What's in Late Antique documentary sources?

Findings of the
ERC research project NOTAE

Antonella Ghignoli
Sapienza Università di Roma
antonella.ghignoli@uniroma1.it

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In this paper I would like to present some findings of the ERC research project NOTAE[1] by transposing the basic question of the CARMEN Conference 2 – "What's in a Manuscript?" – to documentary texts. Documents – that is any written record generated for pragmatic purposes – are precisely the sources of the NOTAE project, which is focused on such texts produced in the Late Antique Greek-Latin *koiné* and in the Latin West in the period between the 5th and 8th centuries CE.[2]

What's in a 'document' then? A document contains an alphabetic text, which communicates a specific content through a set of letters (graphemes) representing the phonemes of a spoken language (but representing also numbers as in the case of the ancient Greek and Latin alphabets).

A written record turns into a historical source only after criticism. Firstly, it is necessary to read and to transcribe the text in order to know its content and, secondly, to establish its transmission (original or copy?) and consequently its date and place of origin. Then, it is necessary to create a critical edition and to understand and comment this single written text in the light of others belonging to the same typology or to the same period or to the same place and so on. This series of actions will make a written text a historical piece of evidence that yields information on persons, places, economic practices and political institutions as well as on everyday life and personal relationships.

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[2] The historical premises on which the choice of the sources and research period of the NOTAE project is based are summarised in Ghignoli 2019, in particular on pp. 34–36.

Only reading the written lines of an ancient document is not sufficient, however, to comprehend its historical content. It is necessary to take into account also features which can be defined as 'external' in relation to the alphabetic text. Palaeography and diplomatics have traditionally been concerned with Latin texts from the Latin West from Late Antiquity up to the Renaissance and with Greek texts from Byzantium and the Byzantine world. These disciplines consider as 'external features' for example: the size and the form of the material support (papyrus, parchment) and the medium (roll, codex, single sheet of papyrus or parchment, tablets, ostraca); the alignment and the arrangement of the text on the writing area (layout); the system of punctuation marks, in the sense of any kind of graphic signs inserted to organise both the act of writing and the act of reading the written text at the moment of its use; the handwriting itself in order to identify features that could be considered historically significant, given that they are somehow connected to the origin and the function of the document, such as, for example, the use of an individual and cursive handwriting rather than a chancery one. What is traditionally meant by external features in palaeography and diplomatics overlaps with the concept of the "paléographie signifiante", recently proposed by Jean-Luc Fournet (2004) for the analysis of Greek documentary papyri, particularly letters and petitions. There is also an overlap with the concept of the "visual-graphological mode" or "typography" applied to the analysis of a text by Klaas Bentein as a critical tool in the ERC research project EVWRIT, which he is currently leading.[3]

The content itself cannot be reduced, however, only to what the alphabetic text communicates because in the period in question (long Late Antiquity and early Middle Ages) a documentary text might include graphic symbols. These symbols are at the very heart of investigation in the NOTAE project. 'Graphic symbols' mean graphic entities (composed of graphic signs, including alphabetical ones) drawn as a visual unit within a written text but communicating something other or something more than a word of that text. In our research, we adopt the concept of 'symbol' instead of 'sign' because the relationship between the message-bearing graphic entity and the conveyed information represents what we have to investigate, in other words, what we have to discover: as researchers, we cannot assume a certain prior intrinsic relationship between them.[4] Even when it might seem to us – men and women of the 21st century – simple and clear as visible in the "Ravenna Papyrus" from the British Library (Fig. 1),[5] the message is always a matter of guesswork because any graphic entity is an object of historical investigation.

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[3]   ERC Starting Grant EVWRIT "Everyday Writing in Graeco-Roman and Late Antique Egypt. A Socio-Semiotic Study of Communicative Variation"; cf. the website https://www.evwrit.ugent.be (accessed 24.02.2023).

[4]   For the distinction between 'symbol' and 'sign' based on the absence or presence, respectively, of a prior intrinsic relationship between the message-bearing graphic entity and the conveyed information see Leach 1976, 12–15.

