

## TUTORIAL 17: Searching the Database 2 – Advanced

The Advanced Search has two main functions that differ from the Basic Search. First, it allows you to search within specific fields or entire cards of the database, so that you can be confident your search will produce exactly what you are looking for. Second, it allows you to build on and combine those searches using ‘And’ and ‘Or’ functions.

In this tutorial, you will learn how to conduct more complex searches in the EAMENA Database and we will go through some examples. Please refer to **Tutorial 1: Searching the Database (Basic)** and **Tutorial 1b: Finding your Records** for an introduction to searching and how to get started.

### 1 Advanced Search

From the search page, click on ‘Advanced Search’ to open the advanced search functions (Figure 1).

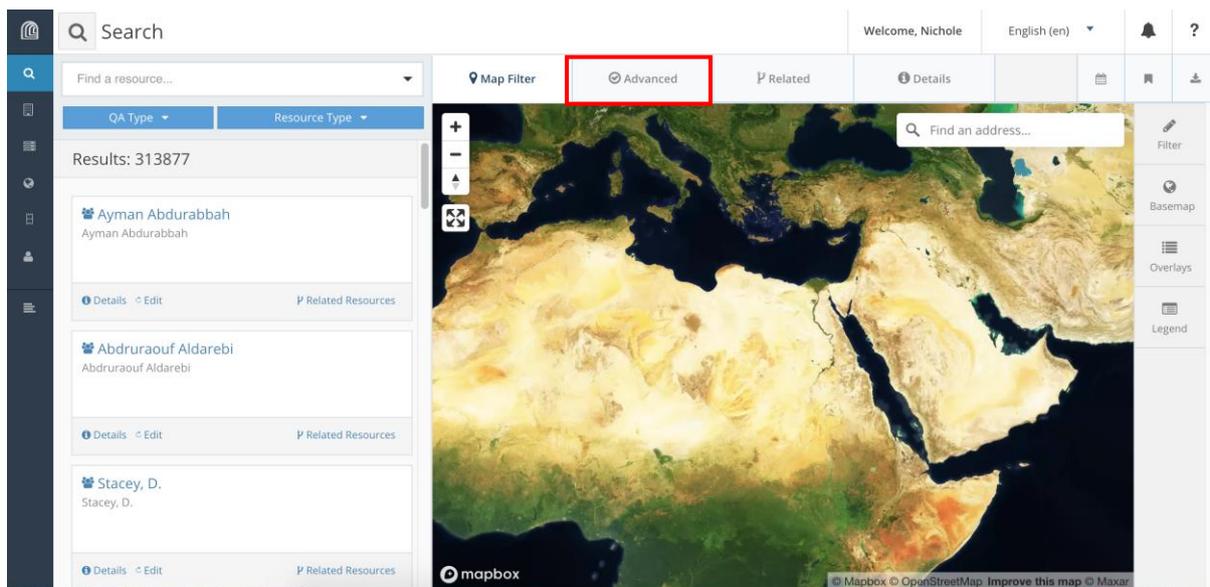


Figure 1

You will see the 'Advanced Search' window and a list of 'Search facets' will appear on the right side of the screen (Figure 2).

- The search facets represent and are organised by Resource Type, Card, and Field.
- You can scroll down or use the Search Bar at the top to find the field or card that you wish to search on.

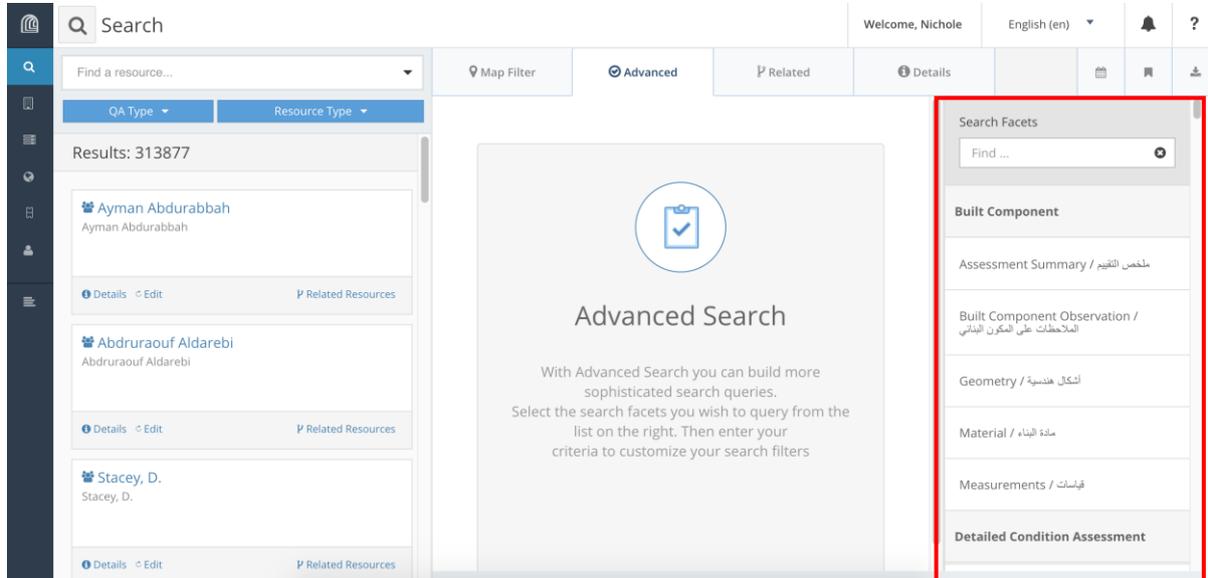


Figure 2

Click on the facet you wish to search by and a box will appear in the Advanced Search window with the same fields that you would find in that card when you are creating a record.

- Click on the field you wish to search by and choose from the dropdown.
- The Search results will automatically update.
  - In Figure 3, we have searched by the country 'Libya', and at the time of searching this has returned 12,308 results.
  - Another example, searching by 'Assessor/Investigator' Name was outlined in **Tutorial 1b: Finding your Records**.
- You can use the smaller dropdowns on the left side of the main dropdowns to control whether to include or exclude a term (Figure 3). Different dropdowns have different options:
  - Equals/References: searches for exact matches of this term
  - Not/Does not Reference: excludes exact matches of this term from the search
  - Like: in free-text fields this will search for terms that match your term and ones that are similar (e.g. alternate spellings)
  - Not Like: in free-text fields this will exclude terms that match your term and ones that are similar

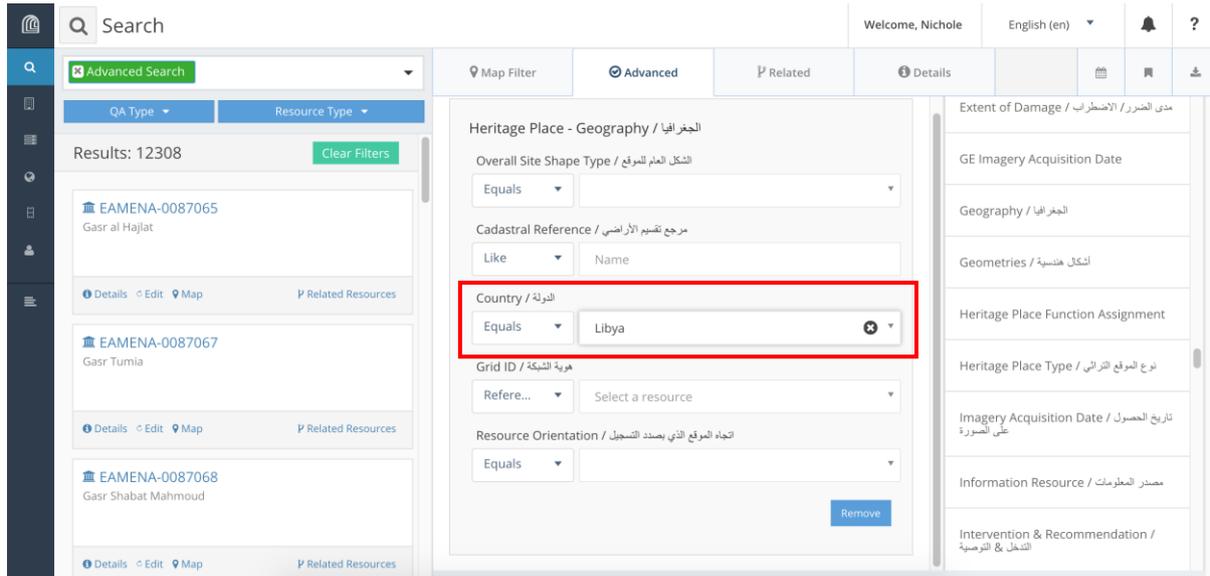


Figure 3

You can define further search parameters within the same card, to filter your results further.

