

1. Advanced search

1.1. Introduction and mode of operation

1.1.1.Introduction

The advanced search allows the user to carry out queries that are more complex than with the guided search. There are more search criteria available. The user constructs his/her query by adding as many criteria as he/she wishes.

1.1.2. Mode of operation

The user must **indicate the type of results** that he/she is looking for by selecting the category that matches their query. The criteria are therefore only applied to the category selected and the results are **restricted by this first choice**. The possible choices are Source / Testimony / Element (*infra* 3.1.3).

Then, the user must choose or add (*infra* 3.1.3, no. 1) a search criterion from a list of possible options and confirm it (2). The interface will then load the values that match the criteria; this may take a few seconds and a black circle may appear to indicate that it is loading (3). The user can then enter one or several value(s) for this criterion (4). The interface makes it possible to add new criteria or to delete existing ones. The *Clear* button erases all of the criteria that have already been chosen.

The search works using SQL language, the criteria are combined with "AND" and "OR". Between two conditions, "AND" makes it necessary for both of them to be true whereas "OR" requires a minimum of one to be true in order to provide a result.

Therefore:

• Between each criterion, the operator is "AND",

E.g.: if the user enters in *Name(s)*: "Zeus" and, in *Language(s)*: "Greek", the results must contain "Zeus" AND be in the Greek language.

• Between each value, the operator is "OR",

E.g.: if the user enters in *Name(s)*: "Tanit; Astarte", the results shown will contain "Tanit" OR "Astarte".

• Require all turns the operator into "AND".

E.g.: if the user enters in *Name(s)*: "Tanit; Astarte", and selects *Require all*, the results shown will contain "Tanit" AND "Astarte".

The advanced search allows the user to add the same criterion several times, therefore modifying the operator between the fields where this criterion is identical. This feature allows the user to combine different conditions for the same criterion. **Between two identical criteria**,









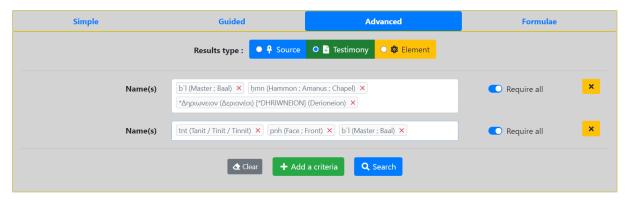


the operator is "OR". The operator between values of the same criteria remains unchanged ("OR").

Therefore:

- *Name(s):* "Baal, Hammon"; require all;
- *Name(s):* "Tanit, Face, Baal"; require all;

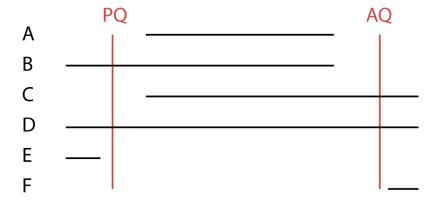
Is translated in SQL by the condition: (Baal AND Hammon) **OR** (Tanit AND Face AND Baal).



For the dating criteria, once the user has chosen the chronological interval, the *Strict* button means that the *post quem* and *ante quem* values must strictly be between the two limits that he/she has chosen. The user can only indicate one single chronological extreme.

E.g.: the red *post quem* (PQ) and *ante quem* (AQ) limits are the values chosen by the user. The possible records, numbered from A to F, are shown on a timeline with their dating interval.

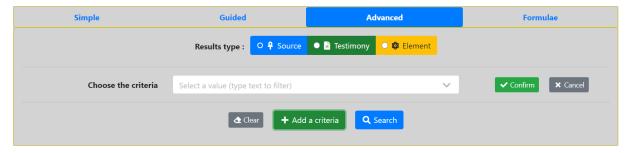
- With PQ and AQ defined, with *strict* checked, the only result is A, without *strict* checked, the results are A, B, C and D.
- With only AQ defined, whether *strict* is checked or not, the results are A, B and E.
- With only PQ defined, whether *strict* is checked or not, the results are A, C and F.



