In its narrowest sense papyrology refers to the decipherment and interpretation of texts written or incised upon various media: papyrus, of course, but also treated animal skins (e.g. parchment), linen, wood, and pottery (ostraka), among others. The preservation of these texts also falls within the brief of many papyrologists. Although papyrology has traditionally been regarded as a subsidiary or auxiliary discipline, a sort of Hilfsmittel for Classical Studies and other fields, many editors of texts are also interested in synthesis, in exploiting the often unmatched opportunities that the papyri provide for the historian. The value of papyrological material for the study of 'mainstream' issues has also been increasingly recognized by those outside the (sub)discipline; Beaucamp 1992 is simply one (excellent) example.

Most of the texts with which the papyrologist is concerned are of Egyptian origin; that land’s dry environment is especially suitable for the preservation of ancient organic material, though the rise of the water table (as a result of the construction of the Aswan High Dam) and the expansion of agriculture have now made it less so. The desert fringe of the Nile Valley has been particularly fruitful, while the damp Delta and other areas under cultivation, as well as current settlements (most grievously, Alexandria), do not possess conditions conducive for preservation. Papyri may frequently be found in abandoned buildings (e.g. Bell 1944: 22) or in rubbish mounds (perhaps most famously, Grenfell 1896–7); in earlier periods they often were recycled, in a kind of papyrus-mâché (cartonnage), to create mummy masks, pectorals, and footcases (cf. Petrie 1891: 34). Carbonization (through exposure to fire) makes papyrus resistant to moisture but extremely difficult to read without the aid of special (e.g. multi-spectral) imaging techniques (cf. Booras and Seely 1999; www.papyrology.ox.ac.uk/POxy/multi/index.html). It surely aided the survival of
the papyri recovered during the excavations of the church at Petra (cf. Frösen and others 2002), but non-carbonized pieces have also been preserved outside Egypt, not only at arid sites like Khirbet Mird (e.g. van Haelst 1991) and Nessana (e.g. Kraemer 1958), but also in the archiepiscopal chancery of Ravenna (e.g. Tjäder 1954–82) and in the library of the Graf von Schönborn in Pommersfelden, where they were discovered in the binding of a medieval codex (Sirks and others 1996).

When referring to the source of most texts, that is, to Egypt, Byzantine papyrology may be considered as having the reign of Diocletian as its terminus a quo, but there are good arguments for more precise periodization, for distinguishing a late antique period (up to c.450) from the Byzantine epoch (c.450 to the Islamic Conquest; cf. Giardina 1989; Bagnall 2003). The principal languages of the papyri of these centuries are Greek, Latin (generally in military and legal contexts), and Coptic; among the other attested languages are Pahlavi (from the Sassanian occupation of Egypt; cf. Weber 1992, 2002), Syriac (Brashear 1998 with Brock 1999), Gothic (with Latin; cf. Kuhlmann 1994: 196–207), and Armenian (more precisely, the Armenian script; see J. Clackson 2000). Texts not in Greek and Latin have traditionally been considered the province of Egyptologists, Iranologists, Semiticists, and so forth, but there have been calls for more holistic approaches during the last twenty years (e.g. Hobson 1988; MacCoull 1992). Many Byzantine papyrologists now have command of Coptic in addition to Latin and Greek, while Copticists are increasingly including relevant Greek papyri in their publications (e.g. S. Clackson 2000).