- In the example in Figure 4, we have further filtered our 'Libya' results by the Grid Square E14N32-32 and can see that the Search Results have been reduced to 42. This is the equivalent of an 'AND' query.

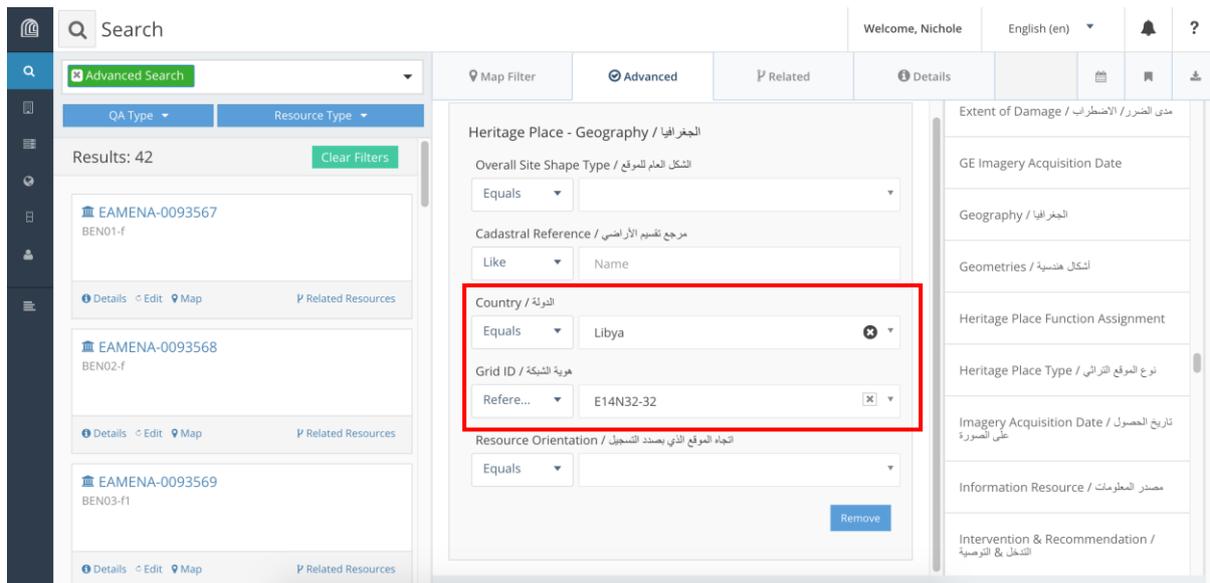


Figure 4

If you want to add a search term which does not appear in the same Card, find the Card or field in the Search Facet list on the right, and click on it. This will add an additional search facet box below your first one.

- In Figure 5, we searched for sites in Libya, which have an interpretation of ‘Cemetery’, returning 349 results.

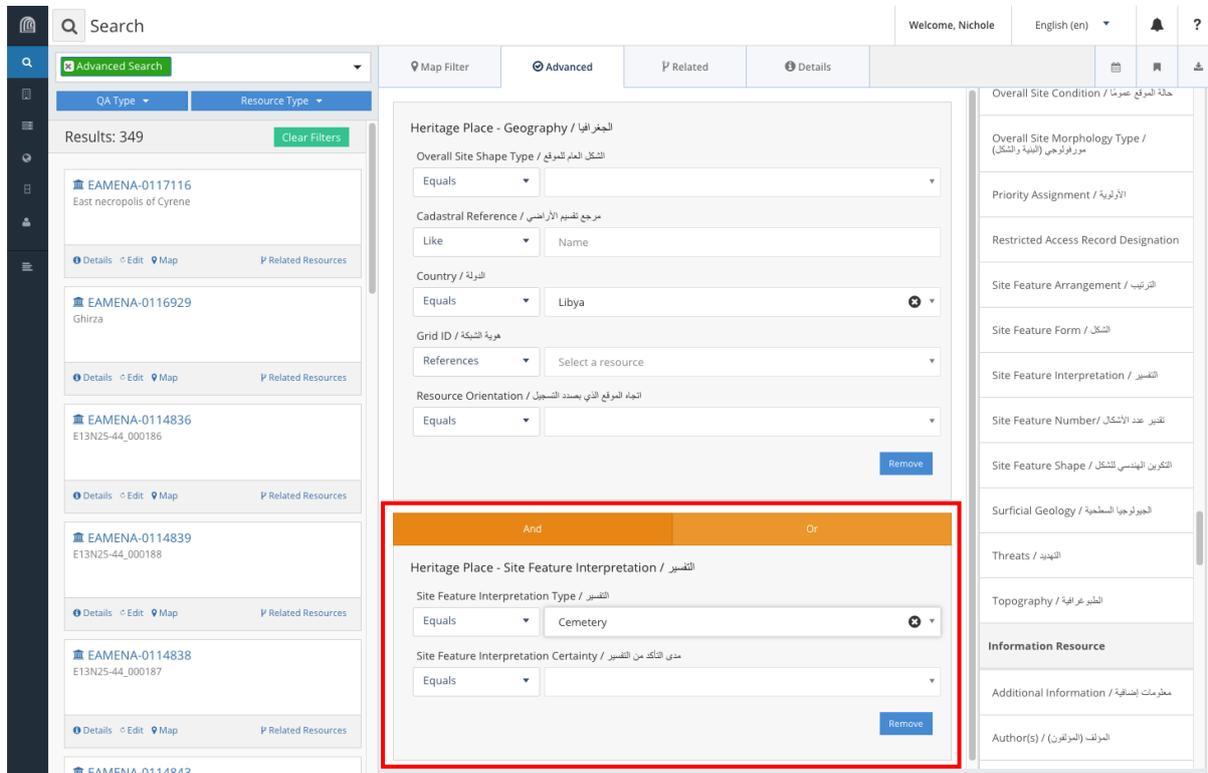


Figure 5: Second Search Facet from a different Card

You can continue to add Search Facets to filter your results further.

- When you add a new Search Facet, it will default to the ‘And’ option in orange at the top of the box.
- This means that your search results will only return records where BOTH terms have been found.
  - So in the last example in Figure 5, this means sites that are in Libya AND have been interpreted as Cemeteries.

- If, in the last example, we were to click on ‘Or’, this will change the relationship between the search terms, and will return a list of sites that are in Libya OR sites that have been interpreted as Cemeteries (Figure 6).
  - In this case, we can see that the number of search results has increased to 13,157 because it is counting ALL sites in Libya, no matter what their interpretation, and ALL sites interpreted as Cemeteries, no matter what country they are in.
- Click on the ‘Remove’ button in the lower right corner of the Search Facet box to remove it.

