

ORACC IN KORP USER GUIDE (Korp v.9) – July 2024

Heidi Jauhiainen

Centre of Excellence of Ancient Near Eastern Empires, University of Helsinki

Korp is an online concordance tool that contains texts in various languages. It also contains two versions of the Open Richly Annotated Cuneiform Corpus (Oracc) data: Oracc in Korp 2021 is a snapshot from June 2021 and Oracc in Korp 2019 was downloaded in May 2019.

Direct link to **Oracc in Korp 2021**: <http://urn.fi/urn:nbn:fi:lb-2022031706>

Direct link to **Oracc in Korp 2019**: <http://urn.fi/urn:nbn:fi:lb-2019060602>

Instead of using the direct links, you can also go to <https://www.kielipankki.fi/corpora/oracc/> and click “Open the resource in the concordance service Korp” of either version. The page also has a link to the downloadable version of Oracc in Korp 2019. The downloadable version is a zip file containing .vrt files for each of the projects in that corpus. The files have one word per line with their tab-separated annotations.

You can also go to <https://kielipankki.fi/korp> and change the language from Finnish to English in the upper right corner of the window. Then select **Other languages** (referring to the languages of the text corpora) in the upper left corner. Finally, click the “Select corpora” bar next to the Korp logo and click the arrow next to the words **Cuneiform/Nuolenpääkirjoitus**. See below how to select a dataset.

The next snapshot of Oracc data for Korp is planned to be taken at the end of 2023 and to be released in the spring 2024.

Korp has

This guide replaces the one from July 2019. Korp has since then been updated to version 9 and moved to new servers. The Oracc in Korp 2021 been added with some new attributes for both Oracc corpora.

For a general guide to the Language Bank of Finland’s Korp tool see <https://www.kielipankki.fi/support/korp/>. Note that it is for the older version of Korp.

For technical questions or complaints about Korp write to kielipankki@csc.fi.

For any questions on the Oracc data in Korp, contact Aleksi Sahala at firstname.lastname@helsinki.fi.

If you have comments/suggestions concerning this user guide, you can send them to Heidi Jauhiainen at firstname.lastname@helsinki.fi.

I would like to thank Tero Alstola and Ellie Bennett for providing me with useful comments on this guide and Tero and Aleksi Sahala for most of the Akkadian examples on how to use Korp.

Table of Contents

1. SELECTING THE DATASETS.....	3
2. SIMPLE SEARCH	4
3. SEARCH RESULTS	5
4. EXTENDED SEARCH	7
5. MAKING MORE COMPLICATED QUERIES IN THE EXTENDED SEARCH	9
SEARCH EXAMPLE 1.....	10
SEARCH EXAMPLE 2.....	11
SEARCH EXAMPLE 3.....	12
SEARCH EXAMPLE 4.....	12
6. STATISTICS.....	13
STATISTICS EXAMPLE	13
7. MAP.....	14
MAP EXAMPLE.....	14
8. COMPARING RESULTS.....	16
COMPARISON EXAMPLE.....	16
9. EXPORTING THE RESULTS	17
10.ADVANCED SEARCH.....	18
ADVANCED SEARCH EXAMPLE.....	20

1. SELECTING THE DATASETS

You can choose the Oracc version by going to Korp using one of the urn-addresses on previous page or by going to the **Other languages** page in Korp and by ticking the box next to the name of it in the **Select corpora** dropdown. You will then be searching across all the corpora in that version. To select only one or a few corpora click the arrow left of the name of the chosen version to see the different datasets. You can select and deselect all the sets by ticking the box next to the version's name and, when unselected, choose the sets you are interested in.

The screenshot shows the Korp search interface. At the top, there are navigation links for 'Finnish', 'Swedish', 'Other languages', and 'Parallel'. The Korp logo is prominently displayed. Below the logo, there are search options: 'Simple', 'Extended', 'Advanced', and 'Compare'. A search bar is present with a 'Search' button. There are checkboxes for 'in order and also as', 'initial part', and 'compound_midd'. Below the search bar, there are settings for 'KWIC: hits per page: 25' and 'sort within corpora: not'. The main part of the interface is a dropdown menu showing '18 of 285 corpora selected — 1.98M of 4.63G tokens'. The dropdown is expanded to show a list of corpora under the 'Oracc 2019' version. The list includes: 'Astronomical Diaries Digital (Oracc 2019)', 'Achaemenid Royal Inscriptions online (Oracc 2019)', 'Bilinguals in Late Mesopotamian Scholarship (Oracc 2019)', 'Corpus of Ancient Mesopotamian Scholarship (Oracc 2019)', 'Corpus of Akkadian Shuila-Prayers online (Oracc 2019)', 'Cuneiform Texts Mentioning Israelites, Judeans, and Other Related Groups (Oracc 2019)', 'Digital Corpus of Cuneiform Lexical Texts (Oracc 2019)', and 'Digital Corpus of Cuneiform Mathematical Texts (Oracc 2019)'. The 'Oracc 2019' version is checked, and its sub-items are also checked.

Oracc in Korp 2021, contains texts from 29 different Oracc projects.

Oracc in Korp 2019 contains 18 categories, 17 of which correspond to Oracc projects. The category **Other projects** contains texts from several smaller projects:

- Idrimi: Statue of Idrimi
- akklove: Akkadian Love Literature
- Contributions Amarna
- CKST: Corpus of Kassite Sumerian Texts
- Glass: Corpus of Glass Technological Texts
- LaOCOST: Law and Order: Cuneiform Online Sustainable Tool
- OBTA: Old Babylonian Tabular Accounts
- Suhu: The Inscriptions of Suhu online.

Note that the *EPDS2: electronic Pennsylvania Sumerian Dictionary* is a huge corpus that may slow down your search. If you do not specifically need Sumerian texts in your search, you might want to untick both EPDS2 and ETCRSI: Electronic Text Corpus of Sumerian Royal Inscriptions. If you do not need the lexical lists, you can untick the quite large DCCLT: Digital Corpus of Cuneiform Lexical Texts.

2. SIMPLE SEARCH

Simple Extended Advanced Compare

kas-pu Search

in order and also as initial part compound_middle final part and case-insensitive

KWIC: hits per page: 25 sort within corpora: not sorted Statistics: compile based on: word Show statistics

Simple search lets you:

- search for the **transliteration** of a word
 - write the transliteration in the search box and hit Search (*Enter* does not work)
- search for a transliteration that
 - starts with the search query
 - check “ **initial part**” before clicking Search
 - contains the search query anywhere in the word
 - check “ **compound_middle**” before clicking Search
 - ends with the search query
 - check “ **final part**” before clicking Search
- use case-insensitive search (e.g. get *lugal* and *LUGAL* in one search)
 - check “ **case-insensitive**” before clicking Search

These selections can be combined!

You can add a transliteration of a second word to your search! By default, this searches for words **in order**, that is words that occur together in the order indicated. By unselecting the **in order...** box, the words can be anywhere in the document.

You might want to **deselect the box in front of the words Show statistics** (for statistics see section 6). If you use several subcorpora and statistics are calculated, the query time can get quite long.

Depending on your computer you might be able to write some of the special characters used for the transliteration and transcription of Akkadian and Sumerian words, but probably not all. **Here is a list you can copy and paste from:**

Special characters:

Ā á ē ī í ū ú š ṣ ’ η

Ā Á Ē É Ī Ū Ú ù Š Ṭ Ṣ Ḍ

Subscripts:

X₁ X₂ X₃ X₄ X₅ X₆ X₇ X₈ X₉ X₁₀ X₁₁ X₁₂ X₁₃ X₁₄

3. SEARCH RESULTS

The results will show all the instances of the searched word.

- The word(s) searched for will be highlighted and located in the middle of the result list one below another (this format is called Keyword in Context = KWIC).
- You can scroll the screen sideways to see more of the context of the word.

Search results for the transliteration KU₃.BABBAR.MEŠ (see previous page for the special characters). The mouse is hovering over the gray bar revealing that the RIAo project texts have 46 instances of the word.

Above the results, there is a list of page numbers with which you can move to another page. Depending on your browser, you might also see a gray bar showing the division of the results according to the subprojects. You can move directly to the results of a subproject by clicking the bar but note that it can take a while to load.

