

Hollow archives: Bullae as a source for understanding administrative structures in the Seleukid Empire.

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Declaration

I, Jennifer Rose Hicks, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

Seal impressions on bullae offer new ways of approaching the local realities of Seleukid administrative and fiscal practice. Previous studies of these objects have focused primarily on the iconography of the impressed seals. However, analysis of the find-spots of bullae, their forms, the sealing protocols employed, the quantities of extant seal impressions, and the interactions that are evidenced by several individuals impressing their seals on a single bulla, enables a range of aspects of royal bureaucracy in Babylonia to be reconstructed.

This study is based on thousands of published and tens of unpublished bullae from several Seleukid sites, and also incorporates a few bullae from elsewhere that are impressed by seals with Seleukid motifs. It demonstrates the importance of groups of men 'on the ground' for the articulation and enforcement of royal power. Routine bureaucracy ensured that taxes were collected and local authority maintained throughout the long periods when the king and court were absent from a region, and even during instances of conflict over the throne. Nonetheless, some of the surviving evidence appears to reflect bureaucratic failings; there were also moments of reform and instances of idiosyncratic behaviour. The bullae suggest that administrative practice was relatively homogeneous across Babylonia, but differed from that known from the Greek cities of western Asia Minor. There are however similarities between Seleukid administration in Babylonia and Ptolemaic administration in Egypt, suggestive of cross-fertilisation between the two Hellenistic powers.

This study is important because scant information survives about the daily realities of Seleukid control from anywhere in the empire, and very little on Seleukid rule in Babylonia. Fully exploiting these initially unpromising sources helps to fill an important gap in our knowledge, and enables broader comparisons of imperial structures between the Seleukid, Ptolemaic and Achaemenid empires.

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Conventions and Abbreviations

1. Conventions

Throughout this work, references to **seals** are bold and underlined, those to **bullae** underlined; designations follow the original publication or (usually where a bulla is unpublished) the museum collection number. The original publication or museum siglum is given prior to the **seal** or **bullae** designation *except for* those from the Archive Building at Seleukeia-Tigris, published in *STISA*, which are cited by their **seal** or **bullae** designation alone. An explanation of the abbreviation systems used in the main publications of Seleukid seals and bullae can be found in Appendix B.

Figures, graphs and tables are numbered with reference to the relevant chapter (e.g. the first table of Chapter 2 is designated Table 2.1). Supplementary tables, containing non-essential information, are included in Appendix G. Their numbering includes 'Supp.-' (e.g. the first supplementary table of Chapter 2 is designated Table Supp.-2.1).

2. Abbreviations

Abbreviations of Classical authors follow the guidelines of the *Oxford Classical Dictionary* (4th ed.),

<http://classics.oxfordre.com/staticfiles/images/ORECLA/OCD.ABBREVIATIONS.pdf>

Abbreviations of papyri and ostraka follow the guidelines of John F. Oates et al, *Checklist of Greek, Latin, Demotic and Coptic Papyri, Ostraca and Tablets*,

<http://scriptorium.lib.duke.edu/papyrus/texts/clist.html>, Month, 200#.

Inscriptions

Austin, *HW*² Austin, M. M. 2006: *The Hellenistic World from Alexander to the Roman Conquest. A Selection of Ancient Sources in Translation*, 2nd ed., Cambridge.

I. Priene Blümel, W. 2014: *Die Inschriften von Priene*. Inschriften griechischer Städte aus Kleinasien Band 69, Bonn.

OGIS Dittenberger, W. 1903-1905: *Orientis Graeci Inscriptiones Selectae: Supplementum Sylloges Inscriptionum Graecarum*, Lipsiae.

RC Welles, C. B. 1934: *Royal Correspondence in the Hellenistic Period: A Study in Greek Epigraphy*, New Haven.

Sardis VII.I Buckler, W. H., and Robinson, D. M. 1932: *Sardis Volume VII, Greek and Latin Inscriptions*, Part I, Leiden.

SEG *Supplementum Epigraphicum Graecum*. Vol. 1, 1923- .

*Syll.*³ Dittenberger, W. 1912-1914. *Sylloge inscriptionum graecarum*, (3rd ed.), Leipzig.

Cuneiform texts

I follow standard practice in using obv. = obverse; rev. = reverse, L.E. = left edge, U.E. = upper edge.

When Babylonian filiations are given, these are expressed as Personal name/Father's name//Clan name.

Transliterations and translations of cuneiform texts are based on those of 'HBTIN: Hellenistic Babylonia: Texts, Images and Names', <http://oracc.museum.upenn.edu/hbtin> (accessed 22-08-2016).

AD Sachs, A., and Hunger, H. 1988, 1989 and 1996: *Astronomical Diaries and Texts from Babylonia*. Vol. I: *Diaries from 652 B.C. to 262 B.C.*, Vol. II: *Diaries from 261 B.C. to 165 B.C.*, and Vol. III: *Diaries from 164 B.C. to 61 B.C.*, Vienna.

BCHP Finkel, I. and van der Spek, R. J.: *Babylonian Chronicles of the Hellenistic Period*, available in a preliminary edition online at <http://www.livius.org/sources/about/mesopotamian-chronicles/> (accessed 23-05-2016).

BiMes 24 Weisberg, D. B. 1991: *The Late Babylonian Texts of the Oriental Institute Collection*. Bibliotheca Mesopotamica 24, Malibu, California.

BRM 1 Clay, A. T. 1912: *Babylonian Records in the Library of J. Pierpont Morgan*. Part I: *Babylonian Business Transaction of the First Millennium B.C.* New York.

BRM 2 Clay, A. T. 1913: *Babylonian records in the library of J. Pierpont Morgan*. Part II: *Legal documents from Erech*, New York.

CM 12 Wallenfels, R. 1998: *Seleucid Archival Texts in the Harvard Semitic Museum*, Groningen.

CT 49 Kennedy, D. A. 1968: *Cuneiform Texts from Babylonian Tablets in the British Museum*. Vol. 49: *Late-Babylonian Texts*. London.

OECT 9 McEwan, G. J. P. 1982: *Texts from Hellenistic Babylonia in the Ashmolean Museum*, Oxford.

YOS 20 Doty, L. T. 2012: *Cuneiform Documents from Hellenistic Uruk*. Yale Oriental Series, Babylonian Texts 20, New Haven.

Sigla

AH	Abu Habbah (Sippar), siglum denoting provenance assigned to some British Museum objects excavated by Hormuzd Rassam.
APM	Object in the Allard Pierson Museum, Amsterdam.
BM	Object in the British Museum, London.
CBS	Object in the University Museum, Philadelphia (Catalogue of the Babylonian Section).
DS	Seal known from impressions excavated at Daskyleion, c.f. Kaptan, D. 2002: <i>The Daskyleion Bullae: Seal Images from the Western Achaemenid Empire</i> , II vols, Leiden.
JK S	Seal known from impressions excavated at Jebel Khalid, c.f. Clarke, G. W. 2002a: 'Four Hellenistic Seal Impressions', in G. W. Clarke and P. J. Connor (eds), <i>Jebel Khalid on the Euphrates. Report on Excavations 1986-1996.</i> , Vol. 1, 4 vols. Sydney, 201-204.
KM	Object in the Kelsey Museum, Ann Arbor.
KVM	Object in the Kalamazoo Valley Museum, Kalamazoo, Michigan.
MLC	Object in the Morgan Library Collection (now in Yale University, New Haven).
MRAH	Object in the Musées Royaux d'Art et d'Histoire, Brussels.
NCBT	Object in the Newell Collection of Babylonian Tablets (now in Yale University, New Haven).
OIM	Object in the Oriental Institute Museum, Chicago.
PFS	Persepolis Fortification Seal, c.f. Garrison, M. B., and Root, M. C. 1998: <i>Persepolis Seal Studies</i> , Leiden.
PFS [NN]*	Inscribed Persepolis Fortification Seal, c.f. Garrison, M. B., and Root, M. C. 1998: <i>Persepolis Seal Studies</i> , Leiden.
Sigill. Aram.	Seal impression attached to an Aramaic document, housed by the Bodleian Library, University of Oxford.
SP	'Sceaux Publics', known from impressions excavated at Delos, c.f. Boussac, M.-F. (ed.) 1992: <i>Les sceaux de Délos / Ta sphragismata tês Délou 1. Sceaux publics, Apollon, Hélios, Artémis, Hécate</i> . <i>Hellénogallikes ereunes = Recherches franco-helléniques 2</i> , Athens.

VAT Object in the Vorderasiatische Abteilung, Berlin.

YBC Object in the Yale Babylonian Collection, New Haven.

Secondary literature

STISA A. Invernizzi (ed.), *Seleucia al Tigri. Le impronte di sigillo dagli Archivi*, Alessandria, 3 vols:

Vol. I. Messina, V., and Mollo, P. 2004: *Sigilli ufficili, ritratti*.

Vol. II. Bollati, A., and Messina, V. 2004: *Divinità*.

Vol. III. Bollati, A., and Messina, V. 2004: *Figure umane, animali, vegetali, oggetti*.

Other abbreviations

Gondrand Box N/N, Bag N Location of bullae held by the Museo Civico d'Arte Antica in the Gondrand warehouse in Turin.

SE Seleukid era.

Chapter 1. Approaching Seleukid administration and taxation

1. Introduction

The Seleukid empire (ca. 312–63 BC)¹ was a powerful state, reaching at its greatest extent from the Aegean to Baktria. Its cities were famed for their size and wealth, it could field armies of tens of thousands of men and it was able to raise the vast sums demanded by Rome as war indemnities in the early second century. However, we get only very occasional and partial glimpses of the administrative and fiscal structures on which this imperial power was based.

Central to this thesis are the seal impressions preserved on small pieces of clay and bitumen which survive from a number of Seleukid sites. I argue that these enigmatic impressions offer new ways of approaching Seleukid administration, useful in particular for understanding the local realities of imperial rule. In order to understand my motivations for focusing on these impressions, and the ways in which we might exploit the possibilities that they offer, it is necessary first to consider the other relevant sources that survive, and the implications for how scholars have approached Seleukid bureaucracy. Therefore, Sections 2 and 3 of this introductory chapter provide a brief overview of these sources, which serves both to underpin their subsequent use in this thesis and to situate the seal impressions within the surviving evidence. I then introduce the main strands to my analysis (Section 4), while Chapter 2 provides an introduction to the challenges of working with the seal impressions, and Chapter 3 introduces the finds site by site.

2. The surviving evidence

There is no extant ancient account of Seleukid administration.² The nearest to this is Book 2 of Pseudo-Aristotle's *Oikonomika*, which describes aspects of governing a large empire, such as the raising of revenue by satraps.³ However, the date of this work is uncertain. Although Aperghis proposes that it describes the early Seleukid empire,⁴ others argue that it reflects the practices of the Achaemenids and, perhaps, Alexander the Great.⁵ This uncertainty makes relying on this description to reconstruct Seleukid administration

¹ All dates are BC, unless they refer to modern excavations. Dates according to the Seleukid Era are followed by the abbreviation 'SE'; on the Seleukid Era, see p. 41.

² Literary narratives, such as Polybios' *Histories*, pay little attention to local bureaucracy, although they do offer some information on economic matters, as is emphasised by Davies 2013.

³ Arist. [*Oec.*] II 1345b-1346a.

⁴ 2004: 130–135.

⁵ Groningen 1933: 37–43; Bickerman 1938: 120; Corsaro 1985: 84; Capdetrey 2007: 398.

problematic, especially if it is then used to assess the relationship of Seleukid practice to the Achaemenid past.

Scholarship has relied heavily on epigraphic texts from western Asia Minor and Syria for reconstructing the enforcement of Seleukid authority at a local level, since few other sources relating to taxation and administration survive.⁶ Many of these record the euergetic dialogue between city and king in the Hellenistic world, in which monarchs sent letters to cities bestowing benefactions and cities responded with honorific decrees.⁷ These were inscribed by the cities for posterity to demonstrate both royal favour and practical privileges. A few communications between officials were also considered important enough to be preserved on stone.⁸ While most inscriptions focus on the activities of members of the elite, some refer to local officials and reveal something of their responsibilities. However, much remains opaque. Many inscriptions record changes, often resulting from the resolution of problems or (re-)conquest of a region, rather than documenting routine practice. Furthermore, cities usually appear as united entities, with their internal complexities hidden, such as by whom and from whom taxes were collected.

The accounts of 1 and 2 Maccabees and Josephus' *Jewish Antiquities* offer glimpses into the practicalities of royal administration within a civic community. These narratives include records of negotiations over taxes and privileges undertaken by Jerusalem in the late third and early second centuries, and incorporate a number of royal letters, similar to those known from inscriptions.⁹ However, the accounts are shaped by the authors' concerns, meaning that their information cannot be accepted uncritically.¹⁰ For example, although it is stated that those seeking to be high priest bid large sums of money to the king, which they then paid over to the Seleukid citadel commander,¹¹ Honigman argues that the king set the amount required, and that payments were not made to military commanders.¹² It is

⁶ Recent discussions of Seleukid taxation and administration centred on epigraphical documents include Ma 2002: esp. 106-242; 2012: 143-149, 153-154; Capdetrey 2004; 2006a; Chandezon 2004: esp. 134-140; Martinez-Sève 2004: esp. 86-99; Schuler 2007: 386-401; Bencivenni 2014.

⁷ For example, correspondence between king and city survives from Teos in Asia Minor, Ma 2002, "Dossier" Nos. 17-19. The nature of this dialogue is discussed by Welles 1934: xxxvii-l; Bencivenni 2014; Ceccarelli 2014: 297-311. Extant correspondence of Seleukid monarchs is listed by Bencivenni 2014: 165-169.

⁸ For example, multiple copies survive of correspondence relating to the appointment of a high priest over the sanctuaries of western Asia Minor, Malay 2004: 407-410; Ma 2002, "Dossier" No. 4. The rarity of such inscriptions is emphasised by Welles 1934: xl. For further examples, see Bencivenni 2014: 150-151, and the discussion of Capdetrey 2006a.

⁹ The authenticity of most of these is accepted, see Habicht 2006a: 108-120.

¹⁰ Stressed by Honigman 2014.

¹¹ 1 Macc. 11:28, 2. Macc. 4:7-10, 2. Macc. 4:24-28.

¹² 2014: 349-350. The bidding is accepted by others, including Capdetrey 2007: 408.

furthermore uncertain to what extent we can extrapolate from practices in Jerusalem, since some seem to be legacies from the city's previous life under Ptolemaic control.

Very few examples of everyday writing survive from the Seleukid empire and thus we know little about the routine paperwork produced by the administration, or the ways in which, for example, administrative practice affected the forms and content of private legal documents. Most texts were written on leather or papyrus and have perished over the intervening centuries. This contrasts with Ptolemaic Egypt, from where large quantities of papyrus documents survive, preserved either in the dry climate or recycled for mummy wrappings. A few Greek leather documents survive from the post-Seleukid East, namely three Hellenistic-era documents from Baktria (one seemingly relating to taxes,¹³ the others recording uncertain transactions)¹⁴ and two Parthian-era land sales from Avroman.¹⁵ These offer some indications of the probable style and language of lost documents for the Seleukid empire. For example, most are written in standard Greek, with handwriting that resembles contemporary examples from Egypt, suggesting a scribal milieu that stretched across the Near East.¹⁶ These documents may also provide hints of Seleukid legal and fiscal practice. The Avroman parchments, for instance, record that considerable fines were payable by a seller to both the buyer and the state if the buyer's claim to the property was disputed, indicating state interest in the transaction.¹⁷

Although no examples survive, it can be shown indirectly that whitened boards were used for public announcements, and wax writing tablets for texts of both short- and long-term significance.¹⁸ Ostraka could be used for brief and ephemeral records, but only a handful of Seleukid examples have been found.¹⁹ By contrast large groups of ostraka, forming coherent archives, are known from Ptolemaic Egypt, many of which record tax payments.²⁰ Inscribed pots detailing payments were found in the Treasury at Ai Khanoum, a Hellenistic foundation

¹³ Rea, Senior, and Hollis 1994: 263, discussed by Bernard and Rapin 1994; Rapin 1996; Aperghis 2004: 282–283.

¹⁴ Clarysse and Thompson 2007.

¹⁵ Minns 1915: 28–32; Rougemont 2012: 151–154.

¹⁶ Rea, Senior, and Hollis 1994: 262; Clarysse and Thompson 2007: 273–274; Minns 1915: 25.

¹⁷ Minns 1915: 54.

¹⁸ Some Hellenistic inscriptions and cuneiform texts refer to writing boards, Ma 2013: 34; Clancier 2011: 763–764. For the wide range of uses of writing tablets in Neo-Babylonian Sippar, see MacGinnis 2002: esp. 220–223.

¹⁹ Oelsner 1986: 250–253. One, recording payments made to a group of men, seemingly relates to local administration, Sherwin-White 1982: 54–61. The function of others, such as a name inscribed on a jar lid, remains ambiguous, Sherwin-White 1983: 209–211. It is possible that excavations overlooked further ostraka, Bagnall 2011: 120–125.

²⁰ Muhs 2005: 132–133; Depauw 1997: 132–134.

in Afghanistan;²¹ once more, these date from after the loss of Seleukid control of the region but hint at earlier practice.

Cuneiform tablets do provide some information on Seleukid administration. Hellenistic-era tablets are known in small quantities from a number of Mesopotamian cities, but in substantial numbers only from Babylon and Uruk. By the late first millennium, most people wrote in Aramaic or Greek on leather. Just a few families associated with the temples still used cuneiform to write scholarly texts, such as incantations and ritual instructions, and certain legal documents, mostly sales of temple prebends and houses.²² Sales of arable land and slaves disappear after the early Seleukid era, and we do not have business archives akin to those known from the Achaemenid era.²³ The only cuneiform document in which a royal official was explicitly involved is the last extant slave sale text from Uruk, dated to 275, which is impressed by a seal captioned ‘the seal impression of the seal of the king’.²⁴ This has led to the suggestion that there was subsequently a prohibition on recording on clay transactions involving royal officials.²⁵ However, a few cuneiform texts from Uruk, including sales and quitclaims concerning temple prebends, state that copies were placed in the *bīt šarri šaṭratti*, the ‘royal house of documents’.²⁶ A text from Babylon, BM 34555, also refers to a royal register in this city.²⁷ Therefore, cuneiform copies of registered transactions could be created, even if a leather version was also required. Nonetheless, it remains the case that most Seleukid-era cuneiform legal documents do not explicitly involve royal officials.

While contemporary political events occasionally feature in Babylonian astronomical diaries and chronicles,²⁸ the parochial concerns of these texts restrict their use in

²¹ Rapin 1992: 95–105.

²² Robson 2007: 80. The temples were not exclusively cuneiform environments, but also employed leather scribes, Clancier 2011: 765. Extant Hellenistic legal and administrative tablets are detailed by Jursa 2005: 73–75, 94–97, 109, 139–140, 147.

²³ Doty 1977: 308–314; van der Spek 1995: 173–174. Although Doty describes the tablets as including ‘family archives’, these are texts he has grouped by prosopography, not family collections of documents.

²⁴ ‘*unqa saumbulu* (σύμβολο(ν)) *ša šarri*’, McEwan 1982. The tablet is BRM 2, 10; the caption was previously discussed by Doty 1979: 19. A reference to a royal seal also occurs in a property sale dating to 164/3, Joannès 2012: 247.

²⁵ Doty 1977: 320–321, 329; Wallenfels 1996: 116.

²⁶ Joannès 2012: esp. 246–250. The royal records office is referred to in BRM 2, 33 obv. 4; the same complex is also described as the ‘building of written documents’, *bīt šaṭāri šaṭratta*, for example in CM 12, 7, obv. 7.

²⁷ This is designated the *mukinnu šarri ša Bābilāya*, seemingly to be understood as the ‘royal register for the Babylonians’, Jursa 2006: 171–172.

²⁸ Hellenistic astronomical diaries are known from Babylon and Uruk, Sachs and Hunger 1988: vol. 1; 1989: vol. 2; 1996: vol. 3; Ossendrijver 2012: 10. The Babylonian Chronicles may stem from Borsippa or Babylon, as discussed by Waerzeggers 2012: 289–294. Although common in Parthian-era examples, very few Seleukid-era astronomical diaries have historical sections, Pirngruber 2013: 200–201; van der Spek 1997: 167. These diaries do however contain considerable information on, for example, weather and prices: on the former, Brown 2002; on the latter, Pirngruber 2014; Hackl and Pirngruber 2015: 118–121; Huijs, Pirngruber, and van Leeuwen 2015: 140–142.

understanding administrative structures. Members of the royal family are normally only mentioned when they are present in Babylonia.²⁹ Other officials who appear are usually very senior individuals, and are often unnamed. For example, it is reported that Antiochos I left his wife in Sardeis with a 'well-known nobleman', *rubû edû*, when he was fighting in the First Syrian War.³⁰ This individual might have been a military commander such as Demodamas, a man from Miletos who was close to the royal family and had fought in the east, or Patrokles, who had fought in Babylonia, but equally could be another individual, known or unknown to us.³¹ When officials do feature, often the only information given is the fact of their appointment, or their (non-)performance of a sacrifice, making understanding their responsibilities difficult.³²

3. The limits of the surviving evidence

The sparsity of surviving evidence means that we are ignorant of many details of Seleukid fiscal and administrative structures. For example, it is clear that there was a network of roads across the empire,³³ suggesting that the Achaemenid royal road network was maintained.³⁴ However, whereas the fiscal and administrative practicalities behind this are well known for the Achaemenid period, including the use of *corvée* labour and military forces to build roads, the obligations of local officials to supply way-stations, and the restrictions on who could access these resources,³⁵ comparable details do not survive from the Seleukid era. Indeed, it is not certain whether labour demands were routinely imposed on local populations.³⁶ A fragmentary early-second century inscription grants an uncertain city in Seleukid Asia Minor exemptions from liturgies, billeting and garrisoning.³⁷ However, the only further possible reference to a Seleukid demand for liturgies occurs in a late-fourth

²⁹ For example, in connection with the *akîtu* festival of 205, AD-204C rev. 14'-L.E. 1.

³⁰ AD-273B rev. 29'.

³¹ Patrokles is suggested by Grainger 2014: 147. It is not certain that either man was alive in 273.

³² For example, in 159 the arrival of the satrap of Babylonia in Babylon from Seleukeia-Tigris is reported, and that an offering did not take place; if the satrap's visit had other purposes, these are not explained (AD-158B rev. 17'-U.E. 1).

³³ Two Seleukid way-markers are known, Stronach 1978: 160–161; Callieri and Bernard 1995: 65–69. Similar, seemingly Attalid, examples have been found in Asia Minor, Thonemann 2003: 95–96; French 1997: 191–195. Parthian-era way-stations appear in the Avroman texts, Minns 1915: 28–32. Pliny also mentions Seleukid *bematistai* (HN 6.63). A Seleukid epigraphical document from Didyma refers to a 'royal road' near Kyzikos (RC 20, l. 17); this has been ploughed-up, suggesting that here the system for maintaining the road network had broken down.

³⁴ See the remarks of Tarn 1938a: 2; Rostovtzeff 1941: 1038–1039; Posner 1972: 128–129 n. 23; Sherwin-White and Kuhrt 1993: 62; Capdetrey 2007: 348–350; Aperghis 2008: 139; Bencivenni 2014: 160; Kosmin 2014: 167–169.

³⁵ Construction of roads: Jursa 2011a: 439. Task of governors: Jursa and Waerzeggers 2009: 242. Obligations on communities: Henkelman 2010: 689–691, 731. The distribution of goods at way-stations to authorised travellers is well known from Persepolis Fortification texts, Hallock 1969: 365–440.

³⁶ As suggested by Ma 2002: 121 and n. 52; Aperghis 2004: 207, 211; Kosmin 2014: 168.

³⁷ Ma 2002, "Dossier", No. 36. On the date, Robert 1964: 19–21; Ma 2002: 353.

or early-third century text from Aigai in Asia Minor, which records the obligations of the settlement to a local grandee.³⁸ These include supplying goods-in-kind, such as a leg of boar from each hunt. In addition to the uncertainty regarding the date, it is unclear whether this – already vague – demand for labour applied also to larger communities, where obligations such as providing boars’ legs are unknown.³⁹ Evidence for the practicalities of military recruitment is similarly sparse.⁴⁰ A later Attalid text from Daldis refers to a reduction in recruitment to a third; it is however unclear whether this refers to the whole population, or only able-bodied males, whether this service was required regardless of military need, and whether demands were similar in Seleukid Asia Minor.⁴¹ This contrasts with our understanding of recruitment in Achaemenid Babylonia, where the land-for-service system for imposing labour obligations and military service can be reconstructed in detail.⁴² Labour obligations also feature in Ptolemaic taxation; for instance, *corvée* labourers were used to build dykes in the Fayum.⁴³ These examples emphasise that many details of Seleukid administrative and fiscal practice are lost to us.

