

Preservation and digitalization of materials for conflict areas: a case study on Lebanese maps in the period around independence

Institute of Developing Economies Library

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An Overview of the IDE Library

- IDE Library (est. 1960)
- Specialized research library on developing regions
- Key holdings:
 - Local language materials
 - Official gazettes
 - Statistical publications
- Collection focus
 - Difficult-to-access materials
 - Long-term preservation risk

IDE Library Digital Archive

- Initiated in the early 2000s
- Two main objectives:
 - Promoting wider use of valuable materials
 - Ensuring long-term preservation
- Focus to date:
 - Historical materials related to Japan's former colonies



Project Overview

- Part of IDE Library's digital archive initiatives
- Distinctive focus
 - **Case study on preservation and access in conflict-affected regions**
 - First map digitization project at IDE Library
 - **Pilot project for map-based digital archives**

Project Team

Area / subject librarians (MENA)

- Rie Takahashi (Chief Librarian)
- Yuta Hayashi, Miki Nose
- Knowledge of materials and regional context

Systems librarian

- Michitaka Imamitsu
- Access design and technical implementation
- Sustainability of the archive

Collaboration enables:

- **Active and meaningful use of materials**
- **Long-term sustainability of access**

Why Lebanese maps?

- Chronic political instability since the 1970s
- Prolonged disruption of national preservation frameworks
- In conflict-affected regions:
 - Risks of physical destruction of cultural heritage
 - Severe restrictions on access to surviving materials

IDE Library's contribution

Critical role of libraries outside the country

- **Safeguarding materials**
- **Ensuring continued access**
- Preservation of historical materials
- Support for related research by:
 - Consolidating information on dispersed collections
 - Providing free and open access
 - Facilitating scholarly use

Characteristics of the Digitized Maps

- Approx. 100 map sheets digitized
 - Produced mainly by Lebanese government bodies (e.g. Ministère de la Défense Nationale)
 - Chronological focus:
 - post-1946: After the withdrawal of French forces
- = Produced by Lebanon as a sovereign state

Digitization policy

Principle: preserve maps as single-sheet materials

- Maps up to approximately A1 size (841 × 594 mm)
→ captured in a single shot whenever possible
- When division was unavoidable:
 - Images captured with overlapping areas
 - Additional stitched composite image created

Technical specification for usability

- Optical resolution: 400 dpi
→ sufficient legibility with manageable data size

Outcome

- Preserves the integrity of maps as single-sheet materials
- Maintains usability in a digital environment



