to ensure that they could be safely digitised. All the manuscripts were also examined by a conservator after digitisation as a final check on each volume.

Digitisation of the selected manuscripts began in the British Library's existing imaging studios in August 2009. Over the course of the following ten months, approximately 100.000 digital images were captured as the 284 manuscripts in the pilot project were digitised in full.

Prior to this project, the selected manuscripts were amongst the least accessible online of the Library's western manuscripts. 250 of the volumes were drawn from the Additional manuscripts collection. These manuscripts, acquired in the late eighteenth and nineteenth centuries, had very summary existing catalogue records which were not suitable for reuse as content metadata. In tandem with the digitisation process, new catalogue descriptions for these 250 Additional Manuscripts were researched and written by a cataloguer recruited to work on this project. Modern catalogue descriptions for the remaining 34 Harley Manuscripts included in the pilot project had been published in 1999 and so were suitable for re-use as metadata. A review process took place to ensure that audiences accessing the manuscripts on-line were provided with high-quality, accurate information in a standardised format for all the manuscripts selected. As well as serving as searchable content metadata for the Digitised Manuscripts project, the catalogue records are also being migrated into the British Library's new Integrated Archives and Manuscripts System which is in the process of unifying catalogues for archival and manuscript material from across the Library.

Work on the Web presentation began in January 2010. It employed an existing Web infrastructure used at the Library for previous digitisation projects. An example of this is the Renaissance Festival Books Website: http://www.bl.uk/treas-ures/festivalbooks/homepage.html. This infrastructure enabled the Library to mount images (in three sizes – thumbnail, page view, and enlarged view, together with a ruler for close examination of details of all pages) with descriptive page-level metadata.

A comprehensive search facility enables Website users to perform searches of metadata to retrieve relevant manuscripts. Importantly, searches can be conducted using both the Roman and Greek alphabets. In addition to a quick search option, users can refine their searches by using a date-slider or by specifying key-

words, manuscript number, title, author, scribe, provenance or bibliography. Users can also browse by manuscript number, author, scribe or title.

In the manuscript viewer, users can move sequentially through the pages of the manuscript or can choose to go to a particular page. Images may be viewed as single pages, as a two-page open book, or as the recto and verso of a single leaf, and all images can be zoomed for examination at a high degree of magnification. The project held two workshops, one in January 2010 for a group of academic researchers who all make extensive use of various types of Greek manuscripts in their work, and a second in May 2010 for an international group of digital humanities specialists. At the first workshop, the researchers attending reviewed several existing Websites which provide full digital coverage of medieval manuscripts to identify features that they found particularly helpful. This exercise provided valuable input into the design of the Digitised Manuscripts Website. Development of the functionality of the Website is on-going and we plan to incorporate feedback from the second workshop into the development of the site which in future will deliver a much wider range of manuscript material and allow greater user-interactivity.

The official launch of the Website took place on 26 September 2010 to coincide with the beginning of the new academic term. Press and publicity activity included global syndication of the story via Associated Press. The international media response to the launch was excellent, with over 250 articles reporting the launch of the resource and acknowledging the support of the Niarchos Foundation, within three days of the British Library's press announcement. In addition, the numerous international newspapers in North America and Australasia published stories about the resource.

In October 2010, both conservation assessments and digitisation started for the second phase of the Digitised Manuscripts project. Following the receipt of a second generous grant from the Stavros Niarchos Foundation, the Library will be able to add a further 250 Greek manuscripts to the Digitised Manuscripts Website by January 2012. Upon completion, the Library will have delivered full digitisation of over half of its collection of Greek manuscript books. In addition to this second Greek manuscripts project, the Library has also secured funding from an individual donor to allow us to digitise in full 140 medieval scientific and medical manuscripts. This project will begin early in 2011 and the content will be delivered on the Digitised Manuscripts Website in 2012. We hope to be able to offer an increasing number and range of manuscripts thereafter, subject to successful project fundraising.