Papyri are broadly classified as literary or documentary; often a third category, subliterary, covering texts like amulets and horoscopes, is employed (for such texts, see e.g. Jones 1999; Papaconstantinou 1994; Preisendanz and Henrichs 1974).
Fig. 2 Quantifying and qualifying literary texts, 301–700 CE
(data source: Leuven Database of Ancient Books)
Literary papyri comprise both texts of known authors (whether also preserved in the medieval manuscript tradition or not) and *adespota* (unattributable pieces); Turner 1980 remains the best introduction to their study. Not surprisingly, the literary corpus became increasingly Christian between the fourth and seventh centuries (cf. Fig. 2); classical literature, however, remained a proven component of the conservative educational system (cf. Cribiore 1996). During the same period, the use of the papyrus roll also diminished, in a development tied in part to the predilection of Christians for the codex; and by the sixth century, parchment had supplanted papyrus in codices, possibly because it was more durable, especially at its edges. Important literary texts dating to the Byzantine period include the Cairo Menander Codex (Austin 1973: nos. 136, 139, 174, 185, 197); most of the Bodmer Papyri (a marvellous library of Greek and Coptic texts, both secular and religious; see Oates and others 2005, under ‘P.Bodmer’, for bibliographic details); the Turin papyri (Origen, Didymus Caecus; for the most part published in the series Papyrologische Texte und Abhandlungen); the Gnostic Nag Hammadi codices (critical editions published in the Nag Hammadi Studies series); the Cologne Mani Codex (Koenen and Römer 1988); and the Strasbourg cosmogony (‘Mercurius mundi et Hermopolis magnae conditor’; Gigli Picardi 1990). Many of the ‘Wandering Poets’ (so Cameron 1965; also see Cameron 2007), the important late antique ‘school’ of classicizing poets, were of (Upper) Egyptian origin, and some of their works are preserved on papyrus. There is a Berlin codex containing part of Nonnos’ *Dionysiaca* (Schubart and von Wilamowitz-Moellendorff 1907: 94–106); a Vienna codex with works of the colourful Pamprepius of Panopolis (alongside epistles of St Gregory of Nazianzos; Livrea 1979); the Oxford papyrus preserving part of Triphiodorus’ *Fall of Troy* (Browne and others 1972: 9–10); and the *Blemmyomachia*, a Homeresque account, perhaps written by Olympiodoros of Thebes, of a campaign against the Blemmyes (Livrea 1978; Steinrück 1999). Although not in the same league, the autograph poems of Dioskoros of Aphrodite, (re)presented masterfully in Fournet 1999, also merit mention; harsh criticism of these used to be the rule (cf. Bell and Crum 1925: 177; Cameron 1965: 509; more forgiving: Baldwin 1984), but recent scholarship has sought to contextualize the poems (e.g. MacCoull 1988; Kuehn 1995).

The vast majority of Egyptian texts on papyrus and related materials, over 90 per cent, are not literary, however, but documentary, that is, contracts, letters, accounts, and so forth. Pestman 1994 and Youtie 1963 and 1974 are good introductions to their decipherment and interpretation, but competency (and the ability to judge the work of others, essential even for those who do not wish to publish papyri) only comes through the repeated reading of well-edited texts with the original papyri (or, less optimally, facsimiles) in hand. The *Oxyrhynchus Papyri* is a reliable series that continues to publish Byzantine material with some frequency, and images of these papyri are readily available through the Oxyrhynchus Online website (http://www.papyrology.ox.ac.uk/POxy).
Fig. 3 Dioskoros of Aphrodite, iambic encomium on Romanos (P. Rein. II 82; joins with P. Lond. Lit. 98)
The corpus of documentary papyri presents unparalleled (and truly underexploited) opportunities for those interested in the social, economic, and cultural history of the early Byzantine world. Bagnall 1995 is a nice introduction to the possibilities; Banaji 2002 (economy and society) and Wilfong 2002 (gender; see also Wilfong 2007) are just two of the more recent works that might be added to his examples, while Keenan 1992 deserves a second mention as a virtuoso exploration of a documentary text. Occasionally a documentary papyrus will be historically important in its own right, sometimes even to an extent that it attracts the attention of non-specialists (e.g. Feissel and Worp 1986, which inaugurated Fergus Millar's Sather Classical Lectures; see now Millar 2006), but typically documentary papyri have their greatest value when contextualized through assembly. The accumulation of interrelated data in such groupings often provides the evidentiary critical mass required to formulate questions that move beyond antiquarian concerns to matters of broader historical significance. Text groups that were formed deliberately in antiquity are referred to as archives. As is the case with the archive of the poet Dioskoros, they may be bilingual and may include both literary and documentary texts. Since many papyri have come to their present custodians via the antiquities market (or through unscientific excavations), it can be difficult (if not impossible) to determine if a particular group of papyri meets the ‘deliberate assembly’ criterion. When faced with such uncertainty, or in cases in which related texts clearly were not kept together in antiquity, the term dossier is preferable (cf. Martin 1994). Papyrus archives and dossiers from all periods are conveniently presented (with bibliography) on the Leuven Homepage of Papyrus Archives (http://trismegistos.org/arch.php). Some of them are quite large; the papers of Dioskoros, for example, number over 600, while those linked with the Flavii Apiones (an extremely important family, the members of which are also known from literary sources; cf. Mazza 2001) and Aurelius Isidorus (core texts published in Boak and Youtie 1960, Bagnall and Lewis 1979) comprise about 180 and 300 pieces, respectively. Former ownership or connection to a certain individual (or individuals) is not, of course, the only fruitful basis for (re)creating groups of texts; one might employ (alone or in combination) genre, provenance, and so forth.

