

2 Evidence

2.1 Chronological and Geographical Distribution

This chapter presents the evidence of letters that have survived in the Graeco-Roman world on their original material substrates. It includes letters on lead and ostraca from archaic and classical times, published in Ceccarelli 2013, App. I, as well as letters on papyrus, ostraca, wood and parchment from Hellenistic and Roman times that have been included in the *HGV* with the indication “Brief” (letter) for their content.²²⁷ As mentioned above, the distinction between letters and other documents is not always clear.²²⁸ There are some documents in epistolary format that are described as “letters” in the editions, but may not have been. In the case of fragmentary texts, the distinction between letters and other types of texts becomes even harder. However, the number of debatable cases is relatively small compared to the quantity of surviving letters, so their inclusion in the calculations does not affect the general view of the distribution of letters.

2.1.1 Archaic and Classical Times

Table 1 presents the geographical and chronological distribution of surviving letters from archaic and classical times, which includes published letters on lead sheets, ostraca and one on clay, and some that have been described but are awaiting full publication.²²⁹

²²⁷ The database is accessible online at <http://aquila.zaw.uni-heidelberg.de/start>.

²²⁸ See discussion above p. 15.

²²⁹ Ceccarelli 2013, App. I lists 48 letters on lead sheets and ostraca (including 5 that are described as uncertain): Letters on lead: Black Sea: no 1 (550–500 BC), no 2 (ca. 540–535 BC), no 3 (525–500 BC), no 4 (530–510 BC), no 5 (ca. 500 BC), no 7 (450–400 BC), no 9 (5th/4th c. BC), no 10 (400–350 BC), no 12 (4th c. BC), no 14 (5th/4th BC), no 16 (magic text?, unpublished), no 18 (5th/4th c. BC), no 19 (unpublished), and one official letter of Hellenistic or Roman times (3rd c. BC–2nd c. AD). Gulf of Massalia: no 23 (ca. 500 BC), no 24 (5th c.), no 26 (5th c. BC), no 27 (3rd c. BC, uncertain), no 28 (450–430 BC), no 29 (3rd c. BC), no 30 (4th c. BC), and the uncertain no 3 (450–440 BC), no 4 (unpublished), no 5 (unpublished). Sicily: no 32 (470–450 BC). Chalkidike: no 33 (350–325 BC), no 34 (unpublished). Attica: no 39 (5th/4th c. BC), no 40 (425–325), no 41 (4th c.), no 42 (370/369 BC). Letters on ostraca: Black Sea: no 6 (ca. 500 BC), no 8 (5th c.), no 11 (350–325 BC), no 13 (350–325 BC), no 15 (3rd c. BC), no 17 (350 BC), no 20 (4th/3rd c.), no 21 (375–325 BC), no 22 (unpublished), and two uncertain, no 1 (ca. 300 BC) and no 2 (5th/4th c.). Gulf of Massalia: no 31 (3rd/2nd c. BC). Attica: no 35 (6th c. BC), no 36 (5th c. BC), no 37 (5th c. B), no 38 (5th c. BC). One on clay tablet no 25 (ca. 500 BC) from the Gulf of Massalia. Table 1 includes only the letters that have been assigned a date. Letters dated between two centuries have been counted with the earlier of the two possible centuries (e.g., a letter dated 5th/4th c. BC or ca. 400 BC is counted with 5th c. BC). A

Table 1: Letters from archaic, classical and a few of early Hellenistic times.**Lead**

	Black Sea	Gulf of Massalia	Sicily	Chalkidike	Attica
6 th c. BC	5	1	-	-	-
5 th c. BC	4	4	1	-	2
4 th c. BC	2	1	-	1	2
3 rd c. BC	1	2	-	-	-

Ostraca

	Black Sea	Gulf of Massalia	Sicily	Chalkidike	Attica
6 th c. BC	1	1	-	-	1
5 th c. BC	2	-	-	-	3
4 th c. BC	6	-	-	-	-
3 rd c. BC	1	1	-	-	-

Most of the surviving letters are written on lead sheets and have survived thanks to the durability of this material. The vast majority of lead letters have been published relatively recently, in the last decades of the twentieth century; perhaps in earlier excavations such letters escaped the notice of archaeologists because of their grey colour and small size.²³⁰ Most are fragmentary and it is difficult to grasp their content, but they seem to contain messages related to business transactions, requests, instructions on how to manage a difficult situation, records of—or requests for—a commercial transaction, and notices of the dispatch of goods. They have been discovered mainly in Attica and in areas where Greeks had colonies and trading relationships, more specifically, at the north shore of the Black Sea, where Ionians, especially Milesians, had immigrated, the coast of the gulf of Massalia, where Ionians, especially Phocaeans, had immigrated, and Sicily and Chalkidike, where Euboeans had immigrated.²³¹ Many of the letters were carried there (and from there) by ships, transferring messages between business partners, as suggested by relevant references in forensic speeches that show that letter writing was a common means of communication between business partners and maritime traders in archaic and classical times.²³² Some of the letters on lead sheets contain messages related with maritime traders, such as SEG XXVI 845 (Berezan, Black Sea, ca. 500 BC), which

new updated catalogue of the corpus of Greek letters on lead and ostraca from archaic and classical times is forthcoming by Dana; see Belousov 2015 and Dana 2015.

230 I thank J. Lougovaya for this observation.

231 Dana 2015, 1§5.

232 Harris 2013, 112–124. Dana 2015, 2§1–5.

contains a message from a father to his son with an urgent request to help him in some troubles that he has with a man who has deprived him of his cargo. Another letter, SEG LIV 694 (ca. 500 BC), found in the nearby city of Olbia, contains a plea: “Leanax implores Apatorios to help protect his goods from being seized.”

In Athens the use of lead was facilitated by its availability and low price, thanks to the silver-mines at Laurion.²³³ People whom we encounter in lead letters from Athens are ordinary men, slaves and women.²³⁴ An example is furnished by SEG L 276,²³⁵ a letter from Lesis to his mother and Xenokles (Athens, early 4th c.). Lesis was an apprentice at a foundry, and he sent the letter to his mother (or, if he was a slave, to his housemistress) asking her not to overlook how he was being treated by his employer, but to come there and find something else for him: “For I have been handed over to a man thoroughly wicked; I am perishing of being whipped; I am tied up; I am treated like dirt.” Lead is not mentioned in literary texts as a writing surface for letters, perhaps because wooden tablets were regarded as more elegant and suitable for this purpose.²³⁶ It is possible that wooden tablets and lead sheets were used in parallel, the first by people who had the means to afford wooden tablets the latter by ordinary people of lower social strata, and traders, who may not have had at their disposal wooden tablets as easily as lead sheets.

Besides the letters on lead there are also letters on ostraca, found in the same areas as the letters on lead, but in lower numbers (in Athens, in the Black Sea coast and in the Gulf of Massalia). Ostraca were used in antiquity for various short ephemeral texts, but they were not regarded as suitable for letter writing, because they could not be folded and sealed to protect the message inside.²³⁷ Most of the surviving letters on ostraca are short messages, and from their content it appears that they were usually sent to addressees who were at close distance.²³⁸ For example, in a small fifth century BC ostrakon found in the Athenian Agora with the message Σοσίνεο(ς) ἐπέστε(ι)λε Γλαῦκοι ἐς ἄστυ ἔνδεσμον (“Sosineos sent to Glaukos in the city a bundle”), the ἐς ἄστυ indicates that Sosineos was in the country and sent a bundle to Glaukos who was in the city (Athens). The ostrakon could have been handed to Sosineos by the bundle-carrier or, most probably, it would have been included in the bundle.²³⁹

The surviving letters on lead sheets and ostraca cannot be regarded as representative of the overall volume of letters that circulated in the Greek world in archaic and classical times. Lead, despite its durability compared to other materials, eventually becomes brittle and disintegrates. If one considers that in parallel to lead sheets,

²³³ See below p. 72 Lead.

²³⁴ Eidinow/Taylor 2010, 36–38.

²³⁵ See below p. 88 with fig. 8.

²³⁶ See below p. 79 Wood.

²³⁷ See below p. 77 Ostraca.

²³⁸ Dana 2015, 384.

²³⁹ Ceccarelli 2013, App. I no 38. Ed.pr. Lang 1976, 9, no B9.

other foldable but perishable materials were also used for letters, such as wooden tablets or (in Minor Asia) skins²⁴⁰, it is likely that more letters existed in archaic and classical times, but the order of magnitude is difficult to determine.

2.1.2 Hellenistic and Roman Times

With the exception of a few letters on lead sheets and ostraca found outside Egypt,²⁴¹ almost all surviving letters from Hellenistic and Roman times are written on papyrus and have been found in Egypt. In the *HGV* there are currently almost 60,000 documents of all kinds, dating between the early fourth century BC and the eighth century AD; about 8,000 of them are indicated as letters. While these numbers can be considered fairly representative, they are not definitive because *HGV* gets continuously updated to include new publications.²⁴²

Between the early fourth century BC and the late third century AD, which is the period under consideration in this study, the number of letters is almost 4,000. Table 2 depicts the comparative chronological distribution of these letters against the backdrop of all other documents. As shown, letters range between 10% and 12% of the total of the surviving documentation. The chronological distribution of letters relative to other types of documents remains relatively steady over the entire period surveyed, with the exception of the third century BC, where the number of letters is disproportionately high due to the archive of Zenon, the secretary and later estate manager of Apollonios, the finance minister of Ptolemy II, whose papers constitute the largest archival collection of papyri ever found.²⁴³ In the third century AD, the archive of Heroninus has a similar effect, but this effect has a smaller impact, because the number of surviving documents in the third century AD is far greater.²⁴⁴ The relative distribution of letters and documents per century has not changed since 1998, when Habermann presented a study of the distribution of papyri per century, despite the fact that since then the number of published papyri has increased significantly.²⁴⁵

²⁴⁰ See below p. 84 Leather – Parchment.

²⁴¹ See above Table 1 and the discussion below p. 70 Outside Egypt.

