DIGITAL CLASSICS ONLINE

Cooperation of Databases: Are We on the Way to a Single Prosopography of the Ancient World?

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Abstract: This paper gives an overview of the history of prosopographical projects at KU Leuven, starting with the *Prosopographia Ptolemaica* in the interbellum, its successor *Trismegistos People*, and *Trismegistos*' newest feature, the *Names in the Ancient World* portal. It presents the evolving database models that were adapted to accommodate new types of data, touches upon the question of the prosopographical nature of these resources, and explains *Trismegistos*' stance on the feasibility of a single prosopography of the ancient world.

Introduction

TM People, the onomastic-prosopographic section of the Trismegistos portal (TM)¹, has long been a collection focusing on Egypt. This is in the first place the result of Leuven's long papyrological tradition. As a direct continuation of the Prosopographia Ptolemaica (PP), it can boast a ripe age of some 80 years now. During its long history, this project stood at the forefront of methodological innovations, from the breaking down of interdisciplinary walls imposed by languages and source types to the leap to a digital corpus. With the advent of TM People, the initial chronological boundaries of the PP were pushed out to encompass the entire Late, Hellenistic, Roman, Late Roman, Byzantine and Arab periods up until the disappearance of Greek as a written language, thus paving the way for large-scale diachronic analyses. The ever-growing relational complexity of this database also proved a fruitful playground for experimenting with novel digital methods such as network analysis. In the past years, the first steps have also been set outside Egypt, resulting in the new Names in the Ancient World interface. This and other developments have led scholars to ask whether the time is ripe for a single prosopography of the ancient world. In this paper, the long history of the onomastic-prosopographic endeavors in Leuven is sketched, focusing on aspects of data collection and data modeling. It concludes with a section how we see the future of prosopographic databases.

The Prosopographia Ptolemaica

The PP's Scope

The history of *TM People* goes back a long way. The first seeds were planted during the interbellum, when Willy Peremans wrote on the relations between foreigners and Egyptians in the early Ptolemaic period.² He realized that such a subject in fact required a comprehensive collection of all people living

¹ www.trismegistos.org (consulted 17.04.2025).

² Peremans (1937).

in the Ptolemaic territories. This idea was in itself nothing novel, as the first editions of the *Prosopo-graphia Imperii Romani (PIR)* and the *Prosopographia Attica* had been completed in 1898 and 1903 respectively, for example.³ What was truly innovative, however, was Peremans' insight that the increasing disciplinary fragmentation was not conducive to this effort. Therefore, as in *PIR*, all genres of sources were to be taken into consideration: literary as well as documentary, including not only the papyri and ostraca so typical of Egypt, but also inscriptions. More importantly, despite his training as a classicist and historian only, not as an Egyptologist, Peremans insisted on including data from sources written in the indigenous Egyptian language, and not just from Greek sources, which are much better represented in publications, even up until today.⁴

The design of the *Prosopographia Ptolemaica* was ambitious from the start. As stated in the preface to volume 1, a total of four thematic volumes were planned,⁵ in which individuals would be collected according to their principal activities, mentioned explicitly in a source or derived from the context:⁶

- 1. Civic / financial administration
- 2. Army & police
- 3. Clergy
- 4. Law (judges and notaries), professional and artisanal occupations.

From volume 5 onward, all individuals without a clear indication of a title, occupation, or trade (collectively coined 'functions') would be listed, with only an alphabetical classification.⁷

In the end, however, six thematic volumes would appear instead of just four:

- 1. Civic / financial administration (1950)
- 2. Army and police (1952)
- 3. Clergy, notaries and tribunals (1956)
- 4. Agriculture and animal husbandry (1959)
- 5. Trade and industry; transportation; household staff (1963)
- 6. Royal court; international relations; overseas territories; cultural life (1968).

In volumes 5 and 6, individuals without explicit functions were sometimes also included, since slaves, members of the royal court, and people involved in international relationships were not (always) 'pro-

³ Klebs et al. (1897–1898); Kirchner (1901–1903).

⁴ In his reevaluation of the subject in 1987, after the publication of the six thematic volumes of the *PP* (see below), Peremans remained cautious about its representativeness, stating that "... the problem [i.e. the relations between foreigners and Egyptians] was not yet ripe for a definitive treatment. After all, the available documentation at this time is still too one-sided Greek. The Egyptian sources, both hieroglyphic and demotic, which according to some are just as numerous as the Greek, still remain for a large part unpublished"; Peremans (1987), 5.

⁵ In an earlier announcement of the undertaking, only three volumes were envisaged; Peremans (1946).

⁶ Peremans / Van 't Dack (1950), xiv. In the preface to volume 2, it was further specified that people mentioned in literary sources without a title are only included if their title is confirmed in a non-literary source. If, in a non-literary source, a person has no title, s/he is not included in the first volumes; Peremans / Van 't Dack (1952), xix.

⁷ Peremans / Van 't Dack (1950), xiv.

fessionals' but are nonetheless important to present a more complete basis for domestic and institutional studies. Volume 6 for the first time includes persons whose names were lost *in lacuna*. 9

Four more volumes were published over subsequent decades:

- 7. Alphabetical index of names to vol. 1–6 (1975)
- 8. Addenda and corrigenda to vol. 1–2 (1975)
- 9. Addenda and corrigenda to vol. 3 (1981)
- 10. Foreign ethnics (2002).

No addenda and corrigenda to volumes 4–6 were published in book form, since by the mid 1980s the transfer to a digital environment was in full swing (see below). For the same reason, the originally scheduled alphabetical volumes listing all attested individuals without a clear function never materialized. Even so, there were still intentions to publish parts of the original second phase of the *PP* (persons without functions) in book form, although not necessarily in alphabetical order, since such an ordering was by then already possible in the digital files. At least three books were planned: the only one that materialized was the final volume 10, however.¹⁰

The Age of Index Cards

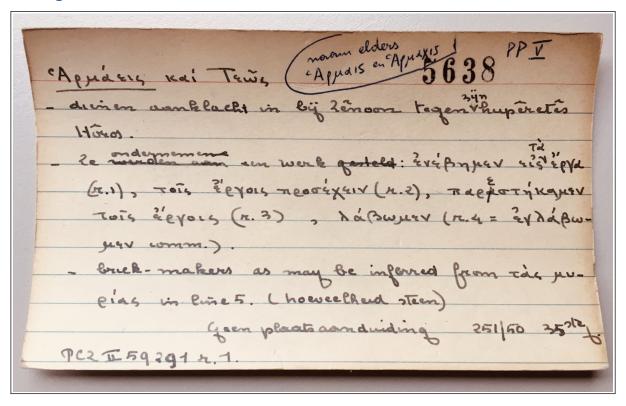


Fig. 1: Index card of Harmais and Teos in TM 935 1. 1.

⁸ Peremans / Van 't Dack (1968), xii–xiii.

⁹ Peremans / Van 't Dack (1968), xlvii.

¹⁰ Clarysse et al. (2002), xxiii-xxv.



Fig. 2: The filing cabinet containing the original PP index cards.

During the first four decades, information pertaining to subjects of the Ptolemaic empire was collected on index cards (fig. 1). To this day, these cards are still kept in the original filing cabinet at the department of ancient history in Leuven (fig. 2), where they are organized alphabetically. Each attestation of a person was recorded on a separate card with a reference to the source text. Each card is stamped with a unique number (not used in the books), the precursor of the TM reference ID (for which see below). The name of the person was always converted to the nominative, patronymics were kept in the genitive. Although people mentioned in texts written in Egyptian were included, their names were nonetheless transliterated into Greek if a Hellenized variant was known. Otherwise, a standardized transcription was given. If an explicit function was mentioned, it was added in the original language; functions derived from the context were marked as such, e.g. for Harmais and Teos in TM 935 l. 1, for which the index card reads "brick-makers as can be inferred from $\tau \alpha \zeta$ $\mu \nu \rho (\alpha \zeta)$ in line 5 (amount of stone)" (fig. 1). The role of the person in the text was described; in fig. 1, for example, it is said of Harmais and Teos that they "ondernemen een werk" ("they undertake work"), with references to the

¹¹ Peremans / Van 't Dack (1950), xv; further elaborated in Peremans / Van 't Dack (1956), vii-viii.