Reconstructing Seleukid administrative structures at a general level is difficult, given that we do not even know for sure whether the entirety of the empire was divided into a series of provinces (or ‘satrapies’), each with a local governor, like the Achaemenid empire.⁴⁴ On the one hand, there are occasional references to regional commanders, such as Molon, described by Polybios as ‘satrap of Media’, and his brother Alexander, said to be ‘satrap of Persia’.⁴⁵ On the other hand, there are hints that the Achaemenid system was altered, particularly in the west of the empire. For instance, Hellenistic-era references to Lydia and Phrygia suggest that they were regarded primarily as geographical, not administrative, units.⁴⁶ Appian speaks of 72 satraps,⁴⁷ and Strabo claims that both Koile Syria and the cities of the Syrian tetrapolis were divided into four satrapies.⁴⁸ These descriptions imply that administrative structures had at some point been reorganised to create far smaller units

³⁸ Malay 1983: 349–350. Malay proposes an early-third century date, 1983: 352, followed by Aperghis 2004: 163. However Descat, on the basis of letter-forms, suggests the late-fourth century, 2003: 161–162.

³⁹ Labour demands do feature in the list of dues owed by villagers to the owner of a royally-granted estate in early-third century Asia Minor, *Sardis* VII, No. 1.

⁴⁰ As is apparent from the discussions of Cohen 1991: 41; Sekunda 1994: 12–19.

⁴¹ Thonemann 2011a: 19–21, 24; Herrmann and Malay 2007: 49–52, 54.

⁴² Jursa and Waerzeggers 2009: 265–266; Jursa 2010: 247–251, 645–659; 2011a: 440–444.

⁴³ Thompson 1999: 107, 112–114. See also Préaux 1939: 395–399; Clarysse and Thompson 2006: vol. 2, 42 n. 43, 49 n. 83; von Reden 2007: 131, 136–138. Ptolemaic labour demands were increasingly commuted into demands for cash, Thompson 2008: 29; Muhs 2011: 127–128.

⁴⁴ As argued by, for example, Sherwin-White and Kuhrt 1993: 42; Boiy 2004: 193; Hannestad 2012: 985.

⁴⁵ 5. 40. 6.

⁴⁶ Grainger 1997: 746, 767.

⁴⁷ *Syr.* 10.62

⁴⁸ 16. 2. 4.

than the large Achaemenid satrapies, at least in some areas.⁴⁹ While some argue that these texts are confused or corrupt,⁵⁰ we may cautiously agree with Ma's observation that 'the whole concept of tidy satrapies, with well-defined frontiers and "satrapal capitals" is open to question'.⁵¹

More than a dozen local military and financial officials are mentioned in the Skythopolis dossier, which records Antiochos III's resolution of a dispute between officials in the southern Levant in the late third and early second centuries.⁵² This implies that, at any moment, several hundred men were involved in the imperial project at a local level and tens at a more senior level. However, very few such individuals can be identified. Only a handful of *philoï* ('Friends', the most senior officials)⁵³ are known for each king, and fewer than a hundred can be identified for the entire Seleukid period.⁵⁴ Ramsey's more general study of Seleukid officials still lists only around 150 men.⁵⁵ On the one hand, this was a personal monarchy, centred on the king, who described the kingdom simply as his *pragmata* ('affairs'), governed it via his Friends, and who personally intervened in local affairs. Recent characterisations of Seleukid administration have stressed the importance that communications with (and within) the upper echelons played in maintaining control.⁵⁶ In this construct, local officials appear to have limited importance.⁵⁷ Yet on the other hand, this was an empire in which local administration seemingly functioned even when the monarch was absent from a region for years. Thus there is an implicit tension between the complex, durable administrative structures required to underpin the vast empire, and the relatively small, unsophisticated personal administration that emerges from much of our evidence, in which everyone seemingly knew everyone else.⁵⁸ While it is acknowledged that the Seleukid bureaucracy may have been as sophisticated as the Ptolemaic,⁵⁹ the practicalities of local

⁴⁹ Capdetrey 2007: 248–249, 274–275, and see also Monson 2015: 193.

⁵⁰ Tarn, for example, argues that Appian means eparchies, 1938a: 2.

⁵¹ 2002: 124.

⁵² *SEG* 29.1613. This dossier has been extensively discussed in the context of Seleukid administration: Taylor 1983: esp. 108–155; Sherwin-White and Kuhrt 1993: 48–50; Aperghis 2004: 269–273; Capdetrey 2006b: 361; Cotton and Wörrle 2007: 198–199; Errington 2008: 197; Ramsey 2009: 213–215.

⁵³ Hierarchies within the *philoï* emerged in the late Seleukid empire, Habicht 2006b: 38–39.

⁵⁴ Savalli-Lestrade 1998: 3–94.

⁵⁵ 2009: 261–280. This problematically includes figures such as the *šatammus* (high priests) of the Esagil temple, although there is no evidence that they were royal appointments.

⁵⁶ Ma 2002: 179–242; Capdetrey 2007: 335–394; Ramsey 2011: 37.

⁵⁷ Note Ma's comment that the 'scanty information on the local officials (*strategoï*, hyparchs), and, in comparison, the frequency of material pertaining to central officials, concentrated at Sardeis...reflects the centralization of cis-Tauric Asia Minor under Antiochos III (this may have been the case under earlier Seleukid rulers as well)', 2002: 140. This interpretation is followed by Thonemann 2013: 11–12.

⁵⁸ As explicitly argued by Ramsey 2009: 50.

⁵⁹ Capdetrey 2006a: 105–106; Austin 2006: 348; Sherwin-White and Kuhrt 1993: 48–50; Taylor 1983: 148–152, 170–171.

administration remain largely unknown, and little attention has been paid to the daily activities of officials 'on the ground'.

The dearth of evidence means that reaching a better understanding of local bureaucracy in the Seleukid empire may seem a hopeless task, doomed to excessive speculation. And yet it is on the level of routine administration that we must hope to understand the ways in which imperial power was embedded in local communities and articulated to, and imposed upon, subject peoples. What is needed is greater contextualisation of the communications that occurred between the upper echelons, minor officials and local communities. Such understanding is moreover essential for placing the Seleukid empire in a broader geographical and historical context, and in mapping the extent to which it inherited or adapted Achaemenid structures, or created new ways of ruling, perhaps with awareness of developments in Ptolemaic Egypt. In turn, this feeds into the debate which has dominated scholarship in previous decades over whether it is appropriate to characterise the Seleukid empire as eastern or western, as strong or weak, and as a fragmented patchwork of diverse regions or a unified state.⁶⁰

4. New approaches: Hollow archives

There is, to the best of my knowledge, no neglected author, no newly-discovered inscription, and no overlooked tablet that offers answers to all the questions raised in the preceding section. However, one under-used source for understanding everyday bureaucracy are the thousands of clay and bitumen bullae from Mesopotamia and the Levant that originally sealed leather documents. The contents of these lost documents can never be fully recovered and the physical seals which were impressed on the bullae are now lost; what we have are, in effect, hollow archives. Nonetheless, the bullae offer a silhouette of the documentation that once existed, and allow us to trace aspects of the activities of several thousand people who lived in the Seleukid empire. Most of these bullae are impressed by anepigraphic seals, whose motifs were chosen by their bearers, but some are impressed by royal tax stamps, seals naming officials and seals with dynastic imagery. Such seals indicate that many of the documents involved royal officials, while documents enclosed by bullae found within royal administrative complexes must have been of interest to the administration. Unlike epigraphic texts, the bullae relate predominantly to routine activities

⁶⁰ Proposing a strong, unified empire adopting Near Eastern practices, for example: Sherwin-White 1987: 28–31; Sherwin-White and Kuhrt 1993: 1, 67–70; Kuhrt 1996: 43; Kuhrt and Sherwin-White 1994a: 453; 1994b: 325–327; van der Spek 1993: 64; Briant 1996: esp. 40–42, 55–61; 2006: 316–317, 319; 2009: 168–170; 2010: 89–100; Aperghis 2004: 263–264; 2008: esp. 145; Capdetrey 2006b: 369–370; 2007: esp. 439–443; 2015: 77–78; Engels 2011: 21. Proposing a weak and fragmented empire, for example: Walbank 1986: 123–125; Chrubasik 2011: 268–279. Alternative interpretations include Ma's 'polycentric empire and wandering ruler', 2002: 7.

that were not worth recording on stone, and so allow us to recognise the usual, rather than unusual, paperwork of the empire. While the bullae do not provide solutions to all – or even most – of the problems outlined above, they can provide far more information for the study of administrative practice than previously acknowledged.

Bullae are known from several Seleukid sites, in varying quantities (Map 1).⁶¹ Around 1,100 come from URUK, an ancient Babylonian city in southern Babylonia; many of these were found in the two main temples, Bīt Reš and Irigal. Three other ancient Babylonian cities, BABYLON, NIPPUR and LARSA, have yielded a few bullae each. Around 150 bullae were found in SELEUKEIA-TIGRIS – the Greek royal city founded in northern Babylonia by Seleukos I – in two groups ('Archive A' and 'B') within a residential insula, 'BLOCK G6'. These numbers are dwarfed by the approximately 25,000 bullae found in a large complex in the city, known as the 'ARCHIVE BUILDING'. Around 2,000 bullae were uncovered at TEL KEDESH, in northern Israel, in a 'Persian-Hellenistic Administrative Building'. At JEBEL KHALID, a small, heavily-fortified settlement in northern Syria, four specimens were found, three of which were in the 'Governor's Palace'. Additionally, seals naming Seleukid monarchs and with Seleukid symbols appear on a few bullae from a large hoard discovered in a Hellenistic house on DELOS, and possibly on bullae from a group from KALLIPOLIS in Aetolia (Map 2). These latter finds demonstrate that the network of Seleukid officials did not abruptly halt at the edge of the empire.

The bullae come from regions which have not yielded many epigraphic texts, yet do not relate to entirely foreign environments. Cuneiform tablets have been found at several of the sites from which bullae are known, and at least some of the bullae originate from the world of officialdom known from epigraphic dossiers. Consequently the bullae should not be treated in isolation, but must be fitted into the broader picture.

Previous studies have focused primarily on the iconography of the impressed seals.⁶² When discussing them in relation to administration, there has been a tendency only to list the taxes and officials named. However, the bullae offer more extensive information about the practicalities of local control, in particular because, as will be shown,⁶³ some users of anepigraphic seals acted as royal officials. The bullae therefore enable us to explore the extent of local administration, to understand individuals' roles, to assess instances of unusual behaviour, and to trace developments of procedures. Through the bullae, officials and their paperwork can also be located within a broader social context. Many of the bullae

⁶¹ Discussed further, Chapter 3.

⁶² See p. 66.

⁶³ See p. 55.

and seals relate to private individuals, who at times came into contact with officialdom. Mutual influences between local communities and the royal administration can be seen in decisions made regarding sealing practices and archival habits.

The bullae suggest, at first sight, a faceless bureaucracy involving a considerable number of individuals involved in the routine extraction of wealth, as evidenced by the thousands of bullae impressed by royal tax stamps. Little room seems afforded for negotiations between local settlements and the upper echelons. Yet the bullae do record the existence of privilege. Certain tax stamps include the designation *atelōn*, 'of the tax-free ones', indicating the existence of favoured groups, and bearers of some seals can be shown to have occupied influential administrative positions. Consequently the bullae offer a window through which the notions of personal administration at the highest level and anonymous exploitation on the ground can be brought together, and allow us to explore the daily realities of Seleukid control for those who participated in their administration, and those who lived within their empire.

The investigation of the bullae as evidence for administration is possible only after the recent publications of finds from Seleukeia-Tigris and Uruk. This study is based primarily on such catalogues. I have however examined those bullae from Block G6 at Seleukeia-Tigris that are held by the Kelsey Museum, Ann Arbor; almost 7,000 (original and casts of) bullae from the Archive Building at Seleukeia-Tigris that are housed by the Museo Civico d'Arte Antica, Turin; and those bullae from Victorian excavations in Babylonia that are in the British Museum. I also draw on unpublished excavation journals, reports and records (in particular, the *Seleucia Excavation Records*, Figure 1.1)⁶⁴ from the University of Michigan excavations at Seleukeia-Tigris, now housed by the Kelsey Museum, especially when discussing the discovery of bullae in Chapter 6.

While the aim of my thesis is to improve our understanding of Seleukid administration by means of the under-explored evidence of the bullae, it also offers a new way of approaching the bullae themselves. The bullae have been regarded primarily as a vehicle for seal

⁶⁴ These are bound volumes of typed sheets which give an object's field number, date of discovery, provenance, a brief description, and note whether the object was retained by the Baghdad Museum or the excavation. Changes in formatting indicate that the volumes were typed at different times. It is likely that they were created in the immediate aftermath of each excavation, firstly because they note the division of finds, and secondly because descriptions of objects indicate that some study had occurred. The records of field number, date and find-spot differ occasionally from those given in the excavation journals kept by Waterman, indicating that several records were kept in the field. It is probable that the *Seleucia Excavation Records* are primarily based on the field registry, kept on 'printed loose-leaf forms', mentioned by Debevoise, 1934: 10.

Similar records created by the contemporary University of Michigan excavations at Karanis are discussed by Wilfong 2014.

impressions; where sealing practice has been explored, this has been in relation to bullae from a single site only. Here, forms of bullae and sealing protocols from several sites are considered as a way of understanding expected norms (Chapter 5), and find-spots of bullae are examined as evidence for archival practice (Chapter 6). Thus the bullae emerge as objects of interest in their own right. The quantities of bullae make it necessary to apply statistical methods to enable identification of patterns (in particular, Chapters 4 and 6). When such methods were previously adopted, only small quantities of bullae were analysed, and there was a reluctance to treat the surviving material as a sample of a far larger original. I show that overarching trends offer meaningful information, but that focusing on a handful of bullae, or assuming that extant bullae represent an entire archive, can distort our understanding considerably. Consequently, new insights are gained into ways of approaching this material.

The iconography of the impressed seals is not a focus of my work, since there were no strong links between the iconography of anepigraphic seals and the roles of their bearers.⁶⁵ I therefore usually refer to seals by reference to their primary publication, without discussion of the iconography. Appendix A however provides an image and a summary of the find-spot(s) of impressions for seals that feature prominently in my discussion. Appendix B explains the abbreviations used in the main publications of Seleukid seals and bullae; an important abbreviation is that a seal beginning with the code 'Alk' is a salt tax stamp.

In this thesis it will be shown that Seleukid power was underpinned by routine administration, involving substantial numbers of men operating at a local level to collect taxes, register documents and maintain order. These individuals came into contact on occasion with the upper echelons, but in general went about their business unaffected by wider political and military happenings. Nonetheless the iconography of the tax stamps, in particular, ensured that they were aware that they were participating in an imperial project. The fiscal and administrative practices recorded by the bullae differ significantly from those known in western Asia Minor, indicating that the Seleukids did not impose a one-size-fits-all administrative model. Some regional similarities between the cities in Babylonia are apparent, for example in the use of seals with royal symbols, but there are divergences, including in sealing protocols. These suggest that local officials were influential in the development of aspects of administrative practice. The administrative structures in Babylonia demonstrate some Achaemenid inheritance, but suggest a significant level of reform. Some of these changes appear similar to better-known Ptolemaic practices,

⁶⁵ Discussed p. 124.

suggesting that such developments did not occur in isolation but as a result of mutual awareness between these two Hellenistic powers.

5. Outline of Chapters

Chapter 2 provides a framework for understanding bullae and seals. Methods of sealing a document are introduced, as well as the types of seals in use in the Seleukid empire. I also discuss the challenges in using bullae and seal impressions for reconstructing administrative practices, and examine whether ‘personal’ and ‘official’ are meaningful categorisations of seals. Chapter 3 introduces the bullae site by site. I additionally consider how the ways in which we approach the bullae, through their excavation, publication and afterlife as museum objects, affect our interpretations.

The bullae allow us to trace (certain) interactions of a large number of individuals, including individuals with official responsibilities, outsiders to the administration who came into contact with officials, and private dealings of individuals, as well as some activities of Seleukid officials in the wider Hellenistic world. In Chapter 4 I examine the activities of a range of individuals, and reflect on the possible nature of the lost documents. I also explore whether seal motifs can be linked to particular roles.

The bullae themselves form the focus of Chapter 5, which investigates how the materiality of the lost documents provides a means of understanding the concerns of local officials. Differences in the habits of document creation within the administration, and at various sites, are analysed, for example with regard to the quality of materials used and the application of seal impressions. This allows us to recognise some of the connotations of these choices and to trace developments in administrative protocols. In Chapter 6, after consideration of the appropriateness of referring to the finds of bullae as ‘archives’, I discuss the storage and use of documents by the administration as another way of approaching the local practicalities of Seleukid rule. The various narratives surrounding the ends of the archives are also explored here.

Chapter 7 focuses on the fiscal and administrative practices behind the bullae. I consider the extent to which it is possible to understand the nature of tax demands and the roles of individuals, and to trace developments in local practices. I then compare the administrative practices recorded by bullae with those known from other types of evidence. This enables the geographical and temporal homogeneity, or otherwise, of these practices to be questioned, as well as the relative importance of Achaemenid inheritances, and interactions with Ptolemaic Egypt. The concluding Chapter 8 addresses further possible areas of research regarding the bullae.

The practicalities of using databases to interpret this material are discussed in Appendix C; the databases themselves are available on the enclosed CD. Other Appendices provide further supporting information on the bullae and seals, with a focus on unpublished material.

Chapter 2. Bullae and Seals

1. Introduction

In order to work with Seleukid bullae and seals, one needs first to understand the practicalities of using pieces of clay to seal documents, and the types of seals that were in use. It is also necessary to be aware of the modern terminology used to describe bullae and seals, which is specific but not standardised and which often, implicitly or explicitly, conveys assumptions that may not always be appropriate. There are additionally a number of difficulties that need to be borne in mind when working with such material; for example, there is not necessarily a one-to-one correspondence between bullae and (lost) documents.

Sealing was a ubiquitous technology throughout the ancient world, and Seleukid bullae are one small part of a much larger practice of sealing documents and other objects. Stamped clay balls, which appear to have been attached to a commodity via string, are known from c. 5000 in Mesopotamia. In the fourth millennium elaborately-designed cylinder seals emerged, which were impressed on clay tablets.⁶⁶ Over the next three millennia glyptic fashions came and went and sealing protocols altered, but the basic technology of impressing an object to create a design in a soft surface remained the same. While very early sealed objects (and much later specimens, for instance from the Byzantine and Sassanian empires) have limited relevance for the interpretation of Seleukid finds, Achaemenid, Hellenistic and Parthian bullae that sealed documents can provide useful insights for understanding Seleukid bullae.

This chapter therefore offers an interpretive framework for bullae and seals, and provides contextualisation for the Seleukid material.

2. An introduction to bullae

i. The nature of bullae

A wide variety of terms have been used to designate lumps of mud, clay or bitumen used to seal leather and papyrus documents, including ‘sealings’, ‘cretulae’, ‘bullae’, ‘impressions’, ‘seals’, ‘tags’ and ‘labels’.⁶⁷ This in part reflects their diverse forms, but is also due to the fact

⁶⁶ Collon 1997a: 11–12; Woods 2012: 3–7.

⁶⁷ ‘Sealings’: for example, Murray 1907; McDowell 1935; Hopkins 1972; Plantzos 1999; Lesperance 2010; Messina 2014. ‘Cretulae’: for example, Valtz 1990; Mollo 1996; Wallenfels 2000: 333; 2015: 58. Vandorpe uses this term to refer only to irregular specimens, used to seal containers, 2005: 165–175. ‘Bullae’: for example, Invernizzi 1968a; Avigad 1976; Fleischer 1996; Kaptan 2002: vol. I. This term has been used to refer specifically to specimens with a ‘napkin-ring’ form, for example Rostovtzeff 1932; McDowell 1935; Messina 2014. ‘Impressions’: for example, Milne 1916; Plantzos 1996; Leith 1997. ‘Seals’: for example Rostovtzeff 1932: 10–11; Vandorpe 1995; 2014. ‘Tags’ or ‘labels’: for example, Schmidt 1939: 33–34; 1957: 4–7; Root 1996: 15. A variety of terms is found in other languages, as discussed by Boussac 1992: xii.

that, although many such objects are known, their study is not a well-defined branch of scholarship in contrast to, for example, numismatics. Here, the term 'bulla' will be adopted. This is not an unproblematic choice, since the objects do not closely resemble in form or function either later Roman or papal bullae, or the clay 'envelopes' from third millennium Mesopotamia also known as bullae. Nevertheless, the term serves to emphasise the distinctions between seals, impressions of seals, and the objects on which impressions occur.

One method of securing a document employed in Hellenistic Mesopotamia was with a 'napkin-ring' bulla. Here, the document was rolled, or folded, into a packet, and wrapped with cord. A strip of clay (or bitumen) was placed over the cord and joined to create a clay ring, resembling in form a modern napkin-ring. Seals were impressed into the outer surface of this ring (Figure 2.1). The resulting piece of clay was usually around 2-5 cm in diameter.⁶⁸ Once the clay dried, the document could not be removed without breaking the bulla.⁶⁹ A second method that was used across the Hellenistic world involved similarly tying the document, but then simply flattening a clay (or bitumen) ball over one point of the cord, before impressing seals into the outer surface (Figure 2.2). Such bullae are usually smaller than napkin-ring specimens, at around 2-3 cm in length.⁷⁰ A range of terms have been applied to the resulting form, including 'convex' bullae, 'appended sealings', 'medallions', 'clay tags' and 'flat sealings'.⁷¹ Although 'sealing' is the most common term, I refer to these as 'flat' bullae in order to stress their similarity in function to those with a napkin-ring form, but different shape.⁷² Again, the enclosed text could not be accessed without cutting the string or breaking the bulla (or both).⁷³

Within the two broad categories of flat and napkin-ring bullae, sizes and shapes vary considerably. For example, the flat bulla S-7368 measures only 1.5 cm in length, while S-9335 measures approximately 4.5 cm (Figure 2.3). A notable sub-category of flat bullae are 'convex' examples, which have a flat or concave obverse, convex reverse, and are impressed by a single seal (Figure 2.4).⁷⁴ The size and form of a bulla affected the number of seals that could be impressed. The smaller surface area of a flat bulla means that it could be impressed

⁶⁸ Wallenfels 1996: 114.

⁶⁹ Invernizzi 2003: 304; Lindström 2003: 7, contra McDowell 1935: 2.

⁷⁰ Wallenfels 1996: 115.

⁷¹ 'Convex': for example, Kaptan 2002: vol. I, 13. 'Appended': for example, McDowell 1935: 1-3. 'Medallions': Rostovtzeff 1932: 8, who also refers to these objects as 'clay seals', 1932: 16. 'Tags': Wallenfels 1994: 1-3; 1996: 114-115; 2015: 58. 'Flat': Messina 2012: 124; 2014: 126.

⁷² Since napkin-ring bullae are known only from Seleukid contexts, there is not the same need to distinguish between the two forms elsewhere.

⁷³ McDowell believed that napkin-ring and flat bullae were attached to the same document, with the former serving as a label, 1935: 4. However, there is no evidence that seal impressions functioned as labels and, in general, different seals appear on flat and napkin-ring bullae, indicating that they sealed separate documents, Brown 1938: 608-609.

⁷⁴ Discussed further, p. 147.

only a few times, usually by between one and three seals (Figures 2.5-2.6). Meanwhile, between eight and ten seals are often impressed on the larger surface area of a napkin-ring bulla (Figure 2.7), although examples are known with as few as two and as many as 40.⁷⁵ The number of impressions per bulla also differs according to local practice. Flat bullae from some sites, such as Seleukeia-Tigris, are regularly impressed by several seals, but those from others, including Jebel Khalid and Kedesh, bear only a single impression.

Texts are not usually incised or painted on Seleukid bullae.⁷⁶ This contrasts with Neo-Assyrian container bullae, on which comments about the sealed goods were frequently written.⁷⁷ Seleukid bullae therefore offer the modern observer no additional information about the enclosed text or impressed seals.

The reverse of a napkin-ring or flat bulla is usually marked by the surface of a document, be that the fibres of papyrus or pores of leather (Figures 2.8-2.10), and is typically crossed by grooves made by the cords that bound the document. Holes at the edge of a bulla mark the paths of further internal cords, which were entirely surrounded by the clay. Other objects, including doors, bags and writing boards, could also be secured by a lump of clay or bitumen pressed over cords.⁷⁸ Such a bulla could be pressed directly against the object, meaning that its reverse surface shows traces of the sealed object (such as sacking or wood), or could hang loosely from the cord, leaving the reverse surface unmarked and irregular. It is possible that documents were also sealed using a bulla attached to a cord that dangled free (Figure 2.11).⁷⁹ Therefore bullae with unmarked reverse surfaces may have sealed documents or other objects.⁸⁰ However, no term is consistently used to distinguish such bullae from those which certainly sealed documents.⁸¹ Consequently it is not only difficult to reconstruct their ancient use, but also to identify them in modern publications.