[5]   P. Ital. II 35 (Tjäder 1982, 104–112) = TM 114818 (www.trismegistos.org/text/114818); detail of the image available at: https://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Add_MS_5412. In particular, in l. 61 there is a graphic symbol drawn by the illiterate seller Domninus, a small landowner (*agellarius*), in the empty space left by the notary who had written the text of his subscription: *Signum* [graphic symbol] *s(upra)s(crip)ti Domnini v(iri) h(onesti) agell(arii) venditoris*.
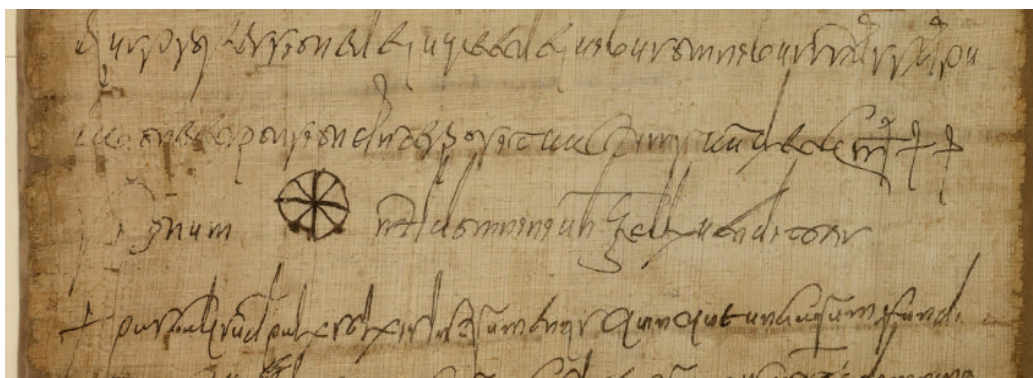
Figure 1: London, British Library, Add MS 5412; sale document, Ravenna, 3 June 572 CE, ll. 59–62.
© London, British Library

1. Our sources, our work, our team

As already said, the sources of the project are documents in a wider sense, as expressions of pragmatic literacy[6] including documentary records of all possible kinds (legal contracts, official and private letters, lists, petitions etc.) survived from the long period in question. These documents are preserved in the original or transmitted in contemporary copies on diverse material supports (papyrus, slate, wood, parchment) and media (rolls, codices, tablets, single sheets) used at that time.[7] Legal documents, in particular, enable us to relate graphic symbols to illiterate people: the gradual introduction of signatures in the legal documentary practice meant an increasing use of graphic symbols not only by literate people writing their subscriptions in their own hands[8] but also by illiterate contract partners or witnesses. With their own hands, they added graphic symbols in the space left empty for them in the line of their signature, which was written by the scribe or by a literate delegated third-party person, just like *Domninus* in the "Ravenna Papyrus" from the British Library (Fig. 1). Drawing graphic symbols can be considered, therefore, the 'other side' of the written world. It had a major social impact because, provided it was done in one's own hand, it placed on the same support, side by side, the graphic evidence both of literates (professional scribes or not) and illiterates as exemplified by the "Charte de dame Clotilde" (Fig. 2).[9]

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[6]   For this concept see Parkes 1991, 275.

[7]   We have included documents written on slate because the oldest documentary tradition from Visigothic Spain is preserved on slate. Although some documents from Vandal Africa are written on ostraca, we have excluded the Late Antique ostraca in Greek and Latin since they are currently object of other research projects. We have included, however, the wooden tablets from Tebessa, the so-called Tablettes Albertini (Courtois et al. 1952).

[8]   See, for example, Fig. 1, l. 62, the autograph subscription of *Pascalis v(ir) d(evotus) pal(atinus) s(a)c(rarum) l(argitionum)*, who begins his signature drawing a staurogram (the monogram of the Greek letters *tau* and *rho*, see Hurtado 2006), characterised here by an extremely reduced loop of the letter *rho*.