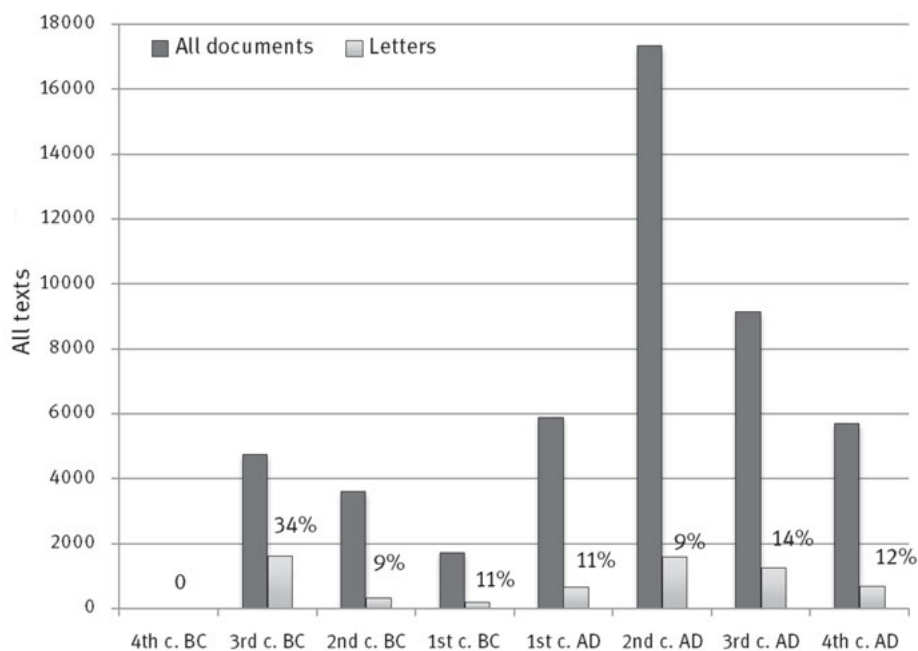
²⁴² A search for “Brief” in the query field “Inhalt” in *HGV* has been conducted in July 2014 and returned 59582 texts in total and 8232 letters.

²⁴³ See Appendix I, Archive of Zenon.

²⁴⁴ I thank W. Clarysse for this observation on the archive of Heroninus.

²⁴⁵ Habermann 1998.

Table 2: Chronological distribution of documents and letters in Hellenistic and Roman times (letters also expressed as a percentage of all documents).²⁴⁶



Of the total number of letters that are currently included in the *HGV* database, 87.4% are written on papyrus, 12.5% on ostraca and a negligible number on other materials, that is 6 letters on wood and 4 on parchment or leather. The percentage of ostraca may rise in the near future, because several thousand recently discovered pieces still await publication and could not be included in these calculations. In particular, the material from the Eastern Desert, once published, will necessitate some adjustments to the overall picture of the distribution of material. The Latin letters found at Vindolanda (England) have been very recently added to *HGV* and have not been included in the calculations.

²⁴⁶ For the calculation of the number of letters per century, the following parameters have been applied: Double entries have been eliminated by counting only the earliest entry for texts that have been assigned more than one possible date. Texts that have been dated to two successive centuries have been counted with the earlier possible century, e.g. 1st/2nd c. AD or e.g. AD 98–110 have been counted with the 1st c. Texts that have been dated by editors to three possible alternative centuries have been counted in the middle, e.g. 1st–3rd c. AD has been counted in the 2nd c. AD. Texts that have been dated more broadly than three centuries, e.g. 1st–4th c. AD, have not been included in the calculations.

2.1.3 Egypt

Within Egypt, the distribution of documents by materials on which they are written varies both chronologically and geographically, as does the distribution of letters on ostraca and papyrus. Table 3 illustrates the number of finds by material for the Ptolemaic and Roman periods. It distinguishes between documents in general and letters in particular and classes the evidence by geographical areas where large numbers of papyri and ostraca were found.

Table 3: Number of letters and other texts on papyrus and ostraca.

PTOLEMAIC TIMES (4th–1st c. BC)

Area	All texts		Letters		letters/all texts (%)
	Papyri	Ostraca	Papyri	Ostraca	
Memphis	318	–	91	–	29%
Arsinoite nome (Fayum)	3969	238	1158	2	28%
Herakleopolite nome	870	–	208	–	24%
Oxyrhynchite nome	381	1	87	–	23%
Nile valley (Antinoopolis, Hermopolite nome, Lykopolis, Antaeopolis, Panopolis)	162	7	19	–	11%
Theban area (Apollonopolis, Dendera, Diospolis, Elephantine, Koptos, Pathyris, Ptole- mais, Syene, Tentyris)	281	721	29	2	3%
Eastern Desert (Abu Sha'ar, Berenike, Didymoi, Leukos Limen, Maximianon, Mons Claudianus, Raima, Tiberiane, Wadi Fawakhir, Wadi Hammamat, Xeron Pelagos)	3	7	1	1	20%
Western Desert (Oasis Magna, Oasis Parva)	–	–	–	–	–

ROMAN TIMES (1st–4th c. AD)

Provenance	All texts		Letters		letters/all texts (%)
	Papyri	Ostraca	Papyri	Ostraca	
Memphis	152	–	18	–	12%
Arsinoite nome (Fayum)	9889	1713	957	9	8%
Herakleopolite nome	645	–	51	–	8%
Oxyrhynchite nome	4232	158	757	1	17%
Nile valley (Antinoopolis, Hermopolite nome, Lykopolis, Antaeopolis, Panopolis)	2555	128	312	–	12%
Provenance	All texts		Letters		letters/all texts (%)
	Papyri	Ostraca	Papyri	Ostraca	
Eastern Desert (Abu Sha'ar, Berenike, Didymoi, Leukos Limen, Maximianon, Mons Claudianus, Raima, Tiberiane, Wadi Fawakhir, Wadi Hammamat, Xeron Pelagos)	51	1757	14	522	30%
Western Desert (Oasis Magna, Oasis Parva)	174	1473	45	63	7%

The data laid out in the table demonstrate that the correlation between the distribution of documents and that of letters, when they are restricted to their main material substrates, papyrus and ostraca, is not constant but also depends on the period and region, a fact that warrants further discussion. Before discussing the preservation patterns, it is useful to refer to some consistencies related to the provenance of letters.

2.1.3.1 Provenance

In table 3 the column “Area” refers the provenance of each document or letter, according to the information included in *HGV*. In most cases the provenance is the place where each document or letter has been excavated, but this cannot be taken for granted, because it does not apply for all documents and letters. If a document was excavated during an official excavation, the place where it was excavated is known. However, if a document was discovered by clandestine diggers and sold on the market, the information about the findspot is not always certainly known; it is

either completely missing and thus said to be of “unknown” provenance or has been restored by editors on the basis of some information in its text.

With regard to letters, the question of provenance is more complicated than for other documents, because most letters have been found not at the place where they were written, but where they were sent to—in other words not in the sender’s vicinity but in the addressee’s. In the majority of cases, the “provenance” that is given for a letter denotes the place where the letter was received (and subsequently found), yet in some cases “provenance” can refer to where the letter was written. A characteristic example is the archive of Apollonios strategos of the Apollonopolite nome of Heptakomia (early 2nd c. AD). During his appointment there, part of his family remained in Hermopolis, from where Apollonios received letters. When Apollonios’ appointment ended, he returned to his family estate at Hermopolis, where his archive was probably found. The letters that Apollonios received from his mother Eudaimonis were written at Hermopolis, received by Apollonios in the Apollonopolite nome, and excavated at Hermopolis with the rest of the archive. In *HGV*, the “provenance” of the letters of Eudaimonis is Apollonopolite nome (i.e. the place where Apollonios received them), except for three letters that are said to be from “Hermopolis”, meaning the place where the letters were excavated. This inconsistency has been rectified for women’s letters in the homonymous book by Bagnall/Cribiore,²⁴⁷ who have indicated where each letter was written and/or found. This practice needs to be followed by future editors, who, ideally, should indicate consistently as “provenance” the place where a letter was excavated and (if known) the place where it was written.

In the above tables, closer analysis may reveal that there are some letters for which “provenance” indicates the place where they were written and not where they have been found. However, the number of these letters is very small in comparison to the vast majority of letters for which “provenance” indicates the place where they have been excavated. Accordingly, the general impression one gets from the above tables about the places where documents and letters have been excavated has not been distorted, and will be discussed below under preservation patterns.

2.1.4 Preservation Patterns

2.1.4.1 Papyri

For the Hellenistic period most surviving letters, as well as other documents, on papyrus come from the Arsinoite and Herakleopolite nomes; fewer are from the nearby regions of Memphis and the Oxyrhynchite nome, the Nile valley and the Theban area. Several reasons may explain this distribution. Alexandria and the Delta were the places where most Greeks lived, but very little evidence has survived from these areas

²⁴⁷ Bagnall/Cribiore 2006.

due to the humidity of the soil. Surviving letters from Alexandria are mainly those that were sent or carried to drier areas of Egypt and have been found there. These letters are especially important, because they reveal the way of life in this cultural and socio-economic centre of the Graeco-Roman world, which appears to have been not different from life in other big cities of the Roman Empire, and set the example for the life of Greeks in other, smaller cities of the Egyptian chora. After Alexandria and the Delta, the Arsinoite and the Herakleopolite nomes were regions where many early Greek immigrants settled. The land irrigation project that was organised by the early Ptolemies and the allocation of plots of land (κληροι) to Greek soldiers encouraged the settlement of Greek immigrants in these nomes.²⁴⁸ At the same time, Greeks were also settling throughout the Nile valley and the Theban area.

An important factor in any examination of the distribution of papyrological evidence from Egypt are the circumstances of survival of papyrus in each region, as Bagnall has recently pointed out.²⁴⁹ In dry areas papyrus survives in the upper levels of the soil and down to a certain depth, below which the natural humidity of the ground becomes a destructive factor. In some places, the older the papyri, the smaller their chances of survival. Thus, Grenfell's description of excavations at the mounds of Oxyrhynchos offers an explanation for why the papyri from the Ptolemaic period, which probably sat at a level that had become damp by the time Grenfell and Hunt reached the site, hardly survived there: "papyri are found continuously down to a depth of five or even eight metres. As a rule the well preserved documents are discovered within 3 metres of the surface; in the lower strata the papyri tend to be more fragmentary, though our trenches in a few mounds have reached 9 metres at the highest parts before coming to the damp level."²⁵⁰

Because of the depths at which they were deposited, it seems therefore that documents from the Ptolemaic period could not survive unprotected in the ground, so most papyri from this early period have been preserved either in ancient deposits or in mummy cartonnage.²⁵¹ The latter was a special technique of wrapping corpses and constructing mummy casings with recycled papyrus instead of traditional linen, applied between the middle of the third century BC and early first century AD.²⁵² Mummies wrapped in cartonnage have been found mostly in the Arsinoite and Herakleopolite nomes, the nearby northern area of the Oxyrhynchite nome, and in a cemetery at Lykopolis.²⁵³ Papyrus was less commonly employed for cartonnage than linen, but a large number of papyri was required for wrapping a body, and,

²⁴⁸ For the irrigation and drainage works in the Arsinoite nome, see Thompson 1999, 107–122.