Greek text and line numbers that describe this role. An indication of the provenance and date of the individual was also added.

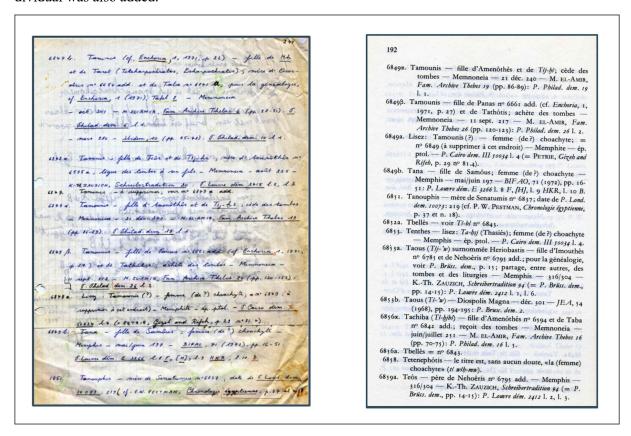


Fig. 3a-b: Manuscript and corresponding published page of PP volume 9.

The *PP* never received structural or project funding – the latter was inexistent in Leuven in those days. The majority of the index cards were prepared by Edmond Van 't Dack, Peremans' closest collaborator. Work was often carried out in light of the research of department members, e.g. Jozef IJsewijn, Willy Clarysse, Hans Hauben, and Leon Mooren. The fact that Peremans and van 't Dack were not able to read Egyptian caused a minor problem in volume 2 on the army, where they grouped the Egyptian titles together under the header 'officiers portant divers autres titres' (nos. 2110–2144), but actually these all refer to the same demotic title *mr-mš* '. For the third volume, which deals with the clergy, the demotic and hieroglyphic documentation is far more prominent and here an egyptologist was needed. This task was fulfilled by Herman De Meulenaere, who did a pioneer's work by sifting out the Ptolemaic hieroglyphic monuments from other Late Period texts and proposed French translations for the wealth of hieroglyphic titles.¹²

The index cards were then used to compile handwritten manuscripts (fig. 3a, written by Willy Clarysse) in preparation of the printed volumes (fig. 3b). During this stage, people were grouped alphabetically per function. Numbers were given to each person in a specific function (= 'PP number'). People with more than one function are therefore listed under different sections, or even in different volumes. Thus Artemidoros, who is listed as a *chiliarchos* with the ethnic *Ephesios* to whom a *kleros* is assigned in 251 BC, ¹³ appears in volume 2 (Army and police) under PP 2291, in volume 4 (Agriculture and animal husbandry) under PP 9151, and in volume 10 (Foreign ethnics) under PP E586. ¹⁴ Cross-references to other entries of the same individuals are provided through their *PP* numbers (see,

¹² Information provided by Willy Clarysse.

¹³ TM 2135 1. 12.

¹⁴ In volume 10, all numbers are preceded by an 'E' to indicate that they refer to ethnics.

for example, PP 6856a in fig. 3b), as well as to known family members (e.g. PP 6849ß in fig. 3b). Because the order within each function / section is alphabetical, letters were appended to the numbers of new individuals because of last-minute additions or when a volume was re-edited, e.g. PP 4325a. The PP numbers are therefore not entirely meaningless identifiers. The collaborators tried to identify homonymous officials as much as possible, but in general the best they could do was collect all the data and classify them in a clear way, so that other scholars could use the *PP* in attempts at identification. ¹⁵

The Dawn of Databases

After publishing the addenda and corrigenda to volume 3 in 1981, Willy Clarysse, encouraged by his computer-savvy son Jeroen, convinced his Leuven colleagues to start with 'the automatization' of the *PP*. By then, collaborators had filed over 100,000 index cards, and they were becoming rather difficult to manage. ¹⁶ They realized that transferring the data to a digital environment (a concept not yet used at that time though) would not only facilitate the organization and retrieval of data, but they immediately saw the potential for quantitative analysis as well. ¹⁷ As an early adopter of modern technology, the *PP* was thus somewhat of a pioneer in ancient history, although certainly not the only one. ¹⁸

The initial stages were a bumpy ride, as it took some time to find a suitable operating and database management system, and to deal with the different scripts and thus character sets (this was long before the emergence of the *Unicode* standard!). In the end, they settled on *Filemaker Pro* on a *Macintosh* computer, as it was fast, user friendly, and was designed to facilitate online publishing of the data, which was a rather futuristic motive at that time. ¹⁹ Over the next twenty years, data from the printed volumes, as well as new data, often generated by young collaborators for their doctoral dissertation, were added to the database. ²⁰ In 2002, at the time *PP X* was published, it incorporated everything from the printed volumes, augmented with all individuals known from the *Zenon archive*, along with a selection attested in Pathyris and the Fayum region. ²¹

With the creation of the digital version, the plan was to publish new and revised data on CD-ROM, a plan that was never carried out due to the rise of the internet. Unfortunately, no one who is still around in Leuven today really remembers when the *PP* was launched on the WWW: a report of a meeting held on August 8 1995 states that Jeroen Clarysse had performed quite some work over the summer in order to make the *PP* available online.²² Consulting the TEX table (see below for the *PP*'s database structure) would present no problems as it was in English,²³ but other tables contained Greek and demotic, which would be rendered in Latin transliterations, thus hindering findability, but that was a problem "that would solve itself in a few years", according to the report. According to Jeroen, the *PP* would thus become "the first serious database on the internet, worldwide, a piece of technology that is

¹⁵ Peremans / Van 't Dack (1950), xvi; the matter is also treated in Peremans / Van 't Dack (1963) V, xxxvi–xxxix and Peremans / Van 't Dack (1968), xlv–xlvi.

¹⁶ Mooren (2001), 995.

¹⁷ Mooren (2001), 995–996.

¹⁸ The *Lexicon of Greek Personal Names*, for example, started using computerized files in the late 1970s, but solely to produce camera-ready copies for their publications; true digitization in the form of a database started around the same time as the *PP* in the mid 80s; Matthews / Rahtz (2013).

¹⁹ Mooren (2001), 996.

²⁰ An overview of the progress around 1998 is given in Mooren (2001), 999–1000.

²¹ Clarysse et al. (2002), xxiii.

²² Generously provided by Willy Clarysse.

²³ Switching from the French of the first nine volumes to English was a deliberate choice in anticipation of linking to other digital projects such as the *Lexicon of Greek Personal Names*: Mooren (2001), 999.

certainly appreciated by specialists". However, the report does not provide a scheduled date for the launch.

When searching for the *PP* homepage (prosptol.arts.kuleuven.ac.be [consulted 17.04.2025]) on the *Internet Archive Wayback Machine* (archive.org/web [consulted 17.04.2025]), the page first appears on January 25 2002. This still seems to be a test page, however, as it merely says "dit is de pp" ("this is the pp"), followed by a list of the database's tables. By November 30 2002, the database was finally alive: the *Wayback Machine* shows a homepage with a menu consisting of four sections: 'Introduction', 'Search', 'Help' and 'Contact'. The search page provides some concise tips and links to the searchable tables; fig. 4 is a screenshot of the search interface of the Person table captured by the *Wayback Machine* for December 15 2002.

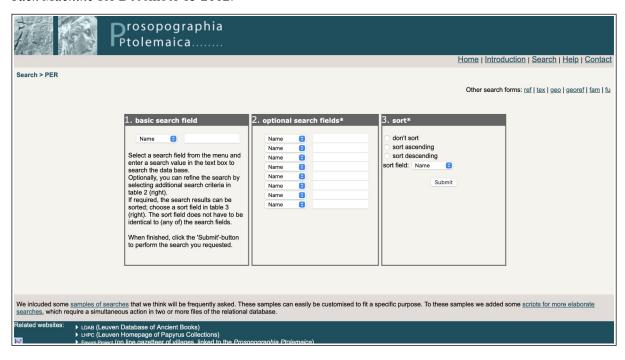


Fig. 4: The online search interface of the PP's Person table (December 15 2002).²⁴

In the end, the online database was not published through Filemaker, as originally envisaged in Mooren's automatization report. With the help of Jeroen Clarysse and Bart Van Beek, a SQL database that mirrored the tables of the Filemaker structure was set up.