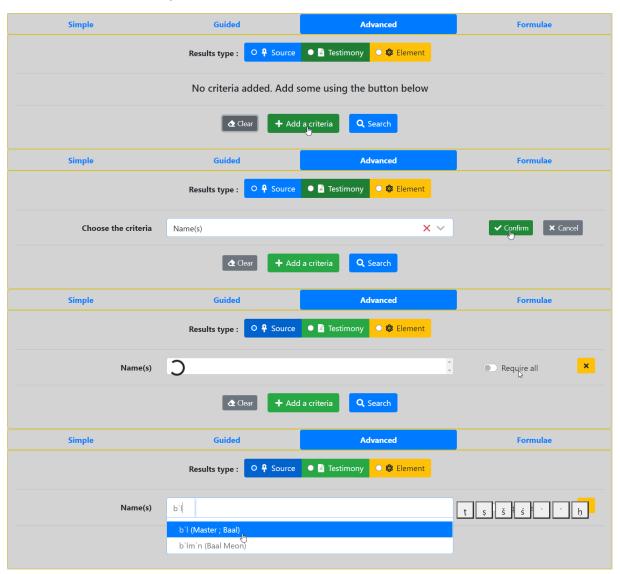


1.1.3. Appearance

Choice of results type and criteria:

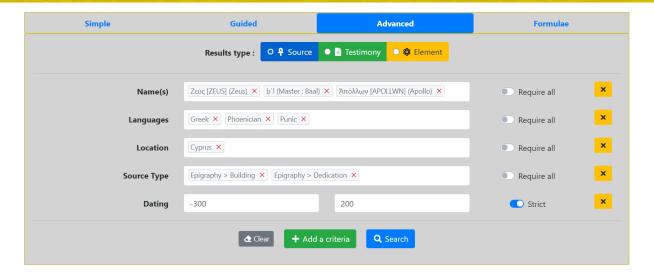


Choice of a criterion first, and then a value:



Assembly of the completed search:





1.2. Description of the suggested criteria

1.2.1. Search criteria linked to the name

1.2.1.1. *Name(s)*

Search for an element of a divine name. The interface suggests a list of names that are already recorded. The user types the first letters, in ancient characters or in Latin characters, or simply scrolls down the list. The names are presented as follows: name in ancient language, Beta Code (for names in Greek), translation(s).

1.2.1.2. Name(s) in context

This is the contextual variation of the name. Notably, this criterion provides access to the dialectal variants.

1.2.1.3. Morphological form

This allows the morphological form of the different elements of the name to be queried.

1.2.1.4. Gender

Gender of the name (female, male...).

1.2.1.5. Number

Number of the name (singular, plural...).

1.2.1.6. Nature

Grammatical nature of the name.

1.2.1.7. *Category*

The theme/area to which the name is linked.

E.g.: agriculture, war, etc.



1.2.1.8. Translation

Translation of the name (in context).

1.2.1.9. Name quality of reading

This is rated from 1 to 3. If the reading is confident, choose 1, if it is probable, choose 2, if it is uncertain, choose 3 (*infra* 3.3.1). Above all, this search criterion allows the user to work on confident name readings or onsets of names, where some of them are hypothetical.

1.2.1.10. Transliteration

This is reserved for testimonies in Greek which are transliterated into the Latin alphabet. The user can type a Greek name, or part of it, in Latin characters.

1.2.2. Search criteria linked to the language

1.2.2.1. Languages

Languages in which the names of the gods are expressed. This list is made up of languages included in the project that the user may come across in the database.

1.2.2.2. *Prose / Poetry*

This choice allows the user to only view testimonies in prose or only testimonies in poetry.

1.2.3. Search criteria linked to the dating

1.2.3.1. Dating

These are the chronological limits that the user wishes to apply to the search. For a BCE date, place a minus sign "-" before the date. For a specific date, enter an identical figure into the *post quem* and *ante quem* fields.

1.2.3.2. Precision of dating

The dates have been given a precision scale from 1, for an accurate date, to 5, for a date that has been given to several centuries (*infra* 3.3.2).

1.2.4. Search criteria linked to the location

1.2.4.1. Location

The location is shown in **three linked scales** separated by a chevron ">". The scales are the region, the sub-region and the place. If an upper scale is selected, it will include the lower scales in the search.

E.g.: if the "Near East" region is selected, the seven sub-regions and several places will be included in the query.



1.2.4.2. Political entity

Political entity linked to a source, a testimony or an agent. Political entity is reserved for Greek worlds.