²⁴⁹ Bagnall 2011, 29–32.

²⁵⁰ Quoted by Turner 2007, 21.

²⁵¹ Bagnall 2011, 32. For a discussion of mummy cartonnage see Salmenkivi, P.Berl. X pp. 9–54.

²⁵² "This reuse of discarded papyri appears to have started towards the end of the reign of Ptolemy II" (van Beek 2009, 148).

²⁵³ For Ptolemaic papyri found at Lykopolis see Clarysse 1979, 101–106.

consequently, even a small number of excavated mummies could yield a relatively large number of papyri thanks to this kind of reuse. Another, similar way in which papyri have survived is through use as stuffing material in the head or other cavities of animal mummies, in particular the crocodile mummies excavated at Tebtynis.²⁵⁴ Papyri extracted from mummies can often be grouped together into archives,²⁵⁵ because the papyri used in a given mummy usually came from the same source, such as a household, an administrative office or the locality where they were discarded before being collected for reuse. Most of the archives from mummy cartonnage divide over more than one mummy found in the same cemetery, and any given mummy may contain more than one archive.²⁵⁶

Of the forty-four Ptolemaic archives with letters that have been identified so far, thirty-seven come from mummy cartonnage excavated in the Arsinoite or the Herakleopolite nomes or nearby areas. Although the exact sources of papyri reused in cartonnage are not clear, it seems that administrative offices contributed a large quantity of them. This is not surprising given the large number of papyri used in administrative settings. We can imagine that state offices were good places to collect or purchase discarded papyri. As a consequence of this, many cartonnage papyri are official in content.²⁵⁷ However, there are also private letters among them. Some of them are private letters of officials, such as the correspondence found in the archive of the engineers Kleon and Theodoros, which may suggest that officials disposed of papers of administrative content together with their personal ones. There are also other private letters among the papyri extracted from cartonnage, which cannot be classified into archives, such as P.Köln IX 364 (272 or 230 BC). Although it cannot be excluded that the relationship of such letters to other papers has not been recognised—the identification of private letters within archives is usually difficult, since in private correspondence people do not always provide information regarding their identity and relationships to each other—another possibility might be that the papyri that were reused in cartonnage did not originate exclusively from administrative sources.

Table 4: Letters belonging to archives (%).

3 rd c. BC	2 nd c. BC	1 st c. BC	1 st c. AD	2 nd c. AD	3 rd c. AD	4 th c. AD
85%	42%	44%	14%	17%	34%	24%

²⁵⁴ Grenfell/Hunt, *P.Tebt.* I, p. vi–vii; Verhoogt 1998, 12–15.

²⁵⁵ For an explanation of the term archive and a list of the archives of letters that have been identified to date see Appendix I.

²⁵⁶ Verhoogt 1998, 20–21.

²⁵⁷ Bagnall 2011, 38–39; Clarysse 2008, 71.

Besides archives that have been extracted from mummy cartonnage, some Ptolemaic archives have survived in their original safe deposit spots. This is how the largest known papyrological archive, that of Zenon (3rd c. BC), probably survived, and it contains more than one thousand letters. The archive was found at the village of Philadelphieia in the Arsinoite nome by clandestine diggers, and the circumstances of its unearthing remain unknown, but probably it was preserved by being deposited, for example, in a tomb or other repository. At any rate, it shows no signs of being exposed to the elements. Another third-century BC archive found in an ancient deposit is the archive of Milon, officer (πράκτωρ) of Egyptian temples responsible for financial affairs. The archive, which includes official letters and other documents, was found in a jar in a cellar at Elephantine. Another archive found in a deposit is the archive of Dryton. It dates to the second and early first century BC and contains private papers of Dryton's family covering more than three generations. The archive was found at Pathyris (Gebelein), partly in controlled excavations and partly by clandestine diggers.²⁵⁸

In comparison to the Ptolemaic period, the number of excavated papyri is higher in the Roman period and the geographical distribution of their provenance locations is more diverse. The richest source of Roman-period papyri has been the Arsinoite nome, where the most productive excavations were conducted by Grenfell and Hunt at Tebtynis and by the University of Michigan at Karanis. In addition to excavations at the outskirts of villages, findings from illegal diggings have also been sold through antiquities dealers to various institutions and private buyers in Europe and the United States. Oxyrhynchos is the second largest source of Roman papyri, thanks to the ancient rubbish dumps discovered there by Grenfell and Hunt. Other sites of the Nile valley, such as Antinoopolis and Hermopolis, have also produced large numbers of papyri of the Roman period.

For the most part, Roman-period papyri have been found at habitation sites and rubbish dumps, as opposed to cartonnage, which was a characteristic source of preservation for earlier papyri. The fact that cartonnage has been excavated only in a limited number of localities has affected the ratio of Ptolemaic and Roman papyri surviving in certain areas. This may explain the lower number of Roman texts, as compared to Ptolemaic, from the Herakleopolite nome since most of the Herakleopolite papyri have survived in cartonnage.

Letters dated to the Roman period constitute the main part of the surviving body of material, but relatively few of them belong to archives. For the first century, only 14% of total letters has been identified as forming or belonging to an archive; for the second century the ratio is 17%. For the third century the percentage is higher, 34%, thanks to the large archive of Heroninos, the estate manager of the Appianus estate in

²⁵⁸ Vandorpe/Waebens 2009, 103.

the village of Theadelphia in the Arsinoite nome.²⁵⁹ The low percentages of letters in archives from the Roman period, especially the first and second centuries AD, can be explained by the types of places where the papyri were found, as well as by the types of letters, which in the Roman period are mostly private in content. These two factors will be analysed below.

Many of the Roman period papyri were found in the rubbish dumps of Oxyrhynchos. It is not clear whether they had been carried there by the Roman inhabitants of the sites or by later generations, but it seems that the transfer was random and not organised. Probably papyri found at the same level in a dump were discarded together or at a point close in time, but it cannot always be determined which papyri were found together in a layer. The box- and layer-numbers that can be deduced from the inventory numbers indicated in the editions of *The Oxyrhynchus Papyri* provide helpful information about the possible groupings of papyri that were excavated on the same day and packed together; however, these details cannot restore the exact locations of the papyri in the dumps nor of the groups of papyri discarded together in dumps.

The other main source of Roman papyri is habitation sites, and it is from these archaeological contexts that archives dated to the Roman period come from. Characteristic cases are the archives found in the ruins of houses at Karanis by the Michigan excavations. Other excavations of habitation sites in the Arsinoite nome have brought to light archives containing letters, such as the archive of Epagathos found in the ruins of a house in the village Euhemeria.²⁶⁰ Most archives of the Roman period did not come from controlled excavations and ended up dispersed in collections around the world. A good example is the archive of Apollonios, the strategos of the Apollonopolite nome of the Heptakomia, which is discussed above.²⁶¹ The archive was sold to various collections, and the links between the texts in such archives can only be recognised from the content, prosopography, and, sometimes, information provided about the finding circumstances by dealers.

2.1.4.2 Ostraca

Different from papyri are the preservation patterns of ostraca. In the Graeco-Roman period letters on ostraca are far less common than on papyrus. Bagnall suggested that a possible reason for this may be that the majority of the papyri were excavated at the end of the nineteenth century and the early decades of the twentieth century, either clandestinely or by archaeological excavations that were not conducted as carefully as modern ones. Past excavators searched mainly or exclusively for papyri, while

²⁵⁹ Rathbone 1991.

²⁶⁰ Ast/Azzarello 2013.

²⁶¹ See above p. 60.

ostraca, which possibly existed in these areas, may have escaped their attention, as suggested by recent discoveries of ostraca in the debris of earlier excavations.²⁶² However, even if ostraca have escaped the attention of early excavators, it is very unlikely that among them there would have been many letters, because ostraca were not preferred for letter writing in areas where papyrus was easily accessible.

It seems that the use of pottery sherds for writing was influenced by the availability of papyrus as well as by the type of document that was being recorded. Table 3 demonstrates that while hundreds of ostraca were found along the Nile valley, very few of them contain letters. In regions such as the Fayum and the Nile valley, where papyrus was easily accessible, ostraca were often used as a cheap alternative, but they were preferred mostly for short ephemeral texts, such as receipts of everyday transactions and taxes, school exercises and short notes or messages. For long and more enduring or permanent texts, papyrus was preferred. Desert areas, on the other hand, have yielded numerous ostraca. Since papyrus was not readily available there, but had to be transported in from the Nile valley, ostraca served as a substitute material for all ordinary writing purposes, including letters. There are examples of letters on ostraca found in desert areas, in which it is mentioned explicitly that the reason for the use of an ostrakon was that no papyrus was available.²⁶³ Ostraca were abundantly available there from the containers that were used for the transport of food and other commodities. The largest quantities of letters on ostraca have been found in the Eastern Desert at Roman military camps near quarries and water stations and at trading posts on the Red Sea, such as Berenike.²⁶⁴

2.1.5 Types of Letters

The typology of letters is an important parameter in this study and since it complicates the recognition of possible links between letters and archives, it needs to be analysed closely here.

Table 5 depicts the distribution of letters by types according to their classification in *HGV*²⁶⁵: official letters (Brief amtlich), business letters (Brief geschäftlich), private letters (Brief privat), and letters that have not been classified into one of the three categories (Brief). The letters of the Hellenistic period (3rd–1st c. BC) are shown

²⁶² Bagnall 2011, 120–122.

²⁶³ See below p. 79.

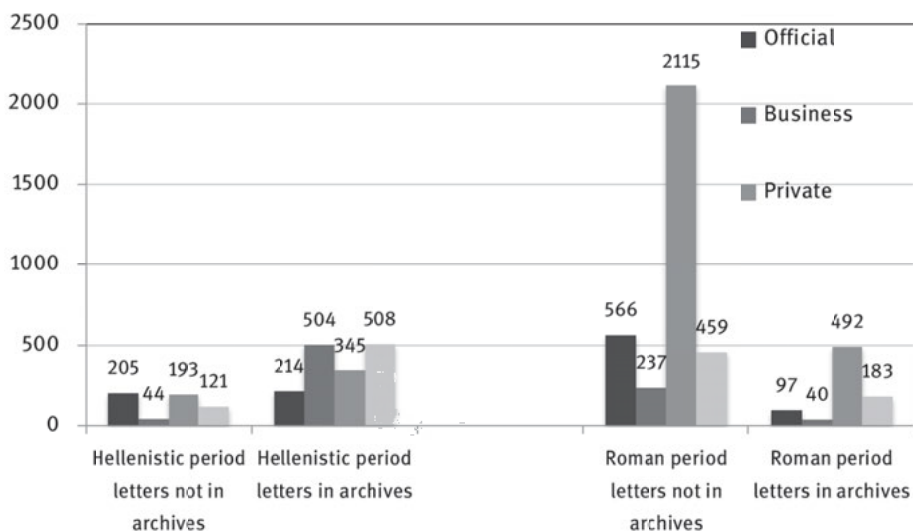
²⁶⁴ For publications of ostraca from the Eastern Desert see Cuvigny 2003; O.Claud I–IV, O.Krok., O.Did., O.Berenike I–III.

