

Foreword: Prosopography in the Digital World

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Note of Thanks

This small volume is the result of a workshop hosted in the Lambertussaal, Oldenburg, in June 2023. The editor is most grateful to the Deutsche Forschungsgemeinschaft (DFG) for funding the entire project as part of the *Prosopographia Palmyrena* Project¹, as well as to the Kirchengemeinde Oldenburg for its kind hospitality and to the editors of *Digital Classics Online* for the opportunity to publish the contributions in this journal as a thematic issue. Last but not least, the editor is grateful to all participants of the workshop.

Aims of the Thematic Issue

The workshop – and the papers resulting from it – were planned as a guide to the development and usage of a database in digital prosopography with several goals in mind:

- To gain an overview of how long-established projects can be digitized and then continued.
- To convey the benefits that ‘going digital’ offers to prosopography.
- To include technical papers that shall act as guidance ropes for non-technical academics who are in the process of either proposing or already building a digital, database-based project.

For this purpose, each contribution to this volume fills a niche:

Yanne Broux offers insight into the longest-standing and most complex digital attestation system currently in use within the field, *Trismegistos*. Eivind Heladaas Seland demonstrates how classical prosopography still benefits the field when applied to the merchant families who connected Palmyra and its trading partners in Mesopotamia. Peter von Danckelman aims to demonstrate how a dataset can be pre-structured and later analyzed through digital methods. Jerome Agater has been tasked with a paper to demonstrate his innovative approach to compiling, hosting, and accessing a small yet multilingual database. John Bradley compiles his decades worth of experience in working with digital database projects to guide non-technical academics through some of the most challenging waters of database construction.

1 <https://palmyra.uol.de/> (consulted 11.11.2024).

Achievements of the Thematic Issue

The papers in this volume offer an insight into the benefits of database construction: They are the most accessible platform for accomplished scholars, students, and the general public, meaning that any research published in this way has the possibility to be widely recognized not only by specialists but also by students and the interested public. Accessibility, however, also has its downsides. The search engine used to access the data must have all measures of access, ranging from dating and names to occupations or the reference numbers of major editions. This should always be kept in mind when compiling the dataset in the first place. Another limiting factor is the cross-referencing between literature and online databases: Any potential benefit to database accessibility is ultimately limited by the amount of reference it achieves. A student researching a topic in a ten or even five-year-old handbook might well never be made aware of the existence of a database. Databases, on the other hand, do have the potential to be upgraded – both for correction and expansion of the dataset but also to keep up to date with changes in technology. This, however, is also their major drawback: Extensive databases need to be constantly supported by technical staff to ensure they remain accessible and up to date. For smaller databases, the less resource-intensive approach used by Jerome Agater for the *Prosopographia Palmyrena* Database might remedy some of those problems, making databases more viable for smaller projects.

Possibilities of AI-Usage for Prosopography

One of the big questions of our time is how the increasing use of artificial intelligence and ‘chatbots’ like *ChatGPT* might influence prosopography, database construction and database use.

For prosopography in general, the use of AI has obvious benefits: With correct restrictions and guidelines (‘prompts’), even a publicly accessible chatbot-AI should be able to search a given, already digitized dataset for names, dates, titles, abbreviations, etc. While such an effort would of course have to be cross-checked by human eyes and will always remain flawed to a certain degree, a lot of the time and effort necessary for compiling a dataset could be significantly reduced by AI. This does not mean, however, that the field of prosopography is at risk to be outsourced to AI completely in the foreseeable future. A chatbot is only as good as the width of data that it relies on and the prompts that require its output.

The current state of easily accessible chatbots can be readily tested for their ability to perform the extraction of attestation-level data: names, family members and titles. Given the popularity of the platform and its likely usage by students and members of the public, the platform of choice shall be *ChatGPT-4.0*.² For this little experiment, the inscription of choice shall be the first few lines of the Palmyrene tariff law.³ In a first test, the Greek version of the first four lines of the text shall be provided, coupled with the prompt.

Experiment One: *ChatGPT* and a Greek Text

Prompt: “Please extract the names of all persons in this inscription and list them with the names of their parents and grandparents. Also state their offices, titles or other occupations.”