1.2.4.3. Place / Site

Most accurate location linked to a source, a testimony or an agent. Several sites can exist at the same place.

E.g.: the Lebanese town, "Byblos" (668216). Places are followed by a number. This number is their Pleiades reference (https://pleiades.stoa.org/).

There are several sites at Byblos. They are indicated as follows: "Byblos (668216) > Byblos, Temple of the Lady of Byblos" or even "Byblos (668216) > Byblos, Sanctuary of Hathor and Heryshef".

1.2.4.4. Location precision

The locations have been given a precision scale from 1, for an accurate location, to 4, for a location given according to the Region. 3 is the coefficient for precision to the sub-region, and 2 for precision to the place (*infra* 3.3.3.).

1.2.4.5. Topography

Qualification of the topography of the place.

E.g.: island or mountain.

1.2.4.6. Function

Qualification of the function of the place.

E.g.: public place or sport/show.

1.2.5. Search criteria linked to the source

1.2.5.1. Source type

List of the types of sources, classified by source category (epigraphy, glyptic, numismatic, papyrology and manuscript tradition).

E.g.: "Epigraphy > Decree"

1.2.5.2. Source material

Description of the material constitution of the source.

E.g.: limestone or marble. The material is indicated as follows: "Lithic > Limestone".

1.2.5.3. Source medium

Description of the source in terms of the support object of the testimony.

E.g.: an altar. The medium is indicated as follows: "Architecture > Altar".



1.2.5.4. Source author

Search according to an author. This criterion only applies to a search involving sources belonging to the manuscript tradition.

1.2.6. Search criteria linked to the agent

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1.2.6.1. Agent
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List of types of agency that are linked to the names of the gods saved in the database.

E.g.: the user can perform a special search for agents that are beneficiaries.

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1.2.6.2. Gender
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Gender of the agent.

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1.2.6.3. Nature
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Nature of the agent.

E.g.: the user can choose to search for only human agents.

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1.2.6.4. Explicit status
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Status of the agent in the source.

E.g.: citizen.

1.2.6.5. Activity

Field of activity of the agent.

E.g.: craft/construction.

1.2.6.6. Designation

The way in which the agent is identified in the text. This field is a free text box. Type a word to set the search value.

1.2.7. Search criteria linked to the context of the testimony

1.2.7.1. Occasion

This is the occasion upon which the name of a divine being is mentioned.

E.g.: "Mobility > Navigation".



1.2.7.2. Connected acts

This is the acts associated with the mention of the name of a divine being.

E.g.: "Blessing" or "Offering".

1.2.7.3. *Material*

This is the material in connection with the mention of the name of a divine being.

E.g.: "Architecture > Altar".

1.2.7.4. Element count

Number of elements in the testimony. This criterion is composed of a first column with a numerical comparison operator and a second one where the selected value should be entered. It must be read from left to right.

E.g.: Number of elements ≤ 3 reads as "the number of elements (in the testimony) should be less than or equal to 3".

1.2.7.5. Divine powers count

Number of divine powers mentioned in a testimony. This criterion is composed of a first column with a numerical comparison operator and a second one where the selected value should be entered. It must be read from left to right.

E.g.: Number of divine powers = 1 reads as "the number of divine powers is equal to 1".

All of these research criteria can obviously be combined.

E.g.: Connected acts: "Offering" AND Material: "Altar" allows testimonies concerning offerings of altars to divine beings to be viewed.

1.2.8. Search criterion Miscellaneous

Comments. This full-text search criterion allows the user to search for a term or series of terms in all of the comments fields in the database.

1.3. Notes

1.3.1. Notes on the reading quality

The evaluation, verified by the author of the entry, relates to the quality of the **published data** and the onomastic sequence in the testimony. The guide criteria used for this evaluation are as follows:



The following is evaluated as a **confident reading (1)**:

- A legible and complete onomastic sequence according to the main edition.
- A globally legible sequence with the restitutions of the editor consensually accepted.
- A probably incomplete onomastic sequence, in which each element published in the edition is clearly readable.

The following is evaluated as a **probable reading (2)**:

- A globally legible onomastic sequence, with restitutions given as uncertain by the editor using the conventional signs (square brackets, etc.) or in the critical apparatus/commentary.
- A globally legible sequence with restitutions of the editor not consensually accepted (identify, if possible, a publication offering a different restitution/discussing the restitutions of the editor).
- A probably incomplete onomastic sequence, with one or several restituted elements, where the restitutions are not consensually accepted.