By default, there will be 25 results per page and the results are grouped by the projects chosen. The way the results are shown can be changed from the blue bar (starting with the word KWIC) below the search box:

- Hits per page: choose 50, 75, 100, 500 or 1000 hits on the page (since changing a page can take a while, using a bigger number of hits per page is recommended)
- Sort within corpora:
 - **not sorted** (default) shows the instances in the order they appear in the corpus
 - **matched words(s)** sorts according to the matches
 - **left context** sorts according to the preceding word
 - **right context** sorts according to the following word
 - **random**

If you change any of these settings, you will have to redo your search by clicking the Search button.

The results can also be seen in a larger context by clicking **Show context** to the right of the list of pages (or under the list if your window is narrow). You will then see the whole text of each document in the search results. You can return to the default view with **Show KWIC**.

Rīm-Anum: The House of Prisoners (Oracc 2021)

40 (GI)SA-HI.A a-na x nam-ha-ar-ti (m)ji-na-pa-li-šu ZI.GA ŠA₃ NA.KAM.TUM (TI)x-x mu ri-im-(d)a-nu-um **lugal** unug(KI) x x x ARAD (d)NIN.SI₃ AN.A NU₃ (d)GU.LA

2(BARIG) ZI₂.DA a-na ŠUKU LU₂ DU₂ GAR(KI) u₃ a-hi-a-tum ZI.GA ŠA₃ E₂ a-si-ri NIG₂ ŠU (d)EN.ZU-še-mi (TI)APIN.DU₆ A U₄ 11 mu ri-im-(d)a-nu **lugal** (d)EN.ZU-i-din-nam DUMU i-nu-x-x ARAD AN.AN.MAR.TU

1(BARIG) 4(BAN₂) a-na GEŠBUN UGULA MAR.TU-MEŠ u₃ a-hi-a-tim ZI.GA ŠA₃ E₂ A.SI.RUM NIG₂ ŠU (d)EN.ZU-še-mi (TI)SIG₂ A U₄ 4-KAM mu ri-im-(d)a-nu-um **lugal** unug(KI) u₃ a₂-dam-bi a-pil-(d)MAR.TU DUMU (d)ŠUL.GI-x ARAD NIG₂ (d)MAR.TU na-bi-i₃-li₂-šu BISAG.DUB.BA DUMU la-ki-ta-re-me-ni ARAD ri-im-(d)a-nu-um

{m}a-wi-li-ha LU₂ {IRI}x-x-x ŠA₃ 6 {LU₂}A.SI.RUM ša i-na ta-ar-ba-ši ša GU₂ {ID₂}GIŠ.GI.NIM x {m}i₂-li₂-e-mu-qa₂-šu {m}ni-in-x-x 2 {LU₂}A.SI.RUM ša i-na {IRI}BAD₃{KI}

When you click any word (i.e. not only the searched word) in the result list, you can see information about the corpus, word, and document in the **sidebar**.

The screenshot shows the Oracc search interface. The main area displays search results for the word 'lugal'. The results are listed in a table with columns for the word in the original text, its transliteration, and its meaning. The sidebar on the right provides detailed information about the corpus, text, and word attributes.

CORPUS
 Rīm-Anum: The House of Prisoners (Oracc 2021)
 Credits
 Subcorpus of: Oracc 2021
 Metadata
 Information page
 Link to corpus in Korp
 Persistent identifier: urn:nbn:fi:ib-2022031705
 Licence: CC BY-SA 3.0 (CLARIN PUB)

TEXT ATTRIBUTES
 CDLI number: rimanum/P405337
 provenance: Uruk (Warka)
 text languages: Uncertain or unspecified
 genre: Administrative
 period: Old Babylonian
 subgenre: bit asiri people
 museum number: BM 086052
 photo: [empty]
 copy: [empty]
 accession number: [empty]
 date BCE: [empty]
 primary publication: Nisaba 04/2, 25
 excavation: [empty]
 collection: [empty]

WORD ATTRIBUTES
 base form: qīštu
 part of speech: commonnoun
 msd: _
 translation (base form): gift
 translation (sense): gift
 transcription: qīštu
 oracc_pos_subcategory: N noun (including statives)
 standardized: _
 language/dialect: Old Babylonian
 autolemma: qīštu
 autopes: N
 link to Oracc: http://oracc.org/rimanum/P405337.1

CORPUS section has several links:

- Credits > the corpus in Oracc
- Metadata > MetaShare with information on the whole Oracc in Korp data
- information page > Oracc in Language Bank of Finland
- Link to corpus in Korp
- Persistent identifier of the MetaShare page
- Licence

TEXT ATTRIBUTES section has information on the document according to the information available in ORACC (see Section 4. *Extended Search* for the attributes and their explanation).

WORD ATTRIBUTES section has information on the word selected (see Section 4. *Extended Search* for the attributes and their explanation).

4. EXTENDED SEARCH

In addition to transliteration (word), the extended search tab lets you search by:

- word attributes
- text attributes

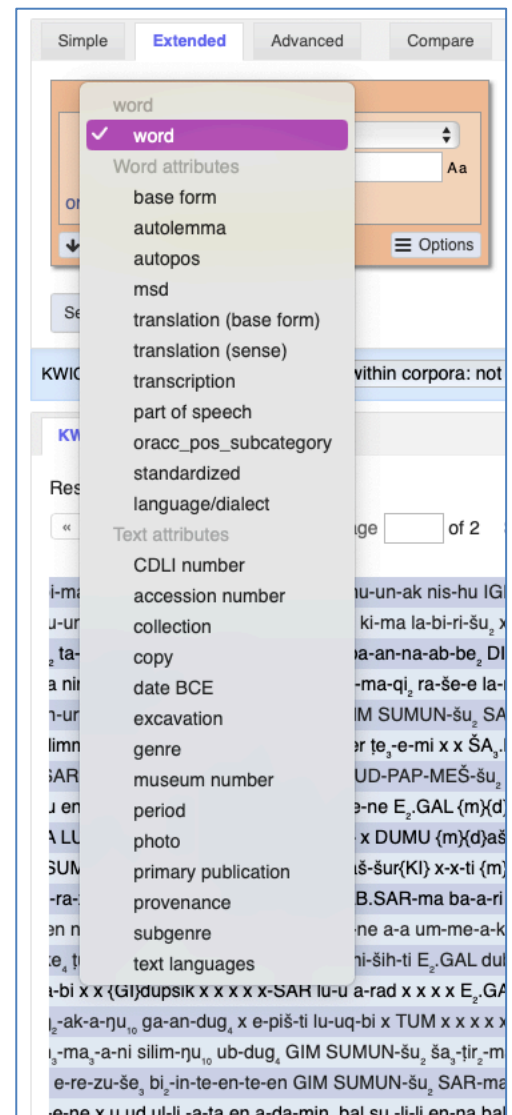
In the orange box, click the field that says “word” and you get a dropdown list of attributes. For the Oracc explanations of the attributes see [here](#).

The word attributes are:

- word = transliteration
- base form = dictionary headword in *A Concise Dictionary of Akkadian* (The Citation Form in Oracc)
 - if you want to search for a compound word (e.g. *mār bārê*), use “&&” to combine the base forms of the words (*māru&&bārû*)¹
- autolemma = base form produced with a tool called BabyLemmatizer at the University of Helsinki (<https://github.com/asahala/BabyLemmatizer>)
- autopos = part-of-speech tag produced with BabyLemmatizer
- msd = morphosyntactic descriptors for Sumerian
- translation (base form) = first translation of the dictionary form in CDA (The Guide Word in Oracc)
- translation (sense) = an optional meaning of the word in the context (Sense in Oracc)
- transcription = the normalization for the form (Normalization in Oracc)
- part of speech = the basic grammar of words, i.e. word classes, pronouns, and other tags used in [Oracc](#).
- oracc_pos_subcategory = An optional part-of-speech tied to the current syntactic context (The Effective Part-of-Speech tag in Oracc)
- standardized = normalized form of names of gods and places. See <https://github.com/anee-helsinki/OraccInKorp/tree/master/VersionMay2019> for the lists used (the same lists have been used for the Oracc in Korp 2021 version). Not in Oracc.
- language/dialect

The text attributes are:

- **CDLI number:** P-numbers and their matching designations have been assigned by the [CDLI](#). Q-numbers refer to Oracc’s central [Q-catalogue](#) of composite texts.
- accession number
- collection
- copy (of)
- date BCE
- excavation
- genre
- museum number
- period
- photo
- primary publication
- provenance
- subgenre (as defined in Oracc)
- text languages, i.e. languages assigned to the whole text