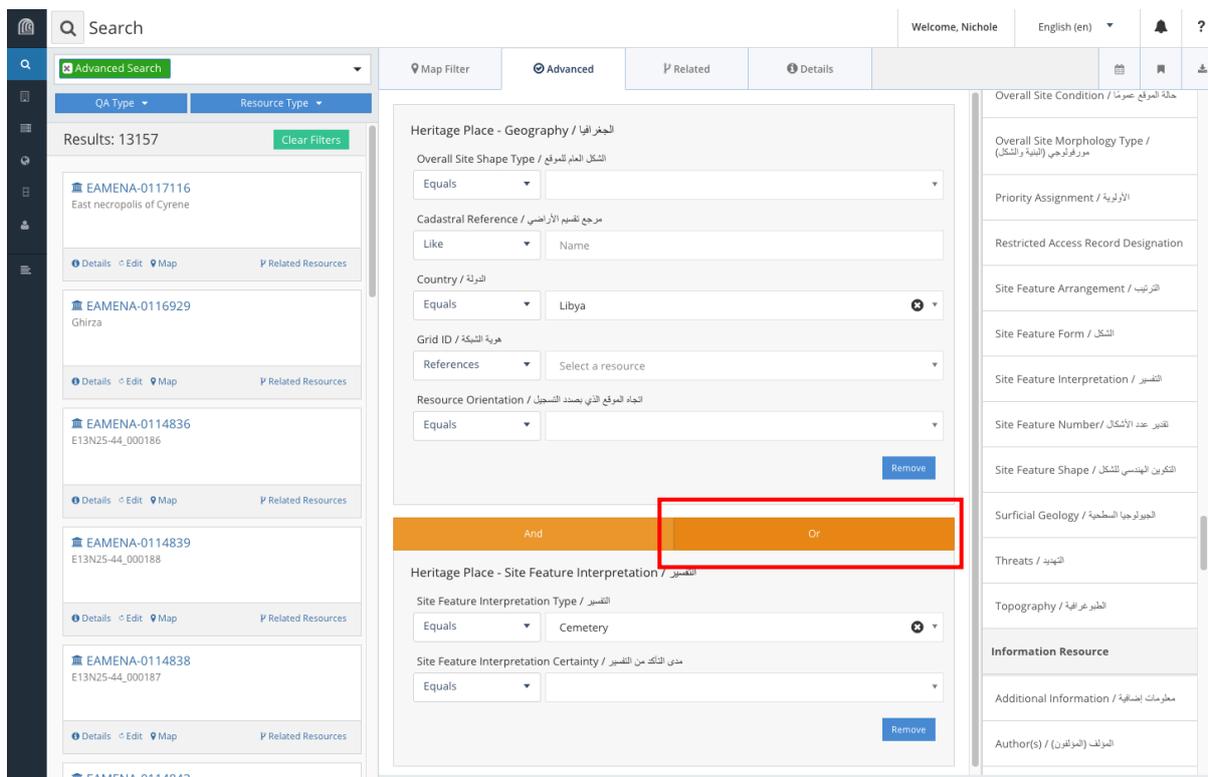


Figure 6

The 'Or' function, is particularly useful when you want to search for multiple terms in the same field.

- For example, if you want a list of all the records in the database from either Libya OR Tunisia, you can add the same Search Facet box multiple times (Figure 7).

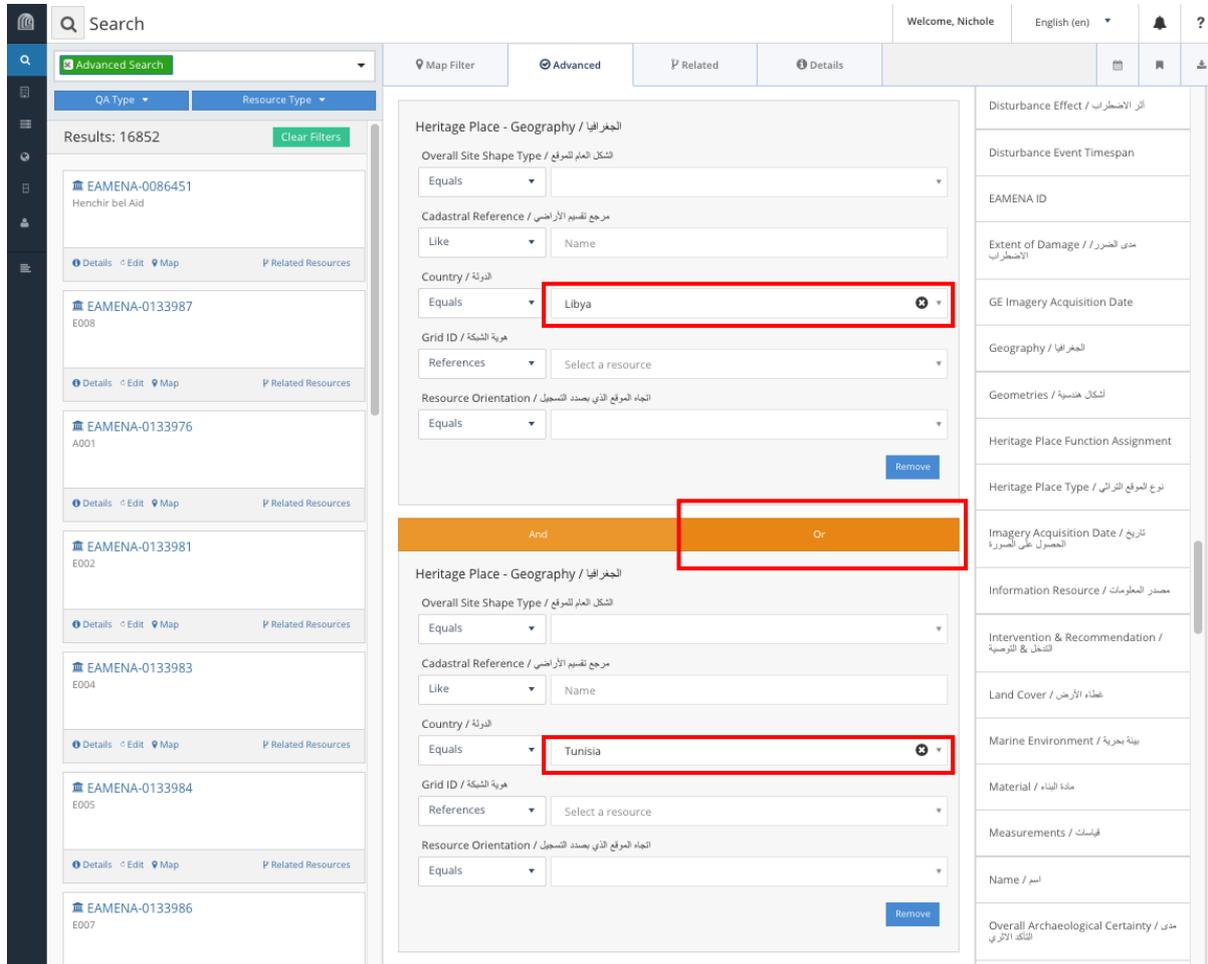


Figure 7

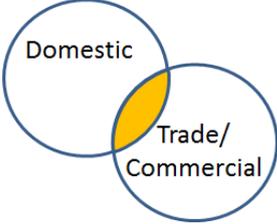
You can add multiple Search Facets and combine the 'And' and 'Or' functions to produce complex search results.

- However, when combining Search Facets and using different combinations of 'And' and 'Or', the way you group your terms and the order you enter them is very important.
- In general, you should remember the following:
  - The 'And' function JOINS terms together into groups.
  - The 'Or' function SEPARATES terms or groups.
  - The 'And' function is 'stronger' than the 'Or' function.
  - Any Search Facets that are joined by an 'And' will be grouped together.
  - Terms or Groups of terms will be separated by an 'Or'.

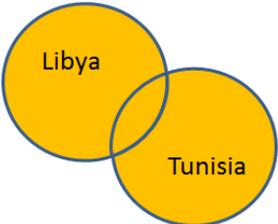
### Boolean Search Operators

The Boolean operators are: **AND, OR, NOT**  
Used to combine or exclude keywords in a search

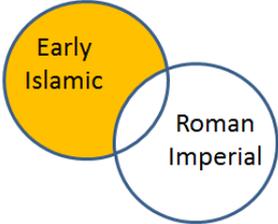
**AND** narrows a search results by acting as the intersection between keywords. *Domestic AND Trade/Commercial*, for example, only returns results with both of these keywords present.