Like any body of evidence, the documentary papyri must be used with care. That they do not provide the coverage to which a modern historian is accustomed is obvious and need not be dwelt upon; it suffices to note that for a good many issues, pessimism about the corpus is unwarranted (and in any case should not prevent one from constructing models and testing the evidence). There are, however, some less apparent limitations that should be recognized. One of these is geographical. The lack of material from the Delta (and Alexandria) has already been noted. In addition, the texts that have survived from Middle and Upper Egypt are not distributed evenly, but rather concentrated in several districts, cf. Fig. 5. Even within the represented districts, the distribution is not optimal; this is most strikingly illustrated in the Antaiopolite, which hardly would have registered in Fig. 5 had
Fig. 4. A receipt for a wage advance from the Apion dossier (P. Oxy. decr. 19)
Fig. 5 The provenances of Greek and Latin documentary papyri

(data source: Heidelberger Gesamtverzeichnis der griechischen Papyrusurkunden Ägyptens)
the (sixth-century) archive of the poet Dioskoros not been discovered within its borders. For the most part, the documentation from these well-represented districts is urban, deriving from the *metropoleis* (Arsinoe, Oxyrhynchus, Hermopolis, etc.); rich village finds, like those that we possess for the *komai* of the Ptolemaic and Roman Fayyum, are lacking. Aphrodite, the home of Dioskoros, might be cited as an exception, but it is a poor representative: It had been a nome capital as late as the Roman period, and its administrative centrality would increase again after the Muslim Conquest. The texts from the Byzantine *kome* Aphrodites, moreover, predominantly concern the affairs of village elites like Dioskoros, his father Apollos, and the son-in-law of Apollos' sister, Phoibammon (for the villages of Byzantine Egypt, cf. Keenan 2007).

Fig. 5 also depicts the chronological distribution of the (Greek and Latin) documentary corpus: a wealth of texts in the fourth century (though only about a third of the second-century total and lower than any of the three Roman centuries), a precipitous decline in the fifth, a healthy recovery in the sixth, and then a significant decline again in the seventh. If Fig. 5 included only Byzantine texts (i.e. material from before the Islamic Conquest), this last drop would be much more dramatic; there are, for example, only about 70 Greek texts dating to the critical period between the Sassanian withdrawal from Egypt (629) and the final capitulation to Muslim forces (642). The fifth century has traditionally been called a dark age, and there can be little doubt that fewer texts are extant from that period; this is unfortunate given the important transformations (e.g. the rise of the bureaucratic elite, cf. Banaji 2002) that occurred during the period. Yet the decline in the fifth century is surely not as steep as suggested in Fig. 5; it is, to some extent, the construction of those editing the texts. Editors, when selecting papyri to publish, often choose pieces that somehow relate to material that has already been edited, and the odds are that such material dates to the fourth or sixth century. More critically, editors are cognizant of the chronological trends, and on those occasions when one is required to date a text on the basis of its handwriting alone, there is a tendency to gravitate to those periods in which texts are plentiful. Of course, these periods also provide greater numbers of securely dated comparanda. (The seventh-century decline is more difficult to assess, given that some editors have preferred the Byzantine period over the Muslim era when assigning dates to handwriting.)

Most treacherous, however, is the perception (probably enhanced by the immediacy of the texts) that papyri give access to the ‘masses’ or to ‘ordinary people’. While their social compass is indeed greater than that of the literary sources, it is still rather narrow. Documentary texts are the product of those who were educated enough to write or wealthy enough to afford scribes, typically the possessors of landed property, be they people or institutions. Less affluent members of society are only represented in the papyri when they become an interest of the propertied: for example, a tenant, a debtor, the provider of some service, a taxpayer. Even
then, such relationships are not always recorded: the extremes of permanence—
e.g. customary arrangements—and transience—e.g. casual labour—tend to remain
unwritten. The impact of such silence on the investigation of certain topics (e.g. the
rural economy) is obvious but not insurmountable; methods and data from fields
like anthropology can serve as heuristic devices (cf. Keenan 1989).