²⁶⁵ Data taken from *HGV* in July 2014. Double entries have been eliminated.

separately from Roman (1st–4th c. AD), and have been further distinguished as letters that belong to archives and letters that have not been identified within an archive.

The categorisation of letters is not an easy task and there can be ambiguities, because it sometimes depends on the perspective of an editor. *HGV*, which follows the categorisations of the editors, cannot be perfectly consistent. Generally, the category “official letters” includes those letters that were used for administrative purposes at various levels of the administration, ranging from kings to minor officials. “Private letters” are those that were sent between friends and family, or other social acquaintances for personal reasons, ranging from instructions to greetings, news, requests and any other private matter. The “uncategorised” letters include fragmentary letters, the type of which remains uncertain, or complete letters that have not been described in *HGV* yet.²⁶⁶

Table 5: Typological distribution of letters.



In *HGV* there is also a category called “business”, which includes letters about private business matters. However the classification of private letters referring to business matters as “private” or as “business” is not clearly defined, because the distinction between business and private is often unclear. This ambiguity has resulted in somewhat distorted data in *HGV*, owing to the characterisation of the letters in the editions.

²⁶⁶ E.g. the typology of the letters of the archive of Harimouthes is not described in *HGV*, but they are official in type; see White 1986, 23. Similarly the type of letters of the archive of Leodamas is not specified in *HGV*, but they are of official type, as described in the introductions of their ed.pr.

More specifically, the apparently high percentage of business letters in Hellenistic archives is due to the Zenon archive, to which 441, or 87.5%, of the business letters included in archives belong. However, this does not necessarily imply that in the Zenon archive there is such a large concentration of letters about business matters, while in other archives letters dealt less with business affairs. The characterisation of the typology of letters largely depends on the preference of an editor. The editors of the Zenon archive preferred characterising letters about private business matters as “business”, while editors of other archives have characterised letters related to private business matters as “private”. For example, in the archive of L. Bellienus Gemellus, his letters to his estate manager Epagathos are primarily about business matters related to the estate of Gemellus, but they have been characterised as private by the editors. Thus, the data have become skewed by editorial preferences.

Since the distinction between private and business letters is blurred, it seems preferable to ignore it, and to divide ancient letters only into official and private, including letters about private business matters in the category private. This distinction is in accord with the categorisation of letters by the ancient epistolary theorist, Julius Victor, who states that “there are two kinds of letters: they are either official or personal.”²⁶⁷ Cicero, also, distinguishes between public and private letters.²⁶⁸ Ps.-Demetrius’ *Epistolary Types* and ps.-Libanius’ *Epistolary Styles* divide letters into a large number of epistolary types, however all these types can be described as subcategories of the “private” letter according to the function of each letter and the occasion, such as that of thanksgiving, condolence, etc. There is no epistolary type in the ancient treatises for business letters.²⁶⁹

Regarding the distinction between private and official letters, this should be based on their content and not their language, formulaic elements, or other external characteristics. Although the language of official letters, especially of those that were sent to or from high officials, is often formal, including titles and formal appellations in the opening addresses such as τιμώτατος or φίλτατος, the linguistic style is relative, depending on the relationship between the correspondents and the formality of the situation for which each letter was sent. There are official letters, especially those between officials at an equal administrative level, about ordinary administrative tasks, which were friendly, naming the addressee as “brother”.²⁷⁰ Especially in the Roman period, the use of friendly formulaic expressions, greetings and personal

267 Julius Victor (4th c. AD), *Ars rhetorica* 27 (*de epistolis*); transl. Malherbe 1988, 63.

268 Cicero, *Pro Flacco* 16, 37.

269 “Literary” letters are not included in the present discussion of the typology of letters, because this discussion refers to letters that have been preserved since antiquity directly, on their original materials. For the literary letters and the terminological distinction between literary and non-literary letters see above p. 27.

270 E.g. BGU VIII 1788 (88 BC) is an official letter from Heliodoros, perhaps the royal scribe, to the strategos Paniskos, who is called “brother” in the opening address.

wishes in letters is common, making the letters sound more personal than Ptolemaic letters, which are more restrained in the expression of greetings and friendly sentiments.²⁷¹

There are of course some cases in which the personal and the official relationships may appear to interfere. For example, in letters of people who had an official position but, at the same time, ran also their own private business, it is sometimes difficult to be certain whether a letter was related to private business or official matters. Most of the letters in the Zenon archive, for instance, are related to Zenon's own business interests and the management of Apollonios' private estate. Yet, because Apollonios had an official position as finance minister of Ptolemy II, there are also petitions and letters related to official matters. Another ambiguous case may be letters of recommendation; the senders of such letters were often people with some important official position, such as epistrategos or strategos, however the practice of recommending someone was based on the personal knowledge of this person and the personal relationship with the addressee. In other words, even though the sender used the authority of his official position, he recommended someone to the addressee not officially, but personally. Thus, letters of recommendation should rather be included in the category of private letters.

Another detail in table 5 that needs to be discussed is the relatively high number of official letters in the Ptolemaic period compared to Roman, especially for letters that have not been identified within archives. A possible reason for this may be the practice of reusing papyri from administrative offices for mummy cartonnage in the Ptolemaic period. Respectively, the number of surviving private letters appears to be low in Ptolemaic times compared to Roman. It has been suggested that besides mummy cartonnage, ancient deposits too are not representative of the true volume of private letters, since "neither governments nor individuals normally had much reason to keep them."²⁷² Although it seems probable that mummy cartonnage is not representative of the whole volume of private correspondence in Ptolemaic times, this is probably not the case with archives found in deposits. In individuals' archives found in deposits one can find all kinds of correspondence.

An overall view of the typology of letters in archives suggests that private correspondence was considered important by individuals and often kept together with official papers. The archive of Kleon and his assistant and successor Theodoros, chief engineers of Ptolemy II's irrigation and drainage works project in the Fayum, contains mostly correspondence about official matters and issues related to the irrigation project. However, among them there are also letters sent to Kleon from his wife and sons who lived in Alexandria.²⁷³ This suggests that Kleon kept his

²⁷¹ Kruse 2010.

²⁷² Bagnall 2011, 38–39.

²⁷³ The archive of Kleon and Theodoros contains 63 published letters. Van Beek mentions that there

personal and work correspondence together, before his archive was reused in mummy cartonnage. The archive of the phourarchos Dioskourides, found in mummy cartonnage at Herakleopolis and dating to the reign of Ptolemy VIII (182–116 BC), contains documents and petitions, as well as private and official letters. From the above examples it appears that officials did not discard all their private letters separately, since some were found together with their official ones. Therefore, the low percentage of private letters in Ptolemaic times, as compared to Roman, cannot be explained only by the chance of preservation and needs to be discussed further.

As mentioned above,²⁷⁴ in the Roman period private correspondence became fashionable, not only for ordinary communicational needs, but also as a means of networking. Personal communication by letter with friends, relatives, acquaintances and business partners played an important role in building social relationships. The extensive use of letters for personal communications is reflected in the higher percentage of private letters in archives of individuals when compared to the Ptolemaic period. For example in the archive of Apollonios, the strategos of the Apollonopolite nome of the Heptakomia (early 2nd c. AD), there are 75 private letters, most of which were sent to Apollonios from his family and friends, 35 official, 5 letters that are described as business (which may be added to private) and 15 uncategorised.²⁷⁵ The rate of private letters to official is the inverse of that found in archives of officials in the Ptolemaic period and this is indicative of the rise of private correspondence in the Roman period.

A third detail in table 5 that needs to be mentioned is the very large number of Roman private letters that do not belong to archives compared to those that do. Although the finding circumstances may be related to this large number, since some letters may have ended up randomly in rubbish dumps, a more likely reason may be the content of the letters of the Roman period. Since a large number of letters are private, it is difficult to recognise ties between the people mentioned in them. Unlike public documents or private ones such as contracts, registrations, and declarations, where people provide their full identities, in letters, and especially in private ones, senders provided little identifying information about themselves, because the addressee knew who the sender was. It is therefore likely that more private letters belong to archives than have been identified, due to the lack of evidence to confirm

are more letters from this archive that still await publication (see Trismegistos ArchID 122. Version 2, 2012, p. 2).

274 See above pp. 24ff.

275 Of the uncategorised letters of the archive of the strategos Apollonios, five are letters of recommendation and so they should preferably be categorised as private letters (P.Brem. 5–9); eight are fragmentary and their type remains uncertain (P.Brem. 71–73, 78, P.Alex. Giss. 52, 55–56, P.Giss. I 90); two are about private businesses of Apollonios and so they may be included with private (P.Giss. Apoll. 20 and P.Ryl. II 233); two are probably official (P.Giss. 46, 61); and P.Brem. 1 is a report about the Jewish war which, if a letter, remains of uncertain type.

possible associations. P.Corn. 49, for example, is a private letter that may belong to the archive of Thermouthas' family, but, as Azzarello explains, there is not enough evidence to support this identification.²⁷⁶

2.1.6 Outside Egypt

There is a small number of letters found outside Egypt that provides a valuable source for comparison with the letters found in Egypt and shows that letter writing was widespread throughout the Graeco-Roman world.

The few surviving letters from the Hellenistic period are written on lead sheets and ostraca found in Athens and places where Greeks had colonies, especially the north coast of the Black Sea and the gulf of Massalia.²⁷⁷ The most characteristic is a third century BC letter, found at the harbour of Massalia, sent from Megistes, a ship-owner (or his representative), to the captain of the ship, Leukon. As mentioned above, this case shows that letter writing was uniform in style throughout the Graeco-Roman world.²⁷⁸ Another significant example is an official letter (Pantikapaion, Black Sea, 1st c. BC–1st c. AD), of which only a fragment from the top left part survives.²⁷⁹ From areas of the Near East, no actual letters have survived, although there is evidence of Greek documents written on skins.²⁸⁰ As additional witnesses from outside Egypt one can include letters that were sent to Egypt from elsewhere. The most characteristic case is Zenon, who was a native of Kaunos in Karia. After immigrating to Egypt, he received letters from his family and friends back in Asia Minor. P.Cair. Zen. I 59056 (257 BC) is a letter sent from Apollodotos, a financial official in Karia, referring to some business that Apollodotos had with Zenon's father; it was found among Zenon's papers in Egypt.²⁸¹ Also, Zenon himself travelled to Palestine for business purposes on behalf of the dioiketes Apollonios, and when he came back to Egypt he carried with him letters that he had received in Palestine. P.Cair. Zen. I 59016 (259 BC) was sent to Zenon while he was in Karia by Demetrios, a secretary in Cyprus, who was probably located in the city of Tyre.²⁸²

From the Roman period, letters in Greek and Latin have been found at garrisons of the Roman army in the Near East, especially at Dura-Europos and the Middle Euphrates in Syria, at Bu Njem (called Golas in Latin) in Libya and at Vindolanda in England. P.Euphr. 16 and 17 are two papyrus letters found at Middle Euphrates: the

²⁷⁶ Azzarello 2008, 35 n. 45.