^{24 &}lt;u>web.archive.org/web/20040805093759fw_/http://prosptol.arts.kuleuven.ac.be/index_s.html</u> (consulted 17.04.2025) and then go to 'if you want to search for people, start from per'.

The PP's Database Structure

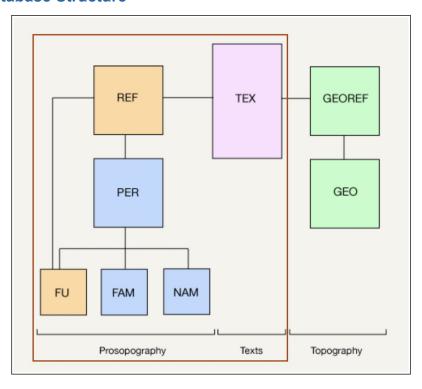


Fig. 5: The structure of the PP Filemaker database.

The PP database originally consisted of six related tables (see the boxed-in section in fig. 5):25

TextFile (shortened to Tex): the table listing all texts, in any language and on any writing surface, from Ptolemaic Egypt, with information about the language, date, provenance, archive, earlier editions, bibliography, etc. Each text received a unique identifier in the form of the standard edition, e.g. BGU I 1, called the Tref in the 1995 report. In 1998, it contained 9,001 entries.

ReferenceFile (Ref): the table listing all attestations of persons, indicating the passage in the text where the person is mentioned (to which the Ref record was linked through the Tref identifier); his name in the nominative form of the original language; functions or ethnics where applicable; and the place and date of activity. The Per identifier was added, as well as the *PP* numbers to facilitate retrieval of the corresponding entries in the printed volumes. In 1998, it contained 32,588 entries.

PersonFile (Per): the table listing a single record for each individual, where the information provided in his Ref files was summarized. Names were converted to a standard form here, on the basis of the Nam files (for which see below). Each person received a single, unique identifier, independent of the *PP* numbers, which was used to link his Ref records to his Per record. In 1998, it contained 21,321 entries.

FamilyFile (Fam): the table listing all known family relations of an individual, linked to his Per record through his unique ID. The family relations were also linked to the source passages where they were attested through the Tref identifier. In 1998, it contained 13,720 entries.

NameFile (Nam): the table listing all known nominative forms of variants of a name, as they appear in the sources in the original languages. A standard transliteration in the Latin alphabet was also added to make searching for names easier, as there was still no *Unicode* and typing accents was cumbersome. The 1995 report laconically adds that "with this system, papyrologists are forced to take into account

²⁵ The description of these tables is taken from Mooren (2001), 997–999, who often provides a literal translation of the description of these tables in the unpublished 1995 report.

the Egyptian documentation and Egyptologists are also confronted with the Greek forms of Egyptian names, whether they like it or not". In 1998, it contained 7,147 entries.

FunctionFile (Fu): the table listing all 'functions', a cover term for offices and occupations, that formed the basis of the printed volumes of the *PP*. The Greek and Egyptian forms of these functions were added, alongside an English description and the original French version as found in the books. The functions were linked to the Ref records of the individuals holding them. In 1998, it contained 670 entries.

Two additional tables were added later during the *Fayum Project*, directed by Willy Clarysse and Katelijn Vandorpe (1998–2002):²⁶ **Geo**, a gazetteer of all ancient villages in the Arsinoite nome, and **GeoRef** listing all attestations of these villages. According to the original homepage of the *PP*, it was thanks to this topographic project that the online database and search interface finally materialized ("Realisation: *Fayum Project*").²⁷

Thanks to this structure, users could now easily browse through the different elements that are important for a prosopography: the sources, the people, and their attestations, their functions, and even the onomastic level. They were no longer bound to the classification determined by the published volumes, but could sort records according to other criteria than a person's function and the traditional alphabetic listing. It also allowed for more elaborate queries with multiple variables, e.g. all people with a certain title who lived in a certain region or period, or all people named X whose father was named Y. In the printed volumes, one had to go through the list to collect such subsets manually; now they were accessible with just a few clicks. Finding individuals and their attestations in the *PP* was no longer a time-consuming and boring task of checking volume VII (the index) and going to each entry mentioned there, to be supplemented by going through the volumes of addenda. Instead, this was possible with a simple search of merely a minute or so (excruciatingly long according to our current standards!).

But without funding, the project struggled to keep up. Despite these technological advances, the initial goal of offering a comprehensive collection of all individuals living in the Ptolemaic empire, with or without a function or ethnic, was still nowhere in sight. Moreover, 25–30 years after the publication of the addenda and corrigenda to volumes 1–3, and no undertaking for volumes 4–6, many of the original files were in need of an update due to new readings and insights. Luckily, plans were in the making for something new, and although this would take a couple more years, Leuven's prosopography would greatly come to profit from this new direction.

Trismegistos People

A Brief History of the Overarching Trismegistos Platform

In 2004, Mark Depauw, who had worked on prosopographical data of Akhmim during his postdoc, was granted a *Sofja Kovalevskaya Award* by the Alexander-von-Humboldt-Stiftung for a project centering on multilingualism and multiculturalism in Hellenistic and Roman Egypt (*MaMiGRE*). In order to study this phenomenon, a systematic collection of all texts in all languages was needed. Depauw therefore decided to build a platform that would connect several important databases, such as the *Leuven Database of Ancient Books* (*LDAB*, which was eventually fully integrated), and the *Heidelber*-

^{26 &}lt;u>web.archive.org/web/20041022104207/http://fayum.arts.kuleuven.ac.be</u> (consulted 17.04.2023) and www.trismegistos.org/fayum/ (consulted 17.04.2025).

²⁷ web.archive.org/web/20040804001137fw /http://prosptol.arts.kuleuven.ac.be/index.html (consulted 17.04.2025).

ger Gesamtverzeichnis der griechischen Papyrusurkunden Ägyptens (HGV). This aggregated collection was, moreover, to be expanded with metadata on Egyptological sources.²⁸

The principles of this new textual platform were inspired by those of the *PP*'s TEX table. All textual sources would be included: documentary (both papyrological as well as epigraphical), literary, and magical; in any attested language and script; on any writing surface. Each text was given a stable, numeric identifier, a number that would become the pinnacle of papyrological infrastructure: the *TM* number. And thus the new *Trismegistos* platform was born.

Since demotic came into use much earlier than the Hellenistic period, the starting date was set to 800 BC. And in line with the *LDAB* the end date was expanded to AD 800, when Greek finally disappeared from the region.

In the course of the project the decision was also taken to use the topographical database created for the *Fayum Project* to document the provenance of each text. This table was therefore expanded to the rest of Egypt and even beyond for texts concerning the Ptolemaic overseas territories. In similar vein, the *Archives Project* was integrated and has over the past decades expanded beyond its initial *Fayum* boundaries as well.

The multilingualism project did not include a prosopographical component, but as the *PP* was linked to the *Fayum* and *Archives* databases, it was also incorporated into *Trismegistos*, allowing the *MaMiGRE* team to draw from this rich data source as well. The person attestations were now connected to the new *TM Texts* through the canonical *TM* number, instead of the standard edition (the old TRef).

Expansion into the Roman and Byzantine Periods

A new impetus for Leuven's prosopographical research was provided in 2008, when the Leuven papyrology team received funding to develop an interdisciplinary database of personal names. ²⁹ The aim was to uncover how changes in naming patterns reflected socio-cultural and religious changes under the Ptolemies and the Romans. Quantification was an important aspect of this project, so collecting as much data as possible was paramount. The second phase of the *PP* envisaged by Peremans (see *The PP's scope* above) could finally commence: a collection of all individuals of the Ptolemaic Empire, regardless of whether they were ever mentioned with a function. At the same time, the chronological scope was broadened to include the Imperial, Late Roman, and Byzantine periods.

Data collection was greatly facilitated by the availability of digital full text corpora – for some languages and scripts at least. The largest body of evidence, the Greek (and to some extent also Latin) documentary papyrological material, was collected in the *Duke Databank of Documentary Papyri* (*DDbDP*), which started in the early eighties and had been available as HTML on *Perseus* since 1997. From 2007 onwards it was migrated to the TEI XML format and was made available online in 2008, as part of *papyri.info* (alias the *Papyrological Navigator*). This allowed the team to develop a *Named Entity Recognition* (*NER*) application to automatically tag names (of people as well as places), starting from the onomastic lists compiled for previous projects such as the *PP* and the *Fayum Project*. By developing a rule-based system, strings of names referring to a person, which often include genealogical identifiers, were interpreted and recorded as attestations of individuals. Prosopographical identifications within the same text were carried out during the human quality control phase as well.³⁰ The online *PHI* collection of Greek inscriptions is not open access and could therefore not be used; hence the

DCO 10,2 (2024), 19

²⁸ Depauw / Gheldof (2014), 40-52.

