

CALD

Comparing Arabic Legal Documents: a database



How to use the CALD database

by Christian Müller



The database CALD provides a new approach to the study of legal documents in Islam. It was developed by the ERC-AdG-project Islamic Law Materialized (ILM). Its purpose is to study how the rules of Muslim legal thinking (*fiqh*) became “applied law”, as its rulings “materialized” in the documentary relics of judicial practice. A particular attention is paid on documents that bear signs of use from the *cadi*-courts of law. CALD contains the meta-data and full Arabic texts, next to images of the originals, of documents from the 7th to the 16th century C.E. from all over the Muslim world. It allows a search for legal concepts and formula, in combination with a typology of documents and their dates.

CALD's typology uses the function of documents as analytical approach. This may not be obvious from the outset and does not correspond to the titles given in printed text editions. You can find a document-type by its description and by a number, which fall into four parts, a frame, legal content, circumstances, and judicial certification. For more details and ongoing modifications on this, see "What's new" on the website. Document typology and the identification of textual “sequences” within documents as well as the attribution of “sequence numbers” (SQN) for particular elements are the result of an ongoing research on the structure of these texts - and should be treated as such. CALD provides a hitherto unknown method of analysing legal documents. Its publication online is considered as one of the biggest achievements of the ILM project and makes CALD one of the most powerful tools of work on legal documents.

CALD describes each document by meta-data of 1) its physical support (manuscript-level) and 2) its notarized texts (item-level). The full Arabic text is divided into different relevant sequences (Arabic text-level). The complete Arabic text of an item forms the sequence-unity “complete text”, other partial regroupings are possible.

The following details technical aspects about how to use CALD for research.

Approaching legal documents in 11 steps:

Discover a document in CALD (step 1) and how to search for it as an object or by its Arabic text (steps 2-4) with the help of structured references (step 5). Go further with a login-account (step 6) in order to see the images (step 7), to save your personal research parameters (step 8) and your results with adapted export options (step 9), or to study document groups as a *freaky*lining up of abstract numbers (step 10). Finally, step 11 explains technical choices on how to label documents, Arabic spelling conventions and document’s typology.

Step (1) What is a “legal document” in CALD?

As an example, the following screen shot shows the meta-data of the document Berlin, papyrus No 7514, here referred to with its “short inventory number” Ber_7514 (On this approach to cite documents see below, step 11: further explanations). The left blue box with several elements leads to the “manuscript description” – with information on “textual item” on the right side, especially its typology and date. For more details on this textual item you click on the icon with the magnifying glass and pencil (“details”).

Manuscript: elements

* General : Inventory number : **Ber_7514**

* Descriptors :

* Items : **Inventory number :** Ber_7514

* Images :

Bibliography :

Groups :

* Publication :

Typology : goods: obligation (dlkr h̄aqq) (403487)

Hegira date : 6/264

Gregorian date : Between 8/2/878 and 7/3/878

Incipit :

[Arabic text](#) [Sequence unities \(SU\)](#)

The click on “Arabic text” brings you to the document’s text.

Inventory number Ber_7514
Item typology goods: obligation (dlkr h̄aqq) (403487)

[Arabic text layout](#) [Show Arabic text history](#)

SQN position	SQN definition
001	010
003	300
110	110
110	210
120	110
110	213
140	188
140	204
140	241
311	075
311	077
311	078
311	076
312	075
312	077
312	075
313	077
313	075
313	078
300	090
300	031

بسم الله الرحمن الرحيم
ذُكر حق
جعفر بن أحمد بن عبد المؤمن
على
علي بن محمد
له عليه ستة أخياش قوص
طول كل خيشة ثمانية ونصف في عرض خمسة أشبار تام
يدفع إليه في كل شهر ثلثة أخياش
وأول شهره لعشرين يوما مضين من أمشير من أشهر العجم من سنة أربع و
شهد
محمد بن كامل الخولاني
وكتب شهادته بخطه
في جمادى الآخر من سنة أربع وستين ومائتين
شهد
علان بن الحسن
بجميع ما في هذا الكتاب و
الحسين بن محمد بن عبد الله بن المسكن
أشهد ألا إله إلا الله الحق المبين وعلى إقرار علي بن محمد بجميع ما في هذا
وكتب بخطه
وذلك في
جمادى الآخر سنة أربع وستين ومائتين