ADDITIONAL RESOURCES

The Leuven Homepage of Papyrus Collections (http://www.trismegistos.org/coll.
php) provides a wealth of information concerning the world’s papyrus collections,
as well as links to collection websites, many of which include images of papyri.
The APIS (Advanced Papyrological Information System) Project union catalogue
(http://www.columbia.edu/cu/lweb/projects/digital/apis) is another excellent sou-
ence of images. Published papyri (and papyrological corpora, instrumenta, etc.)
should be cited in accordance with Oates and others 2005, which is also a
useful tool for decoding papyrological sigla. The Bibliographie Papyrologique,
a FileMaker database (with annual updates) available for purchase from the
Fondation Égyptologique Reine Élisabeth in Brussels, is an essential research
tool. The standard catalogues of literary texts are Pack 1965 (Greek and Latin
classical texts; cf. the website for the Centre de Documentation de Papyrolo-
gie Littéraire, http://www.ulg.ac.be/facphil/services/cedopal) and van Haelst 1976
(Jewish and Christian texts; being updated by Cornelia Römer, http://www.
ac.uk/GrandLat/research/christianpapyri.htm); the Leuven Database of Ancient
Books (http://ldab.arts.kuleuven.be) covers much the same ground, references
both, and is more convenient. The LDAB (as well as Pack) includes legisla-
tion (Codex Theodosianus, Corpus Iuris Civilis, etc.), while Amelotti and Zingale
1985 collects references to Justinian’s laws in the papyri (and inscriptions). For
Coptic literary texts, see the Corpus dei Manoscritti Copti Letterari (http://cmcl.
let.uniroma1.it).

The corpus of documentary papyri may be searched via the Duke Databank of
Documentary Papyri, currently hosted by the Perseus Project (http://www.perseus.
tufts.edu/cache/perscoll_DDBDP.html), with mirrors at Chicago and Berlin. More
recent editions are not available in searchable form, so one should also consult the
Wörterlisten prepared by the Seminar für Papyrologie at the Universität Heidelberg
(http://www.papy.uni-hd.de/WL/WL.html). Corrections to published document-
tary texts are collected in Preisigke and others 1922–; Clarysse and others 1989
is a concordance of its first seven volumes. Since Greek documentary texts are
inadequately served by the standard lexica (LSJ, Lampe, etc.), one must consult
specialized dictionaries, of which Preisigke, Kiessling, Rupprecht, and others 1925–
is the most important. Crum 1939 is the essential Coptic lexicon, while Förster 2002
is a useful compilation of Coptic documentary texts. Richter 2002 is an excellent reference for the vocabulary and grammar of Coptic legal texts.
For the grammar of Greek documentary papyri, see Gignac 1976–81 and Mandilaras
1973. Turner and Parsons 1987 is a standard reference for the palaeography of Greek
literary texts, while Seider 1967–90 may be consulted for documentary texts; Cavallo
and others 1998 is an excellent source for comparanda of both varieties. A good
handbook of Coptic palaeography is a desideratum. The chronological systems
(consular and regnal dates, indictions, etc.) employed in documentary texts are
thoroughly illuminated in Bagnall and Worp 2004. The indices in Kenyon and
others 1893–1917 are a helpful starting point for abbreviations and symbols.

Bagnall 1993 is an excellent synthesis of Egyptian history from Diocletian until
the fifth century. For the period up to the Islamic Conquest, see the essays in Bagnall
2007, as well as the relevant parts of Wickham 2005. Keenan 2000 is a chapter-length
study (ending in the year 600) that may be recommended; Kaegi 1998 and Wilfong
1998 are also helpful. Older works like Hardy 1931, Johnson and West 1949, and
Rouillard 1928 and 1953 still have value but must be used with caution. Keenan 1993
is a nice point de départ for the historiography of Byzantine Egypt.

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