²⁹ Depauw / Van Beek (2009), 31–32.

³⁰ I will not go into the specifics of this procedure here, since they have been described in detail elsewhere; Depauw / Van Beek (2009), 34–40.

names in these texts were entered manually. A large section of Coptic papyrological material was integrated with the help of Alain Delattre and his *Brussels Coptic Database*³¹. The other stages of the Egyptian language (mainly demotic, but also hieroglyphic and hieratic) had to be dealt with manually, as there were no digital collections for these texts. A few years back, *Trismegistos* experimented with OCR (optical character recognition) techniques on print editions, but the lack of a standardized transliteration system for Egyptian proved too large a hurdle to tackle without proper funding. This unfortunately meant that progress was much slower than for the Greek and Coptic papyri. Nonetheless, some 350,000 attestations referring to 239,953 persons were thus created in just under four years.

Nam (0,n)(1,n) All names (1,n)(1,1)(0.1)(1,1)Ref NamVarCase NamVar (0,n)(1.n) All attestations of All attested All name variants individuals. declined name names variants (1,1)All gods (0,n)(1,n)All texts from the (1.1)ancient world FuRef (1,n) All attestations of Per (1.n) (offices) All individuals TM FuRef ID (0,n)(0,n)Fu GeoRef (0 n) All "functions' (offices) place names

A New Database Model: the Birth of TM People

Fig. 6: Simplified overview of the TM People structure.

To accommodate the strong onomastic focus of the new Leuven projects, and to facilitate the *NER* procedure, the *PP*'s original database structure needed to be expanded. Several new tables were created (marked with an * in the overview below), and existing tables were remodelled to capture the varying naming conventions used in Egypt during the period under scrutiny.³² This new structure was named *TM People* and can be accessed at www.trismegistos.org/ref (consulted 17.04.2025).

Nam: This table was expanded with a basic typology for names, e.g. mythological, dynastic, title / occupation, flora / fauna. An important category for Egypt is 'theophoric', in which case the name of the god to which the personal name refers can also be entered.³³ A categorization based on name components is also implemented, e.g. Egyptian names starting with P_3 -di- ('He who is given by X') or Greek names ending in -δωρος ('Gift of X'). Nam currently contains 41,519 names.

*NamVar: A more refined onomastic structure was created by introducing a separate table, linked to the original Nam table through the Nam ID, in which all possible (nominative) variants of a name are stored. These do not only include spelling variants, but also the renderings in different languages and scripts. This allows for a more fine-grained level of research: whereas the Nam level is crucial to dis-

- 31 https://wiki.digitalclassicist.org/Brussels_Coptic_Database (consulted 17.04.2025).
- 32 The number of records listed below for each table represent the version of April 17 2025.
- 33 In the meantime, *TM* has released its *Gods* database, to which these names are linked in a relational structure (see also below p. 24).

cern general trends or for identification purposes, the NamVar level can be used to discover regional trends or dialectal variation, for example.³⁴ NamVar currently contains 242,966 name variants.

*NamVarCase: Since Greek and Latin are case languages, all forms of all name variants need to be recorded in order to limit the number of false negatives in the *NER* procedure as much as possible. These forms are linked to the NamVar table through the NamVar ID, but are also the crucial link between the overarching NamVar-Nam onomastic structure and the Ref table, where the attestations are recorded in their declined form (see 'Ref' below). NamVarCase currently contains 1,040,219 declined forms.

Ref: The table recording the attestations of individuals was remodeled to cope with polyonymous naming systems: double names, an old Egyptian tradition that was adapted to navigate the multicultural society of the Ptolemies and under the Romans became a status marker of the local elite; ³⁵ and the Roman naming system that started to make its appearance in the sources from the late first century BC. ³⁶ Although periodically relatively common, when looking at the ca. 10 centuries spanned by *TM People*, polyonymy is a rather marginal phenomenon. ³⁷ Therefore, instead of creating a new, relational structure to deal with these different forms of polyonymy and the variation in identification methods this entailed, ³⁸ we opted for an easier, database-wise inferior solution by simply creating extra fields in Ref: 'pseudo1', 'pseudo2', and 'pseudo3' for Roman *praenomina* and *gentilicia*, and 'double' and 'triple' for multiple given names (or *cognomina*). The original 'name' field of the *PP* still served to record the main given name or, for Roman names, *cognomen*. This means that, if a person is attested with multiple names, there is a one-to-many relationship between that Ref and the overarching ono-mastic structure through the NamVarCase IDs of the declined forms.

Another novelty was that names in Greek and Latin were no longer converted to the nominative, as was the case for the *PP*.³⁹ However, for the *NER* procedure to work, i.e. for name forms to be correctly recognized by the algorithm, they had to be stripped of all diacritic marks, and this 'clean' version was the only version originally recorded in Ref. This is not very helpful for external users though, since it is important to know whether an attestation has been fully preserved or is the result of an editorial reconstruction. Therefore, at a later stage, the original form as it is given in the edition was added for the Greek attestations extracted from the *DDbDP* by automatic comparison with a lemmatized corpus created from the same data set.⁴⁰ For the other records, these forms are gradually being added manually. Ref currently contains 563,179 attestations of individuals.

Although the Leuven projects during this time tackled the subject of identity from an onomastic perspective, the prosopographical approach was vital to their success. Assessing the popularity of a name or name type and the implications entailed by fluctuations in the name stock can only be done by look-

³⁴ E.g. Blasco Torres (2021), 237–242.

³⁵ By 'double name', we mean the use of two given names. Triple names also occur, but they are very rare. This naming tradition has been studied in detail in Coussement (2016) and Broux (2015).

³⁶ We refer to the *duo / tria nomina* used by Roman citizens as 'Roman names' or 'Roman naming system'. For local adaptations to this naming system, see Depauw (2017), 176–198.

³⁷ Currently (April 17 2025), only 1.6% of all attestations in Ref contain a double or triple name, and 4.9% consist of a Roman name.

³⁸ A person with multiple names did not necessarily mention all these names each time (s)he appears in our documentation!

³⁹ For the majority of the existing *PP* entries, the declined form has been added semi-automatically by comparing the existing records to the results of the *NER*. The *PP* also at some stage converted etymologically Egyptian names to Egyptian, even though they were attested in Greek, and the other way round. This also caused problems when converting to the new structure.

^{40 &}lt;u>www.trismegistos.org/words/about</u> (consulted 17.04.2025).

ing at and counting the people bearing those names. The tables that are important from a prosopographical point of view were therefore also improved.

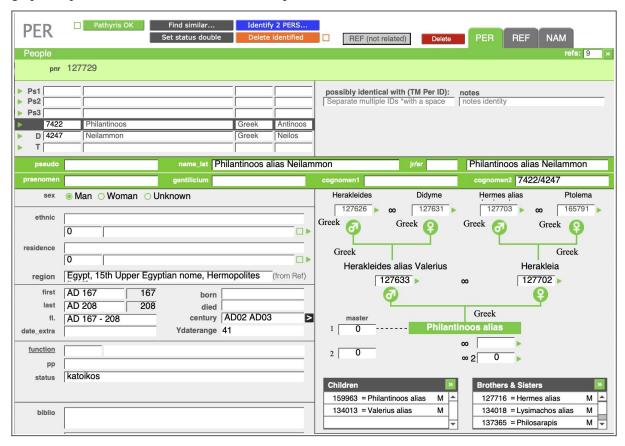


Fig. 7: Screenshot of TM Per 127729 in the Per table.

Per: Two major alterations were made to the Per table. Firstly, the *PP*'s distinct Fam table was dropped, and family relations were coded through self joins in Per directly. This way, family trees can be displayed more easily in the Filemaker backend (fig. 7). Secondly, just like in Ref, five additional fields were created to deal with polyonymous individuals. Per currently contains 385,097 person records.