Sealing a document as described previously both authenticated and enclosed the text. A document could also be authenticated, but not enclosed, by a seal impression. In Roman

⁷⁵ Two impressions: see p. 143. 40 impressions: Wallenfels 1996: 114; 2000: 336, referring to YBC 3088 and Clay 1923: 53 and Plate VI, referring to MLC 2634.

⁷⁶ On one, a cuneiform inscription names the scribe, Lindström 2003: 130, No. 341, published by Sarkisian 1974: 35, No. 18 (=VAT 16486). An illegible cuneiform text appears on Lindström 2003, No. 391.

⁷⁷ Radner 2008: 484–485.

⁷⁸ Vandorpe 2005; Radner 2008: 482.

⁷⁹ Rostovtzeff 1932: 16–17; Wallenfels 1994: 1–2; 1996: 114–115; Mollo 1997: 94; Messina 2014: 126.

⁸⁰ A mix of bullae that sealed documents and other objects (demonstrated by the reverse impressions of, for example, wood) was found in the Persepolis Treasury (Schmidt 1957: 5–6), Achaemenid Daskyleion (Kaptan 1996: 86) and at the Greco-Roman site of Karanis in the Fayum (Milne 1906: 32).

⁸¹ For example, Wallenfels terms both ‘clay tags’, although he notes that pieces of clay with ‘solid, often lumped, forms’ that may have sealed documents or containers might better be termed ‘cretulae’, 2000: 333. Rostovtzeff occasionally distinguishes those that hung free as ‘appended sealings’ 1932: 17. By contrast, McDowell adopts ‘appended’ to refer to flat bullae, regardless of their reverse impression, 1935: 2–4.

Egypt a document could be marked by an ink stamp, or by impressing a seal into a lump of clay pushed against the papyrus.⁸² A bulla which was attached via a 'toggle' arrangement, seemingly to allow repeated consultation of the text, survives from Achaemenid Egypt (Figure 2.12),⁸³ and Sassanian bullae could be attached to the top of a document with laces (Figure 2.13).⁸⁴ Neither bullae with unusual string arrangements, nor specimens that were pushed against documents, are known from the Seleukid empire. If inked impressions were used, they have vanished with the document. However, given that this practice emerged only in late Ptolemaic Egypt,⁸⁵ it is unlikely that it was current in the Seleukid empire in the third and early second centuries. Therefore it is probable that Seleukid bullae both authenticated and secured documents.

It is however possible that flat bullae did not prevent access to a document's contents entirely, since they may have sealed 'double documents'. On a double document the text was written twice. The upper 'interior' version was then sealed by folding this part of the document, passing cords through perforations made between the two texts, and placing bullae over these cords (Figure 2.14). The interior version could not be accessed without cutting the string, while the exterior version remained open for consultation. Such double documents are known from Ptolemaic Egypt,⁸⁶ as well as from Parthian Avroman and Dura-Europos,⁸⁷ places previously under Seleukid control. There are no significant differences in form between bullae that sealed double documents and those that sealed single-version documents.⁸⁸ Imprints of leather are not found on the upper surfaces of Seleukid bullae, which Invernizzi argues would be present if an exterior version had been wrapped around the interior version and its bullae.⁸⁹ But in fact Ptolemaic examples where the papyrus and bulla(e) survive demonstrate that the outer document did not always leave a clear imprint on the clay (Figure 2.15).⁹⁰ It is therefore possible that Seleukid flat bullae sealed double documents.⁹¹

⁸² Vandorpe 1996: 251; 2014: 147–148.

⁸³ Allen 2013: 30.

⁸⁴ Gyselen 2007: 23.

⁸⁵ Vandorpe 1996: 251–255.

⁸⁶ Vandorpe 1996: 232–240.

⁸⁷ Minns 1915: 22–36; Welles 1959: 14; Gascou 2009: 482.

⁸⁸ Messina's argument that flat bullae would only have a concave reverse surface (a 'saddle-back' form) if they were associated with double documents is illogical; 2014: 126–127, previously advanced by Invernizzi, Negro Ponzi Mancini, and Valtz 1985: 93. Similarly, there is no reason to assume that all bullae with a convex reverse were associated with documents where the lower sheet wrapped around the sealed section, contra McDowell 1935: 3–4.

⁸⁹ 2003: 305–306.

⁹⁰ See Pestman 1993: 326–327.

⁹¹ That at least some flat bullae sealed double documents is argued by Mollo 1996: 150; Messina 2014: 126–127.

ii. Seleukid bullae in context

Achaemenid and Hellenistic bullae can provide useful comparisons for interpreting the Seleukid material, and for identifying noteworthy features. Achaemenid bullae are known from several sites, notably PERSEPOLIS in Fars,⁹² DASKYLEION in Asia Minor⁹³ and WADI DALIYEH in the Levant (Map 3).⁹⁴ Hellenistic bullae are known from around the Mediterranean, including from CARTHAGE, DELOS, NEA PAPHOS in Cyprus, SELINUS in Sicily, EDFU and ELEPHANTINE in Egypt, and THESPROTIA and KALLIPOLIS in Greece (Map 4).⁹⁵

The most striking difference between Seleukid bullae and those from elsewhere is that, while flat bullae are common throughout the Hellenistic world and are attested in the pre-Hellenistic Near East, napkin-ring bullae are a Seleukid phenomenon.⁹⁶ Flat bullae do not have a standardised form, but are typically small rounds of clay, like most Seleukid specimens. Variation in whether one or several seals are impressed on a bulla occurs elsewhere, and, as at Seleukid sites, is in part determined by local norms. For example, the overwhelming majority of those from Ptolemaic Edfu and the Achaemenid Levant have only one impression,⁹⁷ while bullae with several impressions are found at Persepolis, Delos and Selinus.⁹⁸ Another common feature of Achaemenid and Hellenistic bullae is the lack of incised or inked comments.

Although a few sealed documents survive,⁹⁹ most finds are of bullae alone. The scale of the Seleukid caches is in accordance with finds from elsewhere. Although the many thousands of bullae discovered in the Archive Building at Seleukeia-Tigris are currently the largest

⁹² Mountain Fortification at Persepolis: Razmjou 2008: 57. Persepolis Treasury: Schmidt 1957: 5–6; Garrison and Root 1998: 3. It is uncertain which Treasury bullae sealed documents. Cameron says that some contained the remains of documents, 1948: 28. Henkelman observes that others are similar to the anepigraphic tablets known from the Persepolis Fortification archive, 2008: 83, n.187. It is also unclear whether bullae which sealed documents were found in the Fortification wall. Schmidt implies that this is the case (1957: 6), as Garrison and Root note (2001: vol. I, 29, n. 85), and they refer to uninscribed clay tags ‘probably labeling Aramaic documents on perishable material’ (1998: 1). Henkelman however considers all 4,000–5,000 sealed but uninscribed objects from the Fortification Wall to be anepigraphic tablets, 2008: 98, 154–159. Achaemenid-era sealed ‘tags’ that were not associated with documents are also known, Henkelman, Jones, and Stolper 2004: esp. 7, 48–52.

⁹³ Kaptan 1996: 85–86; 2002: vol. I; 2002: vol. II.

⁹⁴ Leith 1997.

⁹⁵ Overviews of these finds are given by Plantzos 1999: 23–32; Lesperance 2010: 30–59; Coqueugniot 2013: 69–150. Coqueugniot catalogues archives and libraries, not all of which contained bullae, whereas the former authors focus on sealed objects.

⁹⁶ Rostovtzeff 1932: 11; Plantzos 1999: 31. Greenfield states that napkin-ring bullae are known from Persepolis (1985: 704). However, this seems to derive from a misunderstanding of Cameron’s comment that objects ‘very similar’ to the bullae from Uruk were found at Persepolis (1948: 27–28), since Schmidt does not mention napkin-ring bullae when describing those found at the Persepolis Treasury (1957: 5–6).

⁹⁷ Edfu: Milne 1906; Murray 1907. Levant: Leith 1997: 18; Avigad 1976: 3.

⁹⁸ As summarised by Lesperance 2010: 64.

⁹⁹ Such as those noted above, p. 33. Other examples include one document from Achaemenid Baktria, Naveh and Shaked 2012: 187–191.

group published,¹⁰⁰ approximately 15-16,000 bullae come from Delos, and around 8,000 Hellenistic-era bullae from the Armenian capital of Artashat,¹⁰¹ while more than 140,000 Roman-era specimens were found at Zeugma, in Kommagene.¹⁰² The hundreds of bullae discovered in Block G6 at Seleukeia-Tigris or in the temples at Uruk are comparable, in terms of quantity, to the 647 bullae from Edfu, or the 406 bullae discovered at Daskyleion, while the handfuls known from Babylon and Nippur are akin to the specimen from Achaemenid Susa.¹⁰³

Likewise, the contexts of the Seleukid finds are paralleled elsewhere. Achaemenid bullae from Daskyleion and Persepolis were found in imperial administrative complexes, reminiscent of the Governor's Palace at Jebel Khalid. Other Hellenistic finds come from a variety of contexts. For instance, the bullae from Cyrene were found in a large civic building, and those from Carthage and Selinus in temples, as at Uruk. The Hellenistic caches from Delos, Thesprotia and Kallipolis were found in what appear to be private houses, as were Archives A and B from Seleukeia-Tigris. Some bullae were found in secondary contexts or are unprovenanced. For example, the bullae from Nea Paphos were found reused as fill under the floor of a Roman house, while the Edfu hoard was acquired on the antiquities market, like many bullae from Uruk.

Similar find-spots are not a guarantee that the associated archives had similar concerns. For instance, the bullae from the house on Delos seem to relate to private business dealings, while those from houses at Thesprotia and Kallipolis include impressions of seals relating to other cities, suggesting that these archives included official correspondence. While the size of the buildings in which the bullae from the Archive Building at Seleukeia-Tigris and Kedesh were found might suggest that they housed administrative archives akin to the Persepolis and Daskyleion finds, it is also possible that they were places where local citizens could, or had to, register documents, equivalent to the *bīt šarri šaṭratti* at Uruk.¹⁰⁴ Understanding the nature of an archive therefore requires consideration not only of the archaeological context, but also of the impressed seals themselves and the relationships between seal-bearers.

To conclude, while napkin-ring bullae represent an unusual Seleukid phenomenon, the form of flat bullae, and the quantities and locations in which Seleukid specimens were found fit comfortably into the broader ancient picture. Beyond emphasising that the Seleukid bullae are a largely typical part of a widespread practice, these similarities mean that Achaemenid

¹⁰⁰ Many finds are not fully published, a reflection of the difficulties presented by the volume of objects and the challenges of identifying seal impressions, issues discussed pp. 66 and 59.

¹⁰¹ Khachatrian 1996: 365–366.

¹⁰² Boussac 1993: 678; Herbert 2013: 210.

¹⁰³ Ghirshman 1954: 35.

¹⁰⁴ For which, see p. 20.

and other Hellenistic bullae can provide useful points of comparison for the Seleukid evidence.

3. An introduction to seals

i. Seals and their bearers

Seals had a wide range of functions.¹⁰⁵ As well as authenticating and securing a document, or locking a door or container, a seal could signify status and could serve as identification, to authorise actions such as delivery of a message or access to provisions. Seals were often worn as jewellery and could act as amulets. Frequently the use of a seal performed several functions simultaneously; thus a seal could be worn for its aesthetic qualities and used to seal a document to prevent tampering, and its impression then identify the bearer of that document as having the right to receive rations.

This multiplicity of uses is reflected in references to seals, sealed objects and sealing practices by ancient authors.¹⁰⁶ Seals used by prominent individuals feature in literary texts as signifiers of power and ideology. The emperor Augustus is said to have used first a seal with the motif of a sphinx, then one with Alexander the Great's portrait, and finally his own portrait,¹⁰⁷ while Seleukos I's seal reportedly depicted an anchor.¹⁰⁸ Tales of gifts of seals intended to designate a successor, most famously in the report that Alexander the Great gave Perdikkas his seal, are similarly concerned with the ability of seals to mark authority and trust.¹⁰⁹ Other anecdotes concern the sealing of documents. For example, Tacitus reports that Lucan's seal was used to falsify a letter after his death, and that Petronius destroyed his to prevent such forgeries.¹¹⁰ Seals as aesthetically pleasing, and as objects carved from scientifically-interesting gemstones, form the focus of Theophrastos' *De Lapidibus*, and Pliny's *Natural History*, Book 37, as well as Poseidippos' *Lithika* epigrams. References to seals and sealed letters also occur in epigraphic documents. For example, in an enigmatic letter from Pessinous, probably written by Attalos II, the author speaks of opening and resealing a letter,¹¹¹ while Philip V sent his *philos* Kallias to Nisyros with letters and the king's seal in order to signal Kallias' authority to deliver a message.¹¹² Such references give some indications of the uses and connotations of seals among the elite.

¹⁰⁵ Collon 1997b: 9; 2005: 113; Plantzos 1999: 18–22; Dusingberre 2005: xiii; Kaptan 2013: 28.

¹⁰⁶ On literary references to seals, Plantzos 1999: esp. 7–11, 18–22.

¹⁰⁷ Plin. *HN* 37.4, Suet. *Aug.* 50.

¹⁰⁸ *App. Syr.* 56. The significance of the motif has been variously interpreted; Antela Bernárdez 2009: 605–606.

¹⁰⁹ *Curt.* 10.6.4–5.

¹¹⁰ *Ann.* 16.17, 16.19.

¹¹¹ *RC* 60.

¹¹² *Syll.*³ 572.

However, for the routine use of seals within the administration and by ordinary individuals we must look to the evidence offered by impressions of seals.

Few actual seals have been recovered from stratified contexts by archaeological excavations, although exceptions include an engraved gem, set in a ring, discovered at Jebel Khalid.¹¹³ While many seals used within the Seleukid empire may be hidden among the unprovenanced Hellenistic gemstones in museum collections, only those bearing portraits recognisable as Seleukid monarchs can be identified as such. Our knowledge of Seleukid glyptics therefore comes almost exclusively from impressions on bullae.

Seals were cut in intaglio, so as to create a relief image when impressed. Impressions demonstrate considerable variation in motifs. Common designs include portraits, deities, and animals. There are also seals whose symbols are similar to the designs of coins, and others that depict monarchs. Legends on some seals refer to officials, cities or taxes. Although a range of types of seals is attested elsewhere in the Hellenistic world, tax stamps seem to be a Seleukid innovation, and seals naming specific officials are unusual. There are also seal types that do not occur among impressions on Seleukid bullae. For example, seals of military groups, religious organisations and family firms, known from the Roman world,¹¹⁴ either do not occur, or cannot be identified, among Seleukid impressions. Therefore seals used within the Seleukid empire have some noteworthy features but are, like the bullae, a part of a far wider practice.

ii. 'Figurative' seals

Motifs such as deities, portraits, flora and fauna and objects (such as masks and tripods) appear to have been chosen by their bearers. Although these seals are usually referred to as 'private' or 'personal' seals,¹¹⁵ the more neutral term 'figurative' will be employed here.¹¹⁶ Such seals, as elsewhere in the Hellenistic world, are usually stamp seals with an oval or almond shape and a convex or flat surface, typically made from engraved metal rings or gemstones set in rings, the settings of which are sometimes visible in impressions (Figure 2.16).¹¹⁷ These contrast with the scarabs and scaraboids that had been popular previously in the Greek world,¹¹⁸ and traditional Mesopotamian cylinder seals.¹¹⁹ The disappearance of cylinder seals might be connected with changes in iconography, or with the different shapes

¹¹³ Jackson 2004: 34–41.

¹¹⁴ Henig 1997: 97.

¹¹⁵ For example, Wallenfels 1996: 115; 2000: 337–340; Lindström 2003: 15; Lesperance 2010: 52–56.

¹¹⁶ This term is used by Messina 2014: 127. Invernizzi on occasion adopts the similar 'figured', 1995: 39.

¹¹⁷ For detailed discussion of seal types, Lindström 2003: 16–17.

¹¹⁸ Boardman 1968: 13–18; 1975: 12–19; 2001: 189–193; Spier 1989: 21.

¹¹⁹ Collon 2005. A few cylinder seals are impressed on Seleukid-era bullae, including **SC 18**. Invernizzi 1995: 42–46. A cylinder seal was also discovered at Jebel Khalid, Jackson 2004: 41–45.

of the surfaces now available for sealing, given the move from tablets to bullae;¹²⁰ it could also indicate concern for the legibility of impressions, sometimes a problem with shallowly-impressed cylinder seals.¹²¹

The size and quality of figurative seals vary;¹²² a few are larger than 2 cm in height and width,¹²³ others only around 1 cm in height and width.¹²⁴ Some seals have detailed naturalistic portraits, usually of men, while other devices are more schematic (Figures 2.17-2.18). Both Greek and Mesopotamian influences are seen in seal motifs.¹²⁵ While metal finger rings bear motifs of both Greek and Mesopotamian styles, engraved gems are associated with Greek designs. This may reflect the wealth of those purchasing seals of different styles, rather than an artistic preference for creating Greek designs on gemstones.¹²⁶ Achaemenid court-style motifs disappear in the early Hellenistic age, perhaps indicating that they were no longer felt to be suitable.¹²⁷ Later in the Hellenistic era, zodiacal devices became very popular at Uruk and a conscious archaism is often seen in Mesopotamian motifs.¹²⁸ Local influences are – unsurprisingly – seen; impressions from Uruk indicate that seals there had predominantly Mesopotamian motifs,¹²⁹ while those in Seleukeia-Tigris show strong Greek influences,¹³⁰ and certain motifs at Tel Kedesh combine Greek and Phoenician iconography.¹³¹ Similarly, Mesopotamian motifs are not seen on bullae from Egypt, where Egyptian and Greco-Egyptian motifs are common.¹³²

Figurative seals are usually anepigraphic. Very occasionally a personal name is inscribed. For example, a seal impressed on OIM A3837 reads An-aḥ-ittin in Aramaic (Figure 2.19)¹³³ and TM 226 is inscribed 'Diophan(tou?)' in Greek (Figure 2.20). Other seals bear monograms, as either the main motif or a secondary element (Figure 2.21).¹³⁴ A few seals are impressed both on bullae and cuneiform tablets from Uruk. On the latter, seal

¹²⁰ Wallenfels 1994: 3–4; Root 1996: 17–23.

¹²¹ Root 1996: 21.

¹²² Stressed by Invernizzi 1994a: 364.

¹²³ For example, TM 191 (>22 mm, >22 mm), Se 48 (>26 mm, >20 mm), Se 49 (>20 mm, >29 mm), TM 463 (>20 mm, >20 mm).

¹²⁴ For example, TM 212 (>9 mm, >9 mm), TM 274 (>12 mm, >5 mm), TM 423 (>9 mm, >9 mm).

¹²⁵ Recent work on the terracotta figurines from Seleukid and Parthian Mesopotamia has emphasised that strict binary categories of 'Greek' and 'Mesopotamian' are inappropriate, Langin-Hooper 2007: esp. 161–163; Langin-Hooper 2013a: esp. 451–464; Westh-Hansen 2011: 104–109; Menegazzi 2012: 159–162; 2014: esp. 62.

¹²⁶ Wallenfels 2000: 336.

¹²⁷ Wallenfels 1994: 145; 1996: 119.

¹²⁸ Wallenfels 1993a: 289; 1993b: 319–320.

¹²⁹ Wallenfels 1994: 145; Lindström 2003: 22–23.

¹³⁰ McDowell 1935: 224–225, 230; Invernizzi 1994a: 355–364.

¹³¹ Çakmak 2009: esp. Chs. 2–4; 2011; Lesperance 2010: esp. Chs. 3–5.

¹³² Vandorpe 1996: 248.

¹³³ Dougherty 1932: 94–97. A few figurative seals impressed on Hellenistic cuneiform tablets also have Aramaic inscriptions, Wallenfels 1994: 149.

¹³⁴ M0 1-7, McDowell 1935, IB3(1)-(2), Lindström 2003, No. 89-1. A Greek monogram seal also appears on a cuneiform tablet from Uruk, Wallenfels 1994: 149.

impressions are captioned as 'Seal of [Personal Name]'. Therefore, as well as demonstrating that there was some overlap between the communities that produced the two types of documents,¹³⁵ these reveal the names of some individuals who impressed seals on bullae. These indicate that almost all seal-bearers involved in cuneiform tablets were men, although a few female seal-users do appear, who typically used very small seals.¹³⁶ Each seal appears to have been used by a single individual.¹³⁷ Individuals can sometimes be traced over a number of years. In such cases, it seems that new seals were usually selected after around eight years.¹³⁸ The replacement seal often bore a similar motif, indicating a personal preference for a particular design.¹³⁹ Preferences can also be identified within certain families; for example, some relatives within the Ekur-zakir family used seals depicting fish-cloaked *apkallu*-sages, while another family adopted a male figure with a drum as their motif, and a third often used Capricorn goatfish designs.¹⁴⁰

Individuals who wished to undertake business transactions usually owned a seal.¹⁴¹ Although any object, including coins, shells and the edges of garments, could be used as a sealing device in the ancient world, seal substitutes are rare on Seleukid bullae. This might suggest that there was an emphasis on seals being identifiable. However, many figurative seal devices closely resemble each other, such as several small mask seals used in Seleukeia-Tigris (Figure 2.22). It is possible that subtle distinguishing features are not as apparent to us, as modern outsiders, as they were to the seal-users.¹⁴² However, the sheer number of seals in use suggests that the owner of a particular seal was not usually readily identifiable from the impression alone. It is similarly difficult to imagine that seal impressions could be easily distinguished, and their owners remembered, in Ptolemaic Egypt, Classical Greece, or the Achaemenid empire. There is however no indication that the resemblance of seals was regarded as problematic, and it may be that the focus was on the act of sealing, not later identification of devices.¹⁴³

iii. 'Official' seals

A few seals are associated with royal power and officialdom, since they depict a monarch, bear a dynastic symbol, or name an official, city or tax. These seals are usually categorised as 'official' seals, in contrast to 'personal' figurative seals, but once more, terminology is not

¹³⁵ Wallenfels 1994: 150; 2000: 340; Oelsner 2003: 294.

¹³⁶ Wallenfels 1994: 143, 147.

¹³⁷ Wallenfels 2000: 336.

¹³⁸ Wallenfels 1994: 144.

¹³⁹ Wallenfels 1994: 146.

¹⁴⁰ Wallenfels 1993b; 1994: 146.

¹⁴¹ As is indicated by the cuneiform evidence, contra Invernizzi, who characterises seals as belonging only to the higher classes, and in particular to merchants: for example, 1984: 27.

¹⁴² Proposed with regard to Achaemenid seals by Garrison and Root 1998: 10.

¹⁴³ Vandorpe 2014: 143; Boardman 1970: 13; Bregstein 1996: 60–61; 1997: 374–375; Garrison and Root 1998: 10; 2001: vol. I, 30–31.

consistently employed. 'Official' is sometimes used as an all-encompassing term for any seal associated with Seleukid power,¹⁴⁴ and sometimes with greater restriction; for example Messina and Mollo use it to refer to seals that bear dynastic motifs or name officials, categorising royal portrait seals and tax stamps separately.¹⁴⁵

Aside from such variations in terminology, texts accompanying seal impressions on pre-Hellenistic cuneiform tablets reveal that 'official' seals could be used in a variety of ways. Two types of official seal were used in the Neo-Assyrian empire, termed 'bureau' and 'office' seals.¹⁴⁶ The former represented an office and, crucially, existed in several copies, allowing several individuals to simultaneously act with the authority of that office. The latter were unique seals passed between successive holders of an office. Similar 'office' seals, handed to subsequent office holders, were used in the Achaemenid empire.¹⁴⁷ At Persepolis there are also cases of one seal being used simultaneously by several officials.¹⁴⁸ Although these cases all involve an individual using a seal that relates to his position, not to him as an individual, the aims differ. The transfer of a seal to future office holders bestows the authority of the position to successive individuals, while the delegation of authority between several office holders can be achieved either via the use of one seal (restricting the seal-users to one location) or via several identical seals (allowing the seal-users to be geographically distant). Identifying transfers of seals between people and over time is problematic when only the impressions survive.

a. Tax stamps

Tax stamps are known only from Seleukid Mesopotamia. They are rectangular or barrel shaped, with a landscape orientation (Figure 2.23). The field of a tax-stamp is dominated by its legend. This usually gives the date, according to the Seleukid era (SE), which allows the chronologies of the archives to be reconstructed, at least in outline. The Seleukid era was dated from Seleukos I's re-conquest of Babylonia in 312. In Seleukeia-Tigris the Macedonian calendar was used, which began in autumn of 312.¹⁴⁹ Thus here Year 1 SE dates from autumn 312 to autumn 311. In Uruk Seleukid regnal years were adapted to the Babylonian calendar, in which the new year began in spring, meaning that here Year 1 SE dates from April 311 to March 310.¹⁵⁰ To aid comprehension, I convert dates derived from tax stamps to their BC equivalent.