²⁷⁷ See above table 1.

²⁷⁸ See above p. 44, SEG LIV 983.

²⁷⁹ SEG LVIII 775.

²⁸⁰ See below p. 84 Leather – Parchment.

²⁸¹ For Apollodotos see P.Cair. Zen. I 59036.1n.

²⁸² For more letters sent to Zenon while he was at Palestine see P.Zen. Pestm. p. 172.

first was sent from Ourodes to his son Nisraios about various business affairs, and the second was sent from Roumas to Roumas about the repayment of a loan. Although the names of the correspondents are unusual by onomastic standards of Graeco-Roman Egypt, the language and the expressions used in the letters resemble very much the style of contemporary Greek letters found in Egypt. About seventy Greek and Latin letters on papyrus found at Dura-Europos in Syria are associated with the Palmyrene cohort stationed there.²⁸³ Greek and Latin letters have also been discovered in Masada in Palestine. The Latin texts are related to the Roman army forces that were stationed there in the second half of the 1st c. AD in order to control the Jewish revolt. Some of the Greek letters may have been written by locals, as, for example, P.Masada 741, a fragmentary letter on papyrus from Abaskantos to Ioudas.

One of the most important sources of evidence are the letters found at the Roman military camp at Vindolanda, located about one mile south of Hadrian's Wall in northern England. More than two thousand wooden tablets have been uncovered there, almost all of them dating to the period between AD 90 and AD 120, which corresponds to the time of the establishment of the Roman frontier in England, just before the construction of Hadrian's wall.²⁸⁴ The Vindolanda tablets contain texts related to the life of the Roman army on the frontier, such as military records, accounts, reports and lists. Among these texts there are 333 letters, both personal and official, many of them related to commanding officers of the Roman cohorts located there, the largest and most important being the archive of the prefect of the Ninth Cohort of Batavians, Flavius Cerialis.²⁸⁵

A collection of around 158 ostraca, written in Latin and dated to AD 254–259, have been found at a Roman military camp at Bu Njem in Libya.²⁸⁶ Among them, there are 44 letters containing mostly short messages related to the every-day life of the army, such as the dispatch of goods. With the exception of minor linguistic variations owed to the interference of Latin with the mother language of the locals (many of the soldiers were recent recruits from the local population),²⁸⁷ the letters resemble the Latin letters found at Roman military camps in other parts of the Empire.

Finally, there is also a fair number of letters sent to Egypt from outside the provenance. Characteristic examples are the letters of Graeco-Egyptian recruits in the Roman army who sent letters to their families in Egypt, such as P.Mich. VIII 490 and 491 (2nd c. AD), sent from Apollinarios, a recruit in the Roman navy, to his mother

283 P.Dura 55–81.

284 Bowman 1994, 6.

285 The letters and documents found at Vindolanda have been published in T.Vindol. I–III (239 letters in T.Vindol. I–II and 94 letters in T.Vindol. III). For the letters see also Bowman 1994. The editions and images of the letters and documents published in T.Vindol. I–II are also available online at <http://vindolanda.csad.ox.ac.uk>.

286 For the ostraca found at Bu Njem see O.BuNjem .

287 For the language of the Bu Njem letters see Adams 1994, 87–112.

Taesion in the Arsinoite village of Karanis: P.Mich. VIII 490 was written in Portus, and P.Mich. VIII 491 in Rome.

2.2 Materials of Letters

The ancient letters that were used for everyday communication purposes were written on perishable materials, light and often foldable and thus suitable for easy transfer. The choice of a certain material depended on its availability in a region, societal writing habits, as well as the personal preference of a writer.

2.2.1 Lead

The earliest known Greek letters that have survived on their original material substrates are written on lead (μόλυβδος), and date to the late archaic and classical periods (6th–4th c. BC). Their preservation is due to the relative durability of the metal in humid conditions in which other organic materials, such as wood, papyrus, or leather, had little chance of survival. Lead is a by-product of the extraction of silver and it was abundant in areas where silver was mined, such as Laurion in Attica, where it was relatively cheap.²⁸⁸ Lead is durable, soft and malleable; it can be shaped into thin sheets (έλασμοί), which are suitable as writing surfaces. The sheets can be easily inscribed with a sharp object, such as a stylus (metal pen).²⁸⁹

Most texts surviving on lead contain curses. The earliest documents of this kind come from Athens, Sicily and Olbia,²⁹⁰ while by the Roman period they are attested all over the Graeco-Roman world, with more than 1,500 lead sheets with curses or magic spells currently known.²⁹¹ The reasons for the preference of lead for these texts are not entirely clear. In addition to its relatively easy accessibility, several characteristics of lead are thought to have rendered it appropriate for messages to the underworld:

288 For the use of lead and other metals as writing surfaces see Kiyanrad/Lougovaya/Sarri/Trampedach 2015, 293–306; cf. also Cancik/Schneider 1997, s.v. Blei. For the availability of lead in Attica, cf. Aristotle, *Oeconomica* 2.1353a.

289 A magical papyrus, found at Thebes or the Arsinoite nome and dated to the 3rd/4th c. AD, contains instructions to the performer to write certain spells on a piece of lead with a bronze stylus: P.Lond. I p. 83–115 no 121 λαβὼν μόλιβον ... ἐπίγραφε χαλκῷ γραφεῖω (= PGM VII 396–397); de Haro Sanchez 2008, 101–102. Gager (1992, 4), referring to writing on lead sheets, mentions “contrary to what one might expect, the process of inscribing metal tablets posed no great difficulty.” The same kind of stylus was also used for inscribing waxed wooden tablets (see below p. 80 n. 339).

290 Cancik/Schneider 1997, s.v. defixio.

291 For magic spells and curses from Roman Egypt written on papyrus or lead sheets see Suppl.Mag. I–2. For a list of magic texts on lead sheets found in Egypt or other regions see Jordan 1985, 188–191.

its dull grey colour, heavy weight, and clamminess.²⁹² An inscribed lead sheet can survive for a long time in the ground, which may have made it a suitable material for texts buried in cemeteries, wells or other places that were regarded as appropriate for the delivery of messages to the underworld. Besides curses, lead sheets were used for questions to the gods, and a large number of such texts have been found at the oracle of Dodona.²⁹³ Some scholars have observed a relationship between letters on lead and curse tablets in that “both these genres seem to have been used in situations of crisis, when their writers were facing significant risks”, since situations described in letters on lead show that many writers “require the recipient to act” and “many of these letters convey a sense of urgency” with words like τάχος or τάχιστα.²⁹⁴ However, expressions of urgency are commonplace in letters of all times, material notwithstanding, and are especially common in letters containing instructions or requests concerning business matters.²⁹⁵ Thus, it is difficult to see such a connection between letters and curse tablets, besides the fact they might have been regarded as letters to the underworld.

The fact that various types of texts on lead have survived from archaic and classical times indicates that lead was a common medium for writing in that period, including letter writing. In Athens lead sheets were used for other types of ordinary texts too, such as token-type objects that could be stamped or inscribed. Jurors assigned to courts received lead symbola stamped with letters of the alphabet, which insured their eventual payment.²⁹⁶ Two cavalry archives, excavated at Kerameikos and the Agora, dating to the second half of the fourth century BC, consist of hundreds of lead strips containing records of the name of the owner of a horse, the horse’s breed and colour, as well as its price. They may have been used for the record of ownership and evaluation of horses of Athenian cavalymen.²⁹⁷

There are very few letters on lead from the Hellenistic and Roman periods, which may indicate that lead was no longer used for letter writing. A possible reason is that other materials such as wood and papyrus replaced lead sheets as the common writing medium. Although papyrus was well accessible before Alexander the Great’s conquest of Egypt, that event may have spread even more the use of papyrus as a

²⁹² Miller 1973, 7.

²⁹³ Carapanos 1878, 68–83; Lhôte 2006, xi; Parke 1967, 100–114 and 259–273.

²⁹⁴ Eidinow/Taylor 2010, 39–40.

²⁹⁵ For example, a search for ταχυ- in letters included in the *DDbDP* returns 58 instances, for ταχε- 239 instances, for ταχι- 127 instances. E.g. P.Cair. Zen. I 59019.7 σὺ οὖν, ὥς ἂν τάχιστα λάβῃς τὰ γράμματα, γ\ρ/α\ []ομ (I. γράψον) μοι περὶ τούτων (And you, very quickly when you receive the letters, write to me about these); O.Florida 5.3–6 λαβών μου τὸ ὄστρακον πέμψας πρὸς ἐμέ ἐν τάχῃ (I. τάχει) (when you receive the ostrakon from me, please send me quickly); P.Oxy. I 113.7–8 ταχύ μοι πέμψον (send to me at once) and 24 τάχειόν (I. τάχιον) μοι πέμψον (send to me with all speed).

²⁹⁶ Aristotle, *Athenaion Politeia* 65.