Fu: The functions table has not undergone any major changes since the PP. It currently contains 2,322 records. It is causing us quite a headache though, since a) it is modeled on the Ptolemaic administration, which was not blindly adopted by later governments, and b) it stays very close to the structure of the printed volumes, where multiple titles were often grouped under a single heading, or a separate heading was used when the precise scope of the office was not clear. Since many of these functions are very specific and cannot be extrapolated to other periods, the injection of Roman and Byzantine data into the new TM People led to an explosion of new functions, making it very difficult to navigate this section. There are currently, for instance, six different Fu records for γυμνασιάρχης: one for the original section in PP VI ('Gymnasiarques, kosmètes, προεστηκότες d'un gymnase ou d'une palestre'), one for 'gymnasiarches of a gymnasion or of a palaistra' (when the office is known, but the precise institution not), one for 'gymnasiarches of a gymnasian', one for 'gymnasiarches of a palaistra', one for 'gymnasiarches of Alexandria', and one for 'gymnasiarches of a metropolis'. We are therefore currently in the process of developing an overarching FuNam structure where terminology prevails, not the scope of the office. Existing functions will thus be grouped under a principal term, e.g. there will be only one entry for γυμνασίαρχος. This will make it easier for users to find all the relevant attestations without having to perform multiple searches.

*FuRef: An intermediary table between Ref and Fu was created to deal with Refs where people are listed with multiple functions. This was important to map changes in status and how these are reflected in evolutions in naming practices, or to link certain onomastic phenomena to particular status groups. FuRef currently contains 102,343 attestations of functions.

The Upkeep of TM People

After 2013, *Trismegistos* was not able to secure any funding for *TM People*. Names and identity were no longer considered sexy topics, but perhaps more importantly, funding bodies are not interested in 'used toys'. Securing money for the upkeep and further development of existing projects and infrastructure is extremely difficult. Yet if a project is to remain relevant, its follow-up is just as important as its start-up. Even though these days applications often demand initiatives to ensure the sustainability of a project's data once the funding is over, getting an extension of that funding to keep everything up-to-date and running is generally not an option, unless an entirely new angle or component is concocted in order to mask the fact that it is a continuation of earlier work.

Despite the decimation of our original staff, we have managed to make significant progress in many respects, not in the least thanks to successful collaborations with partners. Thus in 2013–2014, the *Center for the Tebtunis Papyri* at UC Berkeley worked on the people mentioned in texts originating from the village of Tebtynis in the Fayum. During the *Standards for Networking Ancient Prosopographies* project (*SNAP*; 2014–2015)⁴¹, our set of name variants was matched with that of the *Lexicon of Greek Personal Names* (LGPN)⁴², and the ones missing in *TM* were incorporated into the NamVar table. And recently the recurring individuals in the extensive second-century AD tax rolls from Karanis have been identified with the help of Ellis Cuffe (currently at Royal Holloway University of London): these are over 8,600 attestations of individuals mentioning at least one parent, often both, and even their paternal grandfather, totalling nearly 27,000 attestations that needed to be checked for merges.

In light of the expansion of *LGPN* into Egypt, in 2019 work started on checking and complementing the data from Lower Egypt and the Fayum. The available attestations were checked for new readings, additional information such as titles and designations of origins, and possible prosopographical identifications. Names in sources published after 2008, when the *NER* procedure was first applied to the Greek papyrological corpus (see above), were extracted with two new *NER* rounds in 2019 and 2021. Texts not in *papyri.info*⁴³ were, and still are, processed manually. In total, 154,942 attestations have thus been checked, and 5,299 new attestations have been added, linked to 4,001 distinct person records. In 2022–2023, collaborators of the *Urban Biographies of the Roman and Late Antique Worlds* (Universität Basel) have done the same for all (Late-)Roman attestations linked to the cities of Antinoopolis and Hermopolis Magna in Middle Egypt.

We have ourselves also been checking records and adding data for our own research. We are very fortunate that Willy Clarysse, now emeritus professor, is still very active in this respect, and continues to add names and attestations on an almost daily basis. Thus in total, over the past decade, 92,233 attestations (Ref), 65,866 persons (Per), 122,998 name variants (NamVar) and 6,944 names (Nam) have been added to the database. Intertextual identifications of individuals are also an important focus, as this cannot be automated during the *NER* procedure. All individuals with a double name and their known family members had already been processed between 2008–2012, and since then many officials and

⁴¹ snapdrgn.net (consulted 17.04.2025).

⁴² www.lgpn.ox.ac.uk/home (consulted 17.04.2025).

⁴³ https://papyri.info/ (consulted 17.04.2025).

⁴⁴ April 19 2023.

^{45 &}lt;u>romegyptcities.philhist.unibas.ch/en/home-1/</u> (consulted 17.04.2025).

occupation groups have also been focused on,⁴⁶ as well as individuals bearing a particular name or name (type).⁴⁷

Moreover, the database model continues to evolve as we incorporate more types of information or add more internal links in the database. We had long collected designations of origin in Ref in a simple text field, but in 2021 an intermediary table connecting Ref with the GeoRef table in *TM Places* was created to allow for a more systematic organization of this data. ⁴⁸ Linking the two is largely a manual process, since a person's designation of origin does not necessarily occur on the same line as their name, but we currently already have 11,897 links from Ref to GeoRef. A similar intermediary table has been set up to connect FuRef with GeoRef for those titles that contain a geographical delineation (e.g. *preses Thebaidos*), currently still in its initial stages with a small set of 1,673 links.

Another recent addition to the *TM* universe is the *Gods* database.⁴⁹ It is not always easy to draw a line between divine characters and historical beings, with a large group of (semi-)legendary figures that move between these two spheres. However, since *TM People* has always been intended as a collection of historical individuals, we preferred to create a separate environment for the supernatural. *TM People* profits from this new section from an onomastic point of view, however, as personal names containing a theophoric element can now be linked to the divinity in question and thus be classified systematically. Reversely, on the detail page of a particular God, users get an overview of all personal names (as well as toponyms) that refer to that particular deity.⁵⁰

Finally, in the spirit of linked data, we have also started linking to external projects where users can find additional information about an entity. At the moment we have hyperlinks to four onomastic projects: the above mentioned *LGPN* (39,691 links), *LGPN-Ling* (22,167 links), ⁵¹ *Adopia* (6,226 links), ⁵² and *LiLa* (1,148 links). The aim is to link to prosopographical projects as well, both for Egypt and beyond (see below). To make the *TM* data more accessible, in 2018 Frédéric Pietowski, developer of *CLARIAH-VL*, ⁵⁴ created the *TM PerResponder* endpoint, through which projects can query *TM*'s prosopographical data using the *TM Per ID* and receive the related data in *RDF* or *JSON*. ⁵⁵ A similar tool is currently being developed for *TM*'s onomastic data (NamVar and Nam).

⁴⁶ E.g. the prefects and procurators in Alexandria, the *strategoi* and royal scribes on the nome level, the *gymnasiarchs* and other *archontes* of the *metropoleis*, bankers, slaves, etc. All individuals involved in imperial estates and the administration surrounding these domains have been checked (and added when still missing) during the author's engagement in the *Patrimonivm* project at Université Bordeaux-Montaigne (<u>patrimonium.huma-num.fr/</u> [consulted 17.04.2025]) and the bibliography at www.trismegistos.org/ousia/about.php#ousia-publications [consulted 17.04.2025]).

⁴⁷ E.g. Sokrates: Clarysse (2019), 127–133 and Broux (2019a), 1–21; or names of Hellenistic queens: Broux / Clarysse (2016), 347–362.

⁴⁸ The GeoRef table collects attestations of toponyms in ancient sources and can thus be considered the geographical parallel of the Ref table.

⁴⁹ Now available at https://www.trismegistos.org/god (consulted 17.04.2025).

⁵⁰ See for example https://www.trismegistos.org/god/109 (consulted 17.04.2025), the page for Athena.

⁵¹ This extension of *LGPN* offers etymological and semantic analyses of the names in *LGPN*: https://lgpn-ling.huma-num.fr/ (consulted 17.04.2025).

⁵² A database of personal names from the Iberian peninsula: <u>adopia.huma-num.fr/en/home</u> (consulted 17.04.2025); in light of our expansion to Latin inscriptions, for which see below.