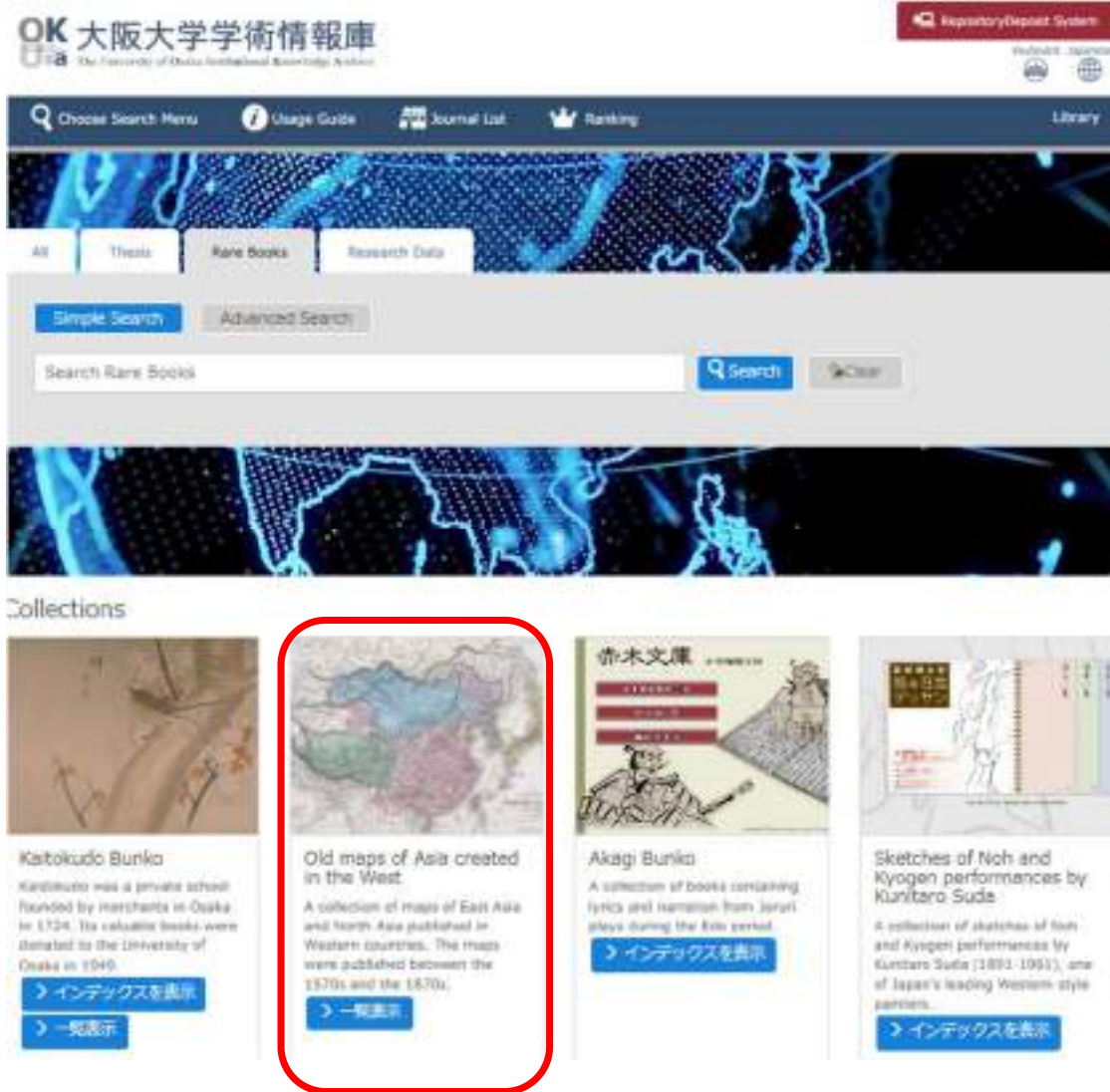
Map Digital Archives in Japan – Overview

- Most Japanese archives digitize maps as part of broader initiatives to make rare materials public
- Geographical focus: Japan / East Asia
- Few archives target Middle East or North Africa

Map Digital Archives in Japan – Overview

- Example 1:
- Old Maps of Asia created in the West (Osaka University)
 - Approx. 100 European-produced maps of East Asia (16th–19th century)
 - IIF-compliant
 - Hosted in the institutional repository (OKURA)
 - **cross-searchable with publications**

<https://ir.library.osaka-u.ac.jp/repo/ouka/rare/?lang=1>



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List Page: https://ir.library.osaka-u.ac.jp/repo/ouka/rare/search/200210/?lang=1&cate_schema=2000&mode=0

The screenshot shows the OKUA website interface. At the top, there is a navigation bar with 'OK 大阪大学学術情報庫' and 'Uria The University of Osaka's Institutional Knowledge Archive'. Below this is a search bar with 'Search Rare Books' and a 'Search' button. The main content area displays a list of search results for 'Rare Books'. The first result is 'Amida and Confutius. Engraved for Portlock's New Collection of Voyages & Travels.' with ID: 09133. The second result is 'Amida, a Deity of Japan. Engraved for Portlock's New Collection of Voyages & Travels.' with ID: 09134. The third result is 'J. Gibson: Asia' with ID: 09135. Each result includes a thumbnail image and a link to 'Images in Item'. The left sidebar shows filtering options for 'Material type', 'Year', 'Author', and 'Publisher'.