The following is evaluated as an **uncertain reading** (3):

- An onomastic sequence restituted by the editor, where the restitutions are given as uncertain by the editor himself in the text (question mark) or in the critical apparatus/commentary.
- An onomastic sequence restituted by the editor, where the restitutions seem uncertain/risky, without any other edition to which we can refer.
- A legible onomastic sequence, whose authenticity is questioned (if possible, identify a publication moving in this direction).

1.3.2. Notes on the precision of dating

Table explaining the accuracy scale used for each of the recorded datings.

Dating	Coefficient
High precision, from the year to 5 years	1
$(D \le 5)$	1
Precision up to the half-century (inclusive)	2
$(6 \le D \le 51)$	2
Precision of over a half-century to a century (inclusive)	3
$(52 \le D \le 101)$	
Precision of over a century, up to 200 years (inclusive)	4
$(102 \le D \le 201)$	
Dating over two centuries	5
$D \ge 202$	



1.3.3. Notes on location

- For a source, the interface prioritises showing information on the location of origin rather than that of its discovery.
- For a testimony, the interface provides information on the location of the testimony, if it exists.
- For an element, the interface provides information on the location of the testimony, if it exists. An element has no political entity.
- When entering the data, the only scale that is mandatory is the region scale.

1.4. Types of results

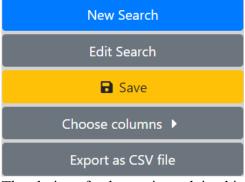
Results are shown on a new page in the form of three blocks.

1.4.4. Reminder of criteria



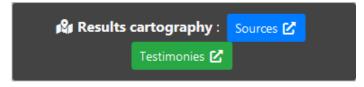
The interface shows the type of search, the criteria and the number of records that have been found for the search.

1.4.5. Action buttons



- Carry out a new search and clear the chosen criteria:
- Carry out a search maintaining the criteria;
- Save the search criteria;
- Select the columns to be shown and exported,
- Export the results table in CSV format.

The choice of columns is explained in the "Save and Export" section (infra 5).



- View the localised results on the webmapping interface according to *Sources* or *Testimonies* results type.

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1.4.6. Results table



The user can change the number of results shown per page and navigate between them. He/she can apply a general filter to all of the results or to a specific column with the help of the search boxes. The content of the columns can be sorted into ascending or descending order. Action buttons in the "View" column provide access to the corresponding forms.

Remember that the results shown correspond to the "type of result" selected by the user when configuring the search. Therefore, for a *Source* query, the table columns will only refer to the source, for a *Testimony* query, the columns will refer to the source and the testimony, for an *Element* query, the columns will refer to the element. The way the columns are shown can be modified; this option is explained in the "Save and Export" section (*infra* 5). To change the type of result but keep the criteria, click on the *Edit search* button and then change the parameter.

For a research where the result type *Element* is chosen, the results columns include:

- A column Sources containing the total amount of sources linked to the element, regardless of the search criteria;
- A column Testimonies containing the total amount of testimonies linked to the element, regardless of the search criteria;
- A column Locations containing the link to the cartography of the element, regardless of the search criteria (*infra* 5.6).

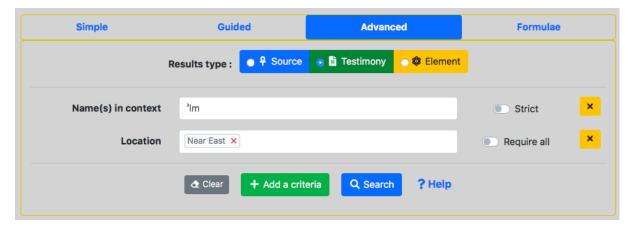
1.5. Notes

- Each result record will only be shown once, even if it meets several of the criteria defined by the user.
- The user can order the results according to several columns by pressing the Shift key and the arrows next to the name of the column. This ordering is saved in the user's profile.