[9]   ChLA 13.564 (Atsma – Vezin 1981, 63–68) = TM 382870 (www.trismegistos.org/text/382870); detail of the image available at: https://www.siv.archives-nationales.culture.gouv.fr/siv/media/FRAN_IR_053826/c-22tuum821--ubfq0yx4cpmy/FRAN_0143_0009_L. Fig. 2 shows the line where a certain illit-
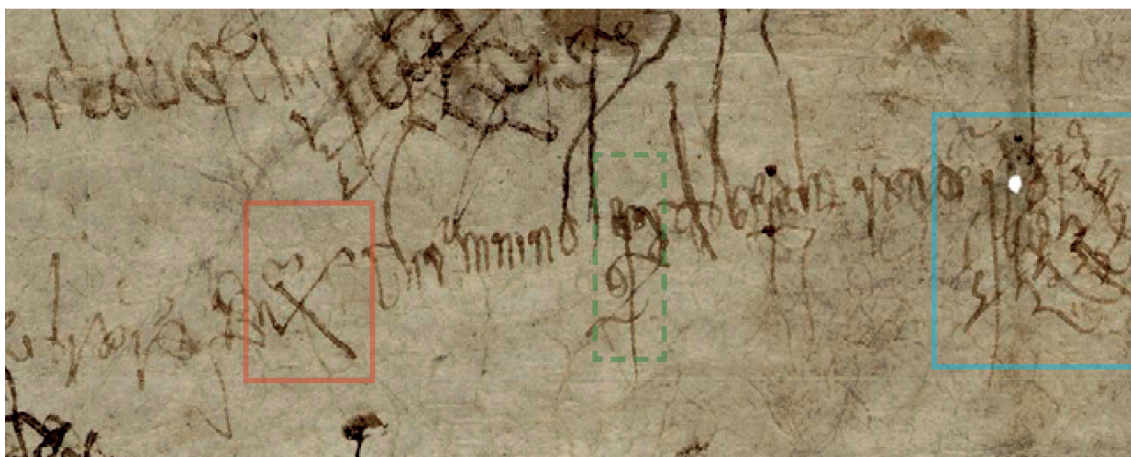
Figure 2: Paris, Archives Nationales, K//2 no.10, AE/II/11; Lamorlaye, France, 10 March 673 CE; detail of the subscriptions appended to the charter of the noblewoman Clotilde (Chlodechildis), who endowed a monastery at Bruyères-le-Châtel. © Paris, Archives Nationales (France)

New in the NOTAE project is the idea of considering the graphic execution of these symbols as a matter of scribal culture; graphic symbols (simple or complex) are therefore objects of palaeographical analysis (Ghignoli 2019, 37). An example in a "Ravenna Papyrus" from the Bibliothèque nationale (Fig. 3) shows, in addition, that graphic symbols can be intrinsic to the alphabetic chain itself.[10]

Our work consists in carrying out a thorough inspection of the documents and a census of graphic symbols. The data (including the images of the graphic symbols) is collected according to an *ad hoc* created protocol of description,[11] and it is processed in

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erate Chramnino drew a diagonal cross (similar to the Greek letter Χ, here marked in red) in the empty space left by the notary who had written *S(i)gn(um) Chramnino*. Immediately after his name, on the same line, a certain Radoberthus, a literate person, wrote *Radoberth(us) rogetus sub(scripsi)*. He drew a graphic Christian symbol (here marked in green) at the beginning of his subscription and a complex graphic symbol (marked in blue) at the end, in which it is easy to identify the Tironian note for *subscripsi* repeated several times.

[10] P. Ital. I 8 (Tjäder 1955, 234–246) = TM 114801 (www.trismegistos.org/text/114801); detail of the image available at: https://gallica.bnf.fr/ark:/12148/btv1b52508224g. The scribe (*exceptor curiae*) wrote the word *est* of the passage *recitatum est* and the following staurogram as a monogram (here marked in red). The extended horizontal stroke of the letter *-t* of *est* also serves as the horizontal stroke of the Greek letter *tau* in the monogram *tau-rho*; in other words: the graphic symbol and alphabetic signs of the text are connected and constitute the same *parola grafica*.