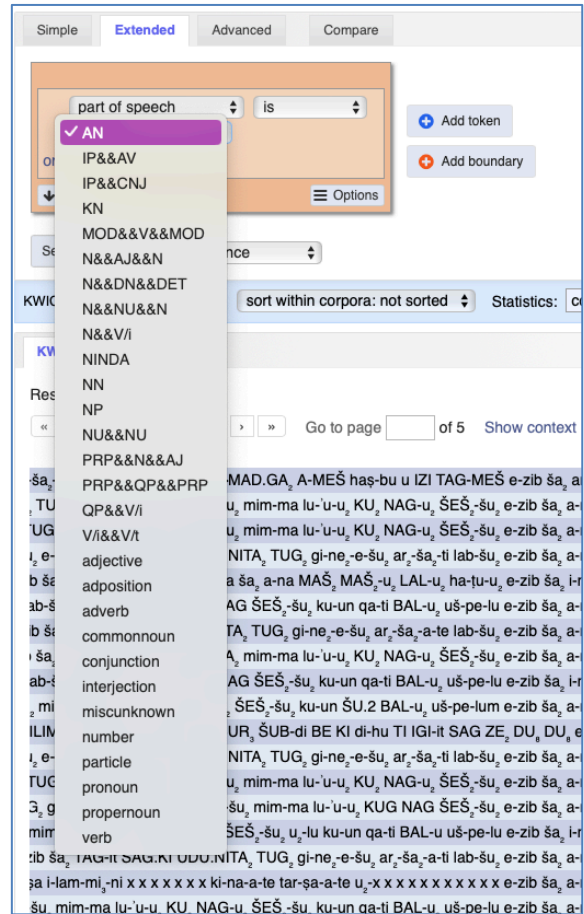
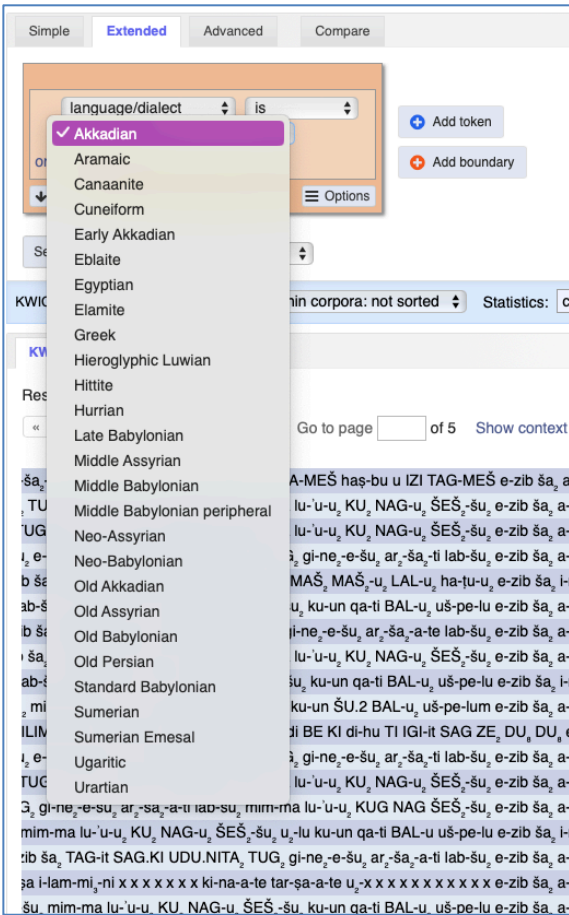


¹ Note that the way compound words are written in different projects in Oracc varies. The joined words which in Oracc have separate translations, word classes, etc. have in Korp been joined with “&&”. Sometimes compound words in Oracc have been defined as one word and the parts have been joined with “-”, e.g. *EN-MU.MU*, baseform *bēl-zakār-šumi*. Sometimes the parts of a compound word are all defined separately.

The search field underneath will change into a dropdown list of possible values if you choose

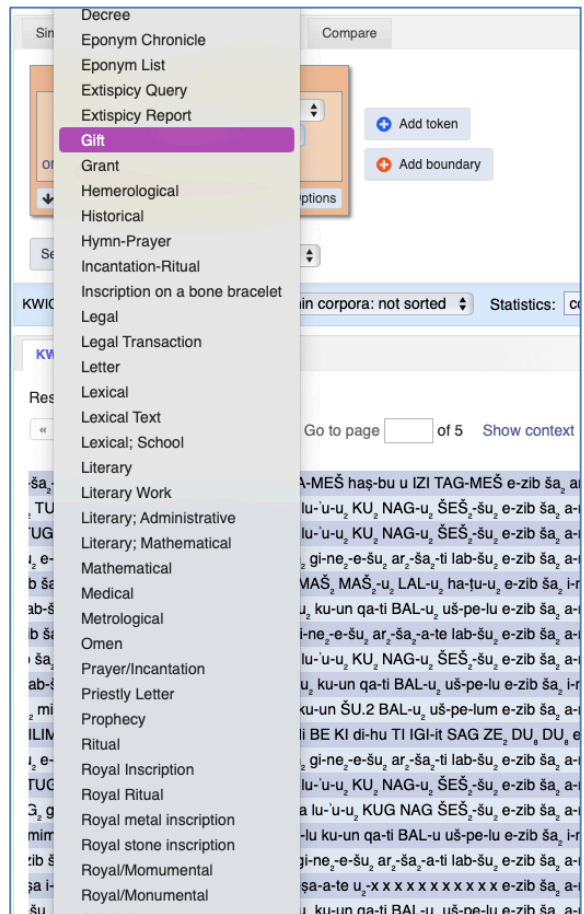
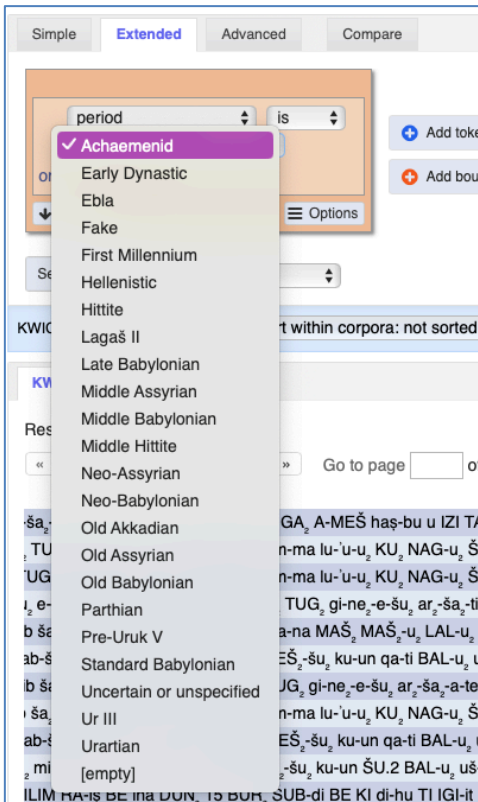
- part-of-speech

- language/dialect



- genre

- period



In some of the other cases, you get a list when you click the text box and start writing. In other cases, such as the CDLI-number, you have to write the value you are looking for in the field. In the sidebar, you can find hints on what the different attributes can contain.

In all cases, you can choose whether you want that the search term

- is
 - is not
- in the results.

When there is no dropdown list, you can also specify if you want that the searched word

- begins with
 - contains
 - ends with
- the given value.

or that it

- is
 - is not
- the regular expression (regexp) given.

The regular expression is explained in the last section Advanced Search and is only of interest to those who want to do more complicated searches. It is possible to do complicated searches already using the Extended search even without the regular expressions (see next section).


Note that although Korp in Extended search gives you an option (right of the search button) of searching “within sentence”, in practice the searches in Oracc corpora are all within the whole text.