⁵³ A linked data knowledge base of linguistic resources for Latin: lila-erc.eu/ (consulted 17.04.2025), links established in the framework of the new NIKAW (Networks of Ideas and Knowledge in the Ancient World) project: https://research.kuleuven.be/portal/en/project/3H220323 (consulted 17.04.2025).

⁵⁴ clariahvl.hypotheses.org (consulted 17.04.2025).

^{55 &}lt;u>www.trismegistos.org/dataservices/rdf/per/documentation</u> (consulted 17.04.2025).

Is TM People Really a Prosopography?

Can *TM People* be considered a prosopography? This depends, of course, on how you define prosopography. There is no real consensus, as is clearly demonstrated in the introduction to the handbook *Prosopography: Approaches and Applications*. ⁵⁶ Several scholars cited in the handbook agree that 'prosopography' not only consists of data collection, but also the subsequent exploitation and analysis of this data.

As the short manual in the handbook puts it, it is "a historical research technique based on the systematic analysis of biographical data of a selected group of historical actors. The efficiency of prosopography depends on the general research objectives and the specific questionnaire on the one hand and on the available sources and literature on the other". 57 In TM's case, some may not consider our delineation of all known people from Egypt between 800 BC and AD 800 to be "a selected group of historical actors". Neither do we provide a systematic analysis of this entire group. The PP was initiated with a particular research objective in mind, namely to be able to study the relations between the indigenous population and immigrants. This obviously disappeared with the advent of TM People. Although the collaborators working on the database during its initial stages were working on specific topics with specific questionnaires (double names and theophoric names 58), data collection happened on a much broader scale from the start. TM People was purposefully designed to become a tool that would be useful for future endeavours as well. Moreover, the quantitative approach of these first projects required a representative sample of the entire name stock of Egypt during this period in order to produce meaningful results. No boundaries were thus set on the available sources, apart from those inherent to the surviving material, which fluctuates over space and time. But these are biases that every analysis concerning the history of Graeco-Roman Egypt, and the ancient world in general, have to deal with, and are thus not specific to the prosopographical method.

As indicated above, an important caveat is that data collection and prosopographical identifications are still ongoing. The available data from Upper Egypt has not been checked systematically yet (at least not for the post-Hellenistic, i.e. non-*PP* material). Names from recent publications still need to be added, and many intertextual identifications remain be done, but this is ongoing in light of various projects. It is slow work, however, because currently it cannot be automated. There will, moreover, always be ambiguity regarding the identification of certain individuals, with different views held by different scholars. This is something that cannot be easily accommodated in a database, which is very black and white. Either two attestations refer to the same person and are grouped under the same person ID, or they do not and they are each assigned to a different ID. In a binary world, the 'maybes' do not fit in well. Our policy is to remain cautious, and if there is any doubt as to the identification of two person records, we prefer not to merge them, but instead provide cross references indicating a possible match. Our policy is to remain cautious, and if there is any doubt as to the identification of two person records, we prefer not to merge them, but instead provide cross references indicating a possible match.

Furthermore, *TM People* does not yet offer a systematic collection of titles, designations of origin or residence, age, etc. These are important biographical data, crucial for various research objectives. The Ref database is equipped to deal with these types of data, but they are only being collected on a small scale at the moment, for research on specific officials, towns, or names, for example. Just as with the

⁵⁶ Keats-Rohan (2007), 1–32, esp. 18–21.

⁵⁷ Verboven et al. (2007), 69.

⁵⁸ Double names: Coussement (2016) and Broux (2015); theophoric names: Jennes (2013).

⁵⁹ For efforts on automatic identification, see the *Berkeley Prosopography Services* (http://berkeleyprosopography.org [consulted 17.04.2025]). Our AI institute Leuven.AI is currently also exploring with us what is possible in this respect.

⁶⁰ If identifications have been suggested by scholars but we do not agree, or if they are themselves hesitant, we add a bibliographic reference so that users can find the relevant literature on the matter.

prosopographical identifications, however, this is a continuous effort, so the ultimate goal is to have a complete collection.

Some have argued that although the collection and exploitation of data can be seen as two distinct phases in the prosopographical method, they are so interdependent that there is a continuous interaction between the two, and 'prosopography' must therefore consist of both. ⁶¹ In this respect, it has been suggested to refer to *TM People*, and specifically the Per table, as a 'list of persons' rather than a prosopography. However, the data is not collected merely for the sake of collecting. *TM People* is conceived as a tool for researchers who wish to engage in prosopographical (and onomastic) analysis. As such, it may not yet be complete and thus require some fine-tuning before the actual exploitation of the data can begin. But exploitation is most definitely what it is designed for. That the grunt work of data collection has been carried out independently of a particular research project should not be an objection. If this were to be a prerequisite, many of us would be wasting our time with reinventing the wheel time and time again.

Finally, *TM People* has certainly paved the way for what has been coined 'new' or 'mass prosopography'. In contrast to the original 'elite prosopographies' of the early 20th century, ⁶² the focus is more on social trends, ties, and mobility, and statistical analysis plays an important role. ⁶³ Apart from the above mentioned studies on double names (and their socio-cultural implications) and theophoric names (and what they tell us about religious shifts in Egyptian society), ⁶⁴ the data has also been used to chart the Christianization of Late Roman Egypt, ⁶⁵ for example, or to examine how families in Roman Egypt used hybrid names to reflect their mixed cultural backgrounds with the help of network analysis. ⁶⁶ The latter methodology was also exploited in a recent study of daily life and socio-economic interactions in the late Ptolemaic town of Pathyris, starting from the corpus in *TM People*. ⁶⁷ Several of the collaborations mentioned above took place in the context of research projects in which this 'new prosopography' plays an important role as well.

Names in the Ancient World

Expansion to the Eastern Mediterranean

In 2010 *Trismegistos* first explored an expansion of the texts database outside the realms of Egypt and the Ptolemaic overseas territories, by contacting the *Epigraphische Datenbank Heidelberg* through the intermediary of James Cowey. This led in 2013 to our participation in the *EAGLE*⁶⁸ project coordinated by Silvia Orlandi, an aggregation project of Latin (and some Greek) inscriptions. In the years after that, we began collecting all texts from antiquity, also those in smaller indigenous languages. Due to the success of applying *NER* to the Greek papyri and to the availability of online, full-text corpora such as the *Epigraphik-Datenbank Clauss-Slaby*⁶⁹, the decision to extract the names / people in these

⁶¹ Bulst (1996).

⁶² Although even for Egypt, where the general population is much better represented than in the rest of the Mediterranean, there is certainly a bias toward local elites in certain periods and regions as well.

⁶³ Keats-Rohan (2007), 10–15 and Syme (2007), 131–132.

⁶⁴ See note 58.

⁶⁵ Depauw / Clarysse (2013) and Clarysse / Depauw (2015).

⁶⁶ Dogaer / Depauw (2017).

⁶⁷ Tambs (2022).

⁶⁸ www.eagle-network.eu (consulted 17.04.2025).

^{69 &}lt;u>www.manfredclauss.de</u> (consulted 17.04.2025)

texts was any easy one. ⁷⁰ The initial stages of setting up the infrastructure, updating the rule-based system to accommodate the particularities of the Roman naming system (in Egypt, the Roman standards of filiation and *tribus* were generally not followed, for example), and extracting (possible) names went smoothly: the ca. 350,000 Latin inscriptions that were available contained 907,064 clusters of capitalized words, of which 433,156 were marked as containing at least one personal name. Then came the arduous task of checking these results.