¹⁴⁴ McDowell 1932a: 99–101; Rostovtzeff 1932: 23, 58–73; 1935: 25–33; Welles 1935: 120; Brown 1938: 610–615; Mollo 1997: 89–91; Lindström 2003: 27–48.

¹⁴⁵ 2004: vol. I, 25–32.

¹⁴⁶ Radner 2008: 486–487.

¹⁴⁷ See p. 53.

¹⁴⁸ Henkelman 2008: 130; Garrison and Root 1998: 9; Hallock 1977: 130–132.

¹⁴⁹ Le Rider 1965: 33–35, 38–39, contra McDowell 1935: 158–161

¹⁵⁰ Lindström 2003: 63.

The legend also states, in the genitive, the name of the tax and city in which it was levied. It is assumed that *ōnē* or *telos* must be understood with the tax name.¹⁵¹ A range of taxes are attested by such stamps. At Uruk the *ploiōn Euphratou* (associated with journeys on the Euphrates) and the sales tax (*epōnion*) are attested, as well as the thirtieth (*triakostē*) and salt (*halikē*) taxes and a tax concerned with slaves (*andrapodikē*). At Seleukeia-Tigris we know of the salt, *andrapodikē* and thirtieth taxes, as well as the *katagraphē* (a registration of a sale),¹⁵² the *sitikē* (a tax concerned with grain) and the port tax (*limenos*), while the slave tax is known from Nippur.¹⁵³ Salt and *andrapodikē* tax stamps sometimes include a statement ‘of the taxed ones’, *epitelōn*, or ‘of the tax free ones’, *atelōn*. Some *andrapodikē* stamps from Seleukeia-Tigris refer to the agora or to the slave as imported,¹⁵⁴ while the Euphrates stamps from Uruk include a personal name. A small figurative element also appears on some tax stamps, most commonly a half anchor. The size, position and orientation of these symbols vary; for example the half-anchor can be depicted with either left or right arm, and positioned vertically or horizontally.

New tax stamps were created annually. In general, only one version of each tax stamp is known per year for each city. However, in 199/8 in Seleukeia-Tigris two versions of both the *atelōn* and *epitelōn* salt stamps are known,¹⁵⁵ and in 158/7 and 155/4 two *atelōn* salt stamps.¹⁵⁶ One of the *atelōn* and one of the *epitelōn* stamps from 199/8 has an additional element, seemingly a Nike, absent from the other versions of these stamps. However the *atelōn* stamps from 158/7 and 155/4 all have a vertical half-anchor with the arm to the right, and close comparison of impressions is needed to realise that two stamps were in use. In 211/0, in addition to the usual *atelōn* and *epitelōn* versions of the salt stamp, a third salt stamp was used at Seleukeia-Tigris, whose legend read ‘*basilikēs oikou epitelōn*’ (‘of the house of the king, of the taxed ones’).¹⁵⁷ Thus, while usually there was only one stamp relating to each tax demanded per city, per year (or two, if there were *atelōn* and *epitelōn* versions), on a few occasions different versions of a stamp were produced.

¹⁵¹ For example, Rostovtzeff 1932: 74; Invernizzi 1995: 275.

¹⁵² McDowell suggests that the legend on the impression of **McDowell 1935, IA1e(1)** reads KATAYPAΦH(Σ), 1935: 42. Examples from the Archive Building read KATAYPAΦIOY. However, examination of the impression revealed that, as Mollo hypothesised (1997: 91, n. 18), the right-edge of the impression of **McDowell 1935, IA1e(1)** is illegible. Therefore, the legend on this stamp was probably also KATAYPAΦIOY. As Mollo notes, it seems this must be connected with the act of *katagraphē*, the registration of a sale: 1997: 98.

¹⁵³ Further information on the stamps known from each site is given in Chapter 3.

¹⁵⁴ As Brown stresses, McDowell’s more diverse readings should be discounted: Brown 1938: 612–613; McDowell 1935: 139–141, 146–148, 175–179.

¹⁵⁵ **Alk 47-50**.

¹⁵⁶ **Alk 87** and **McDowell 1935, IC1b(31)**; **Alk 89** and **McDowell 1935, IC1b(34)**.

¹⁵⁷ **Alk 25**. The *epitelōn* stamp **McDowell 1935, IC1a(10)**, dated by McDowell to 193/2, in fact dates to 186/5 and is identical to **Alk 76, McDowell 1935, IC1b(5)**, which McDowell dates to 185/184, in fact dates to 173/2 and is identical to **McDowell 1935, IC1b(17)**; see Appendix D.

b. Seals with inscriptions relating to Seleukid officials

Certain seals name, in Greek, a royal official. These have a large iconographic element drawn from dynastic imagery, such as a portrait of a king or Apollo, and tend to be oval, but larger and flatter than figurative seals. Impressions of seals of the *chreophylax* are known from Seleukeia-Tigris, Uruk, and Nippur, and of the *bybliophylax* from Seleukeia-Tigris and Uruk (Figures 2.24-2.25). There is also one seal from Seleukeia-Tigris with a large anchor and a fragmentary inscription, reading *katag(raphiou?)*,¹⁵⁸ and another seal with an illegible inscription of which only the letters AI can be distinguished.¹⁵⁹

A *chreophylax* (traditionally translated as ‘guardian of the debts’) was a registry official. Fragments of rolls containing copies of texts registered at the *chreophylakion* (sometimes called the *chrematisterion*) were found at Dura-Europos, the earliest of which dates to the late second century when the city was under Seleukid control.¹⁶⁰ These texts include a mortgaging of land, a repayment of a loan, and a gift of slaves. The *chreophylakion* is also mentioned in a law concerning inheritance, the extant copy of which dates to AD 225-250, but which is considered to derive from the Seleukid foundation of the city.¹⁶¹ The office may additionally appear in a fragmentary document dating to 116 BC (again, during Seleukid control of the city).¹⁶² The actual *chreophylakion* has been identified at Dura-Europos. It is a building with a series of rooms and a courtyard. In the largest room are mud-brick pigeonholes for storing documents, beside which are written the monograph X-P and various dates.¹⁶³ Beyond Dura, an *epistatēs chreophylakiou* appears in a list of witnesses to an enfranchisement of a slave at Susa dating to the reign of Antiochos IV.¹⁶⁴ Further evidence for *chreophylakes* in the Seleukid empire is limited to the bullae, which indicate that in Mesopotamia these were royal officials. *Chreophylakia* (or *chrematisteria*) occur as civic registry offices elsewhere in the Hellenistic and Roman world.¹⁶⁵

The title of the *bybliophylax* (‘guardian of the rolls’) indicates that this official too was concerned with documents. Since he operated simultaneously with the *chreophylax*, his responsibilities must have differed. In a Seleukid inscription from Asia Minor, Timoxenos the *bybliophylax* is instructed to file a record of the purchase of lands by the queen Laodike,

¹⁵⁸ **SU 18.** This differs in shape and size from the *katagraphē* tax stamps, and the main element is iconographical.

¹⁵⁹ **Su 24.**

¹⁶⁰ Welles 1959: Nos. 15-17.

¹⁶¹ Welles 1959: No. 12.

¹⁶² Welles 1959: No. 34.

¹⁶³ Rostovtzeff 1934: 82-84; 1944: 169-176; Leriche 1996: 159-160, 167-168; Coqueugniot 2011. This building forms the focus of Posner’s discussion of Seleukid archives, 1972: 129-132.

¹⁶⁴ Rougemont 2012: No. 17; Canali de Rossi 2004: No. 192. This official may also occur in the fragmentary inscription Rougemont 2012: No. 25; Canali de Rossi 2004: No. 200.

¹⁶⁵ Rostovtzeff 1932: 60-61; 1941: 1429 (n. 241); Arnaoutoglou 1998: 58. The office frequently occurs in Imperial-period inscriptions from Aphrodisias.

and the accompanying survey, in the royal records office (*eis tas basilikas graphas*) at Sardeis.¹⁶⁶ Rostovtzeff's suggestion that the *bybliophylax* was concerned exclusively with royal land has been widely accepted.¹⁶⁷

While a tripod consistently appears on *bybliophylax* seals, the motifs of *chreophylax* seals differ locally. At Seleukeia-Tigris *chreophylax* seals depict royal portraits,¹⁶⁸ but at Uruk motifs include royal portraits, deities, and a shield with an anchor emblem.¹⁶⁹ At Nippur, the only example bears a royal portrait. The texts of the *chreophylax* seals also vary slightly. At Uruk they usually include a city name,¹⁷⁰ and read *chreophylakōn*, *chreophylakikos en Orchois* or *chreophylakikos Orchōn*,¹⁷¹ while at Seleukeia-Tigris they usually read simply *chreophylakōn*.¹⁷² **SU 22** is the only *bybliophylax* seal where a city is named, Seleukeia-Tigris. In fact, impressions of the *bybliophylax* seal **SU 20** are known from Uruk and Seleukeia,¹⁷³ implying that there was not a *bybliophylax* permanently based in all of the cities where impressions of his seal are found.

Tax stamps do not co-occur with *bybliophylax* seals, meaning that their use cannot be dated. Seals of the *chreophylax* however often occur alongside tax stamps. Impressions dated thus indicate that a *chreophylax* seal could be used for several years, sometimes decades. **Se 1** was used at Seleukeia-Tigris over four decades in the late third century,¹⁷⁴ and at Uruk a *chreophylax* seal depicting Nike was used for almost two decades, from 211/0 to 193/2.¹⁷⁵ These were probably passed between office holders. A later *chreophylax* seal from Uruk exceptionally names the year (166/5),¹⁷⁶ suggesting that in this city it became the norm to replace *chreophylax* seals annually. **Se 1** and **Se 3** seem both to have been in use in Seleukeia-Tigris in the 240s,¹⁷⁷ suggesting that there could be more than one *chreophylax* active in a city.

¹⁶⁶ RC 18, l. 26; 19, ll. 15-16.

¹⁶⁷ 1932: 70-71, followed for example by Welles 1934: 321-322; McDowell 1935: 129-130; Lindström 2003: 61-62; Messina and Mollo 2004: vol. I, 27, n. 16. Bickerman however stresses that we do not precisely understand the functions of the *bybliophylax* and *chreophylax*, 1938: 209.

¹⁶⁸ **Se 1, 3, 7**, and perhaps **Se 2**, on which no inscription is legible.

¹⁶⁹ Lindström 2003: 27-48.

¹⁷⁰ On the impression from Nippur this element seems to read NKAPΩN, which, as Gibson notes, is difficult to understand, 1994: 98. The 'K' however is perhaps a ligature of 'I Π', Wallenfels 2015: 67, n. 50.

¹⁷¹ On one example this seems to be abbreviated to XPEOΦ OPXΩN, Lindström 2003: 46, **No. 77-1**.

¹⁷² These do not seem to include a city name, although, as Invernizzi notes, they are often incompletely impressed, 1995: 276.

¹⁷³ Bollati and Messina 2004: vol. III, 213; Messina 2005.

¹⁷⁴ Close examination of impressions of **Se 1** reveals slight differences, suggesting that two seals, intended to be indistinguishable, were produced, Messina and Mollo 2004: vol. I, 35-36. 'Replica' seals were also used at Achaemenid Persepolis and Daskyleion, Henkelman 2008: 130; Garrison and Root 1998: 9-10; Dusinberre 2005: 67.

¹⁷⁵ Lindström 2003: 42-43, 60-61, **No. 50-1**.

¹⁷⁶ Lindström 2003: 43, **No. 114-1**.

¹⁷⁷ **Se 3** occurs with **Kat 4** on **S9-346**, dating to 243/2, and **Se 1** occurs with **Kat 24** on **S9-521**, dating to the 60s SE (253/2-244/3 BC), and with **Kat 6** on **S9-358**, dating to 240/39.

There are a couple of inscribed seals with dynastic imagery that do not name an official. One impressed on a bulla from Jebel Khalid shows an enthroned Zeus with Nike and is inscribed *Nikephoro(u)*.¹⁷⁸ Then, 17 impressions of a seal depicting Nike with a crown, inscribed *basileōs Antiochou*, were found on Delos;¹⁷⁹ it is uncertain to which Antiochos this refers. These inscriptions do not reveal the roles of the bearers, but nonetheless emphasise their connection to royal power. There is also a seal impressed at Kedesh that reads 'He who is over the land' in the Phoenician script, seemingly referring to a local official.¹⁸⁰ The language and connotations of the title suggest a local audience was intended for this seal.

McDowell suggests that monogram seals were used by officials, perhaps inspired by the use of monograms to denote mint officials on coins.¹⁸¹ However, their use and size seem unremarkable. For example, a seal which incorporates a monogram is used by Mukin-apli/Nidintu-Anu//Aḥūtu when acting as a witness and guarantor on tablets from Uruk.¹⁸² Therefore, these are best considered as figurative seals.¹⁸³

Seals belonging to local officials and institutions are known from elsewhere in the Hellenistic world.¹⁸⁴ A few inscribed seals relate to local institutions, but incorporate Seleukid Era dates. A Delian bulla is impressed by a seal with a bilingual Phoenician and Greek inscription, naming a *koinodikion* (known as a tribunal in Ptolemaic Egypt) and dated 185 (SE, 128/7 BC).¹⁸⁵ A seal known from Kedesh, which similarly names the *koinodikion*, dates to 148 (SE) and 111 in the era of Tyre (164 BC).¹⁸⁶ Dates appear on a couple of other seals from Kedesh, one of which seems to read 164 (148 BC, if according to the Seleukid era), and the second, depicting Tyche, that reads 145 (167 BC).¹⁸⁷ These seals demonstrate the extensive use of the Seleukid era for dating, but do not mean that their bearers were part of Seleukid administrative structures.

c. Seals with dynastic imagery

In addition to those seals which explicitly name officials, large¹⁸⁸ seals that bear dynastic motifs were presumably used by officials, although they lack a helpful explanatory legend. These include seals that depict a large anchor, usually accompanied by a horse protome,

¹⁷⁸ Clarke 2002a, **JK S.3**.

¹⁷⁹ Boussac 1992: 16, **SP 9**.

¹⁸⁰ Ariel and Naveh 2003, **Nos. 4, 1**.

¹⁸¹ 1935: 27.

¹⁸² Wallenfels 1994: 104, **No. 782**.

¹⁸³ As, for example, by Bollati and Messina 2004: vol. III, 205.

¹⁸⁴ For example, seals impressions of seals inscribed *dikastōn* and *klērōtou*, referring to judicial procedures, occur at Nea Paphos. These are dated by the Ptolemaic rulers, Michaelidou-Nicolaou 1979: 414; Plantzos 1999: 29.

¹⁸⁵ Boussac 1992: 16–17, **SP 10**.

¹⁸⁶ Ariel and Naveh 2003, **No. 2**.

¹⁸⁷ Ariel and Naveh 2003, **Nos. 3, 6**.

¹⁸⁸ Seals of approximately 2 cm in height or width can be considered large.

which occur on bullae from Seleukeia-Tigris, Uruk, Jebel Khalid and perhaps Kedesh (Figure 2.26). Similar seals with motifs associated with the ruling dynasty are known from the Ptolemaic empire, depicting for example the eagle and the horns-and-disc-crown.¹⁸⁹ Since such seals do not name an official, we rely on find-spots and sealing protocols for understanding their use. It has been assumed that these official seals represent different government departments.¹⁹⁰ In particular, the anchor has been widely identified with the royal treasury, largely because of the appearance of this motif on tax stamps.¹⁹¹

Classifying a motif as dynastic can be problematic. For example, Apollo and Athena frequently appear both on seals and on coins. The seals include large, flat, high-quality examples, which nonetheless lack an accompanying legend. Some scholars regard such seals as official,¹⁹² while others consider such an interpretation plausible, but not provable.¹⁹³ Different criteria have been proposed for determining which seals are official seals, such as the size of the seal, quality of the engraving and pose of a figure.¹⁹⁴ Similar difficulties are seen with regard to other motifs. Anchor seals with a horse's head seem certain to represent Seleukid authority, but this is more doubtful with regard to plain anchor seals. Likewise, anchors with other accompanying symbols are usually not considered to be official.¹⁹⁵ Tripod seals are usually designated as official only when accompanied by an inscription.¹⁹⁶ Interpretations are also influenced by find-spots of impressions. For instance, Clarke regards the two Athena seals known from impressions at Jebel Khalid as official, implicitly in part because the other impressions found at this site appear to be of official seals.¹⁹⁷ Wallenfels regards three seals impressed on Urukian tablets as 'official-like motifs'; these depict a horned horse's head, a nude Apollo and a nude hero (Figures 2.27-2.29).¹⁹⁸ The accompanying inscriptions demonstrate that they were used by private individuals, all

¹⁸⁹ Connelly and Plantzos 2006: 274–275.

¹⁹⁰ McDowell 1935: 127–137, 149–151, 161–163; Welles 1935: 120–121; Mylonas 1937: 385; Brown 1938: 614–616.

¹⁹¹ McDowell 1932a: 162–163; Invernizzi 1968a: 77; 2003: 307; Invernizzi, Negro Ponzi Mancini, and Valtz 1985: 93; Mollo 1997: 91; Clarke 2002a: 201.

¹⁹² For example, Rostovtzeff considered a large uninscribed seal depicting Nike to have an official use, 1932, **No. 41.1**.

¹⁹³ For example, Messina and Mollo provide a list of anepigraphic seals that they consider may be official, 2004: vol. I, 30.

¹⁹⁴ For example, Savage proposed dividing Apollo seals into 'traditional', official, poses, and more informal private examples, 1977: 20. This scheme has, rightly, not been adopted.

¹⁹⁵ For example, Pantos does not consider either of the anchor seals, without accompanying elements, from Kallipolis to be a Seleukid official seal, although Lesperance argues that the larger one should be categorised thus; Pantos 1984: 119, **Nos. 95-96**; Lesperance 2010: 78–79. Lesperance does not consider as official a small seal depicting an anchor with a dolphin from Kedesh (2010: 76, 82–84), although a dolphin occurs on a tax stamp from Uruk and on a weight from Seleukeia-Tigris (Lindström 2003: 57). A large flat seal depicting an anchor and a cornucopia is however considered official by Messina and Mollo because of its size, and occurrence alone on bullae, 2004: vol. I, 29.

¹⁹⁶ This decision is also taken because anepigraphic tripod seals occur on occasion with salt stamps, while inscribed tripod seals do not, Messina and Mollo 2004: vol. I, 28.

¹⁹⁷ 2002: 201–203, referring to **JKS.2** and **JKS.4**.

¹⁹⁸ Wallenfels 1996: 119; 1994: 145, **Nos. 1024, 153, 39**.

members of the prominent Aḥ'ūtu family. Although these seals are unusual on cuneiform tablets (where most impressed seals use Mesopotamian iconography), the former two are very small, and would almost certainly be regarded as figurative seals if impressed on bullae. Categorising anepigraphic seals with potentially dynastic motifs as 'official' is therefore a subjective process.

A quadruped and anchor seal is impressed on the last known slave sale text from Uruk, dating to 275.¹⁹⁹ Here the animal, rather than the anchor, is the main motif, but its caption, 'the seal impression of the seal of the king', demonstrates that it had an official significance. Although Wallenfels suggested – implausibly, given the context of its appearance – that it should be literally understood as the seal of Antiochos I,²⁰⁰ it has generally been seen as a precursor to the later *chreophylax* seals.²⁰¹ The identical seal in fact also occurs on a bulla from Seleukeia-Tigris,²⁰² here alongside the unusual *katagraphē* seal **SU 18**.

d. Royal portrait seals

Novel to the Hellenistic age are seals depicting rulers, the development of which mirrored the parallel innovations in the portrayal of living rulers on coins. Royal portrait seals quickly became widespread, albeit with certain dynastic differences; for example, Ptolemaic ruler portraits are sometimes accompanied by regnal dates.²⁰³ A common feature of all Hellenistic royal portrait seals is that there is no legend naming the monarch, meaning that proposed identifications rest solely on iconography and on dating from other means (such as excavation context, or an impression of a dated tax stamp on the same bulla). Like the seals which bear dynastic imagery, most royal portrait seals are round, flat and around 2 cm in diameter. There are however exceptions, such as one, identified as Demetrios I, which has a straight upper edge,²⁰⁴ and **Se 10**, which is only approximately 1 cm in diameter.

Impressions of Seleukid royal portrait seals have been identified on bullae from inside the empire and also on bullae found at Delos.²⁰⁵ Conversely, some seals impressed on bullae found within the empire appear to portray Ptolemaic, Baktrian, Cappadocian and Pontic monarchs.²⁰⁶ A mix of portraits from different dynasties may also be seen at Nea Paphos,

¹⁹⁹ See p. 20.

²⁰⁰ 1994: 9; 2000: 336.

²⁰¹ Doty 1977: 326; 1979: 197; McEwan 1982: 53; Mollo 1997: 99; Lindström 2003: 60.

²⁰² **SU 2**, on **S-3718**, Wallenfels 1996: 115–116; 2015: 61–62; Lindström 2003: 60; Messina and Mollo 2004: vol. I, 30. **SU 2** is only partially impressed on **S-3718**, making it unclear whether it has the distinctive rectangular shape of the seal known from Uruk, but the motifs of the two appear identical.

²⁰³ Michaelidou-Nicolaou 1979: 414.

²⁰⁴ **McDowell 1935, IB1a(1)**. This is accompanied by the monogram X-P; although Brown suggested that this seal belonged to a *chreophylax* (1938: 614, n. 1), Wallenfels notes that the monogram may refer to the seal-bearer's personal name (2015: 66, n. 41).

²⁰⁵ Boussac 1988: 320.

²⁰⁶ **La 1-3, Ca 1, Pn 1, Ba 1, Dh 1**. The impressions of **La 3**, supposedly a ruler wearing the crown of Upper and Lower Egypt are very indistinct, and the diadem on **Dh 1** uncertain.

where it has been argued that impressed seals depict both Ptolemaic and Seleukid rulers,²⁰⁷ and at Kallipolis, where both Ptolemaic rulers and the Attalid king Attalos I have been identified.²⁰⁸ However, some of these identifications have been challenged; Fleischer for example argues that only Ptolemies appear at Nea Paphos and Kallipolis.²⁰⁹ Identifying which ruler is portrayed relies on comparisons with facial characteristics and iconography known from coinage, and can be difficult. For example, various identifications have been proposed for the individual depicted by **Se 30**.²¹⁰ Messina and Mollo note that they are doubtful about a number of their identifications of royal portraits from Seleukeia-Tigris,²¹¹ as is Lindström regarding several from Uruk.²¹²

In other cases it is uncertain whether the individual depicted is indeed royal. For example, Rostovtzeff argues that several portraits represent monarchs as Apollo.²¹³ Invernizzi wondered whether a couple of portraits show Antiochos III, without his diadem, but concluded that these depict private individuals, although perhaps influenced by royal portraits.²¹⁴ Many portraits identified by McDowell as royal among impressions from Block G6 at Seleukeia-Tigris are certainly not of monarchs.²¹⁵ In contrast to other studies of Seleukid seals, McDowell did not consider non-royal portraits to exist, and therefore categorised all portrait seals (as well as some seals that depict, for example, masks) as depicting monarchs. He provided only a description for many, without a photograph. His references to diadems are often the result of optimistic assessments, and my examination of the impressions has indicated that these are instead usually part of the individual's hair or headdress. Therefore most of these seals portray non-royal individuals (Appendix E).

Wallenfels suggests that certain royal portrait seals impressed on Urukian tablets are deliberately 'generic' or 'idealised', and do not represent a particular monarch;²¹⁶ this category was subsequently applied by Herbert and Berlin to the Kedesh bullae.²¹⁷ It is argued that these were used as private seals. Crude portraits of Ptolemaic rulers, identifiable by their diadems, appear on limestone amuletic seals from Geronisos, Cyprus.²¹⁸ However, only one of Wallenfels's 'generic' royal portraits is such an image, combining a

²⁰⁷ Plantzos 1999: 29.

²⁰⁸ Plantzos 1999: 32.

²⁰⁹ 1996: 323, 326.

²¹⁰ As Invernizzi discusses, this individual has been variously identified as Antiochos IV, Seleukos IV and Helios, 1998: 108.

²¹¹ 2004: vol. I, 35.

²¹² 2003: 29.

²¹³ Rostovtzeff 1932, **Nos. 4-1, 5-1, 5-2, 12-1, 13-1**.

²¹⁴ Invernizzi 1998: 106–108. See also Fleischer 1996: 322. These seals are published in *STISA* as **TM 485** and **TM 256**.

²¹⁵ 1935. Others have expressed reservations about several of these identifications: Brown 1938: 616; Wallenfels 2015: 60.

²¹⁶ 1996: 118.

²¹⁷ 2003: 50–51.

²¹⁸ Connelly and Plantzos 2006: 264, **Nos. 1-2**.

diadem with a crude face.²¹⁹ His other ‘generic’ royal portraits have facial features that slightly resemble a coin portrait of a monarch, but lack the diadem or headdress characteristic of coin portraits and royal portraits on seals (Figure 2.30).²²⁰ These are therefore portraits of private individuals, perhaps inspired by royal features. For the Kedesh material no distinction has yet been drawn between ‘actual’ and ‘idealised’ royal portrait seals, on the basis of their style, quality or size.²²¹ Here it seems likely that all royal portrait seals are intended to depict monarchs.