The text reads from top to the end, split into meaningful sequences labelled by numbers (SQN-definition and SQN-position, see step 5 “Reference tables”)

Step (2) Search for documents or Arabic text:

CALD offers two query-forms
1) Search via meta-data (dates, type of notarization, etc.) gives a list of documents and its items (see Step 3)

Search

[Search manuscript or textual item](#)

[Search Arabic text or sequence unities](#)

2) Search for Arabic texts and its components provides the Arabic text directly (see Step 4)

With these forms, you can query for

- meta-data
- Arabic words or expressions
- specific parts of a document (via SU or “sequence unities”)
- limit your search to various parameters, i.e. a time-period, types of documents, manuscript collections, etc.

Search forms combine criteria for advanced search options. Whatever forms you may use, the results will always link to the Arabic text and meta-data of your results.

Step (3) Search for manuscripts or textual items: meta-data

The click on “Search manuscript or textual item” on meta-data displays the interface below. You can search several fields combined with others. There is no option “or”.

Search manuscript or textual item

Object	Descriptor	Value
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Item typology

Date between and

Inventory number (short)

Institution

Collection

Manuscript width between and cm

Manuscript height between and cm

Item locus

Manuscript contents

Author name

Author name

Article / book title

Bibliographic reference type

Object/Descriptor/Value: this search concerns additional information, so called “descriptors”, searchable with “Object”, on two levels, “Manuscript” and “Manuscript’s item”.

In a second section, you can also search other specificities, according to “Item typology”, dates, Inventory numbers, etc.

In Bibliography you can search documents according to the study where it was published.

The results appear in a list of documents:

[Back to main page](#)
[Free account creation](#)
[Back to previous search](#)

Manuscript and textual item search results

Search criteria

Object type Descriptor Value
Manuscript material parchment


Date : between 400 and 800

Number of results (manuscript) : 17
Number of results (manuscript's item) : 22
[Create an account to export these manuscripts](#)

Inv. number short	Date	Typology
Ber_8168	5/417	(423126) real estate: sale
CaIn_122	3/429	(42312601) real estate building (house, shop...): sale
CaInr_1797	recto 1/8/434	(42312601) real estate building (house, shop...): sale
CaInr_1864	recto 9/441	(42312601) real estate building (house, shop...): sale
CaMTa_38_81	11/449	(41327) money: debt (iqār)
JaIM_13_045	1 recto Between 450 and 494	(42712) marriage contract
CaIn_123	2/450	(42312601) real estate building (house, shop...): sale
Lonbo_4684-13	1 15/5/452	(42712) marriage contract
Lonbo_4684-13	2 verso 5/457	(417441) divorce (talāq), by husband (iqār)
CaMTa_38_56	1 9/495	(419436) litigation (adāra: settlement (ihkād)
CaMTa_53_68	Between 500 and 600	(423126) real estate: sale
CaMTa_38_80	4/519	(41871) debt (dayn, fi dhimma) (iqār-ihkād)
JaIM_13_034	1 verso 4/5/582	(413286) money owed: reception (ṣabb) - iqār
JaIM_833	1 recto 25/3/747	(42361) wool: making of
JaIM_726	1 30/1/758	(42312603) real estate: sale of plantation (ḡrāḡ)
JaIM_020	5/2/768	(42361) wool: making of
JaIM_047	1 recto 6/11/770	(42712) marriage contract

In this example, 17 parchments (manuscripts) contain 22 documents (textual items).

The results (headed in the grey line) could be organized by “Inv_number_short”, date and by type of the document (from left to right).

Use the green arrows in the grey headline for changing the order. A click on the icon  next to Inv_number_short brings you to the “Manuscript”, a click on the same icon on the right side (next to Typology) opens up the “Textual Item”, and with the “نص” (in blue), you switch to the “Arabic text” (Step 1).

The Manuscript Search screen is an easy way to work with several documents at the same time, and you do not need to search for them individually.