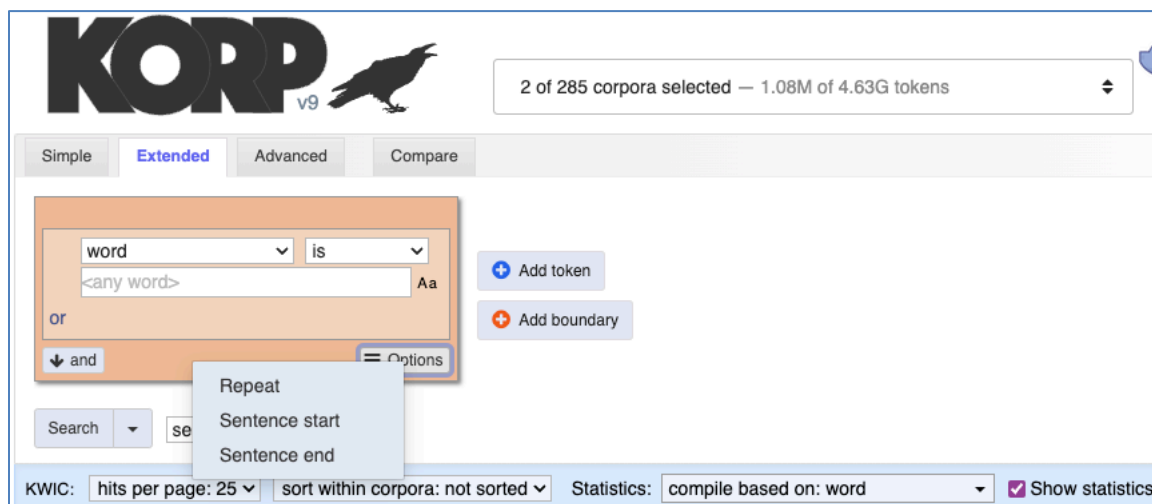
5. MAKING MORE COMPLICATED QUERIES IN THE EXTENDED SEARCH

Click the  Options button on the right lower corner of the orange search box to find more options

- **Repeat** – find words that occur several times right after each other (for how to use this, see Search example 2)
- **Sentence start** – find word instances that are only at the beginning of a text
- **Sentence end** – find word instances that are only at the end of a text

These sentence boundaries will open a Boundary unit box before or after the search box

These can also be added by clicking the  Add boundary button and choosing ←first or last→



The orange box is the heart of the Extended search and represents one word.

Click **or** in the left bottom corner of the search box and specify another word to get the attestations of both

- e.g. find all words where word (i.e. transliteration) is either *lugal* or *LUGAL*

Click the **and** button in the lower part of the box and specify an attribute that the word must have to narrow down your search (note that searching for the same attribute in both options will not give any results)

- e.g. find words the normalization (i.e. transcription) of which is *kaspa* and the word (i.e. transliteration) is not *KU₃.BABBAR*

Click the **Add token** sign to the right of the box and specify another word that has to follow the first one

- e.g. base form (i.e. dictionary form) is *šarru* + base form is *dannu*

All these options can be combined as many times as you want!

You can remove additional words by clicking the x in the top left corner of an orange box. The word attributes added by clicking or-button can be removed by clicking the – on the left side of the box. These options are only available when words or attributes have been added.

Search example 1

Words (i.e. transliterations) that begin with the letter “a” and where the part of speech is verb and the language/dialect is Akkadian.

DO:

word begins with a

and

part of speech is verb (from the dropdown)

and

language/dialect is Akkadian (from the dropdown)

Search

The screenshot shows the Oracc search interface with the following search criteria:

- word: a (beginning with)
- part of speech: verb
- language/dialect: Akkadian

Buttons for "Add token" and "Add boundary" are visible. The search results show 10,436 hits. The first result is:

ADSD: ASTRONOMICAL DIARIES DIGITAL (ORACC 2021)

sin x GIR₃-ar₂-ša₂-A 4 SI 27 17 KUR ITU BI KI.LAM x 4 MA.NA a-na 1 GIN₂ KU₃.BABBAR x el-te-me um-ma LUGAL x (ITU)DU₃ 30 9.30 a-kam₂ i sin x le-bat ina x x ina TIL ITU ina RIN₂ x x ILLU 1 KUŠ₂ GIN 12 8 U LAL x x x E(KI) ina ga-ši-šu₂ a-Il-I x GAN 1 x x x x x x x x sin SIG MAŠ.MAŠ-ar₂ EN TIL ITU 4 SI GIN 32+x na ITU BI U₂ 25.KAM₂ ina (URU)se-lu-ke-'a-a x x x ina ga-ši-šu₂ a-lil GE₂ 27 x x x APIN 30 x KUŠ₂ GE₂ 5 SAG GE₂ sir šu-ša₂-ar(KI) E ITU BI U₂ 10+x.KAM₂ ši-piš-tu₂ ša₂ LUGAL ana UGU x ŠE 1 22.30 na AGA a-plir kal GE₂ ŠU₂ GIR₂ AN DUL 1 x x DUL GE₂ 2 24 ILLU x (ID)pa-lu-ka₂ LAL TA 26 EN TIL ITU ILLU 20 SI KA₂-tu₂ x x x DU₂ 1 14 na AGA a-plir TA muh-hi x (d)EN A ša₂ (m)GI-lm-(d)EN x EN.N x EN TIL ITU ILLU 20 SI GIN APIN u GAN NU ba-ar₂ AB N N na ina šamaš₂ GUB IGI AGA a-plir 1 KAK.BAN ana ME E-a AB u ZIZ₂ ina (GIŠ)DA I ILLU ana IGI ITU BI (LU)GIG(MEŠ) MAH UŠ₂(MEŠ) i-šal x x (ITU)GAN 1 17 na KUR₂ AGA a-plir ana šamaš₂ SIG 1 GU₂UD ina ŠU₂ ina PA ŠU₂ x d TAB-u₂ ina 22 GE₂ TA ULLU₂ u MAR ana SI ZALAG₂ 2+x 1 KUŠ₂ 4 SI ina IGI GIR₂-ar₂-ša₂-A a-dir MAR u ULLU₂ GIN(ME) ina GAR ana DIR KU₂ x C

Search example 2

Texts from the Neo-Assyrian period featuring base form (i.e. dictionary form) of the divine name “Aššur” and the translation “king” with no more than 8 words in between.

DO:

base form is Aššur

and

oracc_pos_subcategory is DN Divine Name

and

period is Neo-Assyrian

+Add token

word is <any word>

Options: Repeat

Repeat 0 to 8 times

+Add token

translation (base form) is king

Search

The screenshot shows the ORACC search interface with the following search criteria:

- base form is Aššur
- oracc_pos_subcategory is DN Divine Name
- period is Neo-Assyrian
- word is <any word> (Repeat 0 to 8 times)
- translation (base form) is king

Search results are displayed in a table with columns for the original text, the search terms, and the translation. The results are filtered to show 428 hits.

Original Text	Search Terms	Translation
I-za-qu-pa-ni I-GIL-u-ni 5 MA.NA KU ₃ .BABBAR SUM-an	aš-šur (d)ša ₂ -maš (d)EN (d)PA LUGAL	DUMU-MAN
a de-ni-šu ₂ DU ₁₁ .DU ₁₁ -ma NU TI-qe ₂ man-nu ša ₂ GIL-u-ni	aš-šur u ₃ (d)ša ₂ -maš EN u ₃ (d)PA a-de-e ša ₂ LUGAL	lu-u EN-de-ni
ma TA mam ₂ -ma la DU ₁₁ .DU ₁₁ man-nu ša ₂ ib-bal-ka ₃ -u-ni	aš+šur (d)ša ₂ -maš a-de-e ša ₂ LUGAL	ina ŠU.2-šu ₂
UMU.MEŠ-šu ₂ DUMU DUMU.MEŠ-šu ₂ i-dab-bu-ub-u-ni	(d)aš+šur (d)UTU EN (d)PA lu EN de-ni-šu ₂ a-de-e ša ₂ LUGAL	ina ŠU.2-šu ₂
ana EN-ša ₂ GUR-ra ina de-ni-šu ₂ DU ₁₁ .DU ₁₁ -ma NU TI-qi	aš+šur (d)UTU a-de-e ša ₂ LUGAL	lu-u EN de-ni
ni ₂ -ma KI mam ₂ -ma la DU ₁₁ .DU ₁₁ -ub man-nu ša ₂ BAL-u-ni	aš+šur (d)UTU lu EN de-ni-šu ₂ a-de-e ša ₂ MAN	ina ŠU.2-šu ₂
NI.MEŠ-šu ₂ GUR-ra ina de-ni-šu ₂ DU ₁₁ .DU ₁₁ -ma la I-laq-qi	aš+šur (d)UTU lu EN de-ni-šu ₂ a-de-e ša ₂ LUGAL	ina ŠU.2-šu ₂
a TA mam ₂ -ma NU DU ₁₁ .DU ₁₁ man-nu ša ₂ ib-bal-ka ₃ -u-ni	aš+šur (d)UTU lu-u EN de-ni-šu ₂ a-de-e ša ₂ MAN	ana ŠU-šu ₂ lu
ni ₂ I-na-ši MUNUS ina AD-ša ₂ tal-lak man-nu ša ₂ GIB-u-ni	aš+šur (d)UTU ina ŠU.2-šu ₂ lu-ba-i-u a-de-e ša ₂ LUGAL	ina ŠU.2-šu ₂
ATAE: ARCHIVAL TEXTS OF THE ASSYRIAN EMPIRE (ORACC 2021)		
	aš-šur MAN	gim-rat DINGIR
aš-šur-KAL-an GIR ₃ .ARAD DINGIR.MEŠ GAL.MEŠ ŠID	aš-šur A (m)GISKIM-A-e ₂ -šar ₂ -ra x A aš-šur-SAG-I-ši MAN	da-pi-nu mu
NUŠ ŠID aš-šur A aš-šur-PAP-A (LU ₂)GAR (d)BAD ŠID	aš-šur A tukul-ti-(d)MAŠ (LU ₂)GAR (d)BAD ŠID aš-šur-ma MAN	ba-i-it DINGIR
RIAO: ROYAL INSCRIPTIONS OF ASSYRIA ONLINE (ORACC 2021)		