Map Digital Archives in Japan – Overview

- Example 2:
- Gaihozu Digital Archive (Tohoku University)
 - 12,000+ maps (Asia-Pacific, 19th–20th c.) by the former Japanese military
 - Limited Middle East/North Africa coverage
 - **Distinctive geographic-based exploration interface**

<https://gaihozu-tohokugeo.hub.arcgis.com/>



Search by Map: <https://gaihozu-tohokugeo.hub.arcgis.com/pages/search-by-map>

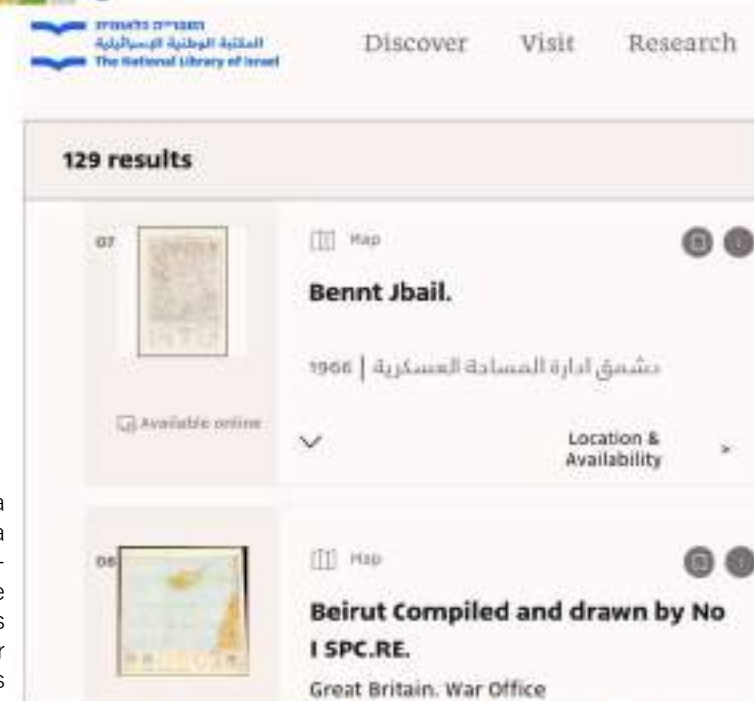
Existing Lebanon-Related Map Archives

- A certain number of the maps available online from **the West / Middle East**
- Two key review points:
 - Chronological bias in publicly available maps
 - Inconsistent image-sharing standards

Chronological Bias in Lebanon Maps

- Gallica & National Library of Israel
 - 100+ maps each
 - Focus on Ottoman & French Mandate periods
 - Few post-mandate maps (1946+)**
 - 2/119 in Gallica; 26/129 in NLI both online available
- Copyright factor:
 - Different national laws
 - risk assessment for global publication
 - Recent maps remain unpublished

[https://gallica.bnf.fr/services/engine/search/sru??operation=searchRetrieve&exactSearch=false&collapsing=true&version=1.2&query=gallica%20all%20%22Liban%22%20and%20\(dc.type%20all%20%22carte%22\)&suggest=10&keywords=](https://gallica.bnf.fr/services/engine/search/sru??operation=searchRetrieve&exactSearch=false&collapsing=true&version=1.2&query=gallica%20all%20%22Liban%22%20and%20(dc.type%20all%20%22carte%22)&suggest=10&keywords=)



https://www.nli.org.il/en/search?projectName=NLI#&q=any,contains,Lebanon%20--%20Maps&bulkSize=30&index=0&sort=date&multiFacets=facet_t_level,include,online_resources,1&t=allresults

Broader Coverage, Limited Standards

- National Library of Australia:
 - 160+ maps
 - Many post-1946
 - Browsed in proprietary viewer
- Perry-Castañeda Library (University of Texas):
 - Later period maps
 - Produced by mostly U.S. military/CIA
 - Distributed as JPEG/PDF
- **Challenge:**
 - **Lack of IIIF** → aggregation and outreach difficult

Lebanon
 Creator: United States, Central Intelligence Agency
 Call Number: MAP 67470 1983
 Created/Published: [Washington, D.C.?: Central Intelligence Agency, 1983?]
 Extent: 1 map : col. ; 104 x 74 cm.
[View Catalogue](#)

The University of Texas at Austin
 University of Texas Libraries

PERMITS, BORROW, REQUEST RESEARCH HELP & SUPPORT STUDY SPACES & TECHNOLOGY ABOUT THE LIBRARIES

Castañeda Library (PCL) Map Collection website is archived as of 2021 and is no longer being updated. Links to external sites may no longer work as expected. Please visit the [Home](#) [GeoData](#) [portal](#) and [portal](#) for map files and the [UTL Map Collections LibGuide](#) for additional information.

**Perry-Castañeda Library
 Map Collection
 Lebanon Maps**

The following maps were produced by the U.S. Central Intelligence Agency, unless otherwise indicated.