²⁹⁷ Kroll 1977, 83–140; Posner 1974, 579–582.

writing material in the Graeco-Roman world. In literary sources of the Roman period there are a few references to letters written on lead, in cases when lead was selected because the letters had to be delivered secretly under special conditions. Thus, in his *Roman History*, Cassius Dio describes that, when Decimus Brutus was besieged by Antony, Octavian and Irtius wanted to communicate to him that they had come to support him against Antony. Separated from him by a river, at first they tried to send Decimus beacon messages from the tallest trees, but he could not understand them. So Octavian and Irtius scratched a message on a thin lead sheet, rolled it like a piece of papyrus, and gave it to a diver to carry under water by night. Decimus got the message and replied in the same manner, and in this way they continued to communicate.²⁹⁸ Parthenius, in one of the *Narrationes Amatoriae*, mentions that when Diognetos and Polykrite wanted to send a secret letter to the besieged Naxians, they scratched it on a lead sheet and hid it in a loaf of bread.²⁹⁹

2.2.2 Papyrus

In antiquity the papyrus plant was native only to Egypt, growing in the marshes along the Nile River.³⁰⁰ The earliest surviving Egyptian papyri date to the fourth and fifth dynasties of the Old Kingdom, but hieroglyphic representations of the papyrus roll and writing instruments attest its use for writing already in 3100 BC.³⁰¹ In Greece, papyrus rolls were probably imported through the Phoenician port Byblos (modern Gubal in Lebanon),³⁰² as suggested by the words βύβλος (or βιβλος) for the papyrus plant and the paper that was produced from it, and its derivative βυβλίον (or βιβλίον) for the papyrus roll. The word πάπυρος is first attested in Theophrastus³⁰³ (4th c. BC) and it is thought to be of Egyptian origin, since in Egyptian it means “that of the king”, which may suggest that papyrus was once viewed as a royal monopoly of the pharaohs.³⁰⁴

298 Dio Cassius, *Historia Romana* XLVI 36.4.

299 Parthenius, *Narrationes Amatoriae* IX.

300 For the use of papyrus as a writing material see Turner 1968; Römer 2007, 84–94; Ast/Jördens/Quack/Sarri 2015, 307–321.

301 Černý 1952, 11.

302 This must have taken place before the establishment of the Greek city Naukratis in the Delta in the 7th c. BC, since after that time Naukratis became the main trading point of exchange between Greeks and Egyptians.

303 Theophrastus, *Historia Plantarum* 4.8.2.

304 Černý 1952, 4: “Still in the very late Bohairic (Lower Egyptian) dialect of Coptic (Christian idiom of Egypt) παπυρος, though not actually attested, would mean ‘that of the King’, παγρο being here the word more familiar to us in its Biblical form as Pharaoh.”

References to texts written on papyrus are numerous in classical Greek literature, which indicates that papyrus was known and used there as a writing material, at least since archaic times.³⁰⁵ In Herodotus I 123, a letter was written on a papyrus roll (βυβλίον) to be transferred secretly in the belly of a hare, and in III 40–41, Amasis, the king of Egypt, sent a letter to Polykrates in Samos written on a βυβλίον, and Polykrates replied to him with a letter also written on a βυβλίον. According to references in literature, in Athens papyrus was probably used for long texts, like literary works, from which derived the metonymic use of the word βύβλος or βιβλος for the book.³⁰⁶

The writing material was made of strips of the stem of the papyrus plant. The process of making it is described by Theophrastus in his *Historia plantarum* 4.8.3 and by Pliny in *Historia naturalis* 13.70.³⁰⁷ For the construction of the sheets, fresh strips of papyrus were placed side by side in two layers running perpendicular to each other. Strips from the inner part of the stem were soft and moist and produced a better quality surface. After the strips were glued together, the resulting sheets (κολλήματα) were joined in order to form a roll. The surface of the sheets was perhaps smoothed by polishing with a hard object such as a pebble. Fibres on the inner side of the roll were placed horizontally, and this side was usually smoother than the other, which meant that it would be written on first (recto). The outer side (verso) had fibres running vertically; it was coarser and was left unwritten or was used only after the inner side had been filled up.³⁰⁸ For protection, a first page called the “first sheet” (πρωτόκολλον) was often attached; the *protokollon* was created by gluing a third layer of papyrus, with its fibres running vertically, perpendicular to the other sheets of the roll.³⁰⁹ The width of a sheet (κόλλημα) usually ranged around 25 cm, which must have been about the length of the strips of the papyrus.³¹⁰ In Greek papyrus rolls, the sheets are joined so that the left sheet ends on top of the beginning of the next sheet, while in Egyptian papyri it is the opposite: in either case the joins follow the direction of writing so as not to obstruct the pen.

305 Perhaps introduced around the mid 7th c. BC (Legras 2002, 51); the earliest surviving depictions of papyri date after 500 BC.

306 Aristophanes’ *Ranae* 1113–1114 βιβλίον τ’ ἔχων ἕκαστος μανθάνει τὰ δεξιὰ (nowadays everyone has his little book and learns the right things) suggests that literary works on papyrus rolls were circulating in Athens when the play was performed in 405 BC.

307 There are many modern descriptions of the process of the production of papyrus; see e.g. Černý 1952, Turner 1968, 1–6; Bülow-Jacobsen 2009, 4–8.

308 The terms recto and verso are sometimes inadequately used to describe not the front and back of the papyrus, but the direction of the text according to the fibres, i.e. recto when the text runs along the fibres and verso when it runs against the fibres. The terms have also been adopted in codicology, to describe the front and back of a page of a codex. For the terms recto and verso see Turner 1978.

309 Turner 1968, 5.

310 Examples in Turner 1968, 5 with n. 21; Johnson 2004, 88–91.

Unlike writing on wooden tablets, which could be easily erased so that the tablet could be reused, writing on papyrus was meant to be permanent. The ink consisted of carbon³¹¹ and it could be washed off with water, as suggested for example by P.Berl. Zill. 10 (1st/2nd c. AD), in which it is mentioned that a letter was received washed-out: ἀπόστιλές (l. ἀπέστειλές) μοι {ἐπὶ} ἐπιστολῆς (l. ἐπιστολήν) καὶ οὐ ἔχεῦρον (l. ἐξηῦρον) οὐδὲ ἔν [γ]ράμ<μ>α, ἀλλὰ βεβρε<γ>μένην τὴν ἐπιστολῆς (l. ἐπιστολήν), (“You sent me an epistole, and I found not a single letter, but (found) the epistole wet”). Although there are palimpsests of papyri, their number is relatively small, suggesting that erasing and re-writing was not a common practice.³¹² The Greeks introduced the use of a pen made out of reed (κάλαμος), which was an adaptation of the Greek metal pens that were used for scratching text on waxed wooden tablets, lead sheets and glazed ostraca. The traditional Egyptian way of writing was to use a reed brush, which one created by chewing the end of a reed stick.³¹³ Some Greek letters from Egypt dating to early Hellenistic times are written with an Egyptian brush, which is usually an indication of the Egyptian background of the writer.³¹⁴ For example, a Greek letter dating to 255 BC from the archive of the engineers Kleon and Theodoros, is written with an Egyptian brush and the sheet has been turned in such a way that the joins have the right sheet over the left, which are indications that the writer was of Egyptian origin.³¹⁵

A papyrus roll could be of considerable size, its length ever expandable by gluing new sheets at the end. In Pharaonic Egypt a standard roll consisted of twenty sheets, which resulted in no more than 6 metres in length,³¹⁶ while in a third century BC papyrus there is reference to papyrus rolls consisting of fifty sheets.³¹⁷ In the Roman period, the usual range for the length of a literary book was between 3 and 15 metres.³¹⁸ The height of a roll was of a more fixed size. In Pharaonic times the usual height was around 29–32 cm, but sometimes even longer.³¹⁹ In the early Hellenistic period, until about the second half of the second century BC, as appears from the dimensions of completely preserved sheets of letters, a roll was commonly around 30–34 cm in height,³²⁰ although there are some rare cases that suggest that besides the “standard” rolls, there were also taller ones.³²¹ From about the middle of the second

³¹¹ For the ink see Frösén 2009, 82.

³¹² For Greek palimpsest papyri see Schmidt 2007, 979–990.

³¹³ Černý 1952, 12.

³¹⁴ Clarysse 1993.

³¹⁵ P.Petrie II 13 (2) (=P.Petrie III 42 C (10)); see van Beek 2006, 81.

³¹⁶ Černý 1952, 9.

³¹⁷ P.Cair. Zen. I 59054.46 χάρτας πεντηκοντακόλλους (257 BC).

³¹⁸ Johnson 2004, 149.

³¹⁹ Černý 1952.

³²⁰ For the width of completely preserved letters see Appendix II.

³²¹ E.g. P.Sorb. I 9 (268 BC) measures 37.2 cm in width, and P.Sorb. I 11 (262 BC) measures 39 cm.

century BC to the end of the Roman period, the height of a standard roll becomes shorter, rarely exceeding 30 cm. Many completely preserved letters from this period correspond to the height of a roll.³²² From letters that contain more than one column and their height has been preserved intact, it appears that in Roman times the height of ordinary rolls was maximum 25 cm.³²³ This suggests that letters used to be written on sheets that come from rolls of lower quality, belonging to Johnson's lower range of rolls of the Roman period.³²⁴ This is not surprising; unlike literary texts, which in the Roman period used to be written on good quality papyrus rolls,³²⁵ letters, like any other ephemeral texts, were written on sheets from lower quality papyrus rolls. Examples such as P.Mil. Vogl. I 24 (AD 117) which measures 29.5 cm in height are not common, and it may not be chance that the letter is elegant in content, suggesting that the writer was of an upper social background. He may have had at his disposal an expensive papyrus roll that he could use for a nice letter to the addressee.

2.2.3 Ostraca

The term ostrakon (ὄστρακον) refers to a piece of broken clay pottery that has been reused for writing, and the same term has also been used for flakes of stone.³²⁶ In the Graeco-Roman world, thanks to the widespread use of ceramics for the carriage and storage of goods, potsherds of broken vessels were the cheapest, ready-to-use and abundantly available writing material. Ostraca are generally small in size and can only fit short texts (very large ostraca, like O.Krok. I 1, are extremely rare).³²⁷

Since these letters are written *transversa charta*, they must have been cut from rolls with a height at least equal to the width of the letters. For the *transversa carta* format see below p. 91 *Transversa charta* Format.

322 See examples in Appendix II.

323 P.Oxy. II 269 (AD 57) with 1+ col. measures 20.5 cm in height (H); SB XXII 15708 (AD 100) with 2 cols. measures 22.6 cm H; P.Giss. Bibl. III 20 (AD 113–117) with 2+ cols. measures 22.5 cm H; P.Brem. 53 (AD 114) with 2 cols. measures 25 cm H; P.Mil. Vogl. I 24 (AD 117) with 1+ col. measures 29.5 cm H; P.Mich. VIII 468 (early 2nd c. AD) with 2 cols. measures 21.8 cm H; P.Brem. 61 (AD 113–120) with 2 cols. measures 23 cm H.

324 Johnson 2004, 143 noted: “The height of bookrolls before the first century spanned a wide range, with examples as high as 29 cm, but short bookrolls of less than 25–26 cm seem to have been most common. In the Roman era, however, such short bookrolls became unusual, and in this period roll heights hardly fell below 25 cm or above 33 cm.”