On the right side of the interface, there is a sidebar with the following information:

- CORPUS:** ATAE: Archival Texts of the Assyrian Empire (Oracc 2021)
- Credits:** Subcorpus of: Oracc 2021
- Metadata:** Information page, Link to corpus in Korp
- Persistent identifier:** urn:nbn:fi:ib-2022031705
- Licence:** CC BY-SA 3.0 (CLARIN PUB)
- TEXT ATTRIBUTES:** CDLI number: atae/ctn6/P517141, provenance: Nimrud (Kalhu), text languages: Akkadian, genre: Legal, period: Neo-Assyrian, subgenre: [empty], museum number: BM 131983

Search example 3

Word (i.e. transliteration) “DINGIR-MEŠ” or “DINGIR” followed by (+Add token) any adjective, i.e. part of speech is adjective (from the dropdown).

Search criteria: word is DINGIR-MEŠ or DINGIR; part of speech is adjective. Search within sentence.

Results: 470

KWIC: hits per page: 25; sort within corpora: not sorted; Statistics: compile based on: word

ADSD: ASTRONOMICAL DIARIES DIGITAL (ORACC 2021)

Corpus: ADsD: Astronomical Diaries Digital (Oracc 2021)

Search example 4

Base form (i.e. dictionary form) “eqlu” in texts where provenance is Uruk (start writing Uruk), period Hellenistic (from the dropdown), and genre Legal (from the dropdown).

Search criteria: base form is eqlu; provenance is Uruk (Warka); period is Hellenistic; genre is Legal. Search within sentence.

Results: 3

KWIC: hits per page: 25; sort within corpora: not sorted; Statistics: compile based on: word

CAMS: CORPUS OF ANCIENT MESOPOTAMIAN SCHOLARSHIP

Corpus: CAMS: Corpus of Ancient Mesopotamian Scholarship (Oracc 2021)

6. STATISTICS

The Statistics tab to the right of the table called KWIC in the search results gives the number of occurrences for each matched word both in all results (Total) and within individual corpus/dataset. For the statistics to be calculated the box before the words **Show statistics** in the blue bar (starting with the word KWIC) below the search box **must be checked** before performing the search.

- The number of occurrences is shown as relative frequencies per million tokens, a common measure in corpus linguistics.
- The numbers in parentheses are the absolute frequencies (i.e. the number of occurrences).
- The default view shows the statistics of the transliteration(s) of the word searched regardless of what attributes were searched for.
- You can change what attribute(s) are considered by selecting the attributes you want from “Statistics: (compile based on:)” in the blue bar and then clicking Search. You can even choose several at once (when you change the selection, hit Search again):
 - e.g. search for all occurrences of words the translation of which contains “love” and base the statistics, for example, on base form, part-of-speech, and language/dialect to see what combinations there are in the results.
- You can sort the statistics according to any column by clicking the heading of that column. The columns with words will be sorted alphabetically and the numbers numerically. Clicking a second time will reverse the sorting.

You can see the texts of an individual line in the statistics by clicking a word on that line. You will get a new tab with the KWIC view of those results within your original search.

Statistics example

Search for the base form *dannu* and base the statistics on word (= transliteration), translation (of base form), and part of speech. Click Search. Go to Statistics tab and order the data according to translation by clicking the heading *translation*.

word	translation (base form)	part of speech	Total	ADsD: Astr...	AEMW: Ak...	Akkadian ...	ARlo: Ach...	ATAE: Arc...	blms: Bilin...	BT
<input checked="" type="checkbox"/> dan-nu	(large) vat	commonnoun	0.9 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> dan-nu-tu	(large) vat	commonnoun	0.1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> {DUG}dan-nu	(large)vat	commonnoun	0.1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> dan-nu	strong	adjective	130.9 (903)	52.6 (12)	11.1 (2)	0 (0)	170.6 (2)	201.3 (11)	84.5 (5)	0 (0)
<input type="checkbox"/> dan-nu-ti	strong	adjective	40.1 (277)	0 (0)	0 (0)	0 (0)	0 (0)	36.6 (2)	16.9 (1)	0 (0)
<input type="checkbox"/> dan-ni	strong	adjective	24.2 (167)	0 (0)	0 (0)	0 (0)	0 (0)	54.9 (3)	0 (0)	0 (0)
<input type="checkbox"/> KALAG	strong	adjective	16.2 (112)	437.9 (100)	0 (0)	0 (0)	0 (0)	36.6 (2)	0 (0)	0 (0)
<input type="checkbox"/> dan-nu-te	strong	adjective	8.1 (56)	0 (0)	0 (0)	0 (0)	0 (0)	18.3 (1)	0 (0)	0 (0)
<input type="checkbox"/> dan-nu-ti-šu	strong	adjective	7.2 (50)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> KAL-MEŠ	strong	adjective	6.7 (46)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> da-nu-tim	strong	adjective	5.7 (39)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> da-num	strong	adjective	5.5 (38)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> dan-na-at	strong	adjective	4.9 (34)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> KALAG-MEŠ	strong	adjective	4.8 (33)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> *	strong	adjective	4.5 (31)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> dan-na	strong	adjective	3.9 (27)	0 (0)	5.6 (1)	0 (0)	0 (0)	0 (0)	16.9 (1)	0 (0)

7. MAP

The Statistics tab also allows viewing the provenance of the documents with the searched words in a map. You can use it for all kinds of searches, but it is best suited for comparing words or word forms and their use in different parts of the ancient Near East (but remember that a text was not necessarily written in the place it was found in).

To use the map, make a search with the Show statistics selected. It is best, but not necessary, to compile based on just one attribute such as base form. Then **in the Statistics tab select the words you want to see in the map.** You can easily select all rows by selecting the checkbox in the heading row. If you have searched for a transliteration or based your search on several attributes, you might want to choose only some of the rows to see on the map. **Click the Show map and then select Show map.**

Map example

Search for the base forms of *uqnû* (i.e. lapis lazuli), *elmēšu* (amber), *annaku* (tin), or *siparru* (bronze)