1.6. Examples

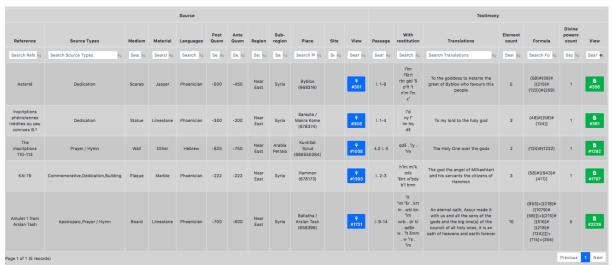
To find all of the testimonies that use the Semitic word "'lm" ("god[s]') in sources from the Near East: choose the result type *Testimony*. Choose the search criteria *Name(s) in context*: "'lm", then add a *Location* criterion: "Near East".





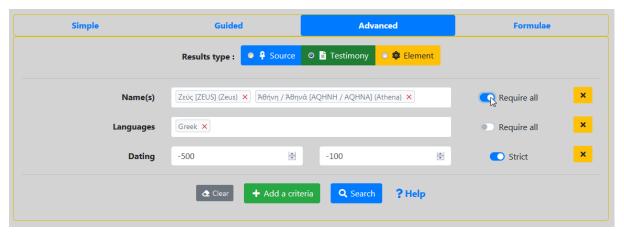
Results:



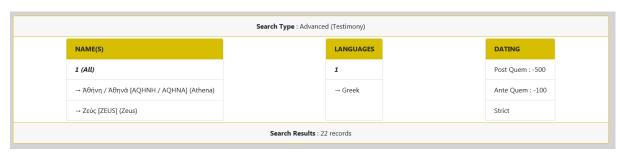


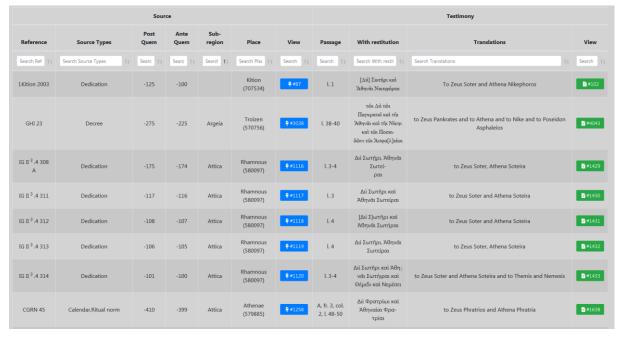
To find all of the testimonies that use both the elements "Zeus" and "Athena" in the Greek language between the 5th and the 2nd century BCE: choose the result type *Testimony*. Choose the search criteria Name(s): "Ze $\dot{\nu}$ [ZEUS] (Zeus), $\dot{\lambda}\theta\dot{\nu}$ [AQHNH / AQHNA] (Athena)" and check "Require all"; then add the criterion *Languages*: "Greek"; then, add the criterion *Dating*, *ante quem*: "-500", *post quem*: "-100".





Results:







2. Save and Export

2.1. Saving a search

2.1.1. Introduction

The interface makes it possible to save a search, whatever its type (Simple, Guided, Advanced, Formulae). A user can access and reuse one of the saved searches at any time. Saved searches are named and are unique to each user.

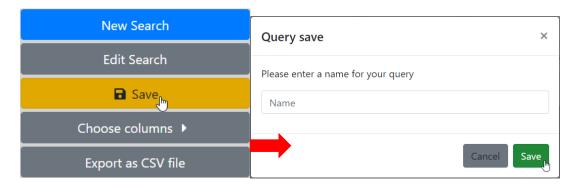
2.1.2. Mode of operation

After completing a search, it can be saved using the *Save* button next to the reminder of criteria. **This saves the criteria, not the results**. Therefore, when loading a search between two different uses, the number of records may change.

The user is asked to name his/her query. He/she should choose a suitable name. He/she is reminded of the criteria when loading a query (*infra* 5.3.).

Saving a query with the same name as one that has already been saved overrides the parameters of the existing query.

2.2. Appearance



2.3. Reusing a query

2.3.1.Introduction

The interface allows the user to load a query from each type of search. A drop-down list is available on the right side of the screen. This list is unique for each user.

2.3.2. Mode of operation

The user can load or erase a query using the action buttons. When a query has been chosen, the interface automatically loads the page with the search type and criteria. The user can modify the criteria as he/she desires. However, these changes are not saved in the saved search. Simply click on the *Search* button to launch the query.