**OR** widens a search. For *Libya OR Tunisia*, for example, just one (or both) of these keywords needs to be present.



**NOT** restricts a search by filtering out unwanted noise. The keyword following **NOT** must not be present in the search results. But use with care, as it can filter out relevant results.



For example, if you set up a search like this:

Libya  
AND  
Amphitheatre

Tunisia  
AND  
Theatre/Odeon

OR

- Your results will include any sites in Libya that have an amphitheatre, plus any sites in Tunisia which have a Theatre/Odeon.

If you set up a search like this:

Libya  
AND  
Amphitheatre  
AND  
Theatre/Odeon

OR  
Tunisia

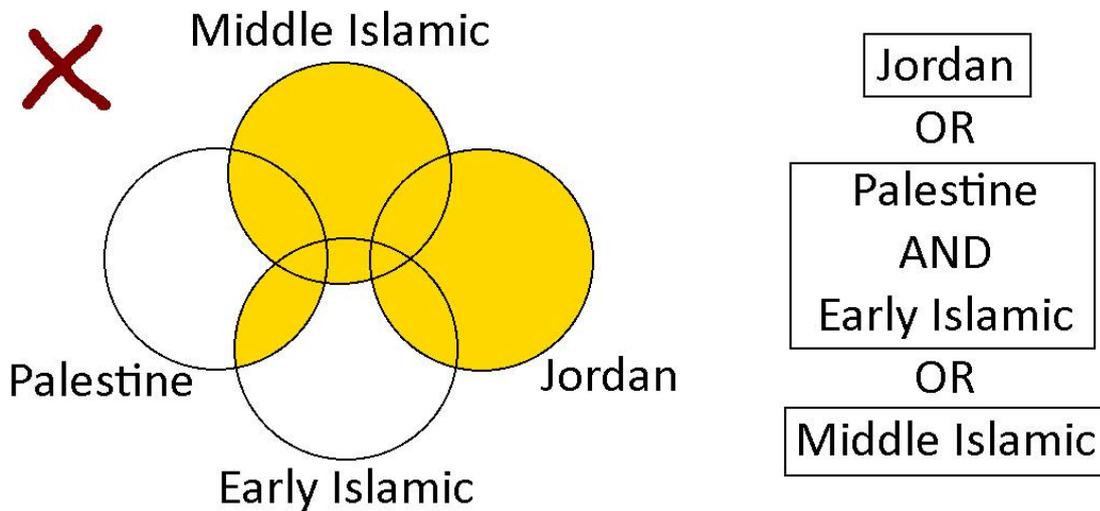
- Your results will return any sites in Libya which have BOTH an Amphitheatre AND a Theatre/Odeon, PLUS every site in Tunisia, no matter what kinds of sites they are.

This is very important to understand because of the following type of example:

- If you want to search for all the sites in Jordan OR Palestine which date to the Islamic, Early OR Islamic, Middle periods you might initially try to set up the search terms like this:

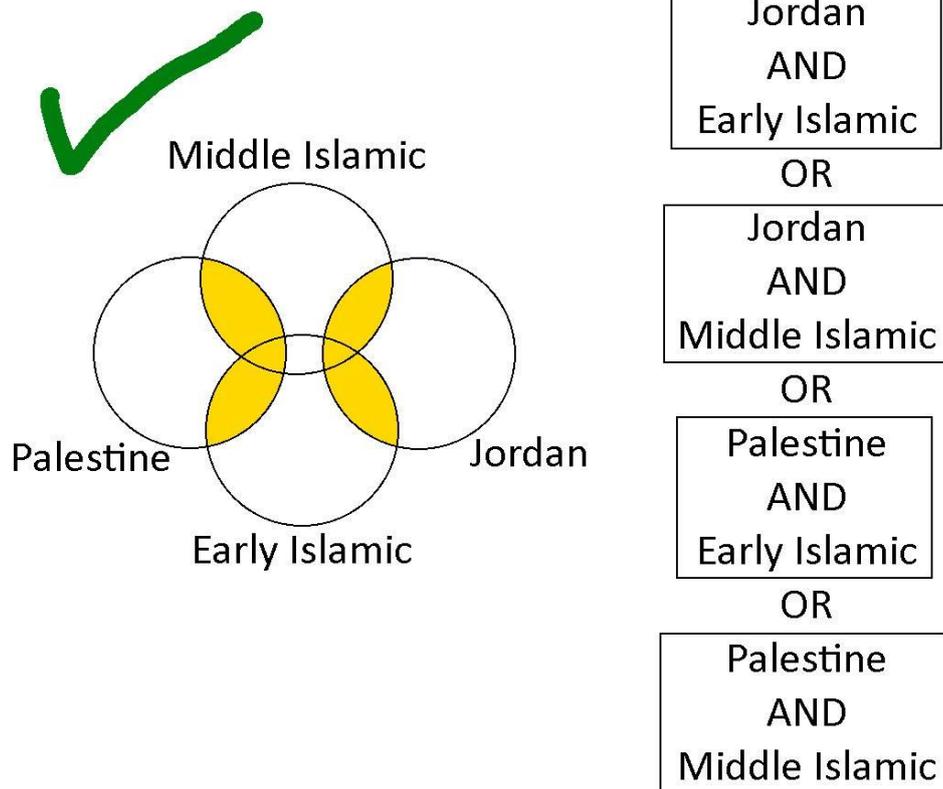
Jordan  
OR  
Palestine  
AND  
Islamic, Early  
OR  
Islamic, Middle

- However, because the 'AND' function is stronger, what you will actually return is a result like this:



- That is:
  - All sites in 'Jordan', no matter what date
  - PLUS any sites in 'Palestine' which have a date of 'Islamic, Early'
  - PLUS all 'Islamic, Middle' sites, no matter what country

To properly conduct this search you must set it up as follows:



- This will return any results in EITHER Jordan OR Palestine, which have EITHER Islamic, Early OR Islamic, Middle dates.

See Section 3 below for some further search examples.

### 1.1 Combining the Simple and Advanced Search

You can combine searches using the Simple Search Bar and the Advanced Search.

- A useful method is to first use the Simple Search Bar to narrow your results as far as possible with any terms that you wish to apply to your entire search.
- Then use the Advanced Search to filter your results further using the 'Or' function if necessary.
- For example, you might wish to find any sites in Syria which have a Condition of 'Destroyed' OR 'Very Bad'.
  - In this case you can enter 'Syrian Arab Republic' in the Simple Search Bar to return all results in Syria.
  - Then in the Advanced Search, search for 'Destroyed' and 'Very Bad' in the 'Overall Site Condition' Search Facet, separated by 'Or' (Figure 8).