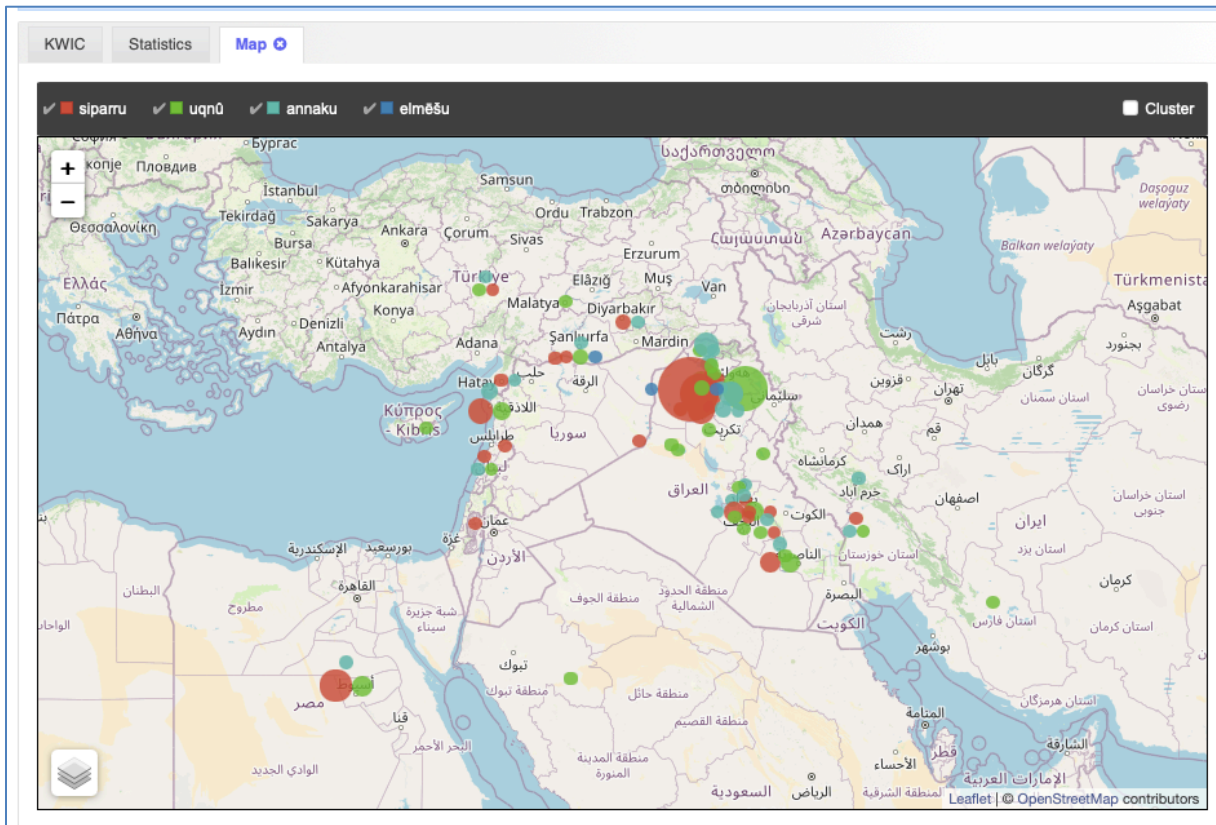
How to view words on map

Remember to set this to autolemma / baseform depending on your search

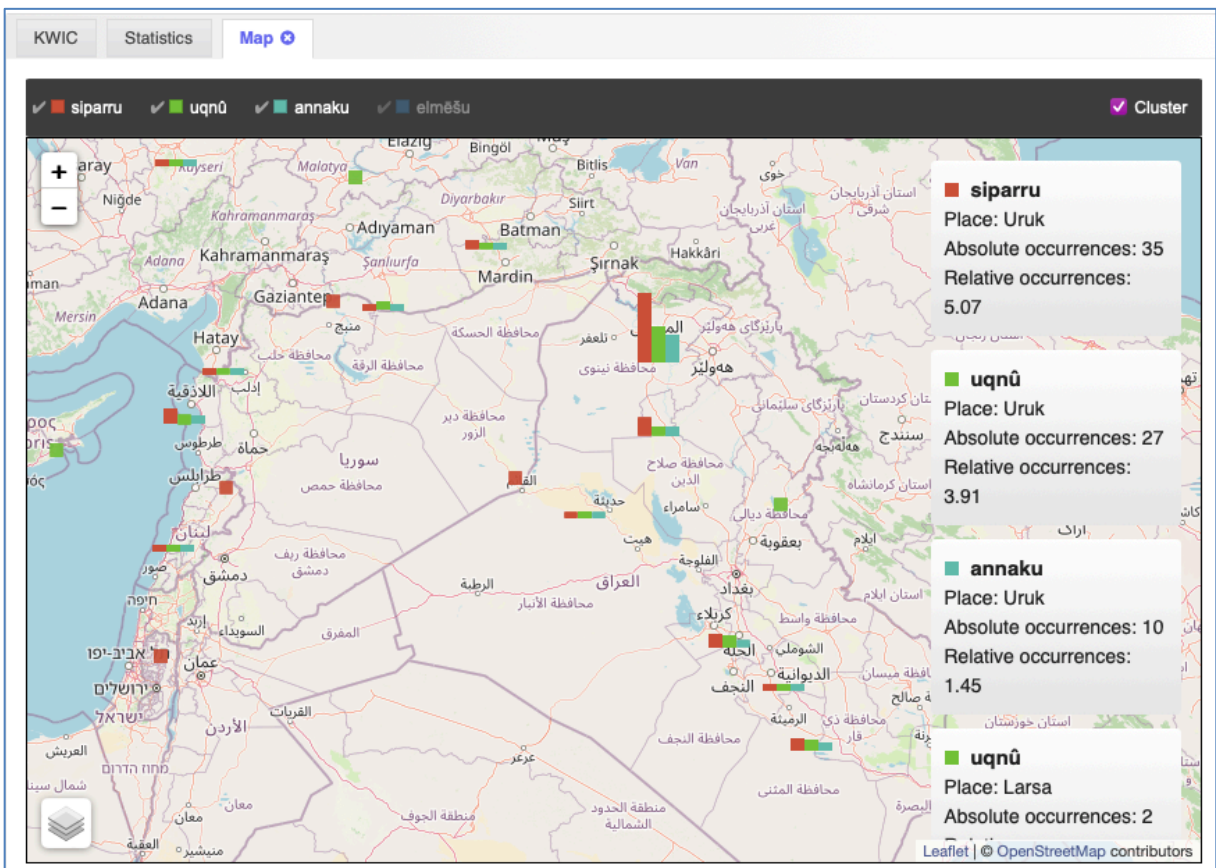
Show selected items on the map

	autolemma	Total	ADsD: Ast...	AEMW: Ak...	Akt
Σ		204,8 (1 413)	4,4 (1)	1 301,5 (234)	835
siparru		111,5 (769)	0 (0)	839,8 (151)	0 (0)
uqnû		59,9 (413)	4,4 (1)	350,4 (63)	417
annaku		32,2 (222)	0 (0)	111,2 (20)	417
elmēšu		1,3 (0)	0 (0)	0 (0)	0 (0)

Example by Aleksis Sahala.



In the map view, you can select and unselect the words shown in the black bar above the map. By checking the box next to the word Cluster in the right upper corner, you will see provenances for each site as a bar diagram. By hovering with the mouse over a place/circles/bars you will see statistics for the words in that location.



Map where the box next to Cluster is ticked and only 3 of the words is selected (in the black bar). The mouse is hovering over the place Uruk revealing the statistics for the selected words in that location.

8. COMPARING RESULTS

You can save searches for comparison with each other.

When you have typed in your search, click the arrow in the search button and give your search a name. When you have at least two saved queries, go to the Compare tab (above the search box, to the right of the simple and extended search tabs) and choose from the dropdown lists:

- queries to compare
- what attribute the comparison is based on

Click Compare.

The results will be shown in a new tab, thus your latest search is still active.

Comparison example

Search for two consecutive words with the translations (sense) “king” and (+Add token) “strong” (bear in mind that adjectives follow nouns in the Akkadian word order). After the search results have loaded, click the arrow in the search button, name the search `Strong_king` (in the box that opens) and click Save.

Search for two consecutive words with the translations (sense) “king” and “great”. Name it `Great_king` and Save.

The Compare tab will now have the number 2 on its title (the number is higher if you have saved more searches). Go to the Compare tab and choose to Compare the saved query `Strong_king` with `Great_king` and compile based on transcription. Click Compare.

Prominent in <code>Strong_king</code>	Prominent in <code>Great_king</code>
šarru dannu 552	šarru rabû 414
MAN DANNU 122	šarri rabî 110
šarri dannu 36	xšāyaθiya vazrka 78
šar dannu 34	MAN alsuini 60
šarri dannu 12	šar rabû 39
MAN taraie 10	mlk rb 25
šarri dannatu 4	šarri rabê 17

Comparison of the number of instances of the different transcriptions of the phrases ‘strong king’ and ‘great king’ in Oracc in korp 2021 (excluding DCCLT, EPSD2, and ETCSRI).

There is a button to the right of the comparison options to Delete saved searches. You do not have to do this, since you can name different searches with different names and use them also later by choosing them from the dropdown once you are in the Compare tab. If you close the window (or even the browser), the cookies will remember your saved searches when you come back to the *Other languages* section of Korp (i.e. not Finnish, Swedish, or Parallel).

