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Disambiguating the Year “mu sza3-asz-ru-um{ki} ba-hul”

The year *mu sza3-asz-ru-um{ki} ba-hul* is a common abbreviation for the years sulgi 42 and amar-sin 6. To start disambiguating the year, 55,847 tablets were parsed for the names of people on each tablet, and the year listed on each tablet. Since most of the year names found on the tablets were somehow abbreviated, a string matcher algorithm was applied to the year name dataset to match each year found on the tablets to the established spelling of those years. This data was then inserted into an SQL database and queried for information that was needed.

Graphical user interface, text, application

Description automatically generated

rawnames Table

Graphical user interface, text, application

Description automatically generated

rawyears Table

Graphical user interface, application

Description automatically generated

bestyears Table

From the rawyears and bestyears table, 3 lists were created that contained all the tablets that belonged to *mu sza3-asz-ru-um{ki} ba-hul*, sulgi 42, and amar-sin 6. According to the output of the written queries, there were 20 ambiguous tablets, 81 sulgi 42 tablets, and 19 amar-sin 6 tablets.

Graphical user interface, text, application

Description automatically generated

Query 1: 20 instances

Graphical user interface, text, application, table

Description automatically generated

Query 2: 81 instances

Graphical user interface, text, application

Description automatically generated

Query 3: 19 instances

Then, names from each of the queried tablets were collected. Names that were “…” were omitted from the search because “…” meant that there was writing on the physical tablets that were unreadable or couldn’t be transcribed. According to the output of the written queries, there were 35 names from the ambiguous tablets, 389 names from sulgi 42 tablets, and 135 names from amar-sin 6 tablets.

Graphical user interface, application

Description automatically generated

Query 4: 35 instances

Graphical user interface, text, application

Description automatically generated

Query 5: 389 instances

Graphical user interface, text

Description automatically generated

Query 6: 135 instances

To disambiguate the year on the tablets, a search needed to be ran to find common names between the ambiguous year and sulgi 42 or amar-sin 6. A tablet containing the ambiguous year could be identified as either sulgi 42 or amar-sin 6 if a name that appeared on the tablet was shared with either of the established years, but not both.

First, names that appear in both the ambiguous year and sulgi 42; and names that appear in both the ambiguous year and amar-sin 6 needed to be clustered. These clusters would contain a subset of names that could disambiguate the year on the tablets. According to the output of the written queries, there were 13 names that appeared in both the ambiguous year and sulgi 42; and there were 11 names that appeared in both the ambiguous year and amar-sin 6.

Graphical user interface, text

Description automatically generated

Query 7: 13 instances

Graphical user interface, text, application

Description automatically generated

Query 8: 11 instances

Then a list of names that appear in the ambiguous year, sulgi 42 and amar-sin 6 need to be collected. This will be the list of names that will be excluded from query 7 and query 8 because names that appear in all three subsets names can’t be used to disambiguate the tablets that contain the ambiguous year. According to the output of the written query, 7 names appeared in all three sets of names.

Graphical user interface, application, table

Description automatically generated

Query 9: 7 instances

To disambiguate the tablets containing the ambiguous year, the names that appeared in all three sets need to be taken from the set containing the ambiguous year and sulgi 42, and the set containing the ambiguous year and amar-sin 6. This would leave two sets that contained tablets that contain names that only appear on either the ambiguous year and sulgi 42, or the ambiguous year and amar-sin 6. According to the output of the written query, 6 names only appeared in the ambiguous year and sulgi 42, and 4 names only appeared in the ambiguous year and amar-sin 6.

Graphical user interface, text, application

Description automatically generated

Query 10: 6 instances

Graphical user interface, text, application

Description automatically generated

Query 11: 4 instances

6/20 Tablets = sulgi 42 4/20 Tablets = amar-sin 6 10/20 Tablets Disambiguated

/\***Query 1: Selects all tablets that contain the ambiguous year**\*/

select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ';

/\***Query 2: Select all tablets that contain Sulgi 42**\*/

Select \* from bestyears where year like 'sulgi 42a';

/\***Query 3: Select all tablets that contain Amar Suen 6**\*/

Select \* from bestyears where year like 'amar-sin 6b';

/\***Query 4: Select all names that appear on tablets belonging to the ambiguous year**\*/

Select rawnames.tabid as TabID, rawnames.name as Names, ambig.year as Year from

rawnames inner join (select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ') as ambig

on rawnames.tabid = ambig.tabid

where rawnames.name not like '...'

group by Names;

/\***Query 5: Select all names that appear on tablets belonging to sulgi 42**\*/

Select rawnames.tabid as TabID, rawnames.name as Names, sulgi.year as Year from

rawnames inner join (Select \* from bestyears where year like 'sulgi 42a') as sulgi

on rawnames.tabid = sulgi.tabid

where rawnames.name not like '...'

group by Names;

/\***Query 6: Select all names that appear on tablets belonging to amar-suen 6**\*/