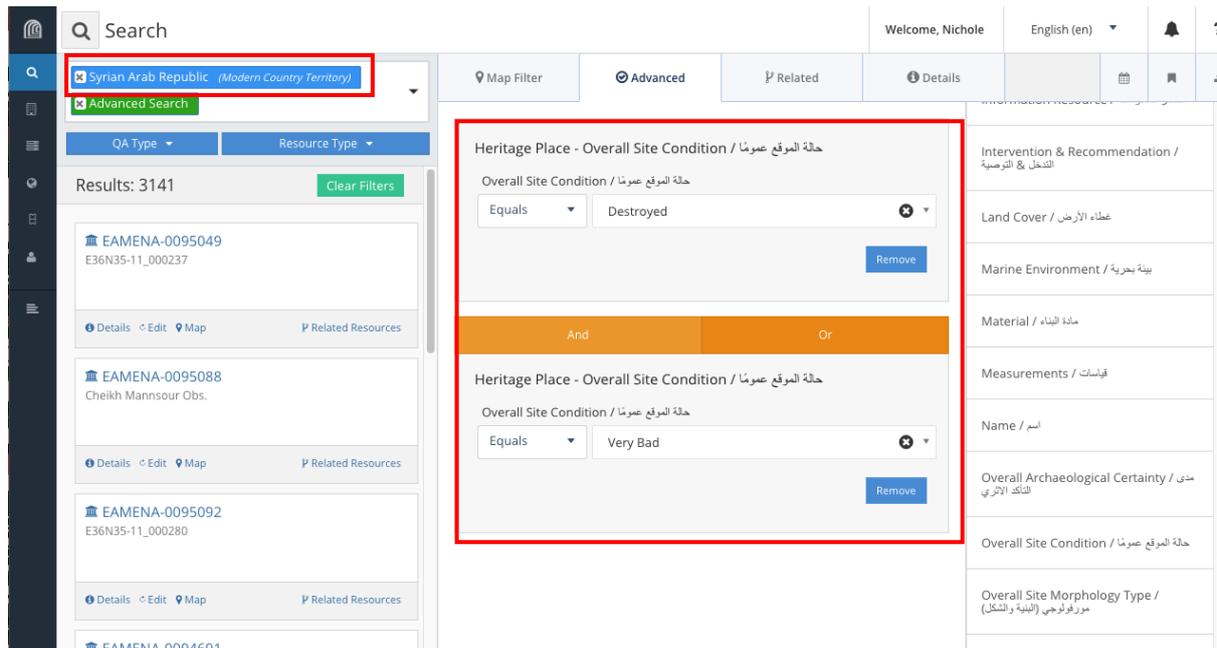


Figure 8

However, it is important to remember that two particular fields do not work in the Simple Search Bar:

- Person/Organisation
- Grid ID

This is because these are not simply search terms but are referring to links to independent records.

- If you wish to return the results based on a Person (e.g. Assessor/Investigator) or EAMENA Grid Square, you **MUST** search for them using the Advanced Search.
- See **Tutorial 1b: Finding your Records**.

## 2 Time Filter

It is also possible to search the database by filtering based on different date fields.

- Click on the 'calendar' icon in the upper right corner to open the 'Time Filter' search options (Figure 9).

The screenshot shows the EAMENA database interface. On the left, a search results list displays four entries:

- Ayman Abdurabbah** / Ayman Abdurabbah
- Abduraouf Aldarebi** / Abduraouf Aldarebi
- Stacey, D.** / Stacey, D.
- Director: Robin, C.** / Director: Robin, C.

The main content area is dominated by a large 'Advanced Search' modal window. It features a clipboard icon and the text: "With Advanced Search you can build more sophisticated search queries. Select the search facets you wish to query from the list on the right. Then enter your criteria to customize your search filters".

On the right side of the interface, a vertical list of search facets is visible, including:

- Intervention & Recommendation / التدخل مع الترميم
- Land Cover / غطاء الأرض
- Marine Environment / بيئة بحرية
- Material / مادة البناء
- Measurements / قياسات
- Name / اسم
- Overall Archaeological Certainty / مدى التأكيد الأثري
- Overall Site Condition / حالة الموقع عموماً
- Overall Site Morphology Type / مورفولوجي (الشكل والهيئة)
- Priority Assignment / الأولوية

A red rectangular box highlights the calendar icon in the top right corner of the navigation bar, which is used to access the 'Time Filter' search options.

Figure 9

In the first part of the ‘Time Filter’ window that appears, you can search by Date Interval.

Find the type of date that you wish to search for in the ‘Type’ dropdown menu (Figure 10).

- Whenever possible you should specify what type of date you are looking for because otherwise the search will default to any type of date in any field in the entire database, many of which may not be applicable to your search.
- A common choice will be ‘Assessment Summary Activity Date’, that is, the date you made the record.

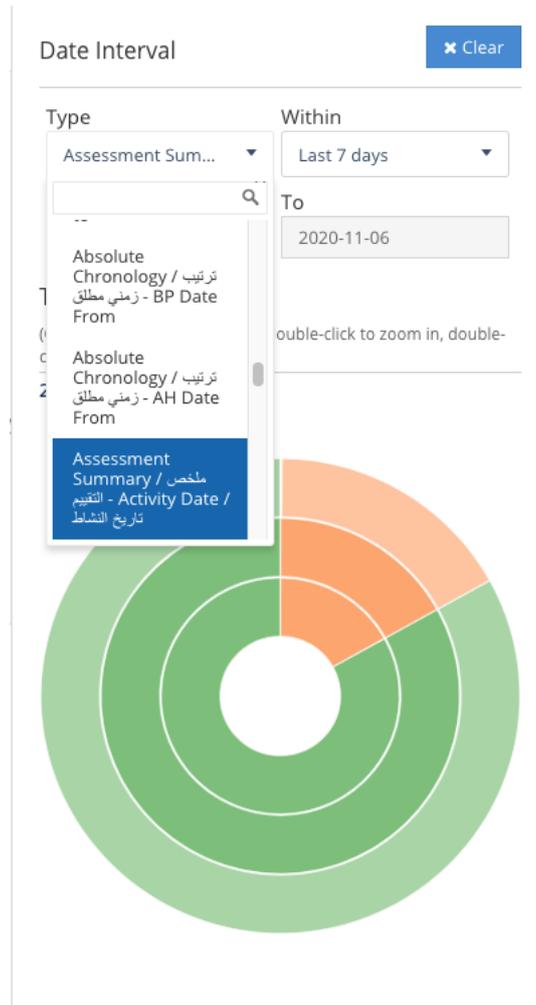


Figure 10

Specify the date range you wish to search within by choosing one of the options from the 'Within' dropdown menu or choose 'Custom date range' and enter the dates in the From and To fields below (Figure 11).

Date Interval ✕ Clear

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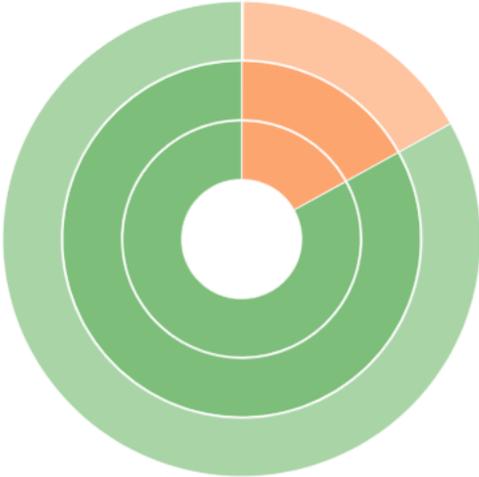
Type Assessment Sum... Within Last 7 days

From 2020-10-30 To 2020-11-06

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Time Wheel  
(Click on a block to set a filter, double-click to zoom in, double-click center to zoom out)

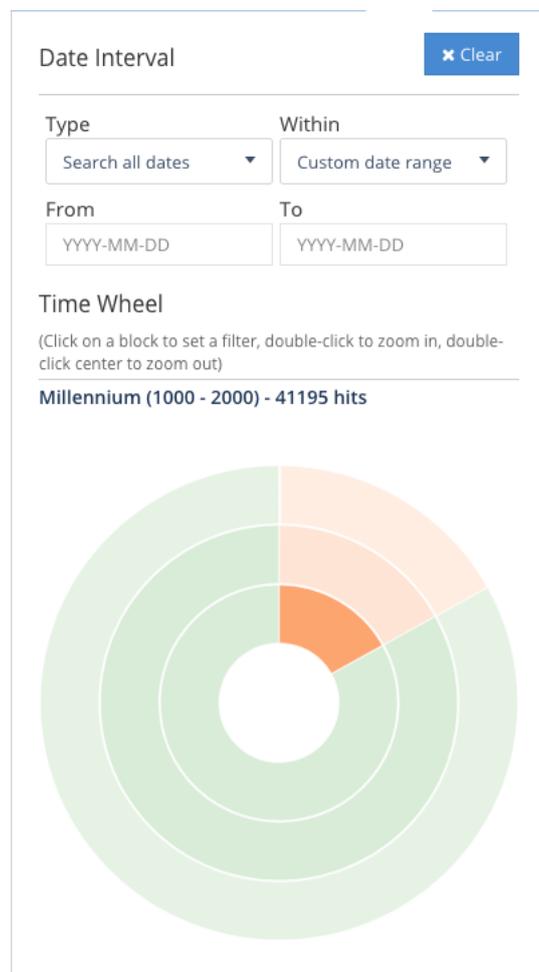
**243806 date values**



*Figure 11*

The Time Wheel gives a visual representation of the proportion of different dates present in database records and is an alternative method to set date ranges.