9. EXPORTING THE RESULTS

You can export the results of your search in many different formats (the file formats supported in most cases are csv (colon-separated values), tsv (tab-separated values), and xls (excel)):

ANNOT_ = text as a table, one token (with annotations) per row

REF_ = a list with the transliteration of the text and the text attributes

SENTENCE_ = one text per row with transliteration, base forms, and text attributes + more

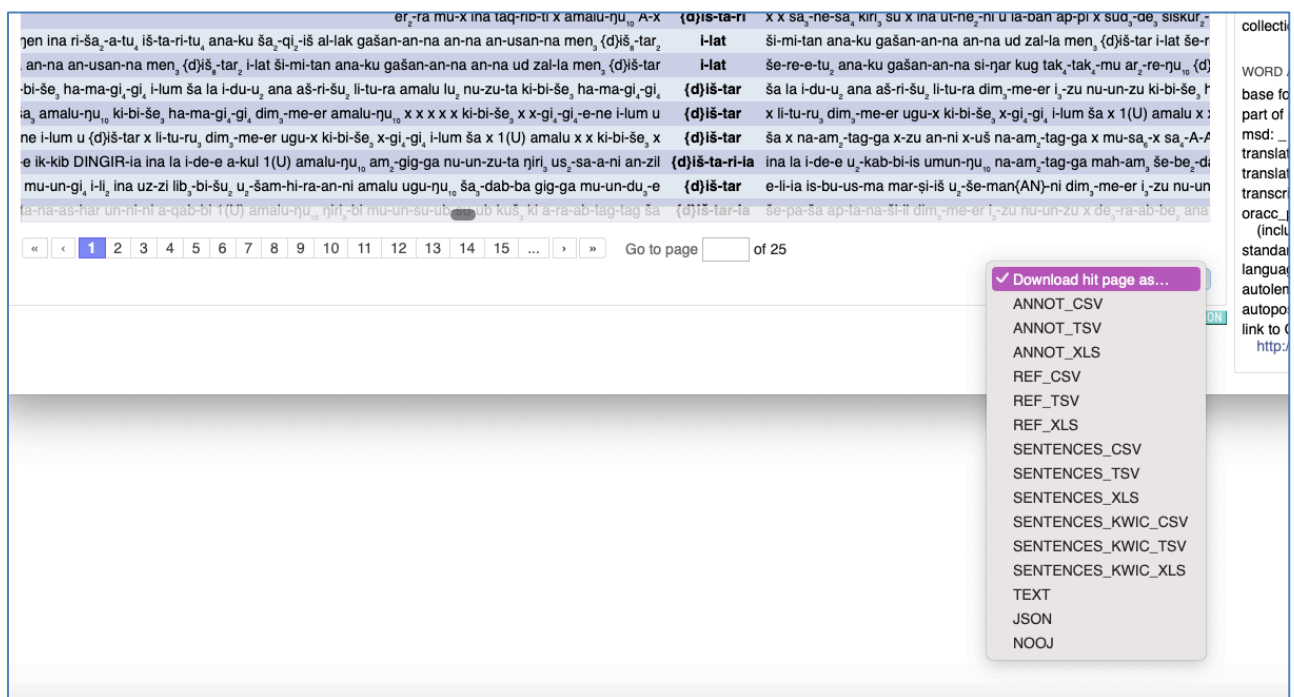
SENTENCE_KWIC_ = one text per row with transliteration, base forms, and text attributes +

TEXT = transliteration, one text per row

JSON = Structured format with text attributes and annotated words in attribute_name:attribute format

NOOJ = xml format for use in the NooJ-tool

Click the *Download hit page as...* in the lower right corner of the results area and from the dropdown select the desired format and file format by clicking a row. You do not have to do anything else! It may take a while before you see the prompt for where you want to save the file (in Windows) or the file starts downloading to your Downloads folder (in Mac).



The turquoise JSON button underneath the dropdown will open the JSON file in a new tab with all the annotated words of a text on one line.

You can also export the **Statistics** data. At the bottom of the Statistics tab select whether you want to export relative or absolute frequencies and whether you want to have the data in the csv or tsv format and hit **Generate export** and then **Export**. The JSON button here will open the statistics data in a new tab.

	1.7 (4)	0 (0)	10.7 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> MAN al-su-...	1.7 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> LUGAL GA...	0.9 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> **	0.9 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<input type="checkbox"/> MAN GAL-ni	0.9 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Relative frequencies | CSV (semicolon separated values) | Generate export

JSON

The Extended search is sufficient for most searches! The next section introduces the Advanced search function for even more complicated searches, and you might want to take a quick look at it especially if you are familiar with any programming languages. Or you can come back to it later if you feel like it. Anyway, **you should now be ready to use Oracc in Korp**. The best way to learn is by trying things out.
Have fun!

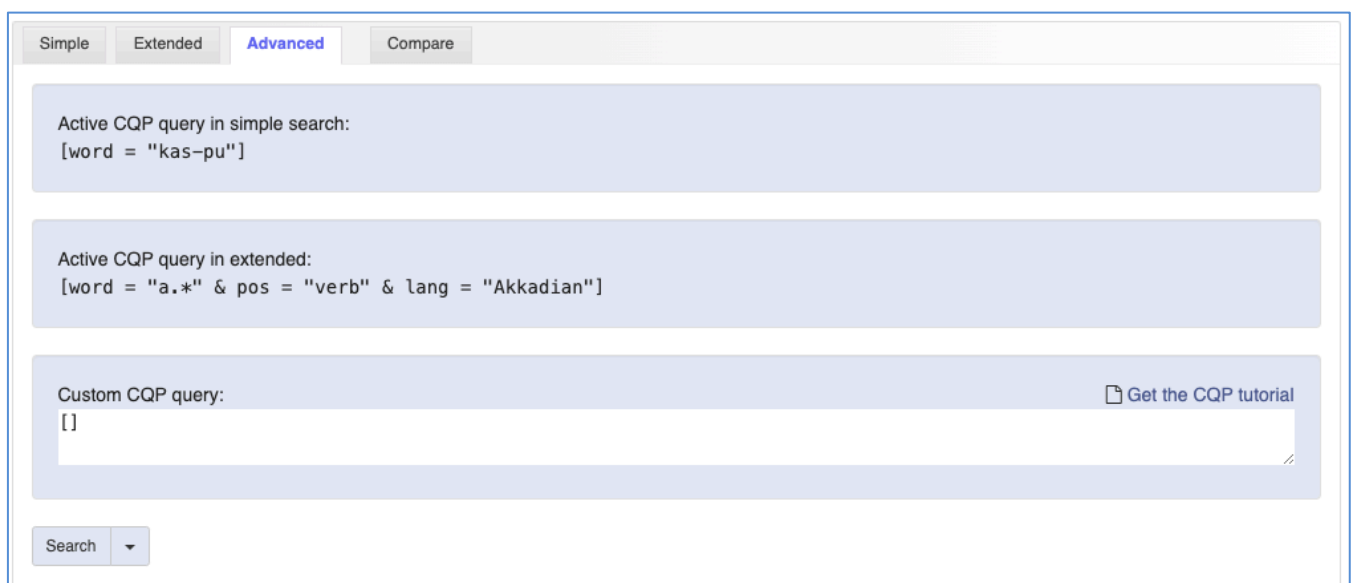
10. ADVANCED SEARCH

For a general guide for the advanced search in Korp see <https://www.kielipankki.fi/support/korp-advanced/>

What you cannot do with Extended search is combine two searches. For example, in Search example 2 above, we performed a search in texts from the Neo-Assyrian period containing the base form of the divine name “Aššur” and the translation “king” with no more than 8 words in between. With the Advanced search, you can add to the same search the cases where the translation “king” is *before* the divine name “Aššur”.

The Advanced search is performed by writing the query in the so-called CQP (Corpus Query Protocol) query language. If you want to use the Advanced search, it may take some learning.

The easiest way to start learning CQP is to perform a Simple or Extended search and then check in the Advanced tab what it looks like in CQP. In the Advanced tab, you will see the Active CQP query of the latest Simple and Extended searches.



The screenshot shows the Korp search interface with the 'Advanced' tab selected. It displays the following information:

- Simple tab: Active CQP query in simple search: [word = "kas-pu"]
- Extended tab: Active CQP query in extended: [word = "a.*" & pos = "verb" & lang = "Akkadian"]
- Advanced tab: Custom CQP query: []

A 'Search' button is located at the bottom left, and a 'Get the CQP tutorial' link is at the bottom right of the custom query box.

Advanced search tab after performing a Simple search “word (i.e. transliteration) is kas-pu” and the Extended search from Search example 1 above (Words (i.e. transliterations) that begin with the letter “a” and where the part of speech is verb and the language/dialect is Akkadian).

Brackets [] always represent an orange box in the search field, empty brackets stand for any word.