[Ἔτο]υς ημῶν, μηνὸς Σανδικοῦ ιη΄. Δόγμα βουλῆς. Ἐπὶ Βωννέους Βωννέους τοῦ Αἰράνου προέδρου Ἀλεξάνδρου Ἀλεξάνδρου τοῦ Φιλοπάτορος γραμματέως βουλῆς καὶ δήμου, Μαλίχου

2 <https://chat.openai.com/> (consulted 21.04.2025).

3 PAT 0259.

Ὀλαιοῦς καὶ Ζεβεΐδου Νεσᾶ ἀρχόντων, βουλῆ[ς] νομίμον ἀγομένης, ἐψηφίσθη τὰ ὑποτεταγμένα...⁴

The answer of *ChatGPT-4.0* is as follows:⁵

“Here is a structured extraction of the names, including parentage and official titles, based on the Greek inscription provided:

1. Βωννέως Βωννέως τοῦ Αἰράνου

- **Name:** Βωννέως (Bonneus)
- **Father:** Βωννέως (Bonneus)
- **Grandfather:** Αἰράνης (Airanes)
- **Office/Title:** **πρόεδρος** (President, likely of the council)

2. Ἀλέξανδρος Ἀλέξανδρος τοῦ Φιλοπάτορος

- **Name:** Ἀλέξανδρος (Alexander)
- **Father:** Ἀλέξανδρος (Alexander)
- **Grandfather:** Φιλόπατωρ (Philopator)
- **Occupation:** **γραμματεὺς βουλῆς καὶ δήμου** (secretary of the council and the people)

3. Μαλίχος Ὀλαιοῦς

- **Name:** Μαλίχος (Malichus)
- **Father:** Ὀλαιοῦς (Olaios)
- **Grandfather:** *Not mentioned*
- **Office/Title:** **ἄρχων** (archon, magistrate)

4. Ζεβεΐδος Νεσᾶ

- **Name:** Ζεβεΐδος (Zebeidos)
- **Father:** Νεσᾶς (Nesas)
- **Grandfather:** *Not mentioned*
- **Office/Title:** **ἄρχων** (archon, magistrate)”

Even if caution is still required and the documentation of chatbot responses remains a challenge (especially since the platform – at least for unregistered users – does not yet allow direct links to individual conversations), the use of chatbots to pre-check epigraphic texts in their original language already seems to be a viable option.

Additionally, a standardized method for referencing chatbot responses should be developed, as current practices are limited to approaches like the one used in this work (citing the model, timestamp,

4 Greek text after PAT 0259.

5 ChatGPT-4.0, 21.04.2025.

prompt, and response). For shorter conversations, saving and publishing screenshots – as demonstrated below – could serve as a viable alternative.

Experiment Two: *ChatGPT* Using an English Translation of the Same Text

To further test the capabilities of *ChatGPT-4.0*, a second experiment shall be performed by using not the Greek text, but the English translation from Matthews,⁶ keeping the same prompt: “Please extract the names of all persons in this inscription and list them with the names of their parents and grandparents. Also state their offices, titles or other occupations.”

“In the year 448, on the 8th of the month Xandikos. Decree of the Council. In the presidency of Bonnes, son of Bonnes, son of Hairanos, the secretary of the council and people being Alexandros, son of Alexandros, son of Philopator, in the magistracies of Malichos, son of Olaies, and Zebeidas son of Nesa, at a statutory meeting of the council...”

“Sure! Here’s a structured extraction of the names, along with their parentage and any mentioned offices, titles, or occupations:

1. Bonnes

- **Father:** Bonnes
- **Grandfather:** Hairanos
- **Office/Title:** President of the Council (held the presidency during the decree)

2. Alexandros

- **Father:** Alexandros
- **Grandfather:** Philopator
- **Office/Title:** Secretary of the Council and People

3. Malichos

- **Father:** Olaies
- **Office/Title:** Magistrate

4. Zebeidas

- **Father:** Nesa
- **Office/Title:** Magistrate

Let me know if you want the names transliterated into Greek or Latin forms, or if you’d like help placing them in a historical or regional context.”

While using the English language, the chatbot performed similar to its performance in Greek: It correctly identified the magistrates, their titles, and their families. The conclusion is clear: If the chatbot knows the language in question well and / or the translation is reliable, *ChatGPT-4.0* can perform basic text-based prosopographic research up to the attestation level. Apparently, a suitably critical mass

⁶ Matthews (1984), 174.

of material for classical languages has been reached by AI chatbots, meaning that now not only specially trained deep neuronal networks like the *Ithaca*-Project for reconstructing Greek inscriptions⁷ can work reliably with classical languages, but publicly accessible AI's have reached this threshold as well. It should be possible to train an AI network to the same language competence and then task it not with text reconstruction but with the extraction of attestation level information.