Country Maps

- Lebanon (Physiography) 2902 (1 6M9) and pdf format (1 3M8)
- Lebanon (Political) 2082 (289K) and pdf format (2 9K)
- Lebanon (Political) 2080 (235K)
- Lebanon (Shaded Relief) 2902 (151K) and pdf format (20K)
- Lebanon (Shaded Relief) 2900 (28K)

Fragmentation & Value of Aggregation

- Lebanon maps scattered across countries & institutions
- Accessibility affected by publication methods
 - - Digitizing fragmentary holdings into one platform increases research value
 - **IIF**: Technical foundation for interoperability & broader access
- **Usability issue: One sheet per page**
 - - Multi-sheet series navigation cumbersome
 - Series as single unit ideal
 - IIF allows embedding multiple viewers and series-level organization



Metadata Design

- References:
 - Old Maps Online
 - Japan Search
(aggregates library, museum, archive records in Japan)
- **Geographic coordinates** of map corners recorded
no strict georeferencing
- Enhances **discoverability** within Japan:
NACSIS-CAT records with image URIs
- Records exportable in MARC21/JSON for wider circulation



<https://www.oldmapsonline.org/en>

DEMO here!



<https://jpsearch.go.jp/>
<https://ci.nii.ac.jp/books/?l=en>



Public User Interface

- All images **IIF-compliant** → external reuse
- Pages **organized at series level**
 - Series coverage shown on modern map
 - Jump from map to individual sheets
- Sheet view: IIF viewer + modern map
 - Via Leaflet, an open-source library for interactive maps
- Layout: Side-by-side for clarity vs. overlay approach



IDE-JETRO 国際文化情報センター (ICIC) 電子化地図データベース / Map Digital Archive [Help](#) [About](#)

Carte du Liban. 1:10000

概要 / Overview

DetailID	1	LIME10	933114
標準記号	169.3-B-5	地図名	Carte du Liban. 1:10000
Call Number		Map Title	
発行者	Direction des Affaires géographiques	URL	1:10,000
Publisher		Size	
地図サイズ	4枚 (K(1:50,000) + 3枚(1:10,000)) (only around Beirut)	IIF manifest.json	http://s-arch.ide.go.jp/dmap/1/manifest.json
Scale			

詳細 / Details

Scrubbed View



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詳細 / Details

Beyrouth Ville

DataID	1	LENERID	033115
識別記号	569.3-BL-5-1W	詳細地図No.	NW
Call Number	Beyrouth Ville	Detail Number	
地図名	[Lebanon], Direction des Affaires géographiques	制作元/機関	
Map Title		Creator	[Lebanon], Direction des Affaires géographiques
発行元		発行地	Beyrouth
Publisher		Publication Place	
発行年	[1964]	複製対象年	[1962?]
Publication year		Creation year	
縮尺	1:10,000	地図サイズ	70*90
Scale		緯度(北緯)	33°55
経度(西経)	35°27	緯度(北緯)	Latitude(N)
Longitude(W)		緯度(南緯)	Latitude(S)
経度(東経)	35°32	刊行禁止(Publication interdite)の有無	無
Longitude(E)		Publication Interdite	No
言語	fr	受入日	1972/11/30
Language		Receipt Date	
機密 (Secret) 表示ID	無	その他備考	مسكحة تجرة ID: O
機密	No	Note	مسكحة تجرة Stamp
Confidential		URL	https://e-arch.ide.ga.jp/dmap/1/1/info.json
複製禁止	無	IIF info.json	
Copy Interdite	No		
IIF info.json	https://e-arch.ide.ga.jp/dmap/1/1/info.json	IIF manifest.json	https://e-arch.ide.ga.jp/dmap/1/1/manifest.json