[11] The protocol of description includes the following standards: material support, main identifier, editions, printed facsimile, digital reproductions, bibliography, provenance, origin, date, title and typology of the document, subject, original archive, language, hands (identified or anonym), palaeographical description, person, script, graphic symbol (if present or not), if present: the position and the hand responsible, classification, description. In applying the protocol, we take into account the most recent theoretical and terminological achievements in papyrology, palaeography, juridical papyrology, early medieval diplomatics, social and economic history and cultural and religious studies. These are, of course, adapted to the specific function of the protocol and used in a specific sense in accordance with our work, which is framing both the document-context of graphic symbols and the graphic symbols in the context of the document.

the NOTAE System, which has been exclusively designed by the IT scientists who are members of the project team. The structure of the database is continuously updated and refined on the basis of the feedback of the project team members working in the fields of papyrology and palaeography. The NOTAE team is an interdisciplinary group of diplomatists, palaeographers, papyrologists, historians, philologists, experts in digital humanities, computer scientists and experts in deep learning.[12]
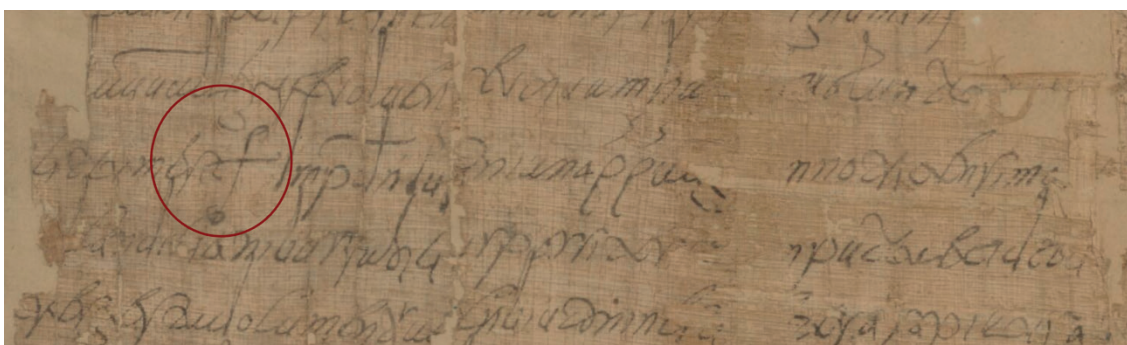

Figure 3: Paris, BnF, Latin 4568A; official copy of *gesta municipalia*, Ravenna, 17 July 564 CE. © Paris, Bibliothèque nationale de France

Collecting data means studying each graphic symbol in its context by conducting a complete synchronic analysis in order to classify, interpret and relate the symbol not only to the person responsible for it but also to the document containing it and to the historical and geographical context.

Employing the data processed in the NOTAE System, we also carry out comparative and diachronic investigations in order to understand the developments and differences of cultural practices and functions of graphic symbols considering a variety of factors and perspectives (cultural, religious and legal). It can certainly be said that Christian graphic symbols (mainly staurograms) gradually lost their original meaning. Oftentimes, they simply served the purpose of providing graphic elements for the legibility of the text and were used as a kind of punctuation system, especially in some cases of legal documents from Late Antique Egypt (Amory 2023). This explanation, however, does not apply to other documents that originated, more or less, from the same period and area, like the Papyrus Iandana 68b (Fig. 4).[13]

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[12] For the composition of the team and the key activities of the team members and affiliated researchers cf. our website https://notae-project.digilab.uniroma1.it/team/.