Given its automated nature, such an AI chatbot should be able to sort and classify data into a pre-sorted data collection, that only would have to be re-checked and corrected, but not wholly re-entered by humans less laborious. Since there is a wealth of both epigraphical and literary sources in Latin to train an AI with, the first field where this could be applied would be a prosopography of the Latin inscriptions – even more so since the required material has already been digitized and can be accessed via two large databases.⁸

Since the ability of an AI to perform its function is largely based on the scale of material it can be trained with, such an approach might not only be viable for the Greek language, but certain languages known in large quantities from cuneiform archives in ancient Mesopotamia as well. Other languages or dialects like Palmyrene Aramaic or Phoenician have a much narrower ‘training ground’ for AI and will therefore most likely remain inaccessible to such automation, at least for the time being.

The success of English language extraction suggests that *ChatGPT* should already be capable of performing attestation level data assembly, when it is working with the translations of ancient historians into modern languages. To test this hypothesis, *ChatGPT-4.0* shall be tasked with attestation-level prosopography once more, while using an outdated, yet internet-accessible translation of Caesar's *Gallic War*.

Experiment Three: *ChatGPT* Using a Translated Excerpt of a Literary Text

Prompt: “Extract the names, military and civil functions or titles and allegiances for all persons mentioned in this text.”

“Caes. Gall. 8,48: Caius Volusenus Quadratus was appointed commander of the horse under Antonius, to winter with him: Antonius sent him in pursuit of the enemy's cavalry; now Volusenus added to that valor which was pre-eminent in him, a great aversion to Comius, on which account he executed the more willingly the orders which he received. Having, therefore, laid ambushes, he had several encounters with his cavalry and came off successful. At last, when a violent contest ensued, and Volusenus, through eagerness to intercept Comius, had obstinately pursued him with a small party; and Comius had, by the rapidity of his flight, drawn Volusenus to a considerable distance from his troops, he, on a sudden, appealed to the honor of all about him for assistance not to suffer the wound, which he had perfidiously received, to go without vengeance; and, wheeling his horse about, rode unguardedly before the rest up to the commander. All his horse following his example, made a few of our men turn their backs and pursued them. Comius, clapping spurs to his horse, rode up to Volusenus, and, pointing his lance, pierced him in the thigh with great force. When their commander was wounded, our men no longer hesitated to make resistance, and, facing about, beat back the enemy. When this occurred, several of the enemy, repulsed by the great impetuosity of our men, were wounded, and some were trampled to death in striving to escape, and some were made prisoners. Their general escaped this misfortune by the swiftness of his horse. Our commander, being severely wounded, so much so that he appeared to run the risk of losing his life, was carried back to the camp. But Comius, having either gratified his resentment, or, because he had lost the greatest part of his followers, sent ambassadors to Antonius, and assured him that he would give hostages as a secu-

7 <https://ithaca.deepmind.com/> (consulted 09.01.2024).

8 The first database is the *Epigraphische Datenbank Heidelberg* (<https://edh.ub.uni-heidelberg.de/home?lang=de> [consulted 09.01.2024]), the second one is the project by Clauss and Slaby (<http://www.manfredclauss.de/> [consulted 09.01.2024]).

rity that he would go wherever Antonius should prescribe, and would comply with his orders, and only entreated that this concession should be made to his fears, that he should not be obliged to go into the presence of any Roman. As Antonius judged that his request originated in a just apprehension, he indulged him in it and accepted his hostages. Caesar, I know, has made a separate commentary of each year's transactions, which I have not thought it necessary for me to do, because the following year, in which Lucius Paulus and Caius Marcellus were consuls [50 B. C.], produced no remarkable occurrences in Gaul. But that no person may be left in ignorance of the place where Caesar and his army were at that time, have thought proper to write a few words in addition to this commentary.”⁹

The answer of the chatbot is as follows:

“Here is a structured extraction of all **persons**, their **military or civil titles/functions**, and **allegiances** mentioned in the passage from Caesar, *Bellum Gallicum* 8.48.1:

1. Caius Volusenus Quadratus

- **Military Function/Title:**
 - Commander of the horse (cavalry)
- **Appointed by:** Antonius
- **Allegiance:** Roman (supporter/subordinate of Antonius and thus of the Roman Republic)
- **Notable Detail:** Severely wounded in combat with Comius

2. Antonius (likely Titus Labienus or Marcus Antonius, contextually uncertain here)

- **Military Function/Title:**
 - Senior Roman officer or legate (*legatus*) in Gaul
- **Allegiance:** Roman (acting on behalf of Caesar)
- **Actions:**
 - Appointed Volusenus as cavalry commander
 - Accepted hostages from Comius
 - Granted Comius the concession not to appear before any Roman

3. Comius

- **Military Function/Title:**
 - Commander of enemy cavalry
 - General (referred to as “their general”)
- **Allegiance:** Gallic (leader of anti-Roman forces, possibly Atrebates or another Belgic tribe)

⁹ McDevitte / Bohn (1869): W.A. McDevitte / W.S. Bohn (Edd. / Transl.): Caesar's Gallic War. 1st Edition, New York 1869, retrieved from Perseus: <https://www.perseus.tufts.edu/hopper/text?doc=Perseus%3atext%3a1999.02.0001> (consulted 09.01.2024.).

- **Notable Details:**

- Personally wounded Volusenus
- Later sent envoys to Antonius offering hostages
- Requested not to appear before any Roman

4. Lucius Paulus

- **Civil Function/Title:**

- Consul of the Roman Republic in 50 B.C.

- **Allegiance:** Roman

5. Caius Marcellus

- **Civil Function/Title:**

- Consul of the Roman Republic in 50 B.C.

- **Allegiance:** Roman

6. Caesar (Gaius Julius Caesar)

- **Military and Civil Function/Title:**

- Proconsul of Gaul
- Commander-in-chief of the Roman forces in Gaul
- Author of the commentaries

- **Allegiance:** Roman (leader of the campaign)

Let me know if you'd like a Latin-to-English name concordance or help mapping these figures to broader historical contexts (like Comius' earlier alliance with Caesar).”

Given the high accuracy of *ChatGPT* in this endeavor, AI seems to be a useful tool if the source-material for a prosopography is already available in translated, online-accessible formats. While the AI should not be trusted to perform with peer-reviewed levels of accuracy out of the box, an AI might be very helpful to give scholars a first glance at the scale of a project: How many persons might there be in each book or chapter? Are there any indications of multiple testimony for certain persons? How much time, space and resources should therefore be allocated to said section? AI-enhanced prosopography might also be a key tool for non-classical fields such as contemporary history, where the (already digitized) source-material is even more plentiful,¹⁰ yet the available resources prevent the compilation of even a rudimentary prosopography.

10 Databases that could be used are plentiful – from large, crowd-based projects such as *The Internet Archive* (<https://archive.org/>, consulted 21.04.2025), digital collections of large libraries (such as those from the Staatsbibliothek Berlin, <https://digital.staatsbibliothek-berlin.de/>, consulted 21.04.2025) to the archives of major news outlets (e.g. the online-archive of the German outlet *Der Spiegel*: <https://www.spiegel.de/spiegel/print/index-1947.html>, consulted 21.04.2025).

AI as an Aid to Database Usage

The next aspect of possible AI usage would be the use of an AI to aid the accessibility to large databases like the proposed prosopography of the Roman Latin inscriptions. An AI chatbot might be a useful tool to aid a search process: In addition to using a traditional search system based on single fields for entries like name, date, inscription, region or occupation, an AI chatbot should be able to deliver much more precise answers, such as: “How many persons named Gaius Iulius Bibius lived in the city of Carthage between 200 and 300 AD?” Such an approach might save the experienced database-researcher not much time, but it could aid students and members of the public in their search for information – especially so since they should be able to just enter some parts from a publication and the engine should, in theory, be able to search the databases for them. This approach could benefit both existing databases as well as those that are to be set up in the future. Future database construction might want to think about the incorporation of AI-aided searches from the get-go or incorporate methods to make the database easily searchable by external AI engines.

Abbreviations

PAT: D. R. Hillers / Eleonora Cussini, Palmyrene Aramaic Texts, Baltimore / London 1996.

Sources

Online Sources

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