A first stage simply consisted of checking whether names were correctly identified as such, removing false positives and adding false negatives. With the help of students, ca. 70% of this first stage was realized by January 2017.⁷¹ Without funding, this project ground to halt after that. In 2020, it was picked up again, however, and is now one of the three objectives of *Trismegistos* in its new role as a KU Leuven Core Facility.⁷²

We are now in the second phase of the *NER* process: checking whether the results of the rule-based system have interpreted the clusters of names correctly. Since the original dataset on which *NER* was performed was already some nine years old, at the beginning of 2022 we updated it with new texts that had been added to *EDCS* between 2013 and then. Our initial plan was to cover the African provinces first, so we blindly tacked the two Mauretania's (7,143 texts). But when we then moved to Africa and Numidia we realized that the corpus is too large for a single person to manage alone (there are some 48,500 texts in total from these two provinces). We therefore decided to skip these for the time being and moved on to the Eastern Mediterranean, where there are fewer Latin inscriptions. The Cyrenaica, which had long belonged to the Ptolemies, had already been processed together with Egypt. By the end of 2022, Arabia, Syria, Iudaea, and Mesopotamia (3,300 texts in total) were finished. By the end of 2024, the Anatolian provinces (Asia, Galatia, Bithynia et Pontus, Lycia et Pamphilia, Cappadocia, Cilicia, Regnum Bosporum and Armenia), Achaia, Macedonia and Thracia followed. The data from these provinces are available online through the *Names in the Ancient World (NAW)* page, a new component of the *TM People* portal, thus providing a Latin counterpart to the *Lexicon of Greek Personal Names*.

At the same time, we are working on attestations of persons in literary texts. The *NIKAW* project aims to analyse the circulation of knowledge in antiquity, ⁷⁵ and for this it will tag all names referring to individuals (both historical and mythological), gods, and places. We will incorporate these attestations in the relevant *Trismegistos* sections, and thus bring together the documentary and the literary evidence.

Yet Another New Database Model

The *ad hoc* solution devised to accommodate Roman names in Per and Ref in the original *TM People* may have sufficed for the limited number of *duo* and *tria nomina* attested in Egypt; for other regions, especially those that were more Latinized, it has too many drawbacks. A major obstacle is the six name fields limitation, as individuals attested with more than six names cannot be recorded adequately. Additionally, the six separate relations needed to link the original Ref table to the overarching onomastic structure (NamVarCases, NamVar and Nam) affects the performance of the database signifi-

⁷⁰ In an initial stage the main focus was on personal and place names; for the latter see Verreth (2017). Other entities, such as gods, emperors and kings, and army units (basically any word of which the first letter is capitalized) are also tagged provisionally. In the meantime, some of these have formed the basis of new *TM* components (e.g. *TM Abbreviations* and *TM Gods*) or have been exploited by students for research papers (e.g. formulaic expressions in funerary inscriptions).

⁷¹ Broux (2017).

⁷² https://tmplus.kuleuven.be/home (consulted 17.04.2025).

⁷³ For a (slightly) more technical overview of the steps involved in the NER procedure, see Broux (2017), esp. 5–7.

⁷⁴ www.trismegistos.org/ref/naw (consulted 17.04.2025)

⁷⁵ See above note 53.

cantly: any query designed to find attestations of a particular name, name variant, or name type has to repeat the same search in six different fields. Both in Filemaker and in the online SQL database, this requires a complex series of joins and subqueries that slows everything down considerably. Therefore, a more flexible and straightforward structure has been developed for *NAW* that can accommodate any number of names of whatever type (fig. 8).

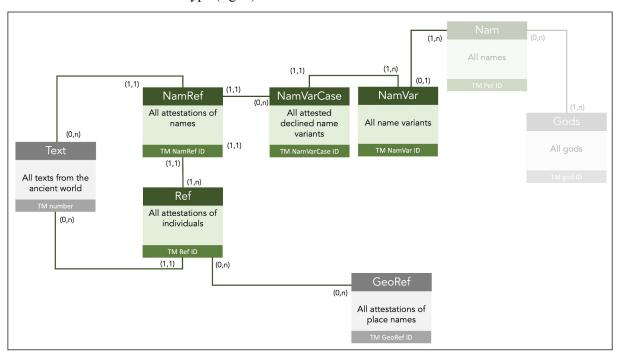


Fig. 8: Simplified overview of the Names in the Ancient World structure.

For this, an extra table, NamRef, has been added on the original Ref level, where each individual name is stored, while Ref itself focuses on the entire string that makes up a person's identification.

NamRef: A person's name can consist of multiple elements. These elements can all be of the same kind (e.g. in a double name such as *Arpocrationis q(ui) e(t) Didymi* that consists of two given names), 76 they can all be of a different type (e.g. *Iulia Lampyris* with a *gentilicium* and *cognomen*), 77 or something in between (e.g. C(aio) *Pompeio Sallustio Mariano* with a *praenomen*, two *gentilicia* and a

cognomen). NamRef collects each of these elements individually. The sequence of the names is stored by using a simple numerical field that counts the position of the name in the string (fig. 9). This is then used to display the identification string in the correct order in Ref. Linking with NamVar and Nam through NamVarCase takes place on the NamRef level with a one-to-one relation. For this, the 'clean' version of the name is again used, stripped of all diacritic marks, while the original form as presented in the (online) edition is also recorded to indicate how much has actually survived. NamRef currently contains 37,819 records.

⁷⁶ TM 69993 l. 8. with https://www.trismegistos.org/ref/353885 (consulted 17.04.2025).

⁷⁷ TM 495427 1. 2.

⁷⁸ TM 204017 l. 1–3.

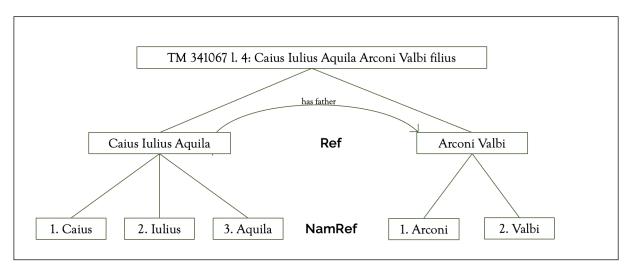


Fig. 9: Recording an attestation in Ref and NamRef.

Ref: The Ref table in this structure has the same purpose as the original Ref table in TM People: recording the details of a person attestation. The main difference is that the onomastic interpretation of the names no longer takes place in this table, but in NamRef. If a person's identification string contains a tribus or origo, these are also recorded in an intermediary table and are linked to the corresponding record in the GeoRef table (fig. 8), in the same way as we are doing for the Egyptian data in the original *TM People*. Titles and status markers are not yet collected systematically, but if they are inserted in the middle of a person's identification, they have been tagged and entered, as they would otherwise break up the string and the attestation would be incomplete. This is the case with Sextus Valerius Fuscinus augur Thevestini filius, for example: 79 if augur were not tagged, this would result in two unconnected strings, Sextus Valerius Fuscinus and Thevestini filius, and we would lose the information that Thevestinus is Fuscinus' father and that this patronymic was part of the latter's identification. Finally, the new Ref table also records family relationships if genealogical identifiers are used in a person's identification by adding the Ref ID of the father, mother, or spouse to the record (if a papponymic is added, the grandfather's Ref ID is recorded as a father in the record of the person's father). Slaves and freed(wo)men are linked to their (former) owner in the same fashion. The NAW Ref table currently contains 20,635 records.

After some debate, we have decided not to store the new attestations from outside Egypt in the same tables as those from Egypt. From a technical perspective, this would require quite some data manipulation to convert the six-field system of the original Ref table into a relational structure, as well as a complete rebuilding of the frontend database and online interface to accommodate this new structure. Equally important are the repercussions this would have on the workflow of our collaborators, both internally and externally. This huge enterprise would involve taking the backend offline for the duration of the conversion, during which our partners would have no access to their data. Moreover, once the new structure would be in place, all collaborators would have to be retrained, as it implies a whole new way of entering and manipulating data. Therefore, for the time being at least, the NamRef and Ref tables of *NAW* are kept as separate tables.

We realize all too well that, for a project of which the main goal has always been to foster interdisciplinarity, keeping the data separate does not seem very helpful. However, the name attestations in NAW's NamRef are linked to the same onomastic tables as the original TM People Ref. There are no separate NamVarCase, NamVar and Nam tables for NAW: all names, variants and declined forms are stored in the same onomastic structure. NAW starts from this onomastic perspective, thus allowing users to compare the data from Egypt with the data from elsewhere (fig. 10).