Each saved search is shown in the form of a "block" indicating:

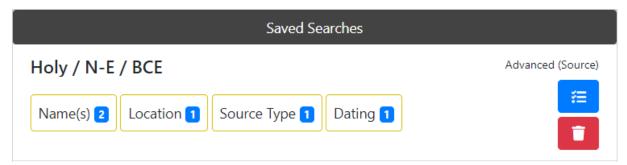
- 1: name of the search;



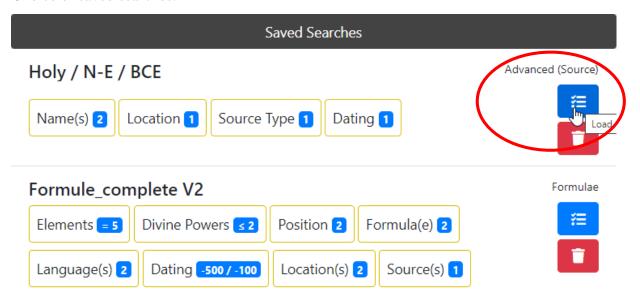
- 2: criteria saved with the number of values or the values;
- 3: search type;
- 4: load button;
- 5: delete button.

2.3.3. Appearance

Description of the elements in block of a saved search:



Choice of saved searches:



Search successfully loaded:





2.4. Exporting the results

2.4.1.Introduction

The search results table can be exported using the action button *Export as CSV file*. The format of the downloaded document is CSV (*Comma Separated Values*). This maintains the filters and sorting applied to the columns of the results table.

By default, the name of the CSV is made up of the name "ERC MAP" and the reminder of the type of search "Results of Simple / Guided / Advanced / Formulae Search". If the results from a saved search are exported, the CSV will receive the name of the search.

The quote for the MAP database is shown in the first line of the document, updated for each export:

E.g.: Bonnet C. (dir.), ERC Mapping Ancient Polytheisms 741182 (DB MAP), Toulouse 2017-2022: https://base-map-polytheisms.huma-num.fr/ (04/05/2020).

2.4.2. Mode of operation

The columns are predefined for the simple and guided searches.

For the advanced and formulae searches, the user chooses the columns. The choice of columns is determined by the type of search and the type of result selected.

2.4.3. List of fields – Advanced search / Formulae search

2.4.3.1. Fields linked to the Source

- Reference:
- Main title:
- Authors;
- Source category;
- Source types;
- Medium category;
- Medium;
- Material category;
- Material;
- Languages;
- Post quem;
- Ante quem;
- Region;
- Sub-region;
- Place:
- Site;
- Latitude;
- Longitude;
- Link (view).

2.4.3.2. Fields linked to the Testimony

- Passage;
- Extract with restitution;
- Transliteration:



- Translations;
- Name quality of reading;
- Connected acts;
- Occasions;
- Material;
- Agents;
- Post quem;
- Ante quem;
- Region;
- Sub-region;
- Place;
- Site;
- Latitude;
- Longitude;
- Elements count;
- Formula:
- Divine powers count;
- Link (view).

2.4.3.3. Fields linked to the Element

- Absolute form;
- Beta Code;
- Nature;
- Translations:
- Invariant categories;
- Region;
- Sub-region;
- Place:
- Site:
- Latitude;
- Longitude;
- Link (view).

2.4.4. **Notes**

- The fields that are exported depend on the type of result that is desired (Source, Testimony, Element). Each level contains its own fields; the testimony takes its fields from the source to which it belongs.
- The *Formulae* search contains the fields belonging to the source and the testimony.
- The Latitude and Longitude columns allow to integrate the CSV results file into GIS software.

2.5. General notes

- The CSV format is an open format that follows the rules of the Open-data and FAIR data.
- The CSV format may be modified by Excel software; the user is advised to use the LibreOffice suite.



2.6. Link to webmapping

2.6.5. Introduction

The link allows the location of the elements or the results from a guided or advanced search to be visualized.

2.6.6. Mode of operation

In the first case (1), the link allows the user to view the locations of the sources using an element.

<u>In the second case (2)</u>, using a guided or advanced search result, the link allows to view localised sources or testimonies whose source is localised. Mode of operation

(1) From an advanced search result with an element result type, the user clicks on the *Cartography* button in the *Location* column to open a new window with the map and the desired element selected.