- Different sections of the wheel represent different periods of time that groups of database records fall into, narrowing down periods into smaller units as it moves outwards from the centre.
- Hovering over the individual sections will give you details about the period it covers.
- Double-clicking on a section will 'zoom in' to that period. Double-click the centre of the wheel to zoom out again.
- In Figure 12, you can see that the smallest orange block represents dates between AD 1000 and 2000.



*Figure 12*

Click on a section once to set that period as your filter – you will see that it fills in the From and To dates as a Custom date range in the ‘Date Interval’ section above.

- In Figure 13 below, clicking on the outer-most orange block produces a search for any records which record a date in any field for the period between AD 1900 and 2000.
- On the left we see that this returns 40,982 results.
- To narrow this further by searching only where those dates occur within a specific field, you can choose a ‘Date Interval Type’ as described above.

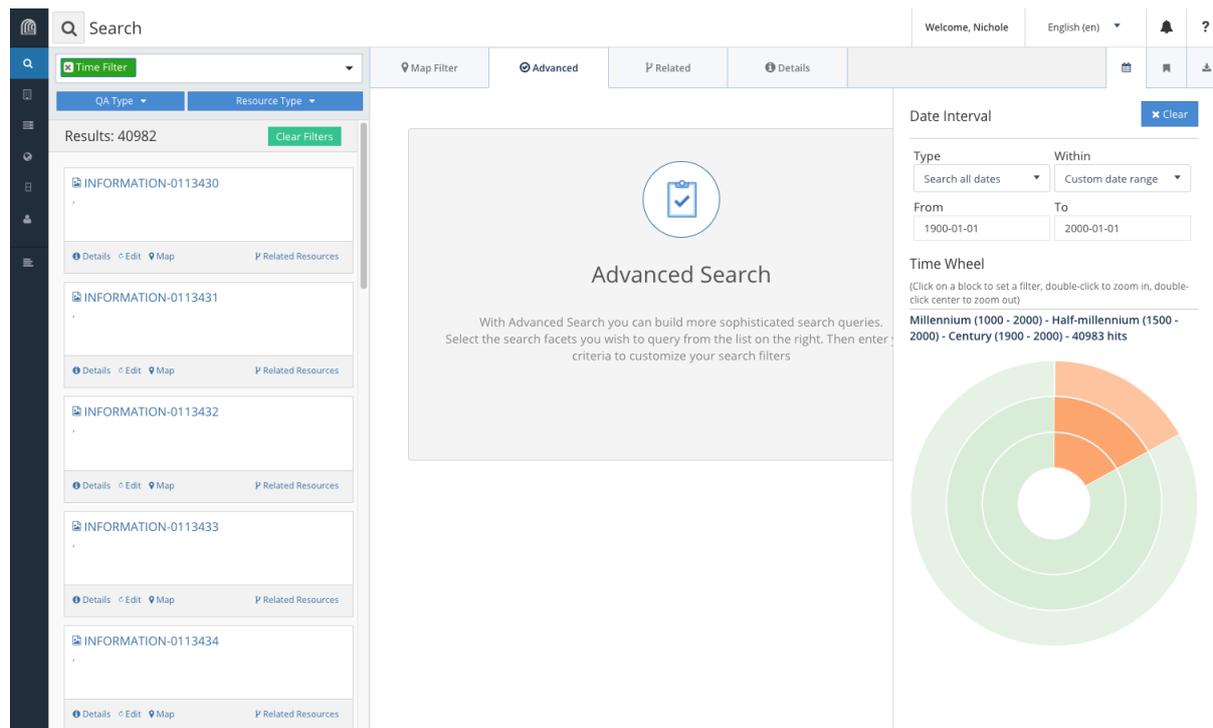


Figure 13

To reset or turn off the Date Filter, click ‘Clear’ in the upper right corner, or delete the ‘Time Filter’ entry in the Simple Search Bar on the left.

You can click on the ‘calendar’ icon again (Figure 8) to hide the ‘Date Interval’ window so that you can see the Advanced Search Facets again and combine Time searches with other types of searches.

- This will not clear your search parameters until you click ‘Clear’ in the upper right corner or remove the ‘Time Filter’ entry from the Search Bar on the left.

For example, if you want to search for all records you have made or contributed an assessment to this year:

- Search for your name in the ‘Assessment Summary’ Search Facet.
- Open the ‘Date Interval’ window and choose ‘Assessment Summary / Activity Date’ from the type
- Choose ‘This year’ from the ‘Within’ field or enter the dates in the From and To fields (Figure 14).

The screenshot shows the EAMENA search interface. On the left, a search bar contains the text 'Search'. Below it, there are tabs for 'Advanced Search' and 'Time Filter'. The search results are displayed in a list on the left, showing records with IDs like EAMENA-0188086, EAMENA-0188087, EAMENA-0188123, EAMENA-0188125, and EAMENA-0188129. The main content area shows the details for 'Heritage Place - Assessment Summary / ملخص التقييم'. The 'Assessment Investigator' field is set to 'Nichole Sheldrick'. The 'Date Interval' window is open, showing the 'Type' as 'Assessment Sum...' and 'Within' as 'This year'. The 'From' and 'To' dates are set to '2020-01-01' and '2020-12-31' respectively. A 'Time Wheel' chart is visible on the right, showing a donut chart with a green segment and an orange segment. Below the chart, it says '243806 date values'.

Figure 14: Search results for all records created or assessed by ‘Nichole Sheldrick’ in the year 2020.

For an additional example of a search using the Date Interval to find Information Resources of the imagery type acquired at a specific date, see **Tutorial 15: Information Resources, Section 5.1**.

### 3 Example Searches

In this section we will go through some additional example searches to demonstrate how to set up different types of searches.

#### 3.1 Example 1: Simple 'And' Search

You want to find all the sites where both 'Tomb/Grave/Burial' AND 'Altar' appear.

- In this case, you can use the Simple Search Bar or the Advanced Search
- Method 1 (Figure 15)
  - Type 'Tomb/Grave/Burial' into the simple search bar and choose the matching Concept
  - Type 'Altar' into the simple search bar and choose the matching Concept.