79 TM 203280 1. 3.

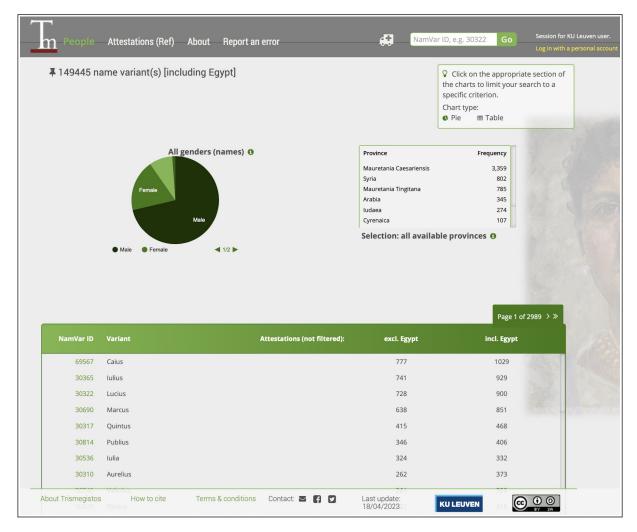


Fig. 10: NAW homepage.

There is an important caveat regarding the onomastic interpretation of these new names from Latin inscriptions. While it is easy to assign an attested name to a particular variant, as a variant is basically a specific reading of a name in a certain language, deciding which are variants of the same name and should thus be grouped together is often less straightforward, and requires human input. Common Latin and Greek names that are attested in many provinces are generally also attested for Egypt and have therefore already been assigned to a Nam record. But many less common names, especially indigenous names from other provinces, are new for us. Since we are not familiar with the many local onomastic habits across the Roman Empire, we have decided that we would not try to do all this work ourselves, but to collaborate with projects that are specialized in specific regions or languages and link to them in order to point our users to more information about such names. Therefore, many variants are not yet linked to a Nam ID (and this is why the Nam and related Gods tables have been faded out in fig. 8). This has no repercussions on their findability, however, as the online interface is programmed to search on both the Nam and NamVar levels.

Finally, the *NAW* overview in fig. 8 does not include a Per table. No prosopographical identifications have been carried out on the data from the Latin inscriptions, not even if a person is attested multiple times within the same text. The reason for this is the subject of the last section of this paper.

Toward a Single Prosopography of the Ancient World?

This brings us to the ultimate topic of this paper: are we moving toward a single prosopography of the ancient world? In short: not if it is up to us.

An important prerequisite of a prosopography is the disambiguation of (often homonymous) individuals. Producing such a collection supposes detailed background knowledge about the context in which these people are mentioned. Overall, the ancients, and especially the elites, whose names make up the bulk of our documentation, were fairly conservative when it came to naming their children. Among the Romans, the eldest son usually inherited his father's praenomen and gentilicium, often even cognomen, while in the Eastern Mediterranean, where family or clan names were less widespread, names were passed down from grandparents to grandchildren, or even down each generation. Is the Egyptian property owner Marcus Aponius Saturninus the same person as the homonymous Moesian legate of AD 69, or is this the legate's father? Or, a third possibility: are they all the same individual? 80 In the first half of the first century AD, the sons of Eutychos sell some vacant lots to Chrates, son of Akousilaos. 81 Three of Eutychos' sons are likewise named Eutychos: the eldest is identified as Εὔτυχος πρεσβύτερος (TM Per 270706), the youngest as Εὔτυχος τρίτος (TM Per 141970). The middle brother, who had already passed away at the time of the sale, was Εὔτυχος δεύτερος (TM Per 270720). But which of the three brothers should Εὐτύχου τοῦ Εὐτύχου be identified with, if no name suffixes are given?82 Untangling family relationships and assigning attestations to the right individuals requires a thorough knowledge of imperial as well as local career paths, regional epigraphic and scribal habits, modes of identification, and so much more, a knowledge that needs to be combined with a close reading of the sources. And even then we often still do not know, as the two examples here demonstrate.

We believe it is beyond the reach of a single project to achieve this for the entire ancient world. We consider a more realistic option to be a constellation of prosopographies in a linked data infrastructure, as was the idea of the *SNAP* project.⁸³ The various obstacles we were confronted with in phase 1 (2014–2015) of this project, however, have made us realize that onomastic groundwork needs to be done in order to make this possible.

Rather than a prosopography of the entire ancient world, TM therefore aims to create an exhaustive list of names and their attestations as a preparatory step toward a possible linked data infrastructure. TM People already has an extensive multilingual hierarchical gazetteer structure. With NAW, we are in the process of enlarging this collection by including names from other areas and languages, often in collaboration with partner projects. For variants as they are attested in the sources (e.g. $\lambda \lambda \epsilon \xi \alpha \nu \delta \rho c c c)$, the approach will be more 'traditional', either through entity recognition when a full text corpus is available (such as for the Latin inscriptions), through (semi-automated) integration of other lists if available (e.g. the lemmatized names of persons from $LiLa^{84}$), or even through manual data entry when nothing digital is available.

As each attestation of a name and person receives a stable identifier, this forms a sound basis from which to start linking prosopographies, since the attestation level is more or less invariable. 85 For this,

- 80 Broux (2019b), 164.
- 81 TM 25197.
- 82 The two attestations without name suffixes have been assigned to a separate Per ID (TM Per 251681) instead of arbitrarily choosing between one of the three brothers.
- 83 See above, with note 41.
- 84 See note 53.
- 85 In rare cases, new editions no longer read a name as such and an attestation is deleted. At other times it is not entirely clear whether two or more names belong to the same person, or refer to a person with a patronymic, for example. In such cases, we take a cautious approach and split them up into separate Refs. If in an external prosopography these names do happen to be considered to belong to a single person, we simply link to that same entity from each of the Refs.

NAW does not need its own prosopographical level: we simply link our attestations to the persons they correspond to in external prosopographies. There is no restriction to the number of hyperlinks we can add to an attestation, as they are stored in a related table. The only prerequisites are that the external prosopography is available online and that it uses unique, stable identifiers for its person records.

Over the past 15 years, as database management systems have become more accessible and scholars more digitally trained, more and more researchers and projects have been creating digital prosopographical datasets. Increased awareness of reproducibility and sustainability (often spurred by funding agencies) have resulted in the publication of many of these databases online, either through a dedicated website with a search interface, or by depositing them in repositories such as *Zenodo*. ⁸⁶

Finding these relevant datasets is not always easy though, so accessibility is again one of the first things *TM* wants to improve by linking prosopographies. A second benefit of this approach is that it solves the issue of conflicting identifications. If two prosopographies do not agree on whether the available sources on Marcus Aponius Saturninus refer to a single person or not, and each project groups the attestations differently, *NAW* simply links some of the attestations to Saturninus Sr. and the others to Saturninus Jr. in prosopography A, while all attestations are also linked to the single Saturninus in prosopography B. This leaves room for alternative interpretations, which would not be possible if we were to collect everything in a single environment, ⁸⁷ and thus gives a better impression of the ambiguity that often surrounds these identifications.

We will even try to go further. For the transliterated versions of ancient names that are normally used in scholarly literature and that can display an astounding variation (e.g. 'Alexandros' or 'Alexander'), we will, in a later stage, try a machine-learning approach similar to what we are currently developing for source references. This way, references to names (and perhaps one day individuals) from the ancient world can be feasibly annotated in modern scholarly literature as well. Linking these annotations to the Refs they refer to will create automatic bibliographies of names and individuals that can serve as a useful starting point for further research. We thus hope to, if not close, then at least lessen the gap between online databases and 'classical' scientific literature.

⁸⁶ More and more institutions now have their own repositories where their researchers can publish their data (not restricted to database formats).

⁸⁷ Which we do for Egypt, however, with all the complications this entails. As indicated above, we are cautious when it comes to identifications and try to reflect these complications through cross-references to other person records and with bibliographical references. However, users often tend to overlook these additions and simply look at whether the same Per ID is used or not, thus losing all nuance.

⁸⁸ Linking traditional scholarship of the Ancient World with digital tools through Artificial Intelligence: https://research.kuleuven.be/portal/en/project/3H210378 (consulted 17.04.2025).

Abbreviations

LGPN Lexicon of Greek Personal Names

PIR Prosopographia Imperii Romani

PP Prosopographia Ptolemaica

SNAP Standards for Networking Ancient Prosopographies

TM Trismegistos

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Digital Corpora

Trismegistos (<u>www.trismegistos.org</u> [consulted 17.04.2025]). Trismegistos stable identifiers are given throughout this paper. For ancient documents this is the TM number (https://www.trismegistos.org/text/++number++); for people this is the TM Per ID (https://www.trismegistos.org/person/++number++).

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