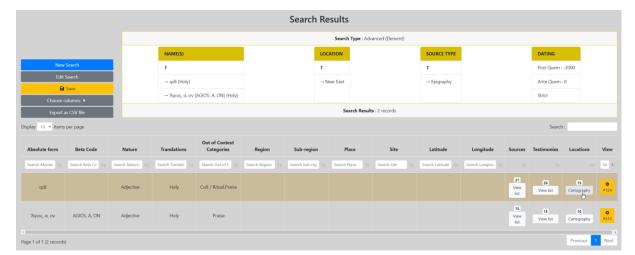
The location shown for an element is the discovery location of the relevant sources. The number shown is that of the total number of sources that are linked to this element, without taking into account the search criteria.

(2) From the results of a guided or advanced search, the user clicks on the *Results cartography* button for *sources* or *testimonies* to open a new window showing the map and the desired results.

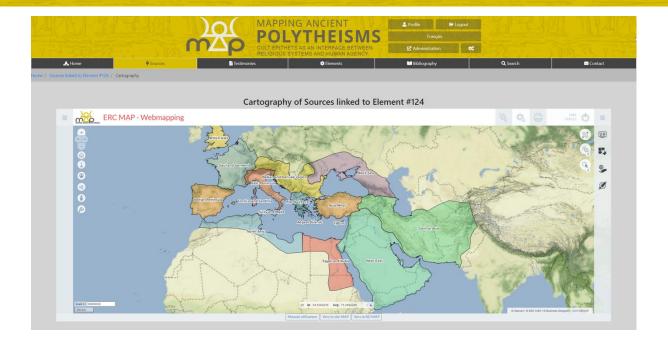
The location shown for a source is its place of discovery. Equally, the location shown for a testimony is the discovery location of the relevant source. The number shown corresponds to the total number of query results associated with a location.

2.6.7. Appearance

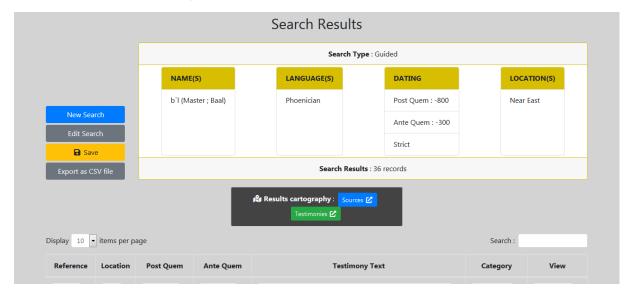
(1) View the sources linked to the element "Holy" in West-Semitic and Greek.





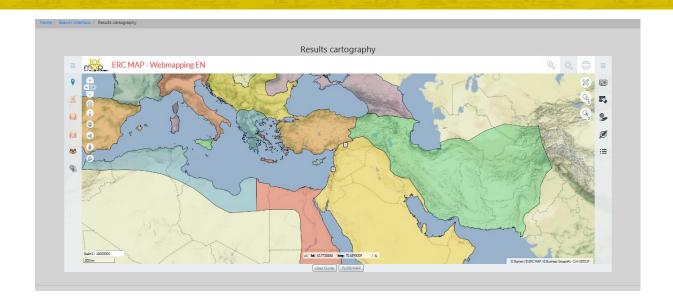


(2) View the results of a guided search: *Name(s)*: "Baal", *Language(s)*: "Phoenician", *Dating* between "-800" and "-300", *Location*: "Near East".





Search interface





Presentation of the MAP project

The MAP project is an ERC Advanced Grant (741182) project that studies the divine powers in the Antiquity by means of their names, viewed as "onomastic sequences". The full title of the project is: *Mapping Ancient Polytheisms. Cult Epithets as an Interface between Religious Systems and Human Agency*. Thanks to the systems for naming the divine, it aims to unravel the relational logics, meaningful, but always fluid, which shape and animate the divine powers. These systems serve to express the gods' multiple functions and modes of action, as well as associating them with spaces where their presence fosters interactions with men. For this reason, the names of the gods play a strategic role in ritual communication, making it possible to target a specific interlocutor and reinforcing the effectiveness of the ritual. MAP focusses on the context in which each onomastic sequence is used, as well as the question of human agency.