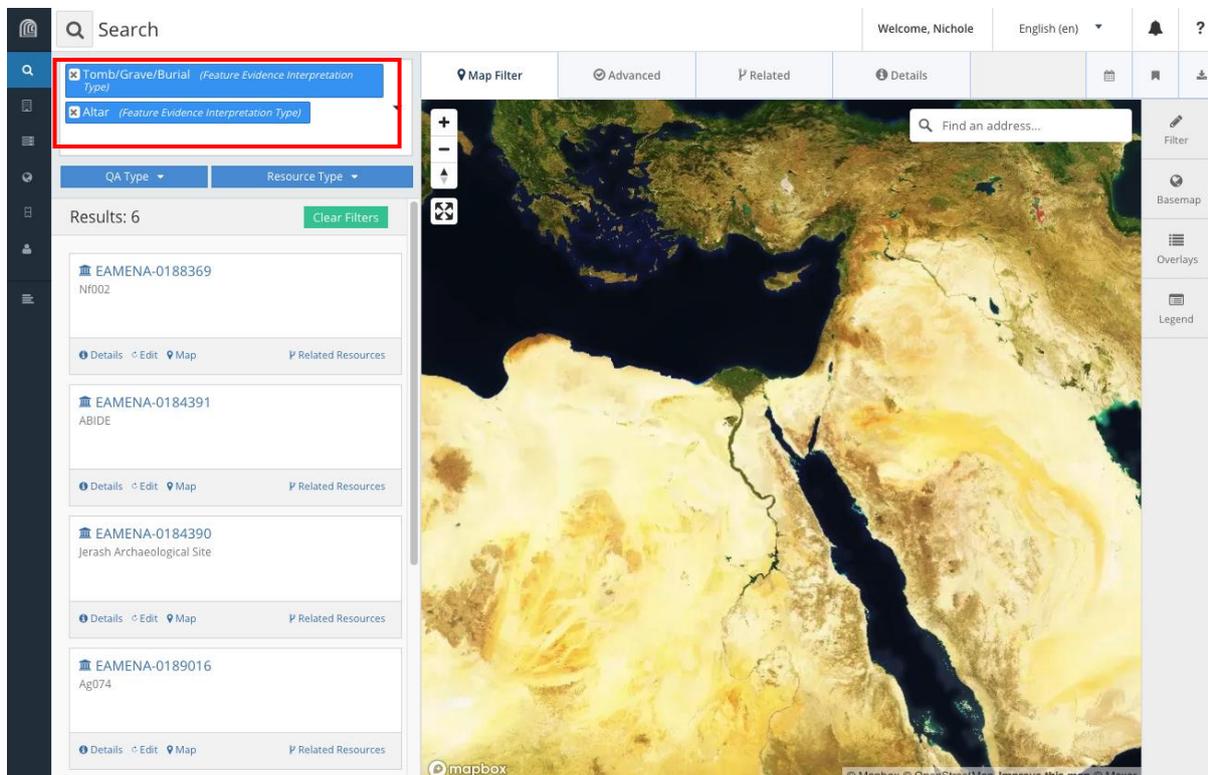


Figure 15

- Method 2 (Figure 16)
  - Click on Advanced Search
  - Scroll down and click on the 'Heritage Place – Site Feature Interpretation' Search Facet and to add it to the Advanced Search.
    - Choose 'Tomb/Grave/Burial' from the 'Site Feature Interpretation Type' Dropdown
  - Click on the Heritage Place – Site Feature Interpretation' Search Facet again to add another instance to the Advanced Search
    - Choose 'Altar' from the 'Site Feature Interpretation Type' Dropdown
  - Make sure the 'And' option is picked (this is the default).

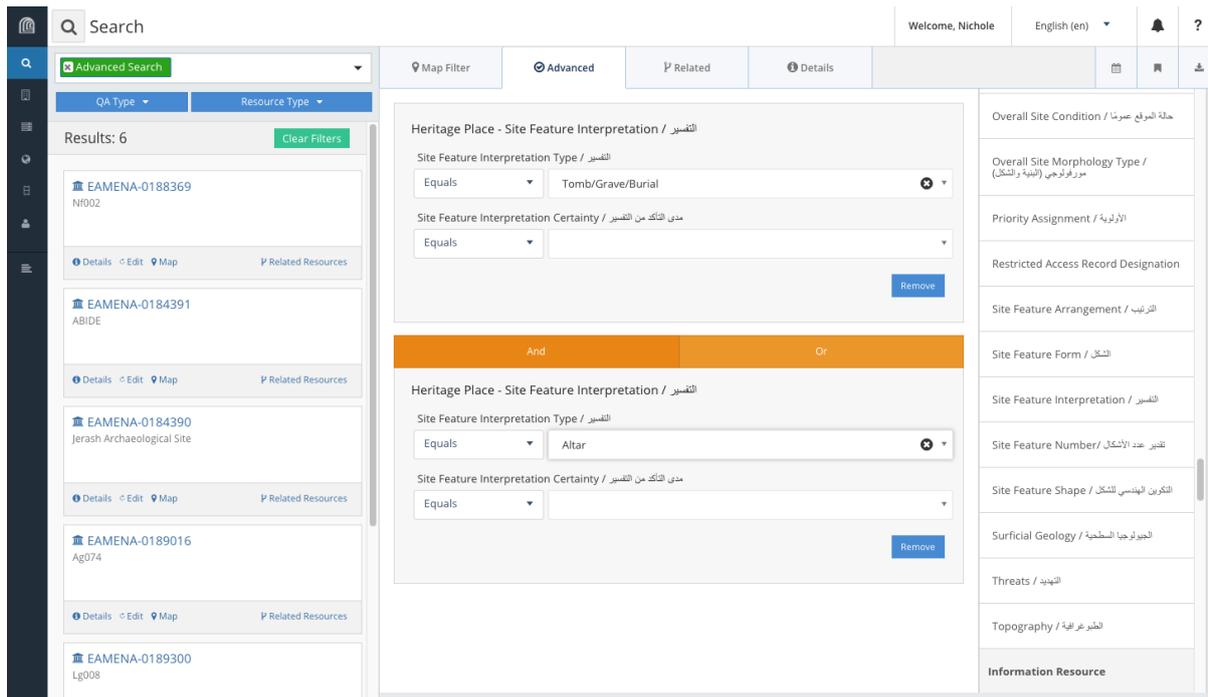


Figure 16

### 3.2 Example 2: Simple 'Or' Search

You want to find all the records in Morocco OR Algeria.

To conduct an 'Or' search, you MUST use the Advanced Search (Figure 17).

- Click on Advanced Search
- Scroll down and click on the 'Heritage Place – Geography' Search Facet and to add it to the Advanced Search.
  - Choose 'Morocco' from the 'Country' Dropdown
- Click on the 'Heritage Place – Geography' Search Facet again to add another instance to the Advanced Search
  - Choose 'Algeria' from the 'Country' Dropdown
  - Click on 'Or' to switch to that function.

The screenshot displays the EAMENA Advanced Search interface. On the left, a sidebar shows search filters for 'Resource Type' and 'QA Type', with 'Results: 2067' and a 'Clear Filters' button. Below this, a list of search results is shown, including entries like 'EAMENA-0095141' and 'EAMENA-0028337'. The main search area is titled 'Heritage Place - Geography / الجغرافيا' and contains several search facets: 'Overall Site Shape Type / الشكل العام للموقع', 'Cadastral Reference / مرجع تقسيم الأراضي', 'Country / الدولة', 'Grid ID / هوية الشبكة', and 'Resource Orientation / اتجاه الموقع الذي يحدد التسجيل'. Two instances of this facet are shown, one with 'Morocco' selected and another with 'Algeria' selected. Below the facets, a search logic selector is set to 'Or'. On the right, a metadata table is visible with fields such as 'Disturbance Event Timespan', 'EAMENA ID', 'Extent of Damage / مدى الضرر / الاضطراب', 'GE Imagery Acquisition Date', 'Geography / الجغرافيا', 'Geometries / أشكال هندسية', 'Heritage Place Function Assignment', 'Heritage Place Type / نوع الموقع التراثي', 'Imagery Acquisition Date / تاريخ الحصول على الصورة', 'Information Resource / مصدر المعلومات', 'Intervention & Recommendation / التدخل والتوصية', 'Land Cover / غطاء الأرض', 'Marine Environment / بيئة بحرية', 'Material / مادة البناء', 'Measurements / قياسات', 'Name / اسم', 'Overall Archaeological Certainty / مدى التأكيد الأثري', and 'Overall Site Condition / حالة الموقع عموماً'.

Figure 17

### 3.3 Example 3: Combining Advanced and Date Search

You want to find records that you made or did assessments for in Libya between January and June 2020 (Figure 18).