325 Photos in Johnson 2004.

326 For the use of clay as a writing material see Balke/Panagiotopoulos/Sarri/Tsouparopoulou 2015, 277–292.

327 Bülow-Jacobsen 2009, 17.

From classical times a large number of ostraca have been found in the Athenian Agora, most of which were used for ostracisms.³²⁸ Athenian pottery was glazed, and the writing on these ostraca was done by scratching through the glaze with a sharp object. The glaze made it difficult to alter the scratched text, and their small size and free availability rendered them an ideal writing surface for balloting. Other types of texts on ostraca from Athens are few, among them short messages similar messages on ostraca have been found in other areas of the Greek world.³²⁹

Most texts on ostraca have been found in Egypt. *HGV* currently lists around 20.000 published Greek ostraca, which is about one third of the total of the texts.³³⁰ This includes both ostraca that come from broken flakes of limestone and those that come from broken pieces of pottery. In Egypt, flakes of limestone were used continuously from the Old Kingdom until Coptic times as a cheap alternative to papyrus for private writing, whereas papyrus was preferred for official writing.³³¹ The text was written on the ostrakon in ink with the traditional Egyptian brush, but since Graeco-Roman times the reed pen was used. Limestone ostraca are not common for Greek letters; a small number of limestone flakes, found in desert areas contain Greek, mostly ephemeral texts, such as receipts, school exercises, Christian prayers.³³² However, a relatively large number of limestone ostraca found in desert areas contain Coptic letters.³³³

The custom of writing on pottery sherds increased in Hellenistic and especially Roman times. Most of these ostraca contain texts in Greek, but there are also ostraca written in Aramaic, Demotic, Latin and Coptic. Egyptian pottery was not glazed and the text was written in ink with a calamos or (for demotic texts) with a brush. Greek and Latin ostraca were commonly written on one side, and the back was left blank.³³⁴ The pottery of the ostraca that have been found in Egypt was produced mostly in Egypt, as can be determined by the composition of the clay from Nile silt or desert

328 This was a voting procedure characteristic of Athenian democracy, through which people wrote on an ostrakon the name of the man whom they considered as dangerous to the city and democracy. The man who received the most votes was expelled from the city for ten years.

329 See above p. 56.

330 Data drawn in July 2014.

331 An example of a limestone ostrakon that dates to the early Egyptian dynasties (about 2600 BC) was found at the Meidum pyramid and contains accounts of pyramid builders; it is inscribed in hieratic script with a traditional Egyptian brush. Petrie/Mackay/Wainwright 1910, plate XIV no 1.

332 E.g. O. Epiph. 611 (6th/7th c. AD), found at the Monastery of Epiphanius in Thebes, contains the first line of Homer's *Iliad* repeated four times, probably as a school exercise. See Crum/Winlock 1926, plate XIV no 611.

333 E.g. the Coptic archive of Frange found in Western Thebes and dating to the 8th c. AD contains many of his outgoing letters; see O.Frange and www.trismegistos.org/archive/321.

334 In some cultures, writing could continue on the back. For example, ostraca containing Aramaic letters are usually written on the one side (mostly the concave side), but some continue on the back; see Lindenberg 2003, 5.

marl; much fewer are ostraca taken from imported wares coming from trade areas of the Mediterranean and the Near East.³³⁵

Most letters on ostraca have been found in desert areas where papyrus was not easily available.³³⁶ The Eastern Desert has produced the largest quantities of Greek and Latin letters on pottery ostraca. They were written by Roman soldiers stationed there, and among them are some very elegant specimen with regards to the layout of the text. In the Nile valley, where papyrus was easily accessible, ostraca were sometimes used for short ephemeral texts, such as toll-receipts, but rarely for letters. When it came to letters, ostraca were in fact regarded as poor substitutes for papyri, as is evident from apologetic statements such as that found in Max. inv. no 761 συνγνώσει, ἄδελφε, ὅτι εἰς ὄστρακόν σοι ἔγραψα· οὐχ εὕρισκω γὰρ χαρτάριν (“excuse me, brother, for having written to you on an ostrakon, for I cannot find papyrus”); in another ostrakon from the Eastern Desert the writer asked the addressee to send him 8 obols worth of papyrus for letter-writing.³³⁷ A major disadvantage of ostraca is that they cannot be folded to keep the text private. Unlike letters on papyrus, which were folded and inscribed with the address of the recipient on the outside, letters on ostraca remained open. This made them less suitable for letters, contracts or any other texts that needed to be kept confidential.

2.2.4 Wood

In classical Greece a common medium for short ephemeral texts, such as letters, appears to have been wooden tablets (πίναξ, δέλτος).³³⁸ These were thin boards of wood, which were chiseled out and filled with wax. A raised frame was left around the waxed surface to protect it from being rubbed when the tablets were stacked on top of one another. The tablets were usually packed in sets of two or more and holes were made on one of the long sides to fasten the boards together, forming a δίπτυχον (twofold), τρίπτυχον (threefold), or multifold (πολύπτυχον) booklet. The text could be

³³⁵ For the clay resources for the production of pottery in Roman Egypt see Gallimore 2010, 164–168 and Cockle 1981, 93. For pottery introduced from other places in the Mediterranean to Mons Claudianus see Tomber 1996, 39–49.

³³⁶ See also above p. 64 Ostraca.

³³⁷ Fournet 2003, 471.

³³⁸ For the use of wood as a writing surface see Berkes/Giele/Ott 2015, 383–395; Bülow-Jacobsen 2009, 11–14.

easily inscribed with a sharp stylus—surviving examples of styli are usually made of bronze, wood, reed, bone—and it could also be easily erased by smoothing the wax surface with the back of the stylus, which was usually flattened for this purpose.³³⁹ Writing on a tablet with a sharp stylus is depicted on an Attic vase (fig. 5) that presents themes related to the education of children.



Fig. 5: Detail from the “Douris cup”, ca. 485 BC © Antikensammlung, Staatliche Museen zu Berlin, F 2285; photo by J. Laurentius.

The main advantage of waxed wooden tablets is that they could be reused repeatedly and were durable yet light to carry. On the other hand, their contents could be easily erased, and this is apparently the reason for frequent references to the sealing of wax tablets for security. The earliest references to seals that secured wooden tablets are

³³⁹ The Latin word stylus comes from the Greek στυλος (column), but in Latin it is also spelled stilus. The stylus is best described in a riddle of Symphosius, *Aenigmata* 1 “Flat is my top, not flat my base at all. Both ways I’m turned, nor do my tasks appal. What one end does the other can recall.” Transl. Hickman-Du Bois 1912.

attested in ancient Mesopotamian texts, mentioned in clay tablets dated before 2000 BC.³⁴⁰

In Greek literature, the earliest text on a tablet is the letter in the story of Belerophon mentioned in Homer's *Iliad* VI 169 γράψας ἐν πίνακι πτυκτῶ (“wrote on a foldable tablet”), but it is not clear if the tablet was of plain wood or waxed. In tragedies of Euripides all the letters that are presented on stage are described as written on waxed tablets. In *Iphigenia at Aulis* there is a detailed description of the writing-erasing-rewriting process of a letter on a waxed wooden tablet: 35–40 δέλτον τε γράφεις τήνδ’ ἦν πρὸ χερῶν ἔτι βαστάξεις καὶ ταῦτ’ ἀπάλιν γράμματα συγγεῖς καὶ σφραγίζεις λύεις τ’ ὀπίσω ῥίπτεις τε πέδῳ πεύκην (“you write this letter which is still in your hands and then erase the same words again; you seal the tablet and then break the seal, and you throw the pine frame upon the ground”). The use of the verb συγγέω suggests that the tablet was waxed and the letters were cancelled by being blurred for the surface to be rewritten. In Euripides’ *Iphigenia in Tauris* 727, Iphigenia gave a closed letter to Pylades. The scene is depicted in a vase from Campania (fig. 6), in which Iphigenia’s letter appears to be a set of wooden tablets, folded and tied with strings.³⁴¹



Fig. 6: Detail from a red-figure neck amphora attributed to the Libation Painter, Campania, Italy, 350–325 BC © Nicholson Museum, University of Sydney.

Wood decomposes in the ground, which explains the shortage of material evidence from early times. The earliest known wooden tablet from Greece has been discovered

³⁴⁰ For wooden tablets in the Ancient Near East and Syria see André-Salvini 1992; Symington 1991. For the use of seals to secure Greek letters see below p. 140.

³⁴¹ For further information about the pot see Turner/Cambitoglou 2014.

in the tomb of a musician, excavated at Daphne in Athens, and dates to 430–420 BC.³⁴² In the tomb, among other belongings of the musician, there were five tablets and a bronze stylus. Three of the tablets are of matching size ($10 \times 5 \times 0.3$ cm) and have holes on one of the long sides, which served the purpose of fastening them together into a *πολύπτυχον*. The other two tablets have no holes and must have been singles (the one measures $13.5 \times 5.8 \times 0.4$ cm and the other 11.5×6.6 cm). The tablets that formed the central part of the *πολύπτυχον* are chiseled out and filled with wax on both their sides. Patches of wax with readable texts are preserved on some of them. The tablets must have contained a considerable amount of text since it was written in a tiny script along the long side.³⁴³ On one side of the tablet the text runs with the holes at the top and on the other side the holes are at the bottom of the text. This shows that the text was first inscribed on the front side of the tablet with the hinges at the top, then the sheet was turned over and the text continued on the back of the sheet with the hinged side at the bottom, and continued like this to the next hinged sheet (fig. 7).



Fig. 7: Wooden tablets found in the tomb of the musician in Daphne, Athens, 430–420 BC
 © Υπουργείο Πολιτισμού και Αθλητισμού, ΕΦΑ Δυτικής Αττικής, Πειραιώς και Νήσων.

In Graeco-Roman times, tablets were a common writing medium, as evidenced by the large number of Greek and Latin tablets included in a catalogue compiled by K. Worp.³⁴⁴ Most of them have been found in Egypt, where they were preserved thanks to

³⁴² Pöhlmann/West 2012, 1–16; West 2013, 73–92 with photos of the tablet.

³⁴³ West 2013, 76.