The attributes have slightly different names in CQP than in the Extended search:

	<i>CQP</i>	<i>Extended search</i>
Word attributes	word	word
	lemma	base form
	translation	translation (base form)
	transcription	transcription
	sense	translation (sense)
	pos	part-of-speech
	oraccpos	oracc_pos_subcategory
	standard	standardized
	lang	language/dialect
Text attributes	cdlinumber	CDLI number
	genre	genre
	provenance	provenance
	period	.text_period
	subgenre	subgenre
	language	text languages

For example, in Search example 2 above, we performed a search in texts from the Neo-Assyrian period containing the base form of the divine name “Aššur” and the translation “king” with no more than 8 words in between. In the CQP language, the search looks like this:

```
[lemma = "Aššur" & oraccpos = "DN Divine Name" & .text_period = "Neo-Assyrian"] []{0,8}
[translation = "king"]
```

The CQP uses mathematical, boolean, and regular expressions used in most programming languages. For example:

```
[lemma = "Aššur"]           words where base form is Aššur
[lemma != "Aššur"]          words where base form is not Aššur
[lemma = ".*Aššur.*"]       words where base form contains Aššur (‘.*’ stands for a letter zero or more times)
[lemma = "Aššur.*"]         words where base form starts with Aššur
[lemma = ".*Aššur"]         words where base form ends with Aššur
[lemma = "Aššur" & oraccpos = "DN Divine Name"] words where dictionary form is Aššur and oracc subcategory of the part-of-speech is DN Divine Name (must be both to match)
[word = "lugal" | word = "LUGAL"] words where transliteration is lugal or transliteration is LUGAL (both are a match)
[] {1,3}                     one, two, or three words without specifying what word
[word = "LUGAL"] {2,2}       words where transliteration is LUGAL right after words where transliteration is also LUGAL (e.g. LUGAL LUGAL in the text)
```

A guide to regular expression used in Korp (from <https://www.kielipankki.fi/support/korp-advanced/>)

.	any single symbol	
[...]	a set or range of symbols: any of the symbols inside the brackets	[aeiouyäö] matches a single Finnish vowel symbol and [a-hw-z] all the letters from a to h and w to z.
[^...]	the complement of a set or range of symbols, none of the symbols inside the brackets	[^abcw-z] matches any symbol except the letters a, b, c, w, x, y, and z.
RS	concatenation: the substring matched by the expression R if followed by a substring matched by the expression S	[a-z][0-9] matches a lowercase letter followed by a digit
(...)	grouping	
R*	repeat zero or more times; R can be a single character, a set of characters, or parentheses containing a regular expression	a.* matches all strings starting with an a, while a(bc)* matches the strings a, abc, abcbc, abcbbc etc.
R+	repeat once or more	goo+d matches the strings good, good, gooood etc.
R{n}	repeat exactly n times	
R{m,n}	repeat m to n times	
R?	optionality (repeat zero or one time)	favou?rite matches favorite and favourite
R S	alternatives; match R or S	apple orange matches the strings apple and orange; (read writ watch)ing matches reading, writing, watching
\c	escaping; escapes a special character	\. matches a literal full stop

Advanced search example

Texts from the Neo-Assyrian period featuring base form of the divine name “Aššur” and the translation “king” **or the other way round** (using the |) with no more than 8 words (any words) in between.

```
[lemma = "Aššur" & oraccpos = "DN Divine Name" & _.text_period = "Neo-Assyrian"]
[] {0,8}
[translation = "king"]
|
[translation = "king"]
[] {0,8}
[lemma = "Aššur" & oraccpos = "DN Divine Name" & _.text_period = "Neo-Assyrian"]
```

Custom CQP query: [Get the CQP tutorial](#)

```
[lemma = "Aššur" & oraccpos = "DN Divine Name" & _.text_period = "Neo-Assyrian"] [] {0,8} [translation = "king"] | [translation = "king"] [] {0,8} [lemma = "Aššur" & oraccpos = "DN Divine Name" & _.text_period = "Neo-Assyrian"]
```

Search

KWIC: hits per page: 25 | sort within corpora: not sorted | Statistics: compile based on: word | Show statistics

KWIC Statistics

Results: 1,057

« 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 ... » Go to page of 43 [Show context](#)

ATAE: ARCHIVAL TEXTS OF THE ASSYRIAN EMPIRE (ORACC 2021)

<p>a-li-ma i-za-qu-pa-ni i-GIL-u-ni 5 MA.NA KU₃ BABBAR SUM-an</p> <p>3 a-na la de-ni-šu₂ DU₁₁,DU₁₁-ma NU TI-qe man-nu ša₂ GIL-u-ni</p> <p>ḫ)DINGIR-GIN-PAB x x x x (KUR)ul-lu-ba (m)ḫ)DI-ma-nu-MAŠ</p> <p>(LU)ḫar-bi-u (TI)GUD UD-21-KAM lim-me (m)30-PAB-MEŠ-SU</p> <p>i mam₂-ma TA mam₂-ma la DU₁₁,DU₁₁ man-nu ša₂ ib-bal-kat₂-u-ni</p> <p>b-a-ni DUMU.MEŠ-šu₂ DUMU DUMU.MEŠ-šu₂ i-dab-bu-ub-u-ni</p> <p>D.MEŠ ana EN-ša₂ GUR-ra ina de-ni-šu₂ DU₁₁,DU₁₁-ma NU TI-q</p> <p>nu mam₂-ma KI mam₂-ma la DU₁₁,DU₁₁-ub man-nu ša₂ BAL-u-ni</p> <p>ana EN.MEŠ-šu₂ GUR-ra ina de-ni-šu₂ DU₁₁,DU₁₁-ma la i-laq-qi</p> <p>nam₂-ma TA mam₂-ma NU DU₁₁,DU₁₁ man-nu ša₂ ib-bal-kat₂-u-ni</p> <p>BAR-šu₂ i-na-ši MUNUS ina AD-ša₂ tal-lak man-nu ša₂ GIB-u-ni</p>	<p>aš-šur (d)ša₂-maš (d)EN (d)PA LUGAL DUMU-MAN lu EN-</p> <p>aš-šur u₁ (d)ša₂-maš EN u₁ (d)PA a-de-e ša₂ LUGAL lu-u EN-de-ni-šu₂ 10</p> <p>MAN KUR aš-šur a-na (KUR)man-na</p> <p>LUGAL KUR aš-šur</p> <p>aš-šur (d)ša₂-maš a-de-e ša₂ LUGAL ina ŠU.2-šu₂ u₂-ba-</p> <p>(d)aš-šur (d)UTU EN (d)PA lu EN de-ni-šu₂ a-de-e ša₂ LUGAL ina ŠU.2-šu₂ lu-ba-</p> <p>aš-šur (d)UTU a-de-e ša₂ LUGAL lu-u EN de-ni-šu₂ IG</p> <p>aš-šur (d)UTU lu EN de-ni-šu₂ a-de-e ša₂ MAN ina ŠU.2-šu₂ lu-ba-</p> <p>aš-šur (d)UTU lu EN de-ni-šu₂ a-de-e ša₂ LUGAL ina ŠU.2-šu₂ lu-ba-</p> <p>aš-šur (d)UTU lu-u EN de-ni-šu₂ a-de-e ša₂ MAN ana ŠU-šu₂ lu-ba-u</p> <p>aš-šur (d)UTU ina ŠU.2-šu₂ lu-ba-i-u a-de-e ša₂ LUGAL ina ŠU.2-šu₂ lu-ba-</p>
--	---

RIAO: ROYAL INSCRIPTIONS OF ASSYRIA ONLINE (ORACC 2021)

<p>ḫap-ku nam-ša-ru KU₃ Gi u₂-še-piš-ma ALAM (m)10-ERIM.TAH₂</p> <p>Š MAN dan-nu MAN KUR aš-šur A 10-ERIM.TAH₂ MAN dan-ni</p> <p>(m)ḫ)dsal-ma-nu-SAG MAN KIŠ MAN KUR aš-šur A AŠ-PAP-A</p>	<p>MAN KUR aš-šur EN-šu₂ ana (d)10 E</p> <p>MAN KUR aš-šur-ma eḫ-lu qar-du ša₂ ina (GIŠ)tukul-ti aš-šur (d)ŠKUR (d)JANAN</p> <p>MAN KUR aš-šur A TUKUL-MAŠ MAN KUR AŠ-ma DU KA GAL TIBIR</p>
--	--