Some have been tempted to interpret royal portrait seals as the personal seals of rulers, influenced by Augustus’ use of a seal with his own portrait.²²² Meanwhile others suggest such seals were used by officials such as the *chreophylax*,²²³ and McDowell argued that small royal portrait seals were used by individuals acting with regard to the private interests of a member of royalty, such as an estate manager.²²⁴ However, although it is probable that these seals were typically used by senior officials and *philoï*,²²⁵ it is possible that they were also adopted by individuals who particularly wanted to mark their allegiance to the king.²²⁶ A seal depicting Antiochos IV is impressed on a tablet from Uruk, which records a land sale in 163.²²⁷ This seal is labelled as that of Diophantos, whose other name was Anu-balāssu-iqbi, the son of Anu-uballit Kephalon.²²⁸ Here Diophantos acts in his private capacity, and he does not seem to have held an office at the time. Diophantos was a member of a wealthy family, who frequently adopted Greek names.²²⁹ It is possible that the seal was a royal gift or that he selected it as a demonstration of loyalty. The fragmentary legend Apoll[o---] on a royal portrait seal impressed on a bulla from Seleukeia may also name its bearer.²³⁰ For comparison, royal name seals at Persepolis were used by officials and favoured individuals.²³¹ Impressions on papyri demonstrate that some individuals with official

²¹⁹ Wallenfels 1994, **No. 21**

²²⁰ Wallenfels 1994: 11–12., **Nos. 4, 6, 7, 13-15, 18-19.**

²²¹ Although Lesperance implies that some are small seals, 2010: 62.

²²² Plantzos 1999: 22.

²²³ Rostovtzeff 1932: 53.

²²⁴ McDowell 1935: 199–207. This theory is broadly accepted by Invernizzi 2003: 318–319; Plantzos 1999: 31.

²²⁵ Smith 1988: 12; Völcker-Janssen 1993: 155–164; Lesperance 2010: 63; Invernizzi 2003: 319; Bencivenni 2014: 162.

²²⁶ Berlin and Herbert 2013: 377–378.

²²⁷ Wallenfels 2015: 74–76. Wallenfels states that Diophantos’ slave Anu-uballit Apollonios also used a royal portrait seal, referring to an impression on BM 114408, published as Mitchell and Searight 2008, **No. 736-a**. However, Mitchell and Searight do not note a diadem, and my own examination did not reveal traces of this (Figure 2.31). Therefore this seal is best interpreted as a high-quality portrait seal.

²²⁸ Diophantos Anu-balāssu-iqbi is unlikely to have been the bearer of **TM 226**, inscribed ‘Diophan(tou?), who was active in Seleukeia-Tigris in 196/5 (see p. 39); a search of the Lexicon of Greek Personal Names reveals that Diophantos was not an unusual name, particularly in Asia Minor, <http://www.lgpn.ox.ac.uk/database/lgpn.php>, accessed 18-08-2016.

²²⁹ Doty 1988: 97–105, 111; Monerie 2012: 341–343.

²³⁰ **Se 9**, Messina 2012: 125.

²³¹ Garrison and Root 2001: vol. I, 10; Garrison 2014.

positions used royal portrait seals in Ptolemaic Egypt, but that other individuals holding similar positions did not use such seals.²³² Thus it is probable that Seleukid royal portrait seals belonged to wealthy individuals, some of whom may have occupied privileged positions within Seleukid structures,²³³ others of whom may have wanted to stress their allegiance. There is no reason to suppose that such seals indicated that their bearer enjoyed a particular status or role.

e. City and temple seals

Two inscribed seals impressed on bullae from Kedesh represent the cities of Kedesh (depicting wheat and grapes, Figure 2.32) and Sidon (showing Astarte on a galley).²³⁴ Such city seals are known from other sites, including Nea Paphos, where the cities represented include Kourion, Ledroi, Kition and Salamis, and Delos, where cities include Naxos, Ephesos and Kolophon.²³⁵ It is possible that seals of other cities lack an identifying legend; for example, hawk-and-harpoon seals at Edfu may represent this city.²³⁶ Several of the Nea Paphos specimens have dates, seemingly according to the Ptolemaic era,²³⁷ as does that of Sidon from Kedesh, which reads 156 (156 BC, if according to the Seleukid era).²³⁸

The seal used by the *šatammu* (high priest) of Babylon's Esagil temple is known from impressions on tablets from Babylon and two bullae from the Archive Building at Seleukeia-Tigris.²³⁹ This seal, **AF 80**, depicts Marduk's *mušhuššu* beast, and is inscribed 'property of Bēl', *makkūr Bēl*. Other uninscribed *mušhuššu* seals impressed on bullae from the Archive Building are best interpreted as figurative seals, since similar seals were used by private individuals on tablets at Uruk.²⁴⁰ Again, it is possible that seals of other temples lack an identifying legend, and are not known from impressions on tablets, and so cannot now be identified.

²³² Vandorpe 1996, **Nos. 32, 34, 36, 40, 41, 56**, which belong to notary officials and bankers. See also Plantzos 1999: 27–28; Fleischer 1996: 324; Vandorpe 1996: 249; Milne 1916: 95–96. Spier comments that Ptolemaic royal portraits and deities associated with royal cults are among 'the favourite devices' in Egypt, 1989: 21.

²³³ There is no compelling evidence for a distinction between the king as monarch and as a private individual in the Hellenistic era, as noted by Welles 1935: 120; Brown 1938: 615. Therefore, these positions cannot be categorised as concerning either a monarch's 'official' or 'private' affairs, contra McDowell (see n. 224).

²³⁴ Ariel and Naveh 2003, **Nos. 5, 7**.

²³⁵ Michaelidou-Nicolaou 1979: 414–41; Boussac 1992: 13–15, **SP 4-6**.

²³⁶ Plantzos 1999: 27.

²³⁷ Michaelidou-Nicolaou 1979: 414–415.

²³⁸ Ariel and Naveh 2003, **No. 7**.

²³⁹ Invernizzi 1996: 136; 2003: 311; Dercksen 2011: esp. 67–73; Wallenfels and van der Spek 2014: 207–210.

²⁴⁰ Wallenfels 1994, **Nos. 455–457**.

iv. Assumptions concerning seal use

The preceding discussion has demonstrated that classifying seals as 'official' can be a problematic process, based on assumptions that are not always articulated. Attempting such a classification also implies that 'private', figurative seals were used by bearers only in their private capacities. This assumption has underpinned studies of Seleukid bullae since the works of Johansen, Rostovtzeff and McDowell.²⁴¹ Yet impressions on extant bullae from the Archive Building are dominated by a few figurative seals (Graph 2.1), which commonly occur in particular combinations.²⁴² It is impossible to envisage a situation whereby this occurred purely through the removal of documents, or destruction of bullae. Rather, this must indicate that certain individuals had a different role with regard to the archived documents than most seal-bearers, and that these men had specific relationships with particular other seal-bearers. In order to make sense of the frequently-occurring seals, it has been suggested that some impressions of 'private' seals were made by bearers acting as 'professional witnesses'.²⁴³ Although this seal use is often characterised as 'semi-official', no title or duty is assigned to the individual beyond 'witness'.²⁴⁴

There are three aspects to this proposal that require examination. Firstly, are such professional witnesses known from elsewhere in the ancient world? Secondly, is there comparative evidence to support the validity of the 'rule' that a figurative seal is always used in a private capacity? And finally, does the Seleukid evidence support the notion that some figurative seals were used by professional witnesses?

First, a further note on terminology is necessary. Seals are known in very different numbers of extant impressions. I refer to those seals that are known in 1-9 impressions as 'rarely-attested' seals and, for short, as 'rare' seals; those seals that are known in 10-49 impressions as 'occasionally-attested' or 'occasional' seals; and those seals that are known in 50 or more impressions as 'frequently-attested' or 'frequent' seals. It is of course probable that rare seals were originally impressed on far more bullae. This terminology therefore inevitably reflects the modern perspective, and not necessarily the ancient use of seals.

a. *Professional witnesses*

Those who argue that certain figurative seals were used by 'professional witnesses' assume that the sealed documents were private legal texts, such as sales, and that the other seals

²⁴¹ Johansen 1930; Rostovtzeff 1932; McDowell 1931; 1932a; 1935. While Wallenfels recently challenged the categorisation of royal portrait seals as 'official', he still considers that figurative seals were used in individuals' private capacities, 2015. Mollo notes reservations about the term 'private', but did not pursue the question of their use further, 1997: 94, n. 33.

²⁴² Discussed in Chapter 4.

²⁴³ Invernizzi 1996: 136; 2003: 316-317; Messina 2007: 197; Iossif 2014: 40 and n. 20.

²⁴⁴ It has occasionally been hinted that certain figurative seals may have had an official use. For example Invernizzi suggests that some common motifs may have been associated with administrative departments, but does not give specific examples, 1998: 105; 2003: 319.

impressed on these bullae belong to additional witnesses and to the principal parties to the presumed contract.

In Achaemenid Mesopotamia, both principal parties and additional witnesses did seal cuneiform legal documents. Here, the additional witnesses were usually friends and neighbours. Individuals with official titles (such as *šaknus*, *paqduš*, *ustarbar* officials, and members of the royal family) at times acted as witnesses, but their official role does not have any clear relevance to, or bearing on, the transaction, and they cannot be described as ‘professional witnesses’.²⁴⁵ However, some individuals associated with the Murašû firm in Achaemenid Nippur could perhaps be characterised as ‘professional witnesses’. A few men who witnessed tens of documents for the firm used lion-scorpion seals. This motif perhaps represents the Murašû family, whose name means ‘wildcat’.²⁴⁶ Bregstein has shown that some were employees of the firm, and interprets others as sympathetic associates whom the Murašûs could rely upon to provide evidence, should the contract be challenged. However, approximately a third of the 34 lion-scorpion seals that are seen on Murašû documents were used by individuals who were only infrequently involved in Murašû contracts.²⁴⁷ Those who witnessed the most Murašû texts did not all use lion-scorpion seals, and those who had lion-scorpion seals did not impress them on every document that they sealed.²⁴⁸ Thus the motivations behind using these seals seem more complex. Although the occasional use of lion-scorpion seals suggests that some individuals’ role in sealing Murašû tablets differed from that of most witnesses, characterising them as ‘professional witnesses’ seems inappropriate.

Slave and land sales had to be registered at the royal tax office in Achaemenid Babylonia, although little is known about the officials who supervised this.²⁴⁹ In the Neo-Babylonian era, a group of notaries known as the ‘scribes of the king’ were responsible for drawing up, and sealing, land sale contracts.²⁵⁰ Their function was certainly an official one, although we lack the state records that would elucidate their role further. The responsibilities of such individuals were however greater than simply witnessing transactions, since they were concerned with the taxation and registration of land and property.

²⁴⁵ Bregstein 1997: 338–341.

²⁴⁶ Bregstein 1997: 197–205, 368–370.

²⁴⁷ For example, Šum-iddin/Puḫḫuru witnessed and sealed one Murašû text but is otherwise unknown, Bregstein 1997: 837.

²⁴⁸ For example, Aqara/Iddina (witnessed 150 texts) and Enlil-šum-iddin/Tattannu (witnessed 99 texts) both did not use lion-scorpion seals. Eriš-Enlil/Enlil-bānā (witnessed 126 tablets) used a lion-scorpion seal on just seven of these, and two animal seals on the others, Bregstein 1997: Tables 4.38 and 4.39.

²⁴⁹ Stolper 1989: esp. 82–85; Jursa 2008: 609–610.

²⁵⁰ Baker and Wunsch 2001: esp. 199–200.

Individuals who could be characterised as professional witnesses are known from Ptolemaic Egypt. Here, six-witness contracts (used to record, for example, loans and sales) were sealed by six witnesses, most of whom were again friends and neighbours, but one of whom was known as the *syngraphophylax*. He was a private individual, who provided a witnessing and safeguarding facility.²⁵¹ Abstracts of contracts in state registry offices noted the identity of the *syngraphophylax*, emphasising that the state registry system and that of the *syngraphophylax* operated in tandem, at least initially. Bullae from Elephantine and those from the private house on Delos have been linked to the activities of such *syngraphophylakes*. The former consists of just eight documents and may represent a private archive. The house on Delos is an unremarkable private residence, except that a large number of amphorae fragments were found in what would normally be used as reception rooms, suggesting that its owners were involved in the wine trade.²⁵² The bullae represent a collection of perhaps around 5,000 documents;²⁵³ on these are impressed around 14,000 seals, the majority of which occur just once. These quantities lead Boussac to argue that the archive owners offered a service storing other people's documents, akin to the bankers in Classical Athens or the *syngraphophylakes*.²⁵⁴ Thus in Ptolemaic Egypt and elsewhere in the Hellenistic world, some private individuals offered a witnessing and archiving service for their community. The evidence from Delos suggests that this could be on a large scale and span a number of generations, resulting in considerable collections of legal documents being stored in private houses.

b. Officials using figurative seals

However, is the claimed divide between Seleukid officials using official seals and private individuals using figurative seals supported by evidence from elsewhere?

At Persepolis 'office' seals and 'personal' seals did exist. Garrison observes:

'An office seal belongs not to a specific person but to an administrative office. Often successive individuals who hold a particular office and use that seal can be traced... Personal seals belong to a specific individual'²⁵⁵

Despite the existence of office seals, most individuals used personal seals when acting in their official capacity. Similarly, tablets from the Murašû archive demonstrate that in Achaemenid Babylonia individuals used the seal that they employed in their official role at other times too, including when they did not yet hold, or no longer held, that position.²⁵⁶

²⁵¹ Yiftach-Firanko 2008: 203, see also Vandorpe 1996: 234.

²⁵² Boussac 1993: 678–680.

²⁵³ Assuming several bullae were attached to some documents, Boussac 1993: 684–685.

²⁵⁴ 1988: 317; 1992: xii–xiii; 1993: 681–685.

²⁵⁵ Garrison 1996: 25.

²⁵⁶ Bregstein 1997: 186.

Office seals at Persepolis do not name the office, and are not differentiated from personal seals in terms of their motif or manufacture. For example, Garrison notes that **PFS 51** and **PFS 93*** are very similar in style, but the former was a personal seal (of the royal woman Irdabama) and the latter an office seal.²⁵⁷ Similarly, most royal name seals were personal seals, although employed by individuals in their official capacities, but one, **PFS 7**, was used as an office seal. There do not seem to have been rules about which positions used office seals; Šuddayauda adopted an office seal (**PFS 1***) when he took over as ‘chief of workers’ in the Persepolis region, but used his own seal (**PFS 32***, inscribed with his patronym) when carrying out similar duties in other regions.²⁵⁸ The modern terminology is therefore based on how seals were used and transferred, rather than on characteristics of the seals, or the roles that their bearers held.

A few centuries earlier in the Neo-Assyrian bureaucracy, many officials used personally-selected seals, while bureau seals were also employed.²⁵⁹ Some officials had both types of seal. For example the governors of Kalhu used their personal seal and their bureau seal in conjunction on documents, and king Esarhaddon once impressed his personal seal and the royal bureau seal together.²⁶⁰ Therefore, the Neo-Assyrian material also does not support the notion that figurative seals were always used by their bearers in a private capacity.

In Ptolemaic Egypt *syngrophylakes* and officials used ostensibly private seals. All the legible impressions on six-witness contracts (which were sealed by *syngrophylakes*) are of figurative seals.²⁶¹ Greek notary officials sealed contracts that they drew up with their own seal; devices on these include portraits (and royal portraits), deities and human figures.²⁶² Sealed tax receipts are known from the Zenon archive, while sealed bank receipts survive from the Fayum, Thebes and Memphis. Again these are sealed with figurative seals, whose motifs include objects, male (and royal) portraits and deities.²⁶³ Thus individuals typically used figurative seals in their official role.

Therefore, the evidence from the Neo-Assyrian, Achaemenid and Ptolemaic empires do not provide any precedents for the notion that all Seleukid officials used centrally-distributed seals. Moreover, the Neo-Assyrian and Achaemenid material emphasises that the existence of centrally-distributed seals does not preclude officials’ use of personally-selected seals. Consequently there is no reason to assume a strong divide between ‘private’ and ‘official’ seals in the Seleukid empire. The persistence of this division in scholarship would seem to

²⁵⁷ 2011: esp. 383.

²⁵⁸ Hallock 1977: 130.

²⁵⁹ On bureau seals, see p. 41.

²⁶⁰ Radner 2008: 488, 506.

²⁶¹ Vandorpe 1996: Nos. 5-20; 2015a: 35-42.

²⁶² Vandorpe 1996: 235-237, Nos. 21-43.

²⁶³ Vandorpe 1996: Nos. 44-58, pp. 237-238; 2015a: 43-53.

owe more to interest in Seleukid ‘official’ seals than to an understanding of the use of ‘private’ seals within Seleukid contexts.

c. The Seleukid evidence

We have seen on the one hand that ‘professional’ witnesses, operating in the private sphere, did exist in the Hellenistic world and could amass large collections of sealed documents, but on the other hand that there is no compelling reason to argue that all figurative seals were used by their bearer in a private capacity. How then should we understand the roles of the seal-bearers behind Seleukid bullae? This question is closely linked to the nature of the archives, which, as we saw, cannot be understood simply through the find-spots of bullae, but requires consideration of the activities and relationships of the seal-bearers.

Yet this is not a straightforward process. One approach could be to consider the number of seal-bearers represented in an archive and the extent to which the bullae relate primarily to a few seal-bearers. However, extant impressions are dominated by a few seals in archives of both apparently administrative and apparently private characters. In the Delian archive, which is usually considered a private one, the majority of seals occur once but some occur tens of times, a few around a hundred times, as well as one impressed on over 200 bullae and another on over 300.²⁶⁴ Some frequently-attested seals occur repeatedly with rarer seals.²⁶⁵ Boussac argues that these frequently-attested seals belong to the archive owners and to associations of business men.²⁶⁶ The situation is similar on bullae and tablets from Persepolis, which is certainly a royal administrative archive. Here most seals occur rarely, but a few are known in tens of impressions. Again there are groups of associated seals, which here record the activities of colleagues whose professional duties brought them into regular contact.²⁶⁷ At Daskyleion, which also appears to be an administrative archive, impressions are dominated by the seal **DS 3**, which occurs on approximately a third of extant bullae, while the vast majority of seals occur only once.²⁶⁸ Therefore, archival profiles cannot by themselves demonstrate whether collections of documents belong to the official or private sphere.

Consequently, in attempting to understand the use of seals and the nature of an archive, several factors must be considered in conjunction, including the volume of material, the duration covered, the find-spot, the (non-)appearance of official seals, the number of

²⁶⁴ Boussac 1988: 321–322; 1992: xiii; 1993: 686.

²⁶⁵ Boussac 1993: 689.

²⁶⁶ 1993: 680–681. Boussac notes that frequently-attested seals could belong to magistrates and administrators, but that this would mean that they routinely used personal seals in their official role, a proposal she finds illogical.

²⁶⁷ Wallenfels 1999: 457; Schmidt 1957: 16–18.

²⁶⁸ Figures are derived from Kaptan 2002: vol. I; 2002: vol. II. Here bullae are impressed by only one seal, meaning that co-occurrences cannot be identified, Kaptan 2002: vol. I, 16–23.

figurative seals, and the relationships between figurative seals. These features will be returned to in Chapters 3 and 4; here I want to focus on the bullae from the Archive Building at Seleukeia-Tigris, and the implications these have for understanding the use of figurative seals.

The size and central location of the complex, volume of documents, and fact that these documents span several generations, indicate that the Archive Building at Seleukeia-Tigris was not a private facility, but either a civic or royal complex. Private individuals offering a witnessing and storage service in Ptolemaic Egypt and on Delos are distinguished precisely by their lack of connection to such a building. Moreover, in contrast to Delos, where only eleven official seals could be identified with certainty, royal tax stamps are well represented at the Archive Building. Their frequency also supports the proposal that these documents relate primarily to the royal administration, not civic structures. Therefore, it seems that we are in a similar world to that of the state registry offices, banks and tax bureaus of Ptolemaic Egypt, rather than at home with the *syngrophylax*. There is one figurative seal at the Archive Building that was almost certainly used in an official capacity, **EkT 1/2**. This seal appears here and at Uruk in conjunction with a *bybliophylax* seal.²⁶⁹ It would be a great coincidence for the few *bybliophylax* bullae that survive from the two cities to relate to the same private individual's interaction with this official, and far more probable that the bearer of this seal was involved professionally in the *bybliophylax*'s activities.²⁷⁰ At the Archive Building, repeated connections are seen both among the frequently-attested seals and between frequently-attested and rarely-attested seals, as will be examined in Chapter 4. These features indicate that bearers of frequently-attested seals had defined roles, which required them to work with particular other individuals, suggesting that their responsibilities extended beyond witnessing documents.²⁷¹ Thus they are comparable to the individuals associated with the state notary offices in Egypt, and in Neo-Babylonian and Achaemenid Mesopotamia.

²⁶⁹ See further, p. 87.

²⁷⁰ Contra Messina 2005: 32–35.

²⁷¹ Individuals with the title 'royal witness' (*lūmukin šarri*) are mentioned in three tablets from Babylon, and have been connected with the royal records office there, Lindström 2003: 59 and n. 363; Boiy 2004: 214. However, in the one published text (CT 49, 193) the main role of the 'royal witness' Bel-bullissu/Nabû-nadin-aḫi is as the father of the bride. Thus his duties as a 'royal witness' are unclear, as is whether he was connected with the royal records office. While CT 49, 193 cannot be taken as proof that all officials connected with the royal records office were simply witnesses, without further responsibilities, it does suggest that such men used figurative seals, since Bel-bullissu impressed an uninscribed *mušḫuššu* seal (Figure 2.33). This motif was presumably his choice; there is no reason to connect it with the royal or temple administration.

The argument that Seleukid officials could use figurative seals is also supported by the fact that no impression of a seal inscribed as belonging to the *dioikētēs* is known from Uruk, although such an official was certainly involved in the royal records office there.²⁷²

In conclusion, *some* figurative seals at Seleukeia-Tigris were used by royal officials, in particular those that occur frequently and in set combinations. It is equally certain that some figurative seals were used by individuals in their private capacities, as demonstrated by the labelled impressions on tablets from Uruk. Interpretations of a seal must be based on consideration of its use, rather than assumptions derived from its iconography.

v. Classifying seals

The iconography, inscriptions and size of certain seals demonstrate that they were used by royal officials, and almost certainly produced by the administration. However, identifying the boundaries between these and figurative seals, which had been selected by their bearer, is not always easy. Moreover, the use of royal portrait seals by individuals beyond a purely official context, and the use of figurative seals by individuals in their official capacities mean that these boundaries are not as rigid as has been suggested.²⁷³

In what follows, ‘official’ will be used as a general term, to refer to tax stamps, city seals, those with dynastic motifs and those which name offices, but not uninscribed royal portrait seals. Tax stamps are the easiest of the official seals to define, as any seal naming a tax. Given their highly-distinctive shape and format, these seem to have been considered a category of seal within the ancient context. Any seal naming a city will be termed a ‘city seal’. ‘Office seal’ will be used for a seal which has an inscription naming a royal official (with this inscription taking priority over the iconography of the seal),²⁷⁴ or a strongly dynastic motif, namely an anchor as the main element (with or without an accompanying element, such as a horse’s head), or an anchor as a secondary element accompanying an animal.²⁷⁵ All other seals will be termed figurative seals, with uninscribed royal portrait seals considered a sub-category of these; a seal will be described as a royal portrait only if it depicts a ruler wearing a diadem or other royal headdress. Most importantly, it will be assumed that figurative seals may be used by their bearer in private *and/or* official capacities.

4. Issues inherent in working with bullae

There are a number of methodological challenges with using bullae and seal impressions to approach administrative practices.

²⁷² He is referred to in BRM 2, 31, obv. 8, Joannès 2012: 247.

²⁷³ See also the remarks of Lesperance 2010: 62–63.

²⁷⁴ By contrast, the iconographic focus of *STISA* led to *chreophylax* seals depicting monarchs (**Se 1**, **Se 3**, **Se 7**) being listed as royal portraits, Messina and Mollo 2004: vol. I, 25.

²⁷⁵ Such as **SU 1** and **SU 2**.