The project encompasses the divine names from the Greek world in its widest expansion, and from the West Semitic world (Phoenician, Punic, Aramaic, Hebrew) from the Near East to the most western Phoenician colonies, in other words, on an ample Mediterranean scale and embracing an extensive period of time, from around 1000 BC to 400 BCE.

Presentation of the MAP database

The data for the names, contexts and agents is extracted from published corpus, formatted and recorded by the team working on the project, guest researchers and collaborators. Given that the corpus studied is heterogeneous on several levels, the database uses ontologies and lists of predetermined values to record the data in order to harmonize data entry and facilitate consultation.

MAP uses a relational database in SQL (*Structured Query Language*) which allows a large amount of different qualities of information to be recorded. This information is stored in entity classes (tables) according to an architecture inspired by the research questions of the project.

Structure of the database

The MAP database contains three data recording levels:

- Source;
- Testimony;
- Element.

The source (1) is the document – epigraphic, glyptic, numismatic, papyrological or of manuscript tradition – which contains one or more testimonies of divine onomastic sequences.

The testimony (2) is a group of several onomastic elements that refer to one or several divine beings and are combined to form an "onomastic sequence".

E.g.: Ἀπόλ[λωνος] Πυθίου καὶ Ἀπόλλωνος Κεδριέως is a Greek testimony;lrbt ltnt pn b'1 w l'dn lb'1 hmn is a Punic testimony.

The element (3) is the minimal "unit of meaning" within the testimony. It is a semantic and non-grammatical category. Two or more elements constitute a testimony.

E.g.: $\underline{\text{Aπόλ[λωνος]}}$ $\underline{\text{Πυθίου}}$ καὶ $\underline{\text{Απόλλωνος}}$ $\underline{\text{Κεδριέως}}$ the underlined words are the 4 elements of this Greek testimony;



l<u>rbt</u> l<u>tnt pn b'l</u> w l<u>'dn</u> l<u>b'l</u> <u>hmn</u> the underlined words are the 7 elements of this Punic testimony.

One source (level 1) contains one or more testimonies (level 2) which contain one or more elements (level 3).

Metadata tables are associated with these different levels, such as the location, the datation, the context, the agents and the bibliography. Knowing the structure of the database allows to formulate and calibrate the search process.

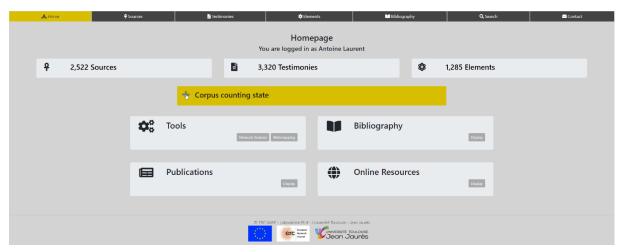
Entry / consultation interfaces

The search interface allows the user to query the information entered on the entry forms by the research team. Consultation and searches are based on the different levels of the database. The search results allow the user to consult the forms that match his/her criteria.

This Search Interface Guide for users of the database is complemented by a Data Entry Guide for editors of the forms in the database, along with a Webmapping Guide for users of the database. They are available here: https://hal.archives-ouvertes.fr/MAP-ERC/.

Corpus counting state

From the database homepage (https://base-map-polytheisms.huma-num.fr/), the user carrying out a consultation accesses the corpus counting state.



This tab shows the list of corpora according to the regions and sub-regions followed by the bibliographic references. The number that is shown corresponds to the number of sources for which **validation has been completed**. The corpora under study are not counted here. The results given in the search interfaces refer to this list.





The search bar allows you to filter the counting list by typing the first letter.

Search modes

The search interfaces can be accessed via the navigation bar.



Several search modes are available. Each one is adapted to the precision of the information that the user requires and to his/her knowledge on the subjects covered by the project. The search modes are:

- Simple which works like a search engine;
- Guided which has predefined criteria;
- Advanced with searches that the user composes;
- Formulae which is aimed at onomastic sequences.

Citing the MAP database

Bonnet C. (dir.), ERC *Mapping Ancient Polytheisms* 741182 (DB MAP), Toulouse 2017-2022: https://base-map-polytheisms.huma-num.fr/ (YYYY/MM/DD).

Contact

map.polytheisms@gmail.com or from the "Contact" tab.

Subject: DB – Search Interface