[13] P. Iand. 4 68b (Spiess 1914, 159) = TM 78417 (www.trismegistos.org/text/78417); Tjäder 1977; image available at: https://www.papyrusportal.de/receive/GiePapyri_schrift_00006320). The microtext consists of a declaration of identity (presumably of the donor) – *Fl(avius) Symeonius cornicularius obtul(it)* – opened and closed by a staurogram.
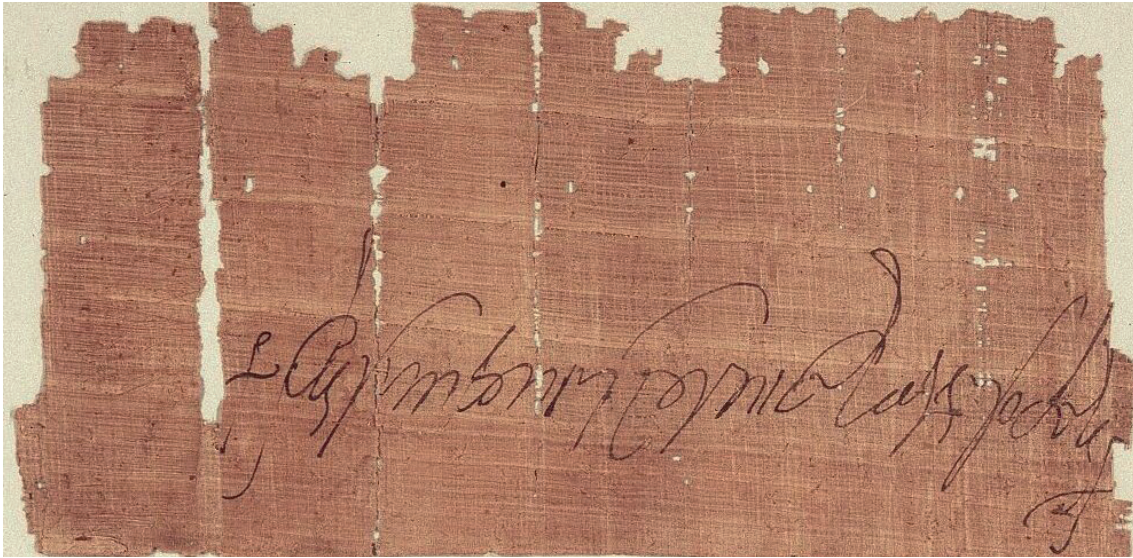
Figure 4: Giessen, Universitätsbibliothek, P.Iand.inv. 161; from Egypt, dated around the year 500, probably a card accompanying a gift. © Universitätsbibliothek Giessen, Papyrussammlungen

Particular investigations are also devoted to complex graphic symbols including tachygraphic notes in order to contribute to the knowledge about the survival of short-hand in the pragmatic literacy of the post Roman West.

The core of the work is the systematic inspection of documents, the census of graphic symbols, data collection and data processing in the NOTAE System. So far, we have analysed in-depth more than 2,400 original documents and collected 6,164 graphic symbols.[14] The NOTAE System represents the main output of the project. It is not possible to reproduce the schema of the designed database here completely; Figure 5 shows only the high-level conceptual schema of the system.[15]

The NOTAE System currently is a tool for internal use only. The NOTAE Curator WebApp allows to populate the database. This WebApp has been specifically created as a modern three-tier application consisting of a relational database and a business logic layer exposing its functionalities through a REST interface. Figures 6 and 7 show screen-shots of the NOTAE back-office web application.

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[14] Number of items as of 24.02.2023. The documents are documentary papyri from Egypt (400–700 CE, in Greek, bilingual Greek/Latin and some in Coptic) and Latin documents on diverse supports (wood, slate, papyrus, parchment) from the West (400–700 CE).