Select rawnames.tabid as TabID, rawnames.name as Names, amar.year as Year from

rawnames inner join (Select \* from bestyears where year like 'amar-sin 6b') as amar

on rawnames.tabid = amar.tabid

where rawnames.name not like '...'

group by Names;

/\***Query 7: Select all names that appear in both sulgi 42 and the ambiguous year**\*/

select \* from

(Select rawnames.tabid as TabID, rawnames.name as Names, ambig.year as Year from

rawnames inner join (select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ') as ambig

on rawnames.tabid = ambig.tabid

where rawnames.name not like '...') as A

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, sulgi.year as Year from

rawnames inner join (Select \* from bestyears where year like 'sulgi 42a') as sulgi

on rawnames.tabid = sulgi.tabid

where rawnames.name not like '...') as B

on A.Names = B.Names

group by A.Names;

/\***Query 8: Select all names that appear in both amar-suen 6 and the ambiguous year**\*/

select \* from

(Select rawnames.tabid as TabID, rawnames.name as Names, ambig.year as Year from

rawnames inner join (select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ') as ambig

on rawnames.tabid = ambig.tabid

where rawnames.name not like '...') as A

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, amar.year as Year from

rawnames inner join (Select \* from bestyears where year like 'amar-sin 6b') as amar

on rawnames.tabid = amar.tabid

where rawnames.name not like '...') as C

on A.Names = C.Names

group by A.Names;

/\***Query 9: Select all common names that appear between ambiguous, sulgi 42 and amar-suen 6**\*/

Select \* from

(Select rawnames.tabid as TabID, rawnames.name as Names, ambig.year as Year from

rawnames inner join (select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ') as ambig

on rawnames.tabid = ambig.tabid

where rawnames.name not like '...') as A

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, sulgi.year as Year from

rawnames inner join (Select \* from bestyears where year like 'sulgi 42a') as sulgi

on rawnames.tabid = sulgi.tabid

where rawnames.name not like '...') as B

on A.Names = B.Names

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, amar.year as Year from

rawnames inner join (Select \* from bestyears where year like 'amar-sin 6b') as amar

on rawnames.tabid = amar.tabid

where rawnames.name not like '...') as C

on A.Names = C.Names

group by A.Names;

/\***Ambiguous tablets that belong to sulgi 42**\*/

select \* from

(Select rawnames.tabid as TabID, rawnames.name as Names, ambig.year as Year from

rawnames inner join (select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ') as ambig

on rawnames.tabid = ambig.tabid

where rawnames.name not like '...') as A

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, sulgi.year as Year from

rawnames inner join (Select \* from bestyears where year like 'sulgi 42a') as sulgi

on rawnames.tabid = sulgi.tabid

where rawnames.name not like '...') as B

on A.Names = B.Names

where A.Names not in

(Select D.Names from

(Select rawnames.tabid as TabID, rawnames.name as Names, ambig.year as Year from

rawnames inner join (select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ') as ambig

on rawnames.tabid = ambig.tabid

where rawnames.name not like '...') as D

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, sulgi.year as Year from

rawnames inner join (Select \* from bestyears where year like 'sulgi 42a') as sulgi

on rawnames.tabid = sulgi.tabid

where rawnames.name not like '...') as E

on D.Names = E.Names

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, amar.year as Year from

rawnames inner join (Select \* from bestyears where year like 'amar-sin 6b') as amar

on rawnames.tabid = amar.tabid

where rawnames.name not like '...') as C

on D.Names = C.Names)

group by A.Names;

/\***Ambiguous tablets that belong to amar-suen 6**\*/

select \* from

(Select rawnames.tabid as TabID, rawnames.name as Names, ambig.year as Year from

rawnames inner join (select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ') as ambig

on rawnames.tabid = ambig.tabid

where rawnames.name not like '...') as A

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, amar.year as Year from

rawnames inner join (Select \* from bestyears where year like 'amar-sin 6b') as amar

on rawnames.tabid = amar.tabid

where rawnames.name not like '...') as B

on A.Names = B.Names

where A.Names not in

(Select D.Names from

(Select rawnames.tabid as TabID, rawnames.name as Names, ambig.year as Year from

rawnames inner join (select \* from rawyears where year like 'mu sza3-asz-ru-um{ki} ba-hul ') as ambig

on rawnames.tabid = ambig.tabid

where rawnames.name not like '...') as D

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, sulgi.year as Year from

rawnames inner join (Select \* from bestyears where year like 'sulgi 42a') as sulgi

on rawnames.tabid = sulgi.tabid

where rawnames.name not like '...') as E

on D.Names = E.Names

inner join

(Select rawnames.tabid as TabID, rawnames.name as Names, amar.year as Year from

rawnames inner join (Select \* from bestyears where year like 'amar-sin 6b') as amar

on rawnames.tabid = amar.tabid

where rawnames.name not like '...') as C

on D.Names = C.Names)

group by A.Names;