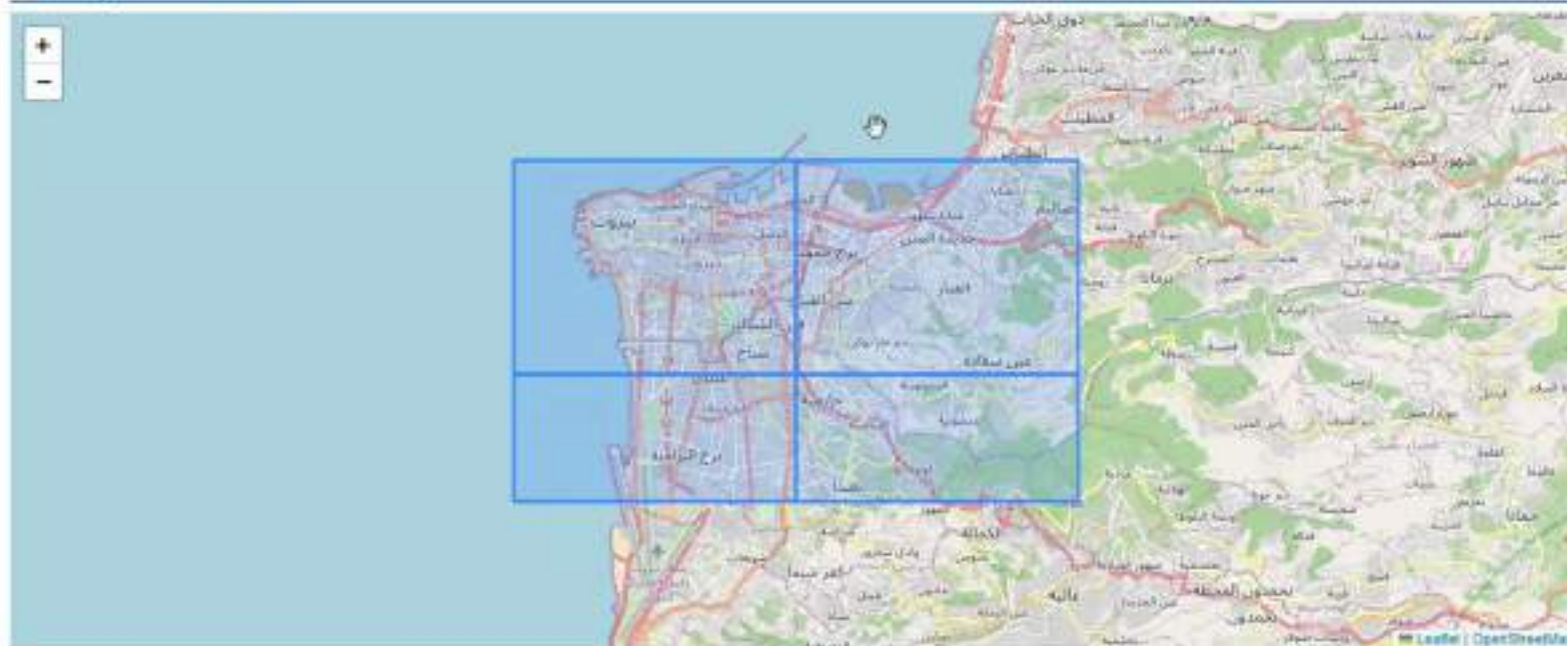


Update Plan & Automation

- Pilot for approx. 60,000 IDE maps
- Web catalog exists, but unstructured
- Metadata as master data
 - automated:
 - Content addition & updates
 - Page generation
 - Geographic visualization

Carte du Liban. 1:10000

概要 / Overview



DataID	0
請求記号	569.3-BL-5
Call Number	
発行者	le Service Géographique des F.F.L.
Publisher	
地図サイズ	4sh (ベイルート地域のみ) (only around Beirut)
Scale	

LIMEBIB	933114
地図名	Carte du Liban. 1:10000.
Map Title	
縮尺	1:10,000
Size	
IIIF manifest.json	https://d-arch.ide.go.jp/dmap/1/manifest.json



DEMO here!



Future Work

- Initial archive launch: April 2026
- Next releases: +2,000 maps from Middle East & North Africa
- **Key challenge:**
 - workflow enabling bibliographic cataloging
 - publication-oriented metadata
- **External collaboration:**
 - Platforms: Japan Search, Old Maps Online
 - Balance cost & practical benefits
 - External linkage is means, not end



Research Outcomes & Local Collaboration

- Goal: share research outcomes from Middle Eastern maps with local communities
- Requires direct research exchange with local institutions
- Benefits:
 - Enriches contextual understanding
 - Supports rights clearance for related map publications
- **IIF role:**
 - Lowers barriers to external linkage
 - Enables curation & recombination for research exchange
- **Archive as both publication platform & scholarly collaboration infrastructure**