Step (4) Search of a text in Arabic:

The form “Search Arabic text” opens as follows:

Arabic text search

SQN pos.	SQN def.	Arabic text
<input type="text"/>	<input type="text"/>	<input style="width: 100%;" type="text"/>
Item typology <input type="text"/>		
Date between <input type="text"/> and <input type="text"/>		
Inventory number (short) <input type="text"/>		
SU (designation) <input type="text"/>		
SU group <input type="text"/>		
SU-typology <input type="text"/>		
Arabic text group <input type="text"/>		
Arabic text - comment <input type="text"/>		
Object	Descriptor	Value
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
Bibliography		
Author name <input type="text"/>		
Article / book title <input type="text"/>		
Bibliographic reference type <input type="text"/>		
<input type="button" value="Search"/>		<input type="button" value="Reset"/>

Arabic text -input here

Three sections, marked by a horizontal grey bar, divide this screen:

1. Section on the Arabic text. By this, you can directly search for Arabic terms and/or sentences in Arabic characters, combined, when you need it, with SQN-positions and SQN-definitions.

Without the help of a key word in Arabic, you can also search for textual items by different aspects as Item typology (see step 12: typology), date and inventory number. The following criteria on SU (sequence unities that combine various text sequences) groups of Arabic texts and the comment on Arabic text are rarely informed. “Arabic text – comment” mainly refers to data from paper editions, to

either variations or signs of a papyrological edition that indicate additions, holes or scribal errors.

2. Section (Object/Descriptor/Value): combines descriptors of the four levels: Arabic text or SUs, manuscript and textual item levels.

3. Section (Bibliography): renders all occurrences linked to the specified book or article. You may choose among various categories of bibliographical references.

Search results appear as follows (with the Arabic term highlighted in yellow):

[Back to main-page](#)
[New account creation](#)
[Back to previous search](#)

Arabic text search results

Search criteria

Arabic text : *معرفة*
 Date : between 400 and 700

Number of results : 8 (in 7 items)

[Create an account to export these manuscripts](#)

Ref.	Date	نص	SQL pos.	SQL def.	Typo.	Arabic text
CaiInt_1864	441	نص	140	355	42312601	وذلك بعد معرفة منهما لما تبايعا عليه وتقلب منهما جميعه وإنفاذ منهما له
CaiInt_1864	441	نص	300	094	42312601	بعد أن قرئ عليهما فأقرا بفهمه ومعرفة جميعه
CaiIN_145	461	نص	300	094	42712	بعد أن قرئ عليهم فأقروا بفهمه <و> بمعرفة جميعه
VieAc_28011	461	نص	300	094	45714	بعد أن قرئ عليهما فأقرا بفهمه ومعرفة جميعه
IstM_13_034 / 1	582	نص	110	475	413286	وقد عرفوها معرفة صحيحة جامعة بعينها واسمها
VieAc_12446 / 1	639	نص	100	473	44713	معرفة صحيحة
CaiInt_1735_3 / 1	641	نص	130	473	44713	معرفة صحيحة شرعية
CaiInt_1735_5	643	نص	110	473	44713	معرفة صحيحة تامة نفسها واسمها ونسبها

Again in this search, with “نص” you might switch to the full Arabic text of the document (Step 1).

Step (5) Reference tables

The lists called “Reference tables” help you for defining your search, according to values already defined in the database by the collaborators of ILM.

It is recommendable to look through these lists in order to have an idea of the possibilities of CALD. You may access the reference tables, after having opened the query-form by clicking on “Back to search menu” that will bring you to a search menu with the two forms and a third entry “Reference tables”.

Menu

[Search manuscript or textual item](#)

[Search Arabic text or sequence unities](#)

[Reference tables](#)

Reference tables - Main menu

Descriptors	Item typologies
Institutions	SQL definitions
Collections	SQL positions

Reference tables in CALD are always a work in progress and therefore may change and expand. See the webpage for major developments.

Step (6) Create an account and log-in (for Steps 7 to 10)

A CALD-account opens up several possibilities: access to images (Step 7), saving research parameters (Step 8), export results (Step 9) and SQN-analysis of documents (Step 10). All you need is to give your name and internet address. This is necessary for legal reasons but will never be used for commercial or data processing purposes.