[15] The main 'concepts' are: material support, document, hand, person, places, reference, graphic symbol and publication. Each concept includes many specific features and attributes. To exemplify: a material support is a physical object (e.g. a piece of papyrus), which may transmit a set of written records; a single document can be split and attested on different material supports (in case of dispersed fragments); different documents might be attested on one material support (on the recto and on the verso). Specific attention received the concept of 'hand', given its crucial role in palaeographical analysis, and the concept of 'person' and the possible relationship between different persons or hands attested by different documents.
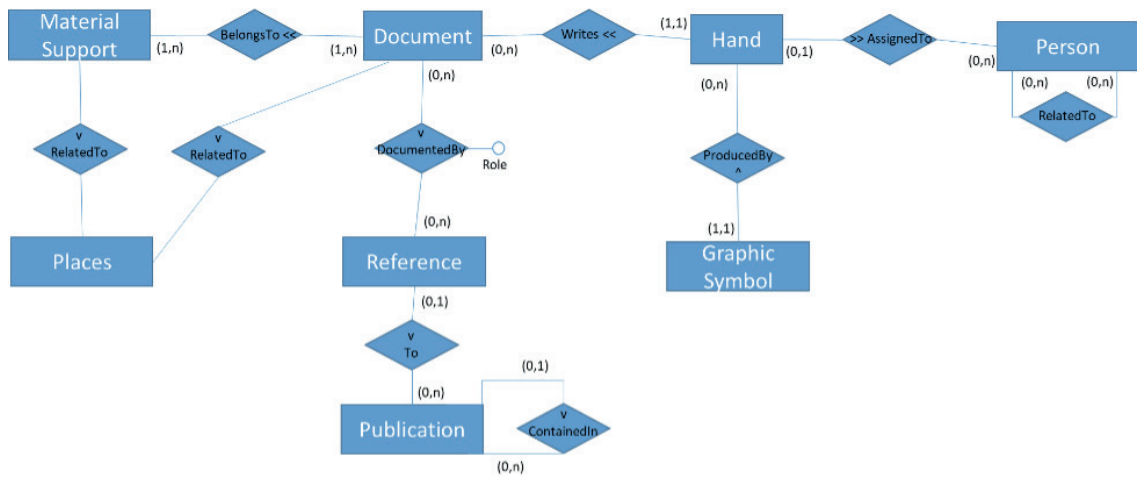
Figure 5: High-level conceptual schema of the NOTAE System. © ERC NOTAE

Figure 6: Document search page. © ERC NOTAE

Figure 7: Document edit page. © ERC NOTAE

The implementation of the NOTAE system has also resulted in research activities on subjects more specifically connected with computer science research such as graphic symbol identification, digital reproduction enhancement and knowledge graphs.[16] Figure 8 shows an example for a NOTAE Knowledge Graph exploration.[17]
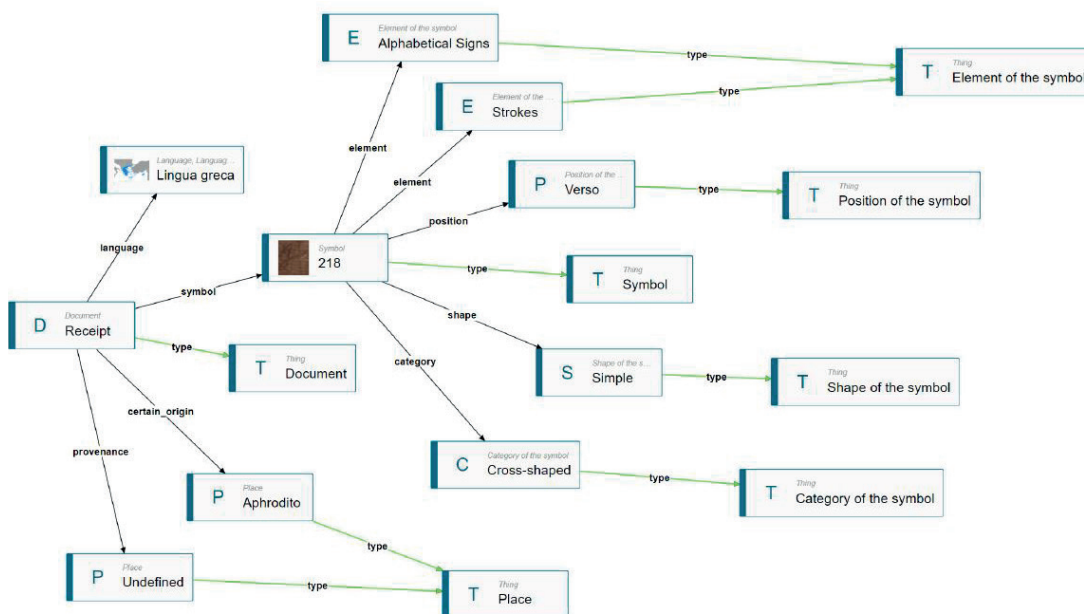

Figure 8: Knowledge Graph exploration example. Bernasconi et al. 2022, Fig. 3

The public website of the NOTAE System is currently in the design phase; it will be available at the end of the project (planned in June 2024) as its final main publication and will allow the community to explore contents and items researched by the project.