First, bullae, by their very nature, represent only sealed documents; unsealed documents are irretrievably lost. Secondly, bullae probably represent only unopened documents, since it seems that consulting a text would normally have led to the bulla being broken.²⁷⁶ Such breakage is almost certain in the case of napkin-ring bullae. While it also seems difficult to open a single-version document sealed with a flat bulla without breaking this, the flat bullae found with the Achaemenid Arshama letters were largely complete, leading scholars initially to speak of an 'abandoned postbag'.²⁷⁷ However, since these letters were written at different times,²⁷⁸ it is more probable that the addressees had opened them and preserved the bullae, perhaps to ensure that they could later prove that the letters had appeared genuine. Thus some caution is needed in concluding that unbroken bullae represent unopened documents.²⁷⁹

Thirdly, there may not be a one-to-one ratio between flat bullae and lost documents.²⁸⁰ Six-witness contracts from Hellenistic Elephantine each have three bullae attached, among which the six witnesses and two contracting parties distributed their seal impressions.²⁸¹ Not until the second century BC was the order of this fixed. Likewise, the Parthian double documents from Avroman and Achaemenid (single-version) documents from the Wadi Daliyeh had several bullae attached, the latter perhaps as many as 14.²⁸² Consequently, there is no reason to assume a one-to-one correspondence between flat bullae and lost documents, or to expect seal impressions to be distributed in a set order among bullae.

Furthermore, it is possible that an individual used several seals (either simultaneously or subsequently),²⁸³ and that one seal had several users. Impressions also record only those who had to, or chose to, seal the document. In the Murašû archive, usually around half of the witnesses sealed a document.²⁸⁴ A few individuals would always seal a document, such as officials with the title 'canal judges'. Conversely, representatives of the Murašû family never sealed the copies they retained; presumably they sealed the version kept by the other party.²⁸⁵ Meanwhile, at Persepolis most records of distributions of commodities were

²⁷⁶ As argued, for example by Bencivenni 2014: 163, contra McDowell 1935: 2.

²⁷⁷ Driver 1954: 3.

²⁷⁸ Although undated, the letters cover span two individuals' tenures as estate manager.

²⁷⁹ While it is feasible that all documents sealed by flat bullae had been opened, seal impressions were usually discarded after use, Collon 1997a: 24. It is highly unlikely that vast quantities of discarded bullae would have been deliberately stored for several decades, and so it must be assumed that most bullae represent documents that remained sealed in antiquity.

²⁸⁰ It is unlikely that several napkin-ring bullae sealed a document, given their cumbersome form and the large numbers of seals that could be impressed on each, Wallenfels 2000: 337–338; Lindström 2003: 9.

²⁸¹ Vandorpe 1996: 233–234.

²⁸² Minns 1915: 23–24; Leith 1997: 18, and xii.

²⁸³ For example, in the Achaemenid Murašû archive, 12% of individuals are known to have used more than one seal, and 11 men can be identified using two seals concurrently, Bregstein 1996: 55.

²⁸⁴ Bregstein 1996: 57; 1997: 373–374.

²⁸⁵ Bregstein 1996: 57.

counter-sealed by supplier and recipient, unless they involved a member of the royal family, who then sealed alone. Here, sealed and unsealed examples are known of some document types.²⁸⁶ Therefore seal impressions are not necessarily a reliable guide as to everyone who was involved in a document, and documents of the same type may have different numbers of impressions.

Another consideration is that knowledge of bullae is dependent on the chance of preservation and excavation. Discoveries reflect where excavations have taken place, and where conditions have favoured the preservation of bullae. Many of the bullae that survive were burnt in antiquity; unbaked bullae are less likely to have been recovered archaeologically. Yet some bullae may have disintegrated during the process of burning;²⁸⁷ thus a burnt archive is not necessarily a complete one. The subsequent history of a site also affects the survival of bullae. For example, later activity at Seleukeia-Tigris caused disturbance to the Archive Building, evidenced by the discovery on the site's surface of some bullae which almost certainly came from there. Then, the discovery of bullae depends on the focus and extent of excavations. For instance, the excavations at Uruk tunnelled to locate walls and form a ground plan of the Hellenistic temples, which means that more bullae may remain within the unexplored centres of the rooms.²⁸⁸ While references in cuneiform tablets reveal the existence of a royal records office in Uruk, this is not known archaeologically. The possible hindrances to bullae surviving may explain their absence from other Seleukid sites where excavations have been conducted, such as Ai Khanoum, Susa and Failaka (ancient Ikaros).²⁸⁹ It is also possible that excavations overlooked the presence of these small and unremarkable lumps of clay. At Kedesh the bullae were first noticed when excavated soil was being sieved to check for small animal bones,²⁹⁰ while mid-twentieth-century archaeologists working at Nippur discovered a bulla in a dump created by late-nineteenth-century excavators.²⁹¹ The surviving Seleukid bullae therefore offer only small snapshots of the far more widespread practice of sealing and archiving documents.

The fact that some seals are more recognisable than others, and that certain forms of bullae are more likely to survive, further distorts our understanding. Thick, flat salt bullae are quite likely to survive in their entirety, and an impression of a salt stamp, with its distinctive lettering, is often recognisable even when fragmentary (Figure 2.34), in contrast to a fragile

²⁸⁶ Henkelman 2008: 108; Root 1996: 10–12. For example, only around a third of journals (which summarise the distribution of commodities in a district) and accounts (which summarise the distribution of a commodity, usually over several years) are sealed.

²⁸⁷ Kaptan 2002: vol. I, 14.

²⁸⁸ Lindström 2003: 67.

²⁸⁹ On excavations at these sites: Cohen 2013: 140–154, 194–199, 225–244. Sasanian bullae are known from Susa (Gyselen 2007: 4), and a couple of Seleukid coin models (Allotte de la Fuye 1927: 131–132; Rostovtzeff 1932: 8–9 n. 3). On the absence of bullae at Ai Khanoum: Rapin 1992: 268.

²⁹⁰ Berlin and Herbert 2005: 39.

²⁹¹ Gibson 1994: 99.

napkin-ring bulla impressed by a small figurative seal. Seals with shallow engraving are less likely to be legible than seals with a deeper intaglio. A poor or fragmentary impression of a seal which is known from many other impressions is likely to be identifiable, whereas a seal otherwise known in only one impression may not be recognised. Likewise, an ordinarily illegible impression may be identifiable if it is of a seal which frequently occurs with particular other seals.²⁹²

Interpretations of the form of a bulla from a fragmentary piece of clay depend to a large extent on what the viewer expects to see. The bullae from Block G6 include a number of complete napkin-rings, some of which are impressed by salt stamps. This led McDowell to assume that fragmentary pieces impressed by salt stamps were originally napkin-rings,²⁹³ including McDowell 1935, Alc(25). This piece however was found on the site's surface, and is impressed also by **M 59** and **Mn 6**. Consequently, it is probably one of the tens of flat bullae impressed by these seals that were stored in the Archive Building. Conversely, most bullae from the Archive Building are flat, and have been understood as relatively undamaged. However, a number of curved, unimpressed fragments seem certain to have come from small napkin-rings (Figures 2.37-2.38), and there are many impressed pieces that can plausibly be interpreted as parts of napkin-rings. The same is true with the Urukian material. Rostovtzeff saw his Nos. 8 and 10 (=Lindström 2003, Nos. 106 and 259) as parts of napkin-ring bullae, since the majority of bullae that he had seen had such a form, where Lindström, who knew further impressions of this seal (a *chreophylax* seal depicting Antiochos IV), recognised both as flat bullae. Most of the bullae from the Archive Building were returned to Iraq in 2000 and 2001,²⁹⁴ and only casts of the obverses are now available to study in Turin. The fact that the reverses were not cast frequently makes it difficult to ascertain how fragmentary a bulla is, and how curved its internal surface.

Identifying joins can also be subjective. There are only a few direct joins of fragments. Several joins proposed by McDowell are based on his notions of which seals should appear together. He noted doubts about McDowell 1935, Alc(19) and (20), which indeed seem unlikely to join (Figure 2.39), while the two pieces of McDowell 1935, Aid(32), which he proposed to join, are also hard to conceive as fitting together (Figure 2.40). Therefore, although some joins are certain, others are based primarily on interpretations of sealing protocols.

It is not possible to overcome all these difficulties, although examination of find-spots may help elucidate whether several bullae were attached to a document, and new finds may

²⁹² For example, **Em 51** can be recognised on S-8489, although only the crescent beside the herm survives, because its companion seals are identifiable, Figures 2.35-2.36.

²⁹³ As explicitly stated by McDowell 1931: 26.

²⁹⁴ Messina 2014: 124.

improve our understanding of the probable forms of particular bullae. In the meantime, these are potential pitfalls that we need to bear in mind when interpreting this material.

5. Conclusions

The Seleukid bullae represent part of a far more widespread practice of sealing documents (and other objects) in the ancient world. They have some distinctive features, most notably the napkin-ring form. However, my reason for considering these finds as a body of evidence is because of the research question posed by this thesis, that of the functioning at a local level of the Seleukid administration, rather than because they represent a unique or separate phenomenon.

The general practicalities of sealing a document can be understood from the bullae, but certain issues remain, in particular whether double documents were created. When using these bullae as evidence for understanding administration, it is necessary to be aware of their limitations. For example, the impressions on a bulla may not represent all the individuals involved in a document, and a group of extant bullae are highly unlikely to represent all the documents originally archived together.

Among the seals in use within the Seleukid empire were some which were produced by royal or local bodies, and others which were selected by individuals. However, although it has been assumed that there was a strict divide between 'official' and 'personal' seals, it appears that some figurative seals were used by individuals in their official capacities. The fact that a number of seal-bearers involved in the documents stored at the Archive Building had defined relationships with each other, implies that these men acted as royal officials, rather than as private individuals or mere witnesses. This means that the bullae offer more extensive evidence about the daily functioning of imperial administration than at first sight, when the focus was on official seals alone.

Chapter 3. Seleukid Finds

1. Introduction

Having considered the nature of bullae and impressed seals known from the Seleukid empire, it is necessary now to examine in detail the assemblages of Seleukid bullae. Their individual characteristics, and the connections between the assemblages, form the backdrop for interpreting the bullae in relation to the royal administration. One shared feature at a general level is the fact that napkin-ring bullae are found at sites throughout Mesopotamia. Impressions of certain types of seals are found at several sites; for example, tax stamps are known from the Archive Building and Block G6 at Seleukeia-Tigris, as well as from Nippur and Uruk, while impressions of anchor seals come from the Archive Building and Block G6, Uruk, Kedesh, Jebel Khalid and Delos. There are additionally direct links between some of the assemblages, since impressions of a few seals occur in more than one archive. However, there are also significant differences between the finds. For example, salt tax stamps are extremely common at Seleukeia-Tigris, but unusual at Uruk, and flat bullae are the norm at the Archive Building, whereas napkin-rings are in the majority at Uruk. The disparate histories of the sites where bullae were found are also crucial for consideration of the range of local environments in which the royal administration functioned.

Section 3 of this chapter details the bullae site by site, with an excursus on direct connections between the assemblages. In Section 4 I outline the databases that underpin the analysis of following chapters. The bullae are approached, necessarily, via modern excavations and publications, and the importance of recognising this forms the subject of the initial Section 2.

2. Afterlives of bullae

i. Discovery

Seleukid bullae have been recovered piecemeal over the last century and a half by both scientific and clandestine excavations.²⁹⁵ The earliest recorded find was of a few napkin-ring bullae in northern Babylonia in the early 1880s by Hormuzd Rassam. Similar napkin-ring bullae were soon discovered by the University of Pennsylvania excavation at Nippur in the 1890s. Further Hellenistic bullae appeared on the antiquities market in the early twentieth century, the tax stamps on a few of which indicate an Urukian origin. Some unprovenanced bullae have since been acquired on the antiquities market, but most twentieth and twenty-first century discoveries were made by scientific excavations. The Deutsche Orient-Gesellschaft excavated bullae in Babylon and at Uruk in the first half of the

²⁹⁵ Bibliographic references are given in Section 3.

twentieth century. Between 1928 and 1937 a University of Michigan excavation discovered bullae at Seleukeia-Tigris, in particular in the residential insula Block G6. When the University of Turin resumed excavations at Seleukeia-Tigris from the 1960s to 1980s, additional bullae were found, predominantly in the Archive Building. In the 1960s, the University of Chicago excavations at Nippur recovered further bullae there, and more bullae were reportedly found in Babylon by Iraqi archaeologists in the 1980s. Bullae were discovered in the 1990s and early 2000s by Australian archaeologists at Jebel Khalid and by a joint University of Michigan and Minnesota excavation at Kedesh. The long timespan over which these discoveries occurred means that the levels of recorded information vary. For instance, there is no information on where Rassam discovered bullae, while the rooms and levels in which bullae excavated from Block G6 and Uruk were found are recorded, but not the locations of individual bullae. By contrast, the specific find-spots of each bulla from the Archive Building and from Jebel Khalid were noted.

None of these archaeologists nor, one presumes, any of the illicit diggers, sought to discover bullae. Earlier excavations tended to be seeking visually-impressive objects and cuneiform tablets, preferably relating to early civilizations. The Michigan excavation at Seleukeia-Tigris hoped to uncover the Babylonian city of Opis, believed to be the site of the still older city of Akshak,²⁹⁶ while the Pennsylvania excavations at Nippur sought to investigate the biblical past and to acquire objects for museum display.²⁹⁷ Later archaeologists have been more interested in the Hellenistic period. Those working at Jebel Khalid and Kedesh sought to understand life at these sites, the former as a military foundation,²⁹⁸ and the latter as a border site, where the impact of interaction with Greeks and Romans on Phoenician culture could be explored.²⁹⁹ Still, buildings were not excavated with the aim of recovering archival complexes. Block G6 was hoped to be a palace,³⁰⁰ and the Archive Building a large

²⁹⁶ McDowell 1932b: 101; Hopkins 1939: 440–442. Bernhardsson regards this excavation as unusual, in the context of archaeology in Mandate Iraq, in choosing to focus on the Hellenistic-Parthian era, 2005: 139. In fact, the archaeologists had sought to avoid Seleukeia-Tigris, which they believed to be the remains immediately to the west of the Tigris. However, the Tigris now cuts in half the neighbouring city of Ktesiphon, and these remains are Ktesiphon's outer suburbs, Reuther 1929: esp. 437-439.

Despite continued optimism (expressed by Waterman 1931: 4–6; 1933: 78, and Yeivin 1930: 'Some notes on the work of the Michigan Expedition Season, 1929-30', 4-5), the Michigan excavations did not succeed in identifying the location of Opis, as Hopkins later noted, 1939: 447–448.

²⁹⁷ Horry 2013: 56–57; Westenholz 1992: 293; Zettler 1992: 330–334. The Parthian fortress, in which bullae were found, was excavated because it was on the (to them, far more interesting) ziggurat, Fisher 1905: 17.

²⁹⁸ Clarke 2002b: ix–vii.

²⁹⁹ Berlin and Herbert 2005: 35–36; 2012: 25.

³⁰⁰ Yeivin 1931: 18.

sanctuary,³⁰¹ while the Administrative Building at Kedesh was explored because the archaeologists were surprised to find a large Hellenistic complex.³⁰²

ii. Museum objects

Bullae are now scattered in collections across the world; for example, Urukian bullae from archaeological excavations are divided between Berlin, Istanbul and Baghdad, while Urukian bullae acquired via the antiquities market are known to be in Brussels, Paris, Rouen, Copenhagen, Oxford, Chicago, and New Haven. The lack of a standardised terminology in the study of bullae can cause difficulties in locating them in online catalogues. For instance, the Metropolitan Museum of Modern Art terms its specimen a 'Seleucid bulla', while the British Museum uses 'Late Babylonian sealings'. The geographical spread of objects and non-standardised terminology therefore create an initial barrier to accessing this material. Most online catalogues do not include images of bullae,³⁰³ and the majority of bullae are not on display in museums. For example, those held by the Museo Civico d'Arte Antica, Turin, and the Kelsey Museum, Ann Arbor, have featured in special exhibitions but are mostly in permanent storage.³⁰⁴ This absence from museum and online galleries highlights the bullae's unloved status, as visually-underwhelming objects from a late period of Mesopotamian history, which do not clearly belong in Near Eastern or Greek displays, but does not cause problems for the researcher.

The storage of the bullae however has a significant effect on their study. While in some museums bullae are stored in individual bags or boxes, the (casts and original) bullae from the Archive Building at Seleukeia-Tigris which are housed by the Museo Civico d'Arte Antica are arranged in sandwich bags, each containing around 80 bullae. These are often bullae with sequential excavation numbers, but there are many exceptions.³⁰⁵ Although such exceptions are noted in the museum database, this arrangement makes locating a particular bulla extremely time-consuming. I have dealt with this in my (time-constrained) museum visits by working within the artificial divisions created by modern storage decisions, achieving an overview of a large quantity of material at the expense of investigating particular seals or bullae.

³⁰¹ Invernizzi 1968a: 29.

³⁰² Berlin and Herbert 2012: 26–28.

³⁰³ A notable exception is the Musées Royaux d'Art et d'Histoire, Brussels, which provides many detailed photographs, http://hires.kmkg-mrah.be/Proche_Orient_3D/O.0204.pdf-/O.0209.pdf (accessed 22-01-2016).

³⁰⁴ Two bullae are on display in the Kelsey Museum; others appeared in the 2013-14 exhibition 'Life in Miniature: Identity and Display at ancient Seleucia-on-the-Tigris' and the 1977 exhibition 'Seleucia-on-the-Tigris', Langin-Hooper 2013b: 4–5; Savage 1977: 21–23. Bullae are not on permanent display at the Museo Civico d'Arte Antica, but have appeared in exhibitions, Invernizzi, Negro Ponzi Mancini, and Valtz 1985.

³⁰⁵ For instance, Bag 10 of Gondrand Box 3/25 contains S-6611-6640 and also S-6373 and S-6407.

iii. Publishing bullae

These difficulties in access mean that bullae are usually approached through published catalogues. The focus of publications of bullae has changed over the decades. Initially the impressed seals were regarded as evidence for new forms of Greek words, and as a demonstration of Hellenism in Mesopotamia.³⁰⁶ Subsequent works by Rostovtzeff, McDowell, Brown and Johansen concentrated on the tax stamps and inscribed seals as evidence for Seleukid administration.³⁰⁷ These themes have been returned to in some later studies, including those concerned with administration generally,³⁰⁸ and those concentrating on bullae.³⁰⁹ However, a major preoccupation of scholarship, on both Seleukid bullae and other Hellenistic finds, has been the iconography of the impressed seals.³¹⁰ More recently the buildings in which bullae were found have been considered as archival complexes,³¹¹ and sealing protocols have been examined, in particular with regard to the Urukian bullae.³¹²

Bullae are difficult to keep track of, since they are often fragmentary and are found in large quantities. This can be illustrated by the confusion seen with regard to the number of bullae from Uruk that are now in museum collections. Yale curator Albert Clay claimed, improbably, to have seen several thousand specimens, although he did not indicate where these were held.³¹³ In 1932 Rostovtzeff listed the 897 specimens of which he was aware (Table Supp.-3.1). This total, of 'some 900 sealings' was accepted without comment recently by Wallenfels, noting only that an example published by Renger must also be included.³¹⁴ However, as Oelsner and Lindström observe, more bullae were found subsequent to Rostovtzeff's work and Rostovtzeff's figures were not always correct.³¹⁵ Rostovtzeff seems to have been unaware of some bullae. For instance, in addition to the four bullae from the Morgan Library Collection published by Clay,³¹⁶ a further four (unpublished) specimens are referred to by Wallenfels.³¹⁷ Other minor differences may be due to the loss of fragments; Rostovtzeff refers to seven intact bullae and two fragments in the collection of Henri de

³⁰⁶ Driver 1923; Clay 1923: 52–54.

³⁰⁷ In particular Jordan 1928: 66; Johansen 1930: 46–52; Rostovtzeff 1932: 74–90; McDowell 1932a: 101–103; McDowell 1935: 127–207; Brown 1938: 612–615.

³⁰⁸ Aperghis 2004: 154–155; Capdetrey 2007: 343–344, 414–415.

³⁰⁹ Mollo 1996: 145–156; Lindström 2003: 51–62.

³¹⁰ For example, on goddesses at Kedesh: Herbert 2003: esp. 69–79; 2008: 259–272; Çakmak 2009: esp. 216–225; 2011. On symbols at Kedesh: Lesperance 2010: esp. 388–412. On deities at Seleukeia-Tigris: Bollati 2003; Messina 2006a; 2006b. On masks at Delos: Boussac 1997.

³¹¹ Invernizzi 1968a: 72–76; 1996: 134–139; 2003: 314–320; Messina 2002: 107–115; 2005; 2007: 197–200; Lindström 2003: 65–75; Coqueugniot 2013: 137–140.

³¹² Wallenfels 2000.

³¹³ 1923: 52. His comment is referred to by Naster (1979: 215), but otherwise has been ignored.

³¹⁴ 2000: 334, with note 44; Renger 1977: 79. Note also Iossif, who gives a figure of '900 seals', clearly a confusion for bullae, 2014: 37.

³¹⁵ Oelsner 1986: 511–512, S. 412 Anm. 579; Lindström 2003: 66, n. 398.

³¹⁶ 1923: 52–54, [MLC 2633-2636](#).

³¹⁷ 2000: 341, 344, n. 125, [MLC 2637, 2668-2670](#)

Genouillac, but de Genouillac left eight objects to the Musée Départemental des Antiquités de Seine-Maritime at Rouen.³¹⁸ Variations may also arise from differences in opinion about the attribution of a find-spot. Wallenfels notes 27 bullae held by the Yale Babylonian Collection that are likely to come from Uruk, and a further 35 bullae with no certain or likely provenance, in contrast to Rostovtzeff's figure of 23 from Uruk.³¹⁹ Such differences are frustrating when trying to trace objects, but do not alter the general picture. A more significant discrepancy is that the Oriental Institute Museum now holds only 385 objects considered to be Hellenistic bullae from Uruk, and, despite the specificity of Rostovtzeff's figure of 642, seems only ever to have held this number.³²⁰ Lindström gives a revised total of 1,122 bullae, 482 from illicit digging and 640 from legal excavations.³²¹ The difficulties in attributing find-spots and counting fragments however make it more appropriate to speak of 1,100-1,200 Hellenistic bullae from Uruk.

Difficulties in establishing precise figures likewise occur with regard to the bullae from the Archive Building in Seleukeia-Tigris. Some 5,595 bullae were recovered during the 1967 and 1968 seasons,³²² rising to a stated total of around 24,000 complete and fragmentary bullae after the 1970 season.³²³ Later estimates put the total at around 30,000,³²⁴ which was subsequently revised to around 25,000.³²⁵ *STISA* very precisely gives the number of bullae as 25,255.³²⁶ Entries in *STISA* however refer to 23,442 numbered bullae and eight unnumbered fragments.³²⁷ The discrepancy between these figures is likely to be due to human error in compiling the entries and to the fact that numbered fragments on which impressions cannot be identified are omitted from *STISA*. The Museo Civico d'Arte Antica's database includes 1,519 numbered bullae that do not feature in *STISA*,³²⁸ and it houses at least three boxes containing unnumbered fr

³¹⁸ Rostovtzeff 1932: 8; Hameeuw and van Overmeire 2014: 113.

³¹⁹ 2000: 342, note 49. Previously Wallenfels spoke of 55 unpublished bullae at Yale, 1994: 150. After I submitted this thesis, Wallenfels published 72 napkin-ring bullae and 13 flat bullae in the Yale Babylonian Collection; of these, nine are certainly from Uruk and 29 are probably also from Uruk, 2016: 6.

³²⁰ A search of the online catalogue for 'Seleucid sealing Warka' produces 381 records (<http://oi-idb.uchicago.edu/#H/1439841569497>, accessed 17-08-2015). A further four records are included on the Oriental Institute Museum's internal database; I am grateful to Helen McDonald for allowing me access to this.

³²¹ This however is based on Oelsner's figure of 388 bullae at the Oriental Institute Museum (see n. 315), which seems to include three third-millennium bullae.

³²² Invernizzi 1968a: 69.

³²³ Invernizzi 1970: 22; 1984: 27.

³²⁴ For example, Invernizzi, Negro Ponzi Mancini, and Valtz 1985: 93; Invernizzi 1990: 20; Invernizzi and Papotti 1991: 35. This is followed by Capdetrey 2007: 319.

³²⁵ Invernizzi 1996: 131; 2003: 312.

³²⁶ Messina and Mollo 2004: vol. I, xxxiii and also Messina 2006c: 29.

³²⁷ I may have missed where some bullae are mentioned in *STISA*, but I do not believe the scale of such omissions to be large.

³²⁸ Including, for example, S-5332, on which the outline of an impression is visible (Figure 3.1).

ragments (Figure 3.2).³²⁹ Thus, there are around 25,000 pieces on which an impression can be distinguished, and perhaps a further 5,000 fragmentary pieces; again, attempting to reach a more precise figure would be misguided.