³⁴⁴ Worp 2012 includes Greek, Coptic, Demotic, and Latin tablets. Older catalogues are those of Brashear/Hoogendijk 1990 and Cauderlier 1990, which are included in Worp's catalogue.

the dry climate conditions. However, wood was not as abundantly available in Egypt as elsewhere, and the use of wood was always limited in comparison to papyrus and ostraca. Surviving tablets contain either ephemeral texts that were meant to be erased soon, such as school exercises (grammatical or mathematical exercises or lists of gnomes)³⁴⁵ and accounts, or permanent records, such as birth certificates, testaments, contracts, mummy labels. Letters on wooden tablets are rare and come from places where authors probably had easier access to wood than to papyrus. They have been found in the Dakhleh Oasis, the source of a number of interesting wooden codices containing documentary and literary texts.³⁴⁶ Brief letters on wood that accompanied mummies and resemble extended mummy labels have also been found.³⁴⁷

The best-known letters on wood are the Latin letters from Vindolanda, which date to AD 90–120. Wooden leaf-tablets must have been a common writing material in Europe, but almost nothing has come down to us. Their survival at Vindolanda was made possible thanks to their preservation in anaerobic conditions. Two types of tablets were found there: the first is the common reusable wax tablets described above, which were probably transferred there, as they are made from wood that was not produced locally at Vindolanda;³⁴⁸ to the second type belong the majority of the tablets, made from alder or birch, which grew locally. These are thin leaf-tablets (ca. 1–3 mm), about the size of a modern postcard (w: 16–20 × h: 6–9 cm), that have a smooth surface and texts written in ink.³⁴⁹ Reusable waxed tablets were preferred for formal texts, such as certificates or contracts, while the latter were used mostly for ordinary ephemeral texts, like letters.

Wooden tablets were orientated horizontally or vertically, depending on the type of text to be written. For short texts, such as letters, a tablet was placed horizontally and the text ran parallel to the long side of the leaf along the grain of the wood. The text was written in two columns and the leaf was scored in the middle and folded to enclose the text inside. Many of the letters have notches on the right and left sides to secure the string that was tied around the folded letter or batch of letters. The address was added on the outer side of the folded tablet, usually on the back of the second column. Tablets are small in size, and cannot fit long texts. For longer documents, such as lists or accounts, the scored leaf was placed vertically and the text was written in a single column across the grain. When the text reached the bottom of the tablet, a new one was added below, tied with the first through holes made on the top

345 For school tablets see Cribiore 1996, 65–69.

346 E.g. O.Douch III 259, 290 (4th/5th c. AD). For the wooden codices found in Dakhleh see Sharpe 1992, with photos on pp. 138–148.

347 E.g. SB I 3939 (undated), SB XIV 11939 (1st–4th c. AD) and SB VI 9126 (3rd c. AD) are short letters accompanying mummies.

348 See examples in T.Vindol. I, pp. 34–35.

349 Bowman 1994, 8–9.

and bottom of each tablet. The whole list could be folded in a concertina format and opened vertically like a rotulus.

The use of Vindolanda tablets in north-western Europe can be compared with the use of papyrus in Egypt, because tablets were equally easily available where forests grew abundantly.³⁵⁰ Their difference from ostraca is that the latter could not be folded, while Vindolanda tablets were foldable.³⁵¹

2.2.5 Leather – Parchment

Parchment was produced from skins of animals, such as goat, sheep or calf, through a special preparation process.³⁵² The main difference between parchment and leather is that “parchment is prepared from pelt, i.e., wet, un-haired and limed skin, simply by drying at ordinary temperatures under tension, most commonly on a wooden frame known as a stretching frame”, while with leather “wet pelt is not dried under tension and hence the fibre bundles do not undergo any radical change in relative position.”³⁵³ The finest quality parchment was produced from calfskin, known in medieval times as vellum (from the Latin word for a calf, *vitulus*), because this type of skin combined great strength with thinness.³⁵⁴ In order to be used for writing, parchment needed to be degreased, smoothened and lined.³⁵⁵

Parchment is a durable material as long as it remains exposed to normal above-ground conditions, but it decomposes relatively quickly in the ground, which is probably the reason why so little of it has survived. Leather on the other hand is tanned, which makes it resistant to water and more durable.³⁵⁶ For old texts written on skins the distinction between leather and parchment is not easy, due to the destruction of tanning over time, and for secure determination a scientific examination under UV light is required.³⁵⁷ In scholarly works the terms parchment and leather are often used imprecisely, and in the present work the terms leather and parchment are generically used to describe strips of leather prepared to receive writing, without claiming precision about the process of preparation of the writing surface in each case.

350 Bowman, *T.Vindol. I*, p. 44.

351 Cf. Bagnall 2011, 130.

352 For the use of leather as a writing material see Jördens/Kiyanrad/Quack 2015 323–335, and for parchment – parchment see Becker/Licht/Schneidmüller 2015, 337–347.

353 Reed 1972, 119 and 121.

354 Reed 1972, 126.

355 See a detailed description of the process in Reed 1972, 132–152.

356 For the tanning methods see Reed 1972, 46–85.

357 Reed 1972, 252–254 and 261–264.

The use of skins (διφθέρα) as a writing material is documented in Near Eastern cultures since early times.³⁵⁸ The “parchment” or “leather” that was used in early times in the Near East was of low quality, and cannot be compared with medieval parchments. Whether the term “parchment” is even appropriate to describe them is debatable. In the Greek world, the use of skins as a writing material can be evidenced since Minoan times from traces on clay seals,³⁵⁹ but it is not clear if writing on skins was as common in Greece as it was in Near Eastern cultures. In the early fifth century BC, Herodotus reported that the Ionian Greeks had replaced the use of skins with papyrus, but due to their earlier use, they continued to call the papyrus rolls (βύβλους) skins (διφθέρας), while other Near Eastern people continued to use skins.³⁶⁰ Herodotus’ statement is supported by SEG LIV 694, a letter on lead, found at Olbia (Black Sea) and dated to ca. 500 BC, in which the word διφθέρια (skins) is used to refer metonymically to written documents; it remains uncertain if skins were used for letter writing.

Chance finds show that throughout Hellenistic and Roman times parchment was continuously used in the Near East.³⁶¹ From the Hellenistic period, Greek texts on skins have been found in Near Eastern regions, but there are no letters among them.³⁶² From the Roman period, parchment was used alongside papyrus for literature or legal

358 Although no documents have survived, the use of parchment is depicted in an Assyrian relief of 640–620 BC, in which scribes are shown taking notes on tablets and parchment (British Museum inv. no 124955).

359 For Mycenaean seals there is no clear evidence that they were used for the sealing of papyrus or parchment documents, but for some Minoan seals it appears from the shape of and traces on their back that they were used for sealing parchment or leather objects, possibly documents. Weingarten 1983, 8–13; Weingarten 1994, 179. For seals and sealings in Minoan and Mycenaean times see also Weingarten 2012, 317–328; Younger 2012, 339. I thank D. Panagiotopoulos for helpful information about the survival of seals from Mycenaean and Minoan times.

360 Herodotus, *Historiae* V 58 καὶ τὰς βύβλους διφθέρας καλέουσι ἀπὸ τοῦ παλαιοῦ οἱ Ἴωνες ὅτι κοτὲ ἐν σπάνι βύβλων ἐχρέωντο διφθέρησι αἰγέησι τε καὶ οἰέησι ἔτι δὲ καὶ τὸ κατ’ ἐμὲ πολλοὶ τῶν βαρβάρων ἐς τοιαύτας διφθέρας γράφουσι (“since old times the Ionians call the papyrus rolls (βύβλους) skins (διφθέρας), because when there was not enough papyrus they used parchment made from goats’ and sheep’ skins, and even to my day there are many barbaroi who continue writing on such skins”).

361 The Dead Sea scrolls (3rd–1st c. BC), which contain biblical, apocryphal, and other Hebrew texts related to the local community, are among the earliest surviving texts on skins; Tov 1993; Parry/Tov 2004–2005. For the use of skins in the Near East in Hellenistic and Roman times see also Bagnall 2011, 46.

362 The earliest Greek texts on skins have been found in Bactria (Afghanistan) and date to the late 3rd and 2nd c. BC; Clarysse/Thompson 2007, 276 and 278–279; Canali de Rossi 2004, 272–273 no 459 = SB XXII 15765. Greek documents of the 2nd c. BC have been found at Dura–Europos, e.g. P.Dura 15 and 34 contain contracts, and two Greek documents of the 1st c. BC have been found with a Parthian text in a jar in a cave at ancient Kopanis in Persian Kurdistan; Minns 1915, 22–65, with pl. I–III; Canali de Rossi 2004, 265–269, no 454–455.

documents at the Roman military camp at Dura-Europos.³⁶³ However, the Greek and Latin letters that have been found there are written on papyrus,³⁶⁴ and the only letters on parchment are written in local languages.³⁶⁵ This suggests that Romans would not use skins for letters, if papyrus was available, and this is supported by a reference in Strabo to a letter presented to the emperor Augustus by Indian ambassadors that was in Greek but written on parchment.³⁶⁶ The fact that Strabo paid attention to the material of the letter suggests that it was regarded as exotic in Rome. Parchment was expensive, and it is unlikely that it would be used for ephemeral texts, if other materials, such as wood or papyrus were available.

In Egypt, skins were rarely used as writing materials before the spread of Christianity.³⁶⁷ With the spread of Christianity from about the end of the third century AD, the use of parchment increased, but being expensive, it never became a preferred material for letters. It was used mostly for legal, literary or religious texts, with which greater permanence was associated than with letters. Four parchment letters survive from late antique Egypt. Two were sent by a Christian bishop, Papa Sotas, who may have had ready access to the material through his involvement in the production of Christian codices, for which parchment was the standard material.³⁶⁸ Of the other two letters written on parchment, SB III 7269³⁶⁹ (4th/5th c. AD) definitely comes from a Christian milieu, being a letter of recommendation from a certain Tyrannos to a Christian community, in support of the letter carrier, Eudaimon; P.Iand II 12³⁷⁰ (3rd/4th c. AD), on the other hand, does not have any clear attachment to Christianity. It is a short, fragmentary letter, from Aphys to Soeris, the content of which cannot be fully grasped; it seems to be a reply to a previous letter from Soeris to Aphys, asking her about some pots.

363 Welles/Fink/Gilliam, *P.Dura*, p. 4.

364 In Luijendijk 2008, 147 n. 82 it is stated that one of the letters (*P.Dura* 46) was written on parchment; however, it is clear from the edition of the letter that it was written on papyrus.

365 Two letters on parchment have been found at Dura-Europos, one written in Parthian (*P.Dura* 153) and the other in Middle Persian (*P.Dura* 154).

366 Strabo XV 1.73.

367 The only pre-Christian Greek texts on parchment from Egypt are *P.Oxy.* VI 957 and 958, used as σίλλυβοι (book indicators for papyrus rolls), and *ChLA* 41 1191, a short Latin document recording the delivery of cereal, all dating to the 1st and 2nd c. AD.

368 *PSI* III 208 and IX 1041 (mid-second half of the 3rd c. AD); Luijendijk 2008, 144–151.

369 Image: <http://papyri.info/ddbdp/sb;3;7269>.

370 Image: <http://papyri.info/ddbdp/p.iand;2;12>.