2. Conclusion

The NOTAE project aims at historicising graphic symbols as material traces left by human hands on the border between written and oral culture, educated literacy and poor graphic abilities of illiterates. By studying the graphic execution of the symbols as well as the connected cultural/religious models and their cross-influences, their context and transmission, the project aims to capture all the possible historical implications for each significant period and geographic area involved in the research, working on sources preserved in a problematic documentary transmission. In doing so, the purpose is in particular to frame the category of illiterates in terms of gender and social status.

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[16]   Bernasconi et al. 2022. In particular, on graphic symbol identification cf. Ziran et al. 2021; on knowledge graphs cf. Bernasconi et al. 2021.

[17]   Starting from two subjects of interest, such as the symbol with ID 218 and *Aphrodito*, all the resources that include them can be explored. In the case presented here, the entity in question is a *Receipt*.

The inspection of the preserved evidence provides an inventory of graphic symbols and a collection of their images. Reviewing each document means studying the presence of graphic symbols in their context, classifying and interpreting them, connecting each symbol to a social, historical and geographical context. It also means studying silences and blanks concerning the use of graphic symbols in the documentary tradition, taking into account the fragmentary condition which concerns nearly the majority of the sources investigated.

Since no research exists without comparison, even the synchronic analysis we carry out by processing data in the NOTAE System always implies a minimal but significant level of diachronicity. Our work plan thus includes case studies concerning specific small groups of documents belonging to specific historical periods and areas. Given that documentary texts, handwritings and graphic symbols are investigated in a novel perspective, such case studies will bring – we hope – new contributions to the specific fields of palaeography and diplomatics, both Latin and Greek.[18]

The primary purpose of the project, however, are wide-ranging comparative and diachronic investigations in order to historically understand the presence and absence of graphic symbols in documents representing pragmatic literacy in the period in question. It was a crucial period in the sense that some of the practices attested might have survived until later and contributed to shaping the set of graphic symbols and signs from which the elements of the symbolic written communication of the high medieval West were reinvented by the cultural elites of the Carolingian age.

Carrying out such investigations requires a system in which all the data collected during the analysis of each piece of evidence (including images of graphic symbols) is connected: the NOTAE System. At the end of the project, the NOTAE Curator WebApp mentioned above will be linked to another application available to the general public, offering an advanced query interface and advanced data analytics. The NOTAE System will thus be an evidence-based historical and dynamic atlas of graphic symbols preserved from Late Antiquity to the early Middle Ages available to all scholars interested in this peculiar graphic inheritance from the past and what it communicates.

Bibliography

Amory 2023 = Y. Amory, Usi intratestuali dei simboli cristiani nei papiri documentari di epoca bizantina ed araba, in: A. Ghignoli – M. Boccuzzi – A. Monte – N. Sietis (eds.), S*egni, sogni, materie e scrittura dall'Egitto tardoantico all'Europa carolingia*, Roma 2023, 51–70.

Atsma – Vezin 1981 = H. Atsma – J. Vezin, *Chartae Latinae antiquiores* 13. *France* 1, Dietikon 1981.

Bernasconi et al. 2021 = E. Bernasconi – M. Boccuzzi – T. Catarci – M. Ceriani – A. Ghignoli – F. Leotta – M. Mecella – A. Monte – N. Sietis – S. Veneruso – Z. Ziran, Exploring the Historical

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[18] Results of these investigations have been presented both in publications and in conference papers; see respectively the pages 'Publications' and 'News', continuously updated, of the official project website: https://notae-project.digilab.uniroma1.it.