Such problems, albeit on a smaller scale, are seen also with other finds, sometimes exacerbated by confusion between bullae and seals. For example Wallenfels states that Legrain published five bullae from Nippur,³³⁰ and Gibson 'more than twenty',³³¹ when in fact he published four.³³²

Publishing bullae is time-consuming. While specimens from Block G6 and Jebel Khalid were quickly published, it took decades for others to appear in print, including those from the Archive Building and Uruk. Many finds remain unpublished, or partially published. Only overviews and studies of particular seals from Kedeshe are currently available, while those from Uruk that are in the Oriental Institute Museum and the Yale Babylonian Collection (now including the Morgan Library Collection) remain almost entirely unpublished.³³³ Where assemblages have been partially published, there is a tendency to select seals that are regarded as particularly interesting. Rostovtzeff published only those that he considered were used by officials,³³⁴ while McDowell and Invernizzi focused on salt stamps in initial publications of bullae from Block G6 and the Archive Building.³³⁵ This means that such seals are over-represented in published material, and also divorces the activities of these seal-bearers from their wider context.

The widespread interest in iconography is reflected in the decision to publish some finds, including those from the Archive Building and Delos, as catalogues of impressed seals, without descriptions of the bullae or concordances of which seals co-occur on bullae. The scale of finds also affects the levels of information provided; thorough descriptions tend to

³²⁹ Gondrand Boxes 3/30, 3/32, 3/33. Small fragments are not held by the Kelsey Museum, presumably because they were not collected, as is implied by McDowell's comment that 'A large quantity of particles and fragments [of bullae were] in such a condition that they were of no value for the purpose of study', 1931: 38.

The excavation numbers of some bullae at the Museo Civico d'Arte Antica are either missing or confused, further highlighting the difficulties in keeping track of these objects. Examples include: three bullae are labelled as S-9210; a cast originally labelled S-7140 was later changed to S-7448; there is a bag of numberless casts of salt bullae in Gondrand 2/15.

Similar confusions have occurred at the Kelsey Museum. For example, KM 35794 is labelled as McDowell 1935, AId(41), while a typed sheet recording the bullae states that it is AId(46); this latter designation fits McDowell's description. There are also a few bullae that were given McDowell numbers, but not published by McDowell; for instance McDowell 1935, AId(116)= KM 35864. KM 1996.01.50 was given a McDowell number that had already been assigned, McDowell 1935, AIIa(36).

³³⁰ 2000: 334, n. 47.

³³¹ 1994: 94.

³³² See n. 402.

³³³ Those in the Yale Babylonian Collection are published by Wallenfels 2016, available to me too late to be incorporated into this thesis.

³³⁴ 1932. He briefly notes the existence of accompanying figurative seals.

³³⁵ McDowell 1931: 27–31; 1932a: 103–111; Invernizzi 1968a: 77–118.

be published only for small groups of bullae. Even when information on the bullae is provided, the focus is usually on the seals, and understanding the positions of impressions can be difficult.³³⁶ This iconographic focus consequently makes it difficult to identify connections between the seals impressed on bullae and to reflect on sealing protocols, aspects of importance in considering administrative practice. There is further a tendency to select better-preserved specimens for illustrations.³³⁷ This suggests that the material is far less damaged than is the case. Therefore, the decisions typically made in the course of producing catalogues lead to the removal of particular bullae and seal impressions from their broader ancient (and modern) contexts, and can hinder the researcher's ability to ask particular questions.

The scale and complexity of finds has led to occasional errors in their publication. Given researchers' heavy reliance on these catalogues, it is important to be aware of common issues. The catalogue of seal impressions from the Archive Building at Seleukeia-Tigris (*STISA*) can serve as a case study.³³⁸

The entry for each seal in *STISA* lists the bullae on which it is impressed, and states the total number of such bullae. For example, that for **TM 191** reads:

'TM 191 >22[mm]>22[mm] ovale largo piano
4 esemplari: S7-420, [S7-]1400*;
S8-274*, [S8-]669'³³⁹

Some lists of bullae contain errors. Some bullae have unviable excavation numbers (for example, with too many digits),³⁴⁰ and on occasion the bulla named in the plates does not appear in the main entry.³⁴¹ Sometimes a bulla is listed more than once in the entry for a seal.³⁴² Then, the stated number of bullae on which a seal appears is not always the same as the number of bullae listed for that seal. There are 10 seals for which the difference between these two figures is significant (Table Supp.-3.3). In most cases it seems that an arithmetical error has occurred, since the number of bullae listed is greater than the stated total (and it is unlikely that many bullae with viable excavation numbers would be included mistakenly). Bullae are also not always listed when they should be. For example, S-9696 is impressed by the figurative seals **ApT 10** and **M 59** and the salt stamp **Alk 86**, although it is listed only under the latter. The impact is again generally minimal; for instance, I am aware of nine

³³⁶ Compare Rostovtzeff 1932: Pl. XI, 1. with Delaporte 1923: Pl. 123, 5a-c; it is impossible from the former to understand the location of impressions. A notable exception is Hameeuw and van Overmeire 2014.

³³⁷ I of course am also guilty of this.

³³⁸ These issues are not discussed in Callieri's review of this work, 2005.

³³⁹ Messina and Mollo 2004: vol. I, 73. Asterisks indicate that a photograph of this bulla is given in the plates.

³⁴⁰ Table Supp.-3.2.

³⁴¹ For example, **Tk 284** is said to appear on S-9746 in the main entry, and on S-9246 in the plates; examination of the bulla demonstrates that the former is correct.

³⁴² For example, S7-3752 is listed twice under **Ap18**.

omitted impressions of **Mn 6**. On a larger scale however are the more than a hundred omitted impressions of **M 59** that I have spotted. Additionally, there are a number of cases where the same seal is listed under different iconographic codes, either because the motif has been variously interpreted,³⁴³ or because a poor impression of a seal was not recognised.³⁴⁴ In the course of my research, I have altered (either by adding a reference to an impression or deleting a mistaken reference) approximately 600 entries in my database recording bullae from the Italian excavations.

Such misidentifications and omissions are not confined to *STISA*. For example, McDowell did not notice that **McDowell 1935, IC1b(17)** and **IC1b(5)** are impressions of the same salt stamp,³⁴⁵ or that the obscure impression on **McDowell 1935, A1c(25)** is **McDowell 1935, IID3a(1)(=M 59)**.³⁴⁶ Although Legrain notes only two impressions on **CBS 13232** from Nippur, outlines of further impressions can be observed on the photographs.³⁴⁷ Likewise, Mitchell's publication of bullae from Rassam's excavations omits seal impressions that were noted by Leichty, Finkelstein and Walker.³⁴⁸

The catalogues are not perfect records of the excavated bullae and impressed seals. However, the discrepancies are generally minor and do not seem to result from systematic biases. As such, they are unlikely significantly to distort our overall understanding. Such mistakes therefore serve primarily as a reminder that extant bullae must be treated as a partial sample of those documents originally stored in an archive, and seal impressions as a potentially incomplete record of the individuals involved in their creation. The problems experienced by researchers, with modern technologies to aid them, are also suggestive of the difficulties that ancient users must have had in keeping track of documents, particularly in the large Archive Building.

Just as the researcher has to get to grips with the range of terminology used in scholarship and museum catalogues, so too does s/he have to become familiar with the ways in which seals and bullae are designated in publications. Bullae are usually numbered with reference to their excavation numbers, although there are exceptions, such as McDowell's numbering based on the (perceived) forms of bullae. Seal numbers tend to relate to iconography, either explicitly, as in the abbreviated reference to the motif in the seal designations of *STISA*, or

³⁴³ For instance, **ZeT 10** is **TM 471**. Further examples are listed in Table Supp.-3.4. I found these organically while examining the bullae; a systematic search would almost certainly uncover others.

³⁴⁴ For example, **M 74** on **S6-852** is a poor impression of **M 73**, which is also noted as impressed on this bulla. Further examples are listed in Table Supp.-3.4.

³⁴⁵ Appendix D.

³⁴⁶ Appendix F.

³⁴⁷ Legrain 1925: Plate XLVIII.

³⁴⁸ Mitchell and Searight 2008, **Nos. 762, 763** and Leichty, Finkelstein, and Walker 1988, **Nos. 2589, 2590**; my examination of these bullae confirmed the latter's figures.

implicitly, as in McDowell's alpha-numeric codes relating to his categorisations of motifs.³⁴⁹ Again a specific language is constructed, which both creates certain expectations about how to interpret the evidence, and adds a further barrier between our interactions with seals, based on iconography and potentially baffling codes, and the ancient experience, where seals were probably associated with their bearers, and with particular engravers and social milieus.

The distribution of bullae across the world, and the impracticalities of examining each specimen, makes the use of published catalogues essential in their study. However, these publications present the bullae and their impressed seals through particular filters, reflecting the interests of, and challenges faced by, their creators. Thus we need to be aware that we approach the bullae through their afterlives as museum artefacts and published objects, negotiating modern interpretations in order to access their ancient existence.

3. The ancient existence

This section provides a survey of the sites from which Seleukid bullae are known, and details of the finds.

i. Uruk

a. The history of the city

Uruk, situated in southern Babylonia on the Euphrates, is most famous for its fourth-millennium role as one of the earliest urban complexes. In the Hellenistic period the city was known in Greek as Orchoi,³⁵⁰ and some inhabitants had Greek names, sometimes alongside Babylonian names.³⁵¹ Evidence of engagement with Greek culture is provided also by the burials of wealthy individuals in two tumuli tombs near the city. Grave goods included iron strigils with gold leaf, wine amphorae, and silver coatings from a banqueting couch,³⁵² objects which indicate the existence of gymnasium and symposium cultures. Imported two-handled amphorae and Greek-style cooking pots, fish plates and oil lights found in Uruk indicate changes in lifestyle and eating habits.³⁵³ A few cuneiform tablets refer to a royal records office in the city.³⁵⁴ There is some evidence of Greek writing, namely a couple of ostraka, three inscriptions, and four stamped amphorae handles.³⁵⁵ Greek terminology is seen in some legal documents; for example, tablets refer to a royal

³⁴⁹ Appendix B.

³⁵⁰ On the Greek name of Uruk (which was not Antioch-on-the-Ishtar canal): Invernizzi 1995: 274–277, contra van der Spek 1987: 73.

³⁵¹ Langin-Hooper and Pearce 2014: 189–191, 194–199; Boiy 2005: esp. 54–59; Sherwin-White 1983: 211–221.

³⁵² Baker 2013a: 52–55.

³⁵³ Potts 1997: 296–300; Petrie 2002: 97–106.

³⁵⁴ See p. 20.

³⁵⁵ Oelsner 1986: 250–251.

diagramma concerning arable land, in the context of a lease of a date orchard that was part of the property of Anu,³⁵⁶ and to a *graphē*, in connection with the return of a prebend.³⁵⁷ Thus the city, and temples, were a part of the wider world, with the Greek influences that this brought.

However, the extent of interaction with this wider world should not be exaggerated. The city does not feature in classical accounts of Seleukid rule (unlike, for example, Ecbatana or Susa), and appears only as the home of Chaldaean astronomers in Strabo.³⁵⁸ Royal patronage of the city seems to have been rare. While Anu-uballit Nikarchos, *šaknu* of the city, states that his Greek name was given to him by a king Antiochos,³⁵⁹ building work on the temples, traditionally a royal prerogative, was undertaken by this Anu-uballit Nikarchos in 244/3 and some forty years later, in 202/1, by another Urukian with a double name, Anu-uballit Kephalon. This suggests only limited royal investment in the city.³⁶⁰ Yet the latter's son, Diophantos, used a royal portrait seal, implying that Urukian elites did have contact with the king and court.³⁶¹ Nonetheless, there is no evidence that monarchs visited Uruk, and the city was never a mint for precious metal coinage.

Although by this time only the urban nobility connected with the temples routinely used Akkadian, cuneiform culture was not static. In the aftermath of the revolts against Xerxes in the early fifth century, theological and economic attention in Uruk shifted from the Eanna temple of Ishtar to the newly constructed Irigal temple of Ishtar and, especially, to the Rēš temple of Anu. This new structure was an enormous complex, sumptuously decorated, that dominated the city (Figure 3.3).³⁶² A prebendary system was developed for the priesthoods,³⁶³ and scholarly tablets continued to be copied. In fact, innovation is seen in cuneiform scholarship, for example with the new popularity of horoscopes and the creation of the Uruk List of Kings and Sages, unique in its explicit linking of legendary sages with contemporary scholars.³⁶⁴

Meanwhile, it is probable that the majority of the population spoke and wrote Aramaic. Such texts have largely vanished, because they were written on leather and papyrus. However

³⁵⁶ McEwan 1988: 418; van der Spek 1995: 227–234.

³⁵⁷ McEwan 1984.

³⁵⁸ 16.1.6

³⁵⁹ Doty 1988: 95–96.

³⁶⁰ Robson In press. For a more positive interpretation of the relationship between city elites and the royal sphere, see Sherwin-White and Kuhrt 1993: 154–155; Clancier 2011: 759–762; Boiy 2010: 218–219.

³⁶¹ See p. 49.

³⁶² Downey 1988: 20–25.

³⁶³ Baker 2014: 195–196.

³⁶⁴ Rochberg 2004: 98–104; Lenzi 2009: esp. 143–153.

sparse pieces of evidence for the use of Aramaic survive, the most striking of which is a large inscription commemorating Anu-uballiṭ Kephalon's work on Irigal.³⁶⁵

Little is known of Hellenistic Uruk's political history. The city seems to have remained under Seleukid control until the conquest of Babylonia in 141 by the Parthian Mithradates I the Great. Along with the other territories of Babylonia, Susiana and Media, it was briefly recaptured by Antiochos VII in 130, but was once more in Parthian hands a year later. Demetrios II, who had previously been captured by the Parthians, was freed during Antiochos VII's invasion, but fled west; the former eastern territories of the empire were lost permanently to the Parthians. Despite this change in political control, there was no immediate cultural break. Terracottas continued to be produced as before,³⁶⁶ and cuneiform tablets were still written.³⁶⁷

Therefore Hellenistic Uruk was a prosperous city, albeit one which seems only rarely to have attracted royal attention. Most inhabitants spoke Aramaic, but Greek influences were present and (re-invented) temple structures and cuneiform culture continued.

b. The bullae and impressed seals

The vast majority of the approximately 1,100 bullae from Uruk are napkin-rings; just 62 flat bullae are known, at least one of which has a convex form.³⁶⁸ Lindström argues that all enclosed documents, implicitly assuming that those with smooth reverse surfaces sealed high-quality leather.³⁶⁹ The flat bullae are almost all impressed by a single seal, whereas napkin-ring bullae seem all to have been originally impressed by two or more seals. Therefore, several individuals were usually involved in the creation of a document.

Approximately 1,000 figurative seals have been identified from impressions on published bullae from Uruk, as well as 33 tax stamps and 24 seals that Lindström considers to be official.³⁷⁰ The majority of figurative seals are known in only one impression. On the excavated bullae from the Rēš and Irigal temples, just 31 figurative seals appear on two or more bullae, six of which also occur on cuneiform tablets, while a further 23 seals are

³⁶⁵ Oelsner 1986: 247–250. An image is given in Frahm 2013: 315.

³⁶⁶ Westh-Hansen 2011: 105.

³⁶⁷ Lindström 2003: 66.

³⁶⁸ Lindström 2003: 12. Rostovtzeff noted that the examples in Berlin were the only flat bullae that he had seen, implying that the unpublished specimens in the Oriental Institute Museum, the Yale Babylonian Collection and the Morgan Library Collection are napkin-rings, 1932: 8–9. The convex bulla is Lindström 2003, No. 27.

³⁶⁹ 2003: 7, 13, contra Rostovtzeff 1932: 16–17.

³⁷⁰ Lindström states that 863 different figurative seals occur on the excavated bullae now in Berlin, 2003: 21, n. 130. Further figurative seals occur on Urukian bullae published by others, including Clay (see n. 316). Most unpublished bullae from Uruk are probably impressed exclusively by figurative seals, since Rostovtzeff published the inscribed seals from the collections to which he had access. Lindström's figures of 33 tax stamps and 24 'official' seals (2003: 25) includes eight uninscribed royal portraits.

impressed on a bulla and at least one tablet. None is known from more than four objects. Thus the bullae reflect the activities of a large community of seal-bearers, with no apparent focus on particular individuals. More extensive overlaps are seen among the Yale Babylonian Collection bullae from Uruk; Wallenfels states that ‘among the [27] unpublished bullae from Uruk in the Yale Babylonian Collection thirty-one private seals recur on two or three bullae each’.³⁷¹ This suggests that these bullae represent a separate archival group.

Most official seals and tax stamps are known in only a few impressions; the most frequently attested is **Lindström 2003, 3-1**, a *chreophylax* seal depicting Antiochos IV, known in 23 impressions.³⁷² The bullae demonstrate, in particular, the influence of the *chreophylax* in Uruk, since 12 different *chreophylax* seals are known, impressed on almost 90 bullae. Many bullae are fragmentary, but it seems that all tax stamps were originally accompanied by at least two figurative seals. Interactions between different officials are evidenced by the co-occurrence on bullae of the *epōnion*, *andrapodikē*, thirtieth and *chreophylax* seals, in various combinations. By contrast, the salt and Euphrates stamps do not occur with other tax stamps. These tax stamps span a long period, with clusters of material relating to the salt tax attested in the late third century, and to the Euphrates tax from the mid-second century (Table 3.1).

There is a relationship between bulla form and the type of seal impressed. Tax stamps are always impressed on napkin-ring bullae, *bybliophylax* and anchor seals always on flat bullae, while *chreophylax* seals occur on both forms. Anepigraphic royal portraits are predominantly impressed on flat bullae.³⁷³ Other figurative seals on flat bullae have both Greek and Mesopotamian motifs. Thus while flat bullae appear a rare choice in Uruk, they were not exclusively created by bearers of official or Greek-style seals.

640 bullae were found during excavations in the Rēš and Irigal temples (Figures 3.4-3.5), which also discovered cuneiform tablets. Considerable clandestine digging had occurred in the temples, especially in the north-west rooms of the Rēš and the northern part of Irigal, and it is probable that many of the unprovenanced bullae were found in these areas.³⁷⁴ Others may have come from residential contexts, from where it is thought that a number of unprovenanced Hellenistic tablets also originate.³⁷⁵ On the basis of the impressions of *chreophylax* seals, Rostovtzeff suggested that Bīt Rēš housed a royal records office.³⁷⁶ Although cuneiform tablets refer to a royal records office in Uruk, as well as temple

³⁷¹ 2000: 343, n. 88.

³⁷² Lindström 2003: 33.

³⁷³ The exception is Lindström 2003, **No. 83-1**, depicting Seleukos I, impressed on a fragment from a napkin-ring bulla.

³⁷⁴ Lindström 2003: 66–67.

³⁷⁵ Oelsner 2003: 287–288.

³⁷⁶ 1932: 49. This is followed by Plantzos 1999: 30; Bencivenni 2014: 163.

registers, they indicate that these were different archives. Moreover, discoveries of bullae within Irigal mean that at least two collections of documents were housed in the temples. Therefore the impressions of tax stamps and official seals indicate the involvement of royal officials in the creation of certain documents, but not responsibility for their archiving. Others have interpreted the finds as temple archives.³⁷⁷ However, the tablets primarily record individuals' rights to prebends and property, not the day-to-day business of the temple, and so are not comparable to, for example, the vast Neo-Babylonian archive that survives from the Eanna temple. Furthermore, Oelsner and Lindström's detailed analyses of find-spots demonstrate that several small groups of bullae were stored in separate rooms. Oelsner identifies these as family archives stored within the temples.³⁷⁸ Priestly families frequently stored their own literary and legal documents within temples in first millennium Mesopotamia, so this is not unexpected.³⁷⁹ Lindström on the other hand argues that only the bullae discovered in the north-west gate of Irigal form such a collection.³⁸⁰ She emphasises the heterogeneity of the other groups of bullae and tablets, and proposes that rooms of the Rēš temples were used by a range of individuals and by the temple administration for depositing documents. Yet there are marked compositional differences between the groups. For example, flat bullae are concentrated in Room 90. This suggests that there were more complex conventions regarding where documents were deposited, and by whom; these are explored in Chapter 6.

ii. **Babylon, Nippur, Larsa**

a. *The histories of the cities*

Small quantities of Hellenistic bullae have been found in other ancient Mesopotamian cities, namely Larsa in the south, and Babylon and Nippur in northern Babylonia.

Babylon had been the central city of Babylonia, politically and theologically, until the Achaemenid period. Following a revolt under Xerxes I many families lost their positions and the Esagil temple may have suffered some destruction.³⁸¹ The city was once more politically important under Alexander the Great,³⁸² but did not regain its central place in Babylonian cult. Its political resurgence was also short-lived; the city was Seleukos I's base only until the growth of Seleukeia-Tigris, and Babylon soon ceased to function as a mint.³⁸³ Although this new foundation undoubtedly reduced Babylon's status, it did not lead to the city's

³⁷⁷ Messina 2007: 197.

³⁷⁸ 1996: 108–110.

³⁷⁹ Jursa 2011b: 199–200. Similar practices are known elsewhere; for example, mortuary priests in the Egyptian Thebaid stored their documents in the cemeteries where they worked, Muhs 2011: 128, 133.

³⁸⁰ 2003: 65–75.

³⁸¹ Waerzeggers 2003: 160–163; George 2010: 476–479.

³⁸² van der Spek 2003: 340–342.

³⁸³ The date of this is unclear, Boiy 2004: 45.

abandonment.³⁸⁴ Antiochos I spent time in Babylon, and building work was undertaken on the temple complex and that of neighbouring Borsippa, where a traditional foundation document (albeit with novel elements) was composed in celebration of Antiochos' role in this undertaking.³⁸⁵ Subsequent rulers however usually stayed in Seleukeia-Tigris, although they occasionally visited Babylon.

There was nonetheless a Greek community in Babylon, known as the *politai*, and some Greek buildings, including a theatre, gymnasium and agora.³⁸⁶ Greek architectural elements can be seen in a few houses and the palace.³⁸⁷ As in Uruk, most people almost certainly spoke Aramaic, but some families continued to use cuneiform. Again this cuneiform culture was not static, as evidenced by developments in the concerns recorded in the Astronomical Diaries.³⁸⁸

Although Ptolemy III fought near Babylon during the Third Syrian War,³⁸⁹ the city remained under Seleukid control until the loss of the region to the Parthians, first in 141 and permanently in 129. The city was however affected by rivalries over the throne; in particular, it was briefly conquered by Molon in his struggle against Antiochos III in the late third century.³⁹⁰

Less is known about Hellenistic Nippur and Larsa. The former had been under-occupied in the early Achaemenid period, and became the site of considerable land allotments, given on the condition of military service. Unlike in Babylon and Uruk, the elite families seem to have been unaffected by the revolts against Xerxes, and temple life continued through the Achaemenid period and into the Seleukid era.³⁹¹ It is possible that Greek references to Hipparenum as a Chaldean school of astronomy refer to Nippur, suggesting a wider awareness of this city.³⁹² Hellenistic houses and large quantities of Seleukid coins have been excavated at Nippur, indicating that the city was occupied and prosperous.³⁹³ Likewise, Hellenistic tablets from Larsa demonstrate that the temple of Šamaš here was rebuilt under Antiochos III and in use under Antiochos IV.³⁹⁴ The tablets also include some Greek personal names.³⁹⁵

³⁸⁴ Sherwin-White 1987: 18; van der Spek 2006: 278–279.

³⁸⁵ Stevens 2014: esp. 85–86. As at Uruk, more negative interpretations of the relationship between king and city have been proposed; for example, Geller and Potts 2015: 387–393.

³⁸⁶ Boiy 2004: 93–94, 188, 206–209.

³⁸⁷ Kuhrt 2001: 87.

³⁸⁸ Pirngruber 2013: esp. 200–206.

³⁸⁹ App. Syr. 65, BCHP 11.

³⁹⁰ Polyb. 5.51.3.

³⁹¹ van der Spek 1992: 239.

³⁹² Oelsner 1982. This identification has been challenged by van der Spek, 1992: 236–243.

³⁹³ Gibson 1992: 50.

³⁹⁴ Lecomte 1987: esp. 243–244.

³⁹⁵ Lecomte 1987: 238–239.

Therefore, the temples and associated cuneiform culture continued to function in these three cities during the Hellenistic era, while there was simultaneously widespread use of Aramaic and some engagement with Greek culture. Nevertheless there are profound differences in their experiences during the Achaemenid and Hellenistic eras, and they should not be regarded as undifferentiated ‘Mesopotamian cities’.

b. The bullae and impressed seals

The five published bullae from Babylon are napkin-ring specimens, each with several figurative seals impressed.³⁹⁶ One was found in the Merkes district, the others on the Qasr mound. On the basis of these find-spots, Invernizzi suggests that the former may come from a private or temple archive, and the latter from a palace archive.³⁹⁷ They are dated on the basis of the iconography of the impressed seals, which include Near Eastern and Greek motifs. One also has traces of Greek lettering.³⁹⁸ ‘Several’ unpublished bitumen bullae were found in a Hellenistic level near the Summer Palace, which are described as impressed by ‘a’ royal portrait seal.³⁹⁹ These may stem from an archive connected with the royal administration.⁴⁰⁰ There is no compelling reason to connect any of these finds with the royal register referred to in a cuneiform text.⁴⁰¹

Six napkin-ring bullae were discovered at Nippur,⁴⁰² in the Parthian fortress (built on the earlier ziggurat) and possibly elsewhere on the site.⁴⁰³ The majority have only anepigraphic seals impressed, and so are again dated primarily on the basis of iconography.⁴⁰⁴ Impressions on one however include a *andrapodikē* stamp, an uncertain tax stamp dating to 163/162 and a *chreophylax* seal; therefore this bulla both resembles, and falls within the

³⁹⁶ Wetzels, Schmidt, and Mallwitz 1957: 43–45, Nos. 141-145. No. 141 was published by Schmidt 1941: 796 and 793–794, Fig. 2. Oelsner raises the possibility that more bullae may have been found, but not published, 1986: 258.