- Click on Advanced Search
- Scroll down and click on the 'Heritage Place – Geography' Search Facet and to add it to the Advanced Search.
  - Choose 'Libya' from the 'Country' Dropdown
- Scroll to and click on the 'Heritage Place – Assessment Summary' Search Facet to add it to the Advanced Search
  - Choose your name from the 'Assessment Investigator' Dropdown
  - Click on 'And' to make sure it is searching for both of the terms.
- Click on the 'Calendar' icon in the upper right to open the Time Filter.
  - Click on 'Type' and choose 'Heritage Place – Assessment Summary – Activity Date' from the dropdown
  - Choose 'Custom date range' from the 'Within' dropdown
  - Enter 2020-01-01 into the 'From' field
  - Enter 2020-06-30 into the 'To' field

The screenshot displays the EAMENA search interface. On the left, a sidebar shows search filters for 'Time Filter' and 'Advanced Search'. The main search results area shows 543 results, with a list of records including EAMENA-0188086, EAMENA-0188087, EAMENA-0188123, EAMENA-0188125, EAMENA-0188129, and EAMENA-0188139. The central panel shows the search criteria for 'Heritage Place - Geography' and 'Heritage Place - Assessment Summary'. The 'Geography' section includes filters for 'Overall Site Shape Type', 'Cadastral Reference', 'Country' (set to Libya), 'Grid ID', and 'Resource Orientation'. The 'Assessment Summary' section includes filters for 'Assessment Investigator' (set to Nichole Sheldrick), 'Activity Date' (set to =), 'Activity Type', and 'Investigator Role Type'. On the right, the 'Date Interval' section shows a 'Type' of 'Assessment Sum...' and a 'Within' filter of 'Custom date range' with 'From' set to 2020-01-01 and 'To' set to 2020-06-30. Below this, a 'Time Wheel' visualization shows a circular chart with 243810 date values, with a green segment representing the selected date range.

Figure 18

### 3.4 Example 4: Combining 'And' and 'Or'

You want to find all the records which record sites in Iraq OR Syria, AND date to the Islamic period, AND have a condition of either Destroyed OR Very Bad.

- Click on Advanced Search.
- Click on and add the Search Facets in the order below.

Heritage Place – Geography > Country > **Iraq**  
AND  
Heritage Place – Cultural Period > Cultural Period Type > **Islamic (Iraq)**  
AND  
Heritage Place – Overall Site Condition > **Destroyed**

OR

Heritage Place – Geography > Country > **Iraq**  
AND  
Heritage Place – Cultural Period > Cultural Period Type > **Islamic (Iraq)**  
AND  
Heritage Place – Overall Site Condition > **Very Bad**

OR

Heritage Place – Geography > Country > **Syrian Arab Republic**  
AND  
Heritage Place – Cultural Period > Cultural Period Type > **Islamic (Levant/Mesopotamia)**  
AND  
Heritage Place – Overall Site Condition > **Destroyed**

OR

Heritage Place – Geography > Country > **Syrian Arab Republic**  
AND  
Heritage Place – Cultural Period > Cultural Period Type > **Islamic (Levant/Mesopotamia)**  
AND  
Heritage Place – Overall Site Condition > **Very Bad**

### 3.5 Example 5: Combining Location and Advanced Search

You want to find all sites along a certain stretch of a wadi which have both Farm Buildings AND Tomb/Grave/Burial recorded at the site and are in Good OR Fair Condition.

- Click on Map Filter and then 'Filter' on the right side to open the Map Search options.
  - Zoom to the area you wish to Search
  - Draw a Polygon around the area you want to search (Figure 19).
  - See **Tutorial 1: Searching the Database (Basic), Section 3** for more details instructions on how to use the map to search.

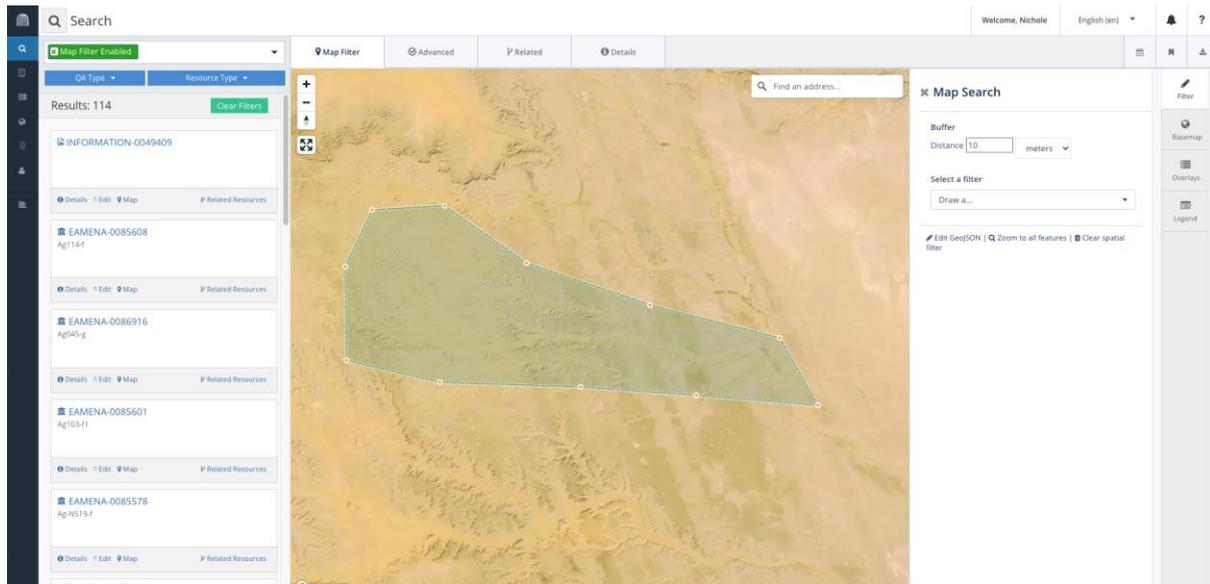


Figure 19: Defining the Search Area by drawing a polygon. There are 114 sites recorded in this area.

- Click on Advanced Search
- Click on and add the Search Facets in the order below (Figure 20).

Heritage Place – Site Feature Interpretation > Site Feature Interpretation Type > **Farm Building**

AND

Heritage Place – Site Feature Interpretation > Site Feature Interpretation Type > **Tomb/Grave/Burial**

AND

Heritage Place – Overall Site Condition > **Good**

OR

Heritage Place – Site Feature Interpretation > Site Feature Interpretation Type > **Farm Building**

AND

Heritage Place – Site Feature Interpretation > Site Feature Interpretation Type > **Tomb/Grave/Burial**

AND

Heritage Place – Overall Site Condition > **Fair**

The screenshot displays the EAMENA search interface. At the top, there is a search bar with the text "Search" and a "Map Filter" button. Below the search bar, there are tabs for "Advanced Search" and "Map Filter Enabled". The main content area shows search results for two sites: EAMENA-0085594 (Ag068-f1) and EAMENA-0085615 (Ag126-f1). Each site entry includes a "Details" link, an "Edit" link, a "Map" link, and a "Related Resources" link. The search criteria are displayed in a structured format with "And" and "Or" operators. The criteria include:

- Heritage Place - Site Feature Interpretation / التفسير: Site Feature Interpretation Type / التفسير: Equals Farm Building
- Site Feature Interpretation Certainty / مدى التأكد من التفسير: Equals
- Heritage Place - Site Feature Interpretation / التفسير: Site Feature Interpretation Type / التفسير: Equals Tomb/Grave/Burial
- Site Feature Interpretation Certainty / مدى التأكد من التفسير: Equals
- Heritage Place - Overall Site Condition / حالة الموقع عموماً: Overall Site Condition / حالة الموقع عموماً: Equals Good

On the right side, there is a list of filters including: Land Cover / غطاء الأرض, Marine Environment / بيئة بحرية, Material / مادة البناء, Measurements / قياسات, Name / اسم, Overall Archaeological Certainty / مدى التأكد الأثري, Overall Site Condition / حالة الموقع عموماً, Overall Site Morphology Type / مورفولوجي (البنية والشكل), Priority Assignment / الأولوية, Restricted Access Record Designation, Site Feature Arrangement / الترتيب, Site Feature Form / الشكل, Site Feature Interpretation / التفسير, and Site Feature Number / تقدير عدد الأشكال.

Figure 20: The combined Location and Advanced Search results. There are two sites which have both Farm Building and Tomb/Grave/Burial recorded and are in Good or Fair condition.