Context of Graphic Symbols: the NOTAE Knowledge Graph and its Visual Interface, in: D. Dosso – S. Ferilli – P. Manghi – A. Poggi – G. Serra – G. Silvello (eds.), *Proceedings of the 17th Italian Research Conference on Digital Libraries (IRCDL 2021)*. CEUR Workshop Proceedings 2816, Padua 2021, 147–154. URL: http://ceur-ws.org/Vol-2816/short2.pdf.

Bernasconi et. al. 2022 = E. Bernasconi – M. Boccuzzi – L. Briasco – T. Catarci – A. Ghignoli – F. Leotta – M. Mecella – A. Monte – N. Sietis – S. Veneruso – Z. Ziran, NOTAE: NOT A writtEn word but graphic symbols, in: J. Araujo – J. L. de la Vara – I. Sofia Brito – N. Condori-Fernandez – L. Duboc – G. Giachetti – B. Marín – E. Serral – A. Bagnato – L. Lopez (eds.), *Joint Proceedings of RCIS 2022 Workshops and Research Projects Track*. CEUR Workshop Proceedings 3144, Barcelona 2022. URL: http://ceur-ws.org/Vol-3144/RP-paper8.pdf.

Courtois et al. 1952 = C. Courtois – L. Leschi – C. Perrat – C. Saumagne, *Tablettes Albertini. Actes privés de l'époque vandal (fin du Ve siècle)*, Paris 1952.

Fournet 2004 = J.-L. Fournet, Disposition et réalisation graphique des lettres et des pétitions protobyzantines: pour une paléographie "signifiante" des papyrus documentaires, in: J. Frösén – T. Purola – E. Salmenkivi (eds.), *Proceedings of the 24th International Congress of Papyrology*, Helsinki 2004, 353–367.

Ghignoli 2019 = A. Ghignoli, The NOTAE Project: a Research between East and West, Late Antiquity and Early Middle Ages, *Comparative Oriental Manuscript Studies Bulletin* 5/1, 2019, 27–39. URL: https://www.aai.uni-hamburg.de/en/comst/pdf/bulletin5-1/29-42.pdf.

Hurtado 2006 = L. W. Hurtado, The Staurogram in Early Christian Manuscripts: The Earliest Visual Reference to the Crucified Jesus?, in: T. J. Kraus – T. Nicklas (eds.), *New Testament Manuscripts: Their Texts and Their World*, Leiden 2006, 207–226.

Leach 1976 = E. Leach, *Culture and Communication. The Logic by which Symbols Are Connected. An Introduction to the Use of Structuralist Analysis in Social Anthropology*, Cambridge 1976.

Parkes 1991 = M. B. Parkes, *Scribes, Scripts and Readers. Studies in the Communication, Presentation and Dissemination of Medieval Texts*, London 1991.

Spiess 1914 = G. Spiess, *Instrumenta graeca publica et privata. Pars altera*. Papyri Iandanae 4, Leipzig 1914.

Tjäder 1955 = J.-O. Tjäder, *Die nichtliterarischen lateinischen Papyri Italiens aus der Zeit 445–700* I. *Papyri 1–28*, Stockholm 1982.

Tjäder 1977 = J.-O. Tjäder, *Papyrus Iandana 68b. Eine paläographische Studie*, Giessen 1977.

Tjäder 1982 = J.-O. Tjäder, *Die nichtliterarischen lateinischen Papyri Italiens aus der Zeit 445–700* II. *Papyri 29–59*, Stockholm 1982.

Ziran et al. 2021 = Z. Ziran – E. Bernasconi – A. Ghignoli – F. Leotta – M. Mecella, Accurate Graphic Symbol Detection in Ancient Document Digital Reproductions, in: E. H. Barney Smith – U. Pal (eds.), *Document Analysis and Recognition – ICDAR 2021 Workshops*. Lecture Notes in Computer Science 12916, Cham 2021, 147–162. URL: https://link.springer.com/chapter/10.1007/978-3-030-86198-8_12.