³⁹⁷ 2003: 310.

³⁹⁸ Wetzels, Schmidt, and Mallwitz 1957, **No. 144 b**). The small size of this seal and its motif, a figure with a branch, suggests that the inscription is a personal name.

³⁹⁹ [Anon.] ‘Excavations in Iraq, 1981-82’ 1983: 207.

⁴⁰⁰ Kuhrt 2001: 87.

⁴⁰¹ See p. 20.

⁴⁰² CBS 14411, CBS 11157, CBS 13232, CBS 12455, the seals on which are published by Legrain 1925: 356–357, and OIM A32614 and OIM A32714, published by Gibson 1994.

⁴⁰³ OIM A32614 was found in the Parthian fortress, OIM A32714 in a dump from the University of Pennsylvania excavations, Gibson 1994: 97–99. Legrain records the excavations seasons in which bullae were found by the Pennsylvania excavations, but not their find-spot, 1925: 74–75. Fisher’s publication of the Pennsylvania excavations does not directly refer to the bullae (1905); since it presents finds by area, not season, and focuses on early remains, it also does not offer indirect evidence as to where the bullae were found. Gibson states that the Pennsylvania excavations found bullae elsewhere on the site, but, given his apparent confusion over the number of bullae that they found (for which, see p. 68), this may not be a carefully researched assertion.

⁴⁰⁴ Gibson argues that seals depicting Tyche and an animal impressed on OIM A32714 may be Parthian in date, 1994: 99–102. However a Seleukid date is plausible for both, and indeed more likely, given that other napkin-ring bullae appear to be Seleukid in date.

timespan covered by, the Urukean specimens.⁴⁰⁵ As at Babylon and Uruk, a mix of Mesopotamian and Greek motifs occur.

Three napkin-ring bullae were found in Room 24 of the Ebabbar temple at Larsa.⁴⁰⁶ These are impressed by a mix of anepigraphic figurative seals. Once more, they are dated by their archaeological context and the iconography of the seals. Lecomte states that the legible motifs, which include Herakles and high-quality portraits, are all Hellenistic;⁴⁰⁷ however, those seals depicting animals show Mesopotamian influences.

The finds from these cities thus resemble those from Uruk, in the use of napkin-rings, impressing of several figurative seals on each bulla, occasional attestations of tax and *chreophylax* seals and a mixture of Greek and Near Eastern seal motifs. Those bullae from Larsa and perhaps some from Babylon and Nippur relate to temple spaces, but it is probable that they were nonetheless archived by individuals. The unpublished bullae from Babylon might be the remnants of a royal archive.

iii. Block G6, Archives A and B from Seleukeia-Tigris

a. *The history of the city*

Seleukeia-Tigris was founded by Seleukos I at the end of the fourth century.⁴⁰⁸ It is described by Strabo as a royal residence rivalling Alexandria, greater than the Seleukids' Mediterranean centre of Antioch-Orontes,⁴⁰⁹ while the Babylonian Chronicles and Astronomical Diaries term it a 'royal city', *āl šarrūti*.⁴¹⁰ The city functioned as the regional mint.⁴¹¹ It was laid out on a Hippodamian plan, with Greek amenities, such as a theatre (Figure 3.6). Although Mesopotamian influences are seen, for example, in some terracottas from the city,⁴¹² only a few cuneiform tablets were found there, one of which was probably written in Kutha.⁴¹³ Thus Seleukeia-Tigris was primarily a Greco-Macedonian, royal, city.

Control of Seleukeia-Tigris was on occasion disputed between rival claimants to the throne; during 221-220 it was captured by Molon,⁴¹⁴ and in the winter of 160/161 briefly held by Timarchos.⁴¹⁵ The city was taken by the Parthians in 141. Although Demetrios II recovered the city for a short period in 139/8, he himself was soon captured.⁴¹⁶ The city was taken

⁴⁰⁵ Gibson 1994: 97–102, *OIM A32614*.

⁴⁰⁶ Lecomte 1987: 233–235, Plates 48–49.

⁴⁰⁷ 1987: 234.

⁴⁰⁸ On the date, Cohen 2013: 157, 162–163.

⁴⁰⁹ 16.2.5

⁴¹⁰ For example, AD-187A rev. 18'.

⁴¹¹ Houghton and Lorber 2002: vol. 1, 3–5.

⁴¹² Menegazzi 2012: 158–162.

⁴¹³ Doty 1978; Invernizzi 2003: 311.

⁴¹⁴ Polyb. 5.48.11–12.

⁴¹⁵ Houghton, Lorber, and Hoover 2002: vol. 1, 141.

⁴¹⁶ Houghton, Lorber, and Hoover 2002: vol. 1, 262–163.

back in the autumn of 130 by the Seleukid Antiochos VII, but permanently lost upon his death. As at Uruk, this political change did not bring immediate changes to material culture.⁴¹⁷ The city however was ultimately eclipsed by neighbouring Ktesiphon.

b. Block G6

In the housing insula, 'Block G6' (Figure 3.7),⁴¹⁸ the Michigan excavations discovered 164 bullae in two groups, 'Archive A' in the partially excavated Room 301, and 'Archive B' in Room 16. During the 1927/28-1931/32 excavation seasons, an additional eight bullae were found elsewhere in Block G6, as well as two in trial trenches, and 29 on the surface of the site.⁴¹⁹ Further bullae were discovered during the final 1936/7 season on the surface, particularly to the south-west of the mound of Tel 'Umar.⁴²⁰ These remain unpublished, but I have examined those held by the Kelsey Museum.

While McDowell considered Block G6 to be a single residence and thought that the two archives belonged to one family,⁴²¹ it is likely that the dwelling block consisted of several residences in the Hellenistic and early Parthian periods, and that the archives belonged to separate families.⁴²² This interpretation is not certain however, since, as Hopkins remarks, it was:

'impossible to define with accuracy any single house of Level IV, that is of the Hellenistic period, much less the arrangements of the block as a whole'.⁴²³

The depth of the layers and the height of the water table meant that Level IV was reached in only a few places.⁴²⁴ Identifying the layout was also problematic because often only the foundations of walls from earlier levels survived, later building work and graves cut through remains, and floor levels were not even across the insula.⁴²⁵ Consequently the dating of the bullae rests primarily on the impressed seals.

c. The bullae and impressed seals

Archive A comprises 83 complete or fragmentary bullae,⁴²⁶ of which approximately three-quarters appear to be napkin-ring bullae and the remainder flat bullae, including six convex specimens. On these McDowell identified impressions made by 110 seals.⁴²⁷ These seals

⁴¹⁷ Langin-Hooper 2013a: 453–454.

⁴¹⁸ This was the area of Trial Trench 20-21. The insula was originally designated Block B. It is also referred to as the 'Great House' or the 'Parthian palace'.

⁴¹⁹ McDowell 1935: 14; Hopkins 1972: 11–12.

⁴²⁰ Hopkins 1972: 2, 11–12. The Seleukid level of further rooms in Block G6 were reached during the 1936/37 season, but it appears that no additional bullae were found here, Hopkins 1937: 30.

⁴²¹ 1932a: 98; 1935: 11–13. This is also the interpretation of Yeivin 1931: 16; Manasseh 1933: 6–7.

⁴²² Brown 1938: 608; Hopkins 1972: 30.

⁴²³ 1972: 30.

⁴²⁴ Hopkins 1972: 5; McDowell 1935: viii.

⁴²⁵ Manasseh 1933: 1–4; Hopkins 1972: 43.

⁴²⁶ These figures follow McDowell 1935. A slightly different distribution between the two archives is given, for unclear reasons, by Hopkins 1972: 30.

⁴²⁷ There are an additional 16 impressions he did not note.

include two of the *bybliophylax*, and a seal of the *chreophylax* (known in two impressions), as well as two that are plausibly royal portraits.⁴²⁸ There are several tax stamps (Table 3.2), which date to a period of over six decades, from 230/29 to 166/5, with a concentration in the early second century.⁴²⁹ Although McDowell identified **McDowell 1935, IIA1s(1)** as depicting Demetrios II in his first reign, this identification is improbable,⁴³⁰ and there is no evidence that material from this archive dates to after 165. The remaining seals are figurative examples, most of which are known in only one impression; just eight occur on two bullae. This implies that the archive owners did not routinely seal their copies of documents, reminding us that seal impressions may not record everyone involved in a document.

Most of these bullae are impressed by only one seal (Graph 3.1), in contrast to the bullae from the Mesopotamian cities, suggesting that either the nature of the sealed documents and/or the procedures for sealing them differed. The figurative seals are predominantly impressed on fragmentary pieces which seem to be from napkin-ring bullae. Some 20 figurative seals nonetheless occur on flat bullae, as also do the *bybliophylax* seals. Although McDowell considered all tax stamps to occur on napkin-ring bullae, those bullae impressed by the port dues and dated *andrapodikē* stamp are in fact flat specimens. Thus there are again connections between bulla form and seal type, which partially resemble those seen at Uruk, in particular in the occurrence of *bybliophylax* seals on flat bullae.

Archive B comprises 81 fragmentary and complete bullae, of which approximately 60% appear to be napkin-ring bullae and approximately 40% flat bullae, the majority of which are convex examples. There are also two large bullae, which did not seal documents. Therefore, convex bullae are particularly associated with Archive B, while Archive A contains a higher percentage of napkin-ring bullae. As in Archive A, bullae impressed by more than one seal are rare (Graph 3.2).

McDowell identified 65 figurative seals and 34 salt tax stamps from impressions on these bullae.⁴³¹ The salt stamps occur on complete napkin-ring bullae or on fragments which seem to be from napkin-rings; on complete specimens they are impressed twice.⁴³² The stamps

⁴²⁸ **McDowell 1935, IIA1s(1)** and **IA3f(1)**. **McDowell 1935, IIA2(2)** may also be a royal portrait, see Appendix E.

⁴²⁹ Brown suggests that **McDowell 1935, IA1c(1)** may read (1)58 SE (255/4 or 155/4 BC), 1938: 612. It is likely that the second line included a date (alongside the symbols), but this is badly damaged (see Appendix D). There is certainly a third line to the inscription, which is now also illegible. Thus this stamp cannot be dated.

⁴³⁰ Appendix E.

⁴³¹ He overlooked a further 43 impressions.

⁴³² A possible exception is **McDowell 1935, AId(34)**, which at first sight appears to be a flat bulla; it is however a thick piece of clay with a large break, and so plausibly a fragment from a napkin-ring.

appear all to be *atelōn* examples,⁴³³ and form an annual series dating from 189/88-154/53, with those for 187/6, 185/4 and 172/1 missing, and two bullae known from 173/2.⁴³⁴ The figurative seals meanwhile occur on napkin-ring, flat and container bullae, some in conjunction with salt stamps, and/or in conjunction with other figurative seals. 14 figurative seals occur on more than one bulla from Archive B, but none on more than four. Therefore the number of seal-bearers represented in Archive B is similar to the number known from Archive A, and most individuals again appear only infrequently. Archive B has a greater focus on particular types of documents, namely salt documents and documents sealed by convex bullae, and relates more densely to a more limited period than Archive A. There are no overlaps in seals between Archives A and B; thus the main connection between the two archives is their geographical proximity.

Figurative seals occur on the eight bullae found elsewhere in Block G6, two of which are royal portrait seals. McDowell identified one of these, **McDowell 1935, IA1b(3)**,⁴³⁵ as a seal of the *chreophylax*, because of its similarities to **McDowell 1935, IA1b(1)**. Although no inscription is visible on the former, the close similarities between the depictions of Seleukos I on the two seals make this plausible. On bullae discovered on the surface and in other trial trenches, McDowell identified 33 seals altogether.⁴³⁶ The legible seals include four impressions of three anchor seals,⁴³⁷ an impression that seems also to be made by the royal portrait seal **McDowell 1935, IA1b(3)**,⁴³⁸ and seven impressions of datable salt stamps, spanning 215/4-185/4, including both *atelōn* and *epitelōn* examples (Table 3.3). McDowell dated the salt stamp **McDowell 1935, IC1a(1)** to 287/6; the numerals are however damaged. This date is unlikely, since the stamp would then be around five decades earlier than the next extant example.⁴³⁹ Unlike the salt bullae found in Block G6 these are all flat

⁴³³ On the impression of **McDowell 1935, Ic1b(4)** *atelōn* is entirely restored, and on that of **McDowell 1935, Ic1b(11)** only the 'ΑΩΝ' remains.

⁴³⁴ McDowell notes only those for 187/6 and 172/1 as missing, 1935: 183. This is because he dated **McDowell 1935, IC1b(5)** to 128 SE (185/4 BC), when in fact it dates to 140 SE (173/2 BC), Appendix D. Thus two bullae impressed by this stamp are known from Archive B. If the pieces of **McDowell 1935, AId(32)** do not join (see p. 60), two impressions of the stamp for 157 SE (156/5 BC) would also be known from Archive B.

⁴³⁵ The other is **McDowell 1935, IB1a(1)**.

⁴³⁶ He omitted a further 18 impressions, one of which, on **McDowell 1935, AId(25)**, is an (illegible) salt stamp, identifiable from the accompanying seals.

⁴³⁷ Three of these were found on the surface, one in Trial Trench 4, D 11, the location of a large building variously considered a *heroon*, a villa or a fruit-processing complex; Hopkins 1972: 13–24; Manasseh 1931: 9–16. On the doubtfulness of the identification of this structure as a *heroon*, Downey 1988: 55–59.

⁴³⁸ **McDowell 1935, IA1b(4)**.

⁴³⁹ McDowell acknowledged the difficulties in reading the date, 1935: 50–51. Rostovtzeff considered it illegible, 1932: 50–51. The stamp is similar to **Alk 3**, for example in that no type is stated. It is therefore likely to be early in date. The legible letter is probably a gamma, since the digamma is usually very rounded; therefore the date is X3 SE rather than X6 SE. Even prominently written letters could be rubbed out, so it is not a concern that nothing can be made out beyond the gamma. For example, the date of **McDowell 1935, Ic1b(7)** is not fully legible from the impression on **McDowell 1935, AId(1)**, but here comparison indicates that it is **Alk 81** and dates to 183/2.

examples. On the 67 bullae in the Kelsey Museum that were not published by McDowell, around 90 figurative seals occur, many only in outline, as well as eight salt stamps, the datable examples of which span 215/4-182/181 (Table 3.4). Therefore, the bullae found elsewhere at Seleukeia-Tigris are comparable to those from Archives A and B in terms of the forms of bullae, the types of seals impressed, and their dates; there are however certain differences, in particular in the form of bullae impressed by salt stamps.

The legible tax stamps date from 230 to 153, and the dynastic imagery and identifiable royal portraits relate to Seleukid monarchs. However, the practice of using seals did not end with Seleukid rule. No bulla that sealed a document was dated by the excavators to the Parthian era, but a number of 'token' sealings were, including some found in Block G6. These token sealings are small pieces of clay, with a rounded reverse, and a seal impressed on the obverse.⁴⁴⁰ A similar 'lentoid token' was found at Nippur, and again dated to the Parthian era.⁴⁴¹ Some of the impressed seals bear Parthian iconography, but others, including KM D4448B, are ambiguous (Figure 3.8). The situation may be analogous to the manufacture of terracotta figurines, for which a sharp distinction cannot be drawn between Seleukid and Parthian production.⁴⁴² It is therefore possible that some bullae which sealed documents date to after the Seleukid loss of Mesopotamia, and that some tokens date to the period of Seleukid control.⁴⁴³ Nonetheless, the disappearance of tax stamps at the beginning of Parthian rule suggests that significant changes occurred to protocols for sealing documents around this time.

Block G6 was initially described in grandiose terms as a palace⁴⁴⁴ and a 'Great House';⁴⁴⁵ later Hopkins characterised Archive B as the 'bureau of a government official'.⁴⁴⁶ Consideration of the archives and the archaeology suggests that Archives A and B are in fact family archives. Nonetheless the presence of tax stamps and official seals demonstrate the involvement of the royal administration in certain documents, as was also clear at Uruk.

iv. The Archive Building at Seleukeia

a. The Archive Building

Later excavations of the area to the south-west of Tell 'Umar (Figure 3.9), where the Michigan archaeologists had found bullae on the surface, discovered an unusual complex,

⁴⁴⁰ McDowell 1935: 231–241. They are similar to Achaemenid-era sealed pieces of clay found in a coffin in Ur, which have been interpreted as models used by an engraver, Collon 1996: 66. This does not make sense for the Seleukeia-Tigris specimens, several of which have the same seal impressed.

⁴⁴¹ Gibson 1994: 98, OIM A33778.

⁴⁴² Langin-Hooper 2013a: 453–454.

⁴⁴³ Gibson 1994: 102.

⁴⁴⁴ Yeivin 1931: 18.

⁴⁴⁵ McDowell 1935: 11.

⁴⁴⁶ 1972: 44–45.

approximately 140 m in length but just 6 m wide, which contained thousands of bullae (Figure 3.10).⁴⁴⁷ When the mound of Tell 'Umar was considered to be a temple, the long building was thought to belong to a sanctuary.⁴⁴⁸ This had to be revised when it was realised that the mound is a theatre.⁴⁴⁹ The sheer quantity of bullae in the complex has led to its being named the 'Archive(s) Building'. The Seleukid level (here designated Level V) was only partially reached.⁴⁵⁰ The building is reconstructed as having two suites of seven interconnected rooms, with identical niches along the walls, and entry via one door at the southern end and a second at the northern end.⁴⁵¹ The shape of the building's roof is uncertain, although it has been suggested that it was flat.⁴⁵² Sand was used to create a flat, well-drained foundation.⁴⁵³ This reconstruction suggests that access was heavily restricted. It would also make the inner rooms extremely dark. While no evidence for doors in the eastern or western walls was found,⁴⁵⁴ these were not fully excavated and the extremes of the building were not reached to the north or south.⁴⁵⁵ The oddities of such a structure, which is without clear parallel,⁴⁵⁶ suggest that it is better to assume that there were further entrances. Even then, it remains an unusual complex.

The majority of the bullae were found in Level V of these rooms, usually clustered by the east and west walls. Further bullae were found in higher levels and outside the building, as well as on the site's surface.⁴⁵⁷ Bullae were only recovered in Rooms 1-12, and some rooms were far emptier than others, particularly in the southern suite (Graph 3.3);⁴⁵⁸ this is partly the result of some areas being more poorly preserved, but seems also to indicate that some rooms were emptier than others at the time of its destruction. The complex was destroyed in a fire during the second half of the second century, and subsequently reused for private dwellings and as an industrial area for the production of terracotta figurines.⁴⁵⁹

⁴⁴⁷ Preliminary excavation reports of the Archive Building are: Invernizzi 1968a; 1968b; 1970; 1972; 1972. A full report is provided by Messina 2006c.

⁴⁴⁸ Invernizzi 1968a: 75-76; 1968b: 36; 1976: 171.

⁴⁴⁹ Invernizzi 1991: 354-356; 1994b: 9-10.

⁴⁵⁰ Messina 2006c: 27.

⁴⁵¹ Messina 2014: 126. Entrances in the east wall have also been suggested, Messina 2006c: 53-54.

⁴⁵² Invernizzi 1970: 26-27; 1976: 169; Messina 2006c: 55-56.

⁴⁵³ Invernizzi 1972: 11; Invernizzi, Negro Ponzi Mancini, and Valtz 1985: 92.

⁴⁵⁴ Invernizzi 1968b: 33-34; 1970: 24-25; Messina 2006c: 50-57; 2011: 162-163.

⁴⁵⁵ Messina 2006c: 27-29; Invernizzi 1972: 12.

⁴⁵⁶ It has been compared to the precincts of Mesopotamian sanctuaries, Messina 2011: 163. These are however part of a larger complex, and moreover have further entrances.

⁴⁵⁷ Invernizzi 1968a: 69.

⁴⁵⁸ The numbers in this graph are derived from my database, and so give those bullae published in *STISA*; Messina gives slightly different numbers for some rooms, 2006c: 31-50.

⁴⁵⁹ Invernizzi, Negro Ponzi Mancini and Valtz 1985:92.

b. The bullae and impressed seals

Descriptions of bullae are provided only in Invernizzi's initial publication⁴⁶⁰ and Messina's publication of those found during the final excavation seasons.⁴⁶¹ Complete napkin-ring specimens are rare and – while it is possible that considerably more fragments are from napkin-rings⁴⁶² – the majority are certainly flat bullae, including some convex specimens. As in Archives A and B, most bullae have only one seal impressed, and bullae with high numbers of impressions are rare (Graph 3.4). A few unusual specimens were also found. S-6670 has a string hole at the top, but no corresponding hole at the bottom, suggesting that it dangled free from the papyrus to which it was attached (Figure 3.11).⁴⁶³ There is an unnumbered fragment, impressed on one side by narrow parallel lines, perhaps made by strings, and on the other by what appear to be the thick cords; this presumably did not seal a document (Figure 3.12). It is also unlikely that the extremely large S-6654 sealed a document (Figure 3.13). An (unnumbered) oblong block of clay is perhaps processed clay waiting to be formed into bullae (Figure 3.14); an apparently unimpressed piece of clay shaped into a flat bulla was also found (Figure 3.15),⁴⁶⁴ as well as clay shaped into an animal figurine.⁴⁶⁵ There are then six token sealings (Figure 3.16),⁴⁶⁶ which again suggest that drawing a strict line between Seleukid and Parthian material may not be possible. Additionally, 16 coins were found.⁴⁶⁷

Salt, *andrapodikē*, *katagraphē*, cereal and thirtieth tax stamps are impressed on bullae from the complex. As at Uruk, the *andrapodikē*, *katagraphē* and thirtieth stamps frequently occur in conjunction with each other (and with *chreophylax* seals), always on napkin-rings. Such bullae come exclusively from the southern suite.⁴⁶⁸ Only a few tens of impressions of these stamps are known. By contrast, 90 identifiable salt stamps are impressed on a total of approximately 14,000 bullae, while around a further 1,000 bullae are impressed by salt stamps where the year and/or type is unidentifiable (Table 3.5). Thus over half of the approximately 25,000 well-preserved bullae from the Archive Building are impressed by a salt stamp.⁴⁶⁹ These salt bullae seem all to be flat examples, in contrast to those from Block G6, and were almost all found in the northern suite of the Archive Building.⁴⁷⁰ The number of extant impressions of each salt stamp varies considerably. The *atelōn* stamp from 250/49

⁴⁶⁰ 1968a.

⁴⁶¹ 2014.

⁴⁶² See p. 60.

⁴⁶³ Mollo and Messina imply that many bullae dangled free from documents, Mollo 1997: 94; Messina 2014: 126–127. However, I am not aware of other specimens for which this is certain.

⁴⁶⁴ It is unclear from the cast whether this was attached to a document.

⁴⁶⁵ Invernizzi 1996: 134.

⁴⁶⁶ The entry for S-6564 under **T 1** must be an error for S-6562.

⁴⁶⁷ Messina 2006c: 31.

⁴⁶⁸ Messina and Mollo 2004: vol. I, 20–22.

⁴⁶⁹ Messina and Mollo state that over 15,000 bullae are impressed by tax stamps, 2004: vol. I, 3.

⁴⁷⁰ Invernizzi 1972: 12.

and the *epitelōn* stamp from 233/2 are known on just one bulla each, while the *epitelōn* stamp from 187/6 has been identified on almost 780 bullae (Graphs 3.5-3.6). Impressed salt stamps span the years 250/49-155/4, but only from 216/5-180/79 are there examples from almost every year, with just those from 181/0 and the *atelōn* version from 206/5 missing.⁴⁷¹ Extant examples of other tax stamps by contrast relate to the period 257/6-213/2.

The tax stamps offer an indication of the dating of the archive. Impressions of seals which appear to portray Demetrios II in his second reign (129-125) imply that the archive operated for several decades subsequent to the last extant tax stamp.⁴⁷² It seems that **SU 2**, which occurs once at the Archive Building, was impressed on a slave sale tablet at Uruk in 275,⁴⁷³ while **AF 80**, impressed on two Archive Building bullae, also occurs on tablets from Babylon dating from 328/7 to 258.⁴⁷⁴ These cases suggest that the building may also include material far earlier than the earliest known tax stamp.⁴⁷⁵

Three *chreophylax* seals are known. **Se 1** is attested in 49 impressions (with tