Qatar National Library
DIGITIZATION SERVICES

For more information, please contact us at: qnlds@qnl.qa
A major strategic objective of Qatar National Library (QNL) is to preserve digitally rare Arab and Islamic heritage materials in order to increase the amount of Arabic content available online for the wider public to access. This objective is in alignment with part of QNL’s mission to preserve the nation’s heritage for the future generations, as well as Qatar Foundation’s wider efforts to preserve and promote Arabic language usage.

The Digitization Center is a state-of-the-art facility that digitizes content in all formats – either from QNL’s Heritage Library or acquired from other institutions - and makes it available online.

The Center’s work is aimed at enhancing the visibility, accessibility and usability of these unique materials, in accordance with international preservation guidelines and standards for access and long-term preservation.

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WHAT IS SPECIAL ABOUT THE QNL DIGITIZATION CENTER?

The Digitization Center team is highly qualified to handle projects from conception to completion, and it operates using continuous improvement methodologies to ensure an efficient operation that provides maximum value to the end user. The Center's core range of high-end digitization scanners guarantees the highest quality, with an ability to scan up to 600 dpi optical resolution and accommodate material sizes of up to A0. In addition to the fully equipped studio, the Center also offers bulk and special digitization for various materials.

GLOBAL BEST PRACTICE

The Digitization Center is designed in compliance with the International Digitization, Imaging and Graphic Processing Standards concerning temperature, lighting, vibration, humidity, alignment, spacing, and other technical requirements for graphics and digitization environments.

Best practices followed by the Center include:
- IFLA Guidelines for Digitization Projects
- Metamorfoze Preservation Imaging Guidelines
- ISO-3664 – viewing conditions for graphic technology and photography
- ISO-12646 – graphic technology, displays for color proofing, characteristics and viewing conditions
- FADGI – Technical Guidelines for Digitizing Cultural Heritage Materials
- FADGI – Audio Visual Working Group
The Center is divided into five sub-sections as below:

• Image Capturing
• Optical Character Recognition
• Audiovisual Digitization
• Image Enhancement
• Quality Control

The Center is also equipped with cutting-edge technology and software including:

• ICC Color-managed workflow to ensure color accuracy
• Lab and studio facilities with high-end digitization, scanning and photography equipment
• Advanced image enhancement software tools
• Text recognition for both Arabic and Latin text using Optical Character Recognition (OCR) technologies that enrich the digitized images by adding a content-search feature and allow the user to discover beyond the scanned images. Using Image on Text technique, the user will be able to access the highest possible image resolution and to search text inside it
• Cutting-edge imaging and lighting equipment for 3D imaging, allowing researchers to view objects in minute detail
The Digitization Center has defined the following objectives for digitizing the heritage materials:

• Increase and enhance the visibility, accessibility and usability of QNL’s collections, and those of other organizations, including unique and rare materials that meet research and educational needs
• Provide access to QNL collections that can no longer be physically available due to format obsolescence or fragile condition
• Encourage the creation of digital Arabic content
• Protect original materials by reducing frequent handling during reference use, and maintain long-term preservation of Arab and Islamic heritage and historical materials
The following services are available at the Digitization Center:

- **Bulk Digitization, Large Format Scanning, and Image Stitching**
  Digitization of massive collections, including documents in large formats.

- **Digitization Assessment**
  Evaluation of original materials, and the application of suitable image-capturing techniques.

- **On-Site Digitization**
  On-site digitization for rare and fragile materials, using a Traveler Copy Stand and special handler with integrated book cradle and lighting.

- **Digital Image Enhancement**
  Improvement of the quality of digital images to meet QNL’s digitization standard requirements for image enhancement.

- **Optical Character Recognition (OCR)**
  Optical Character Recognition for historical and modern texts in Arabic and Latin collections, which enables full content search by users. OCR is the process of converting the bitmap of a scanned page containing text-to-text codes (ASCII) in order to create a searchable digital book. QNL reaches 99 percent accuracy for Arabic content, and applies text enhancement and font classification.

- **3D Photography**
  3D photography in the digitization studio, providing a rich experience to viewers by delivering a high standard of virtual object viewing.

- **Long-Term Preservation**
  Long-term preservation with rigorous standards, built on tools to preserve and sustain digital file formats and ensure availability for future generations.

**DIGITIZATION SERVICES**

In addition to the digitization of QNL’s Heritage Library materials, the Digitization Center provides custom digitization projects for governmental institutions, private entities and the local community. The center offers the ability to digitize books, magazines, manuscripts, newspapers, maps, documents, artifacts (3D photography), photography collections (slides, negatives, and glass plates), and audiovisual collections.
The QNL Digital Repository is a homogenous ecosystem that acts as the home of all digitized and digital material produced by QNL and its partners. Its infrastructure is designed to conform to the OAIS Reference Model, and targets three major functions:

- Long-term preservation environment, independent of media type and storage medium
- One-stop platform to integrate, link and enrich the content
- User abstracted layout, equipping the end user with all the tools required to utilize and access the saved information

The Digital Repository offers millions of pages and items that are available to check, read, share, annotate, download and print. The repository presents each object with descriptive, technical and textual information that is easy to retrieve for the user.

Materials including ancient manuscripts and maps, original copies of Arabian Nights, newspapers, modern website archives, and research data sets are all one click away at:

http://ediscovery.qnl.qa
Sheikh Faisal Bin Qassim Al Thani Museum
QNL has signed a memorandum of understanding with Sheikh Faisal Bin Qassim Al Thani Museum to collaborate in various aspects, including a pilot project to digitize a number of the museum’s manuscripts.

The Doha Historical Dictionary of Arabic
QNL signed a memorandum of understanding with ‘The Doha Historical Dictionary of Arabic’ project, which includes a digitization project focused on providing support in the area of optical recognition of Arabic characters. This will help researchers working on the etymology and meaning of Arabic words.

Ottoman Archive Project
QNL acquired heritage documents related to the Gulf region from the Ottoman Archive. These documents have been processed, translated and cataloged, to be made available on the Library’s online platforms.

Qatar Music Academy
QNL is collaborating with Qatar Music Academy to archive folk musical instruments.

QNL Heritage Library’s Collection
QNL’s Heritage Library contains many remarkable items in various formats including manuscripts, rare books, periodicals, journals, newspapers, photographs, posters, maps, globes, a selection of early photography, and instruments and tools related to travel. The Heritage Library has an ongoing project to digitize all the materials not protected under copyright, and publish on the QNL website. The Digitization Center has so far digitized nearly two million pages from the Heritage Library.

Al-Shaqab Horses Collection
QNL received a large collection of Arabian horse-related imagery that originated with Mrs. Judith Forbis, owner of the Ansata Arabian Stud Farm in Arkansas, USA. The collection consists of photographs compiled in albums, as well as a collection of negatives, totaling nearly 40,000 items.

Museum of Islamic Art Library’s Collection
QNL has signed a memorandum of understanding with the Museum of Islamic Art (MIA) to collaborate on various initiatives, including a project that involves the digitizing of 55 items from among the rarest books and manuscripts at the museum.

QF/CMU Digitization Project
Qatar Foundation initiated and completed a pilot digitization project with Carnegie Mellon University in Qatar from August 2008 to July 2009 to digitize rare items in the Heritage Collection. The project digitized over one million pages of books, manuscripts, newspapers, magazines and maps about Qatar and the Arab and Islamic region.

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Qatar Traditional Architecture Photographic Collection
QNL has acquired 914 photographs that were taken by Vincent Alzograh as part of a French archeological expedition to Qatar in 1985. The mission was undertaken by French archeologist Claire Hardy-Guilbert, architect Vincent Defort and professional photographer Vincent Alzograh. Resulting from a cooperation between the Ministry of Transport and Communications and the French Ministry of Foreign Affairs, the mission was appointed to produce a comprehensive record of traditional nineteenth-century architecture including houses, mosques, warehouses and forts.
SAMPLES FROM OUR PROJECTS

Photo from QNL’s Images Collection

Manuscript from Museum of Islamic Art Library’s Collection

Photo from Qatar Traditional Architecture Photographic Collection

Paint from Al Shaqab Collection

Photo from QNL’s Images Collection

Photo from QNL’s Images Collection

Photo from QNL’s Images Collection

Photo from QNL’s Images Collection

Map from Ottoman Archive Project

Photo from Al Shaqab Horses Collection

Photo from Al Shaqab Horses Collection

Photo that is 200 cm wide from QNL’s rare collection - Atlas des voyages D’Ali Bey