[Back to main menu](#)

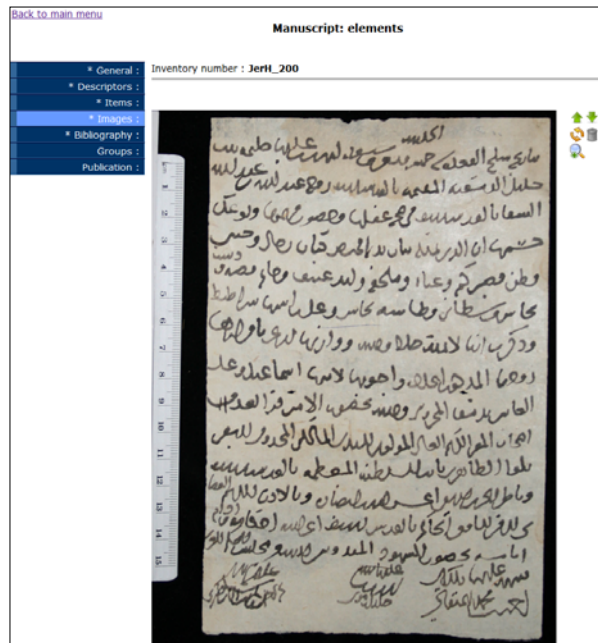
New account creation

Name :	<input type="text"/>
Firstname :	<input type="text"/>
Email :	<input type="text"/>
New password :	<input type="password"/>
Confirm password :	<input type="password"/>

Step (7) Access to images

The images of the documents in CALD are located at the level of manuscripts and you can access them from the blue box at the left (see step 1) -uploaded images are marked by an asterisk.

Once the image shows up, you may click on the magnifying glass (at the right) to zoom in or out -a new window will pop up and, therefore, you can easily juxtapose the edited Arabic text and its manuscript image in two windows.



Step (8) Save your research parameters for future use

As logged-in user, you might save the searched parameters of your previous work in CALD. For the same query, you only have to choose from the list of the drop-down menu (see below). You may rename the query or modify the order of the list by a click on "Saved searches".

[Back to main menu](#)

Menu

- [Search manuscript or textual item](#)
- [Search Arabic text or sequence unities](#)
- [Reference tables](#)

Choose

[Saved searches](#)

This feature will be only for your individual CALD-account.

Step (9) Export your search results

As a logged-in user, the head of your search-result-form will look as follows:

Manuscript and textual item search results

Search criteria

Item typology : (423126) real estate: sale

Number of results (manuscript) : 32

Number of results (manuscript's item) : 33

Save this search under this name :

[Export these manuscripts](#)
[SQN sequences analysis](#)

Inv. number short	Date	Typology
★	★	★

If you click on “Export these manuscripts” and you can transform the results of any search into a simple-text format.

Export options

With :

Click on the options you would prefer for your export:

- inventory number
- inventory number (short)
- institution (Library/Museum)
- collection

- publication notice
- contributors

- Arabic text
- Arabic text comment
- Arabic text glossary
- Arabic text descriptors
- SQN explanations
- images
- images uploaded (yes/no)
- document dimension (width - height)
- descriptors
- keywords (publication)

- item typology
- hijri-date
- gregorian-date
- locus (of item)
- bibliography
- all other SUs
- SU descriptors

- incipit
- text layout
- ms_content (commentary)
- item_content (Arabic text)
- groups
- search criteria

[Export all manuscripts](#)

Step (10) SQN-analysis of a search result:

As a logged-in user, you might also find the “SQN sequences analysis” the head of your search-result-form. Use the SQN-analysis for in-depth comparison of document groups. SQN-analysis displays the documents by their SQN-number independently from the Arabic phraseology. This abstraction allows for discerning structure-patterns in documents’ sub-groups.

the inventory number; additions should be shortened as much as possible. By adopting this shortened way of annotation, the SIN usually does not exceed 6-10 letters and can easily be cited (for abbreviations used for places, institutions and collections, see Reference tables).

- Arabic spelling conventions (Arabic text)¹

CALD aims to produce comparable text units, not to reproduce of the exact aspect of the handwriting as in papyrological editions (being eventually referred to in the field of Arabic text “comment”). Therefore, the following conventions apply for “Arabic text”:

- “yā” is written with punctuation,
- “hamza” is given according to modern spelling (نايب and not نايب; شئ and not شئ; مائة and not مائة; شئ \ شئ)
- proper names with diacritical signs in the documents may be reproduced as such, otherwise no short vowels are used. Regarding personal names as إبراهيم, we write them as such, without alifs but only with hamza under alif.
- Similarly, the names of Arabic and Coptic months (شعبان جمادى) and numbers like : سبعمائة/سبعمائة ثمانين/ثمانين مائتان/مئتين, ثلاثين/ثلاثين we write them as such, so without alifs if the text does not write the alif.
- the common spelling for Ibrāhīm is ابراهيم and not ابرهيم.
- Arabic words with uncertain reading are followed by [ʔ]. In order to reproduce the *rasm* as accurately as possible without proposing a definitely wrong word – without reasonable reading – we sometimes, but rarely, use letters without dots, like ب, ق, ف, ر.

- Typology

Document typology is an important criterion in CALD. According to the overall research question of the ILM-project “how do legal documents reflect the praxis of Islamic law (*fiqh*)”, we sharpen the definition of a “legal document” as being distinct from “documents with a legal content” in a wider sense, like administrative decrees or receipts, containing tax payments – even the Islamic tax *zakāt*, etc. The CALD corpus substantiates that subjective rights of individuals were notarized in Islam since early on in the presence of witnesses – informal notes on debts excluded. Witness attestation, the requirement of legal evidence in Islamic law, thus emerged as a major indicator of a legally valid document. All “legal documents” therefore should bear witness attestations or refer to an attestation, with some specific exceptions. The search of an item-typology could be done following the brief descriptions we gave to each category in the typology list (see reference table “Item typologies”). But the search might be better by using the numbers given to each type. These numbers are mainly divided in three parts (see table in “What's new” on the webpage):

First part:

- The first two digits show the functional or formal frame given for the document.

Second part:

- The third and fourth digits reflect the basic subject matters dealt with in the documents.

¹ 3rd ILM-workshop Madrid 2011, modifies discussion at the 2nd workshop, Dec 2010.

- Some specific subjects need a subdivision (fifth and sixth digits) for reflecting analytical transversal legal aspects.

Third part:

- The seventh and eighth digits of the type show, only when present in the document, judicial certifications and further legal proceedings.

Forth part:

- Exceptionally, ninth and higher digits indicate further legal specificities.

Several examples will give a better sense:

For example, the sale of Real Estate has the typology-number 423126. The first two digits, 42..... point to the form of the document as narrative of a legal action, ...31... point to the content as being a Real Estate and the final26 reflects the fact that this is a contract between two parties (2), The number 26 is given to a sale form. Another example might be also useful. A legacy has the typology-number 42351. Again, the first two digits show the narrative of a legal action, however ...35. in the third and forth digits reflect an aspect of property being transferred after death (heritage) and, finally, the fifth digit refers to a unilateral action.

Extended search possibilities (wildcards):

In general, you may use the underscore (_) as a wildcard to replace one number also in the middle of a typology, i.e. 4_35 for all types of documents concerning heritage (its perspicacity depends on nomenclature of typology).

*0: only types with a zero at the end are included in the search (that is all fragmentary documents). The same is possible for *1, *2, etc.

_ (underscore) represents any number (0-9)

You may combine "underscore" with "asterisk":

*__0 (asterisk, two underscores and zero): this will give you all documents with **three numbers** and zero at the end, i.e. 410, 480, 920, but 00 or 40730 will be excluded.

*___0 (asterisk, three underscores and zero) will choose all **four number** types, etc.

The operator exclamation mark "!" creates the negation of a typology.

In order to find all texts that are not Arabic legal documents (starting with 4), the search criteria is "4!" – with the exclamation mark excluding all 4 and its sub-categories.

In order to restrict the search to one type, it is possible to add a hash mark at the end of the number, so that, for example, 45924# will only give the "court case: šahāda (Andalus)" and exclude documents on court cases with additional legal certifications that are expressed in additional digits (e.g. 4592406 "court case: record, *cadi ħukm* authentication").

In order to find all contracts of sale, for example, you may use 4__26 and you get sales of real estate (423126), sales of animals (423426) - also non-attested ones (403426), or those real estate-sales that were notarized in a *cadi* court of law (453126), etc. Concerning the latter, if you only search for the *ħuġġa*-documents, use the hash mark # (453126#) that excludes other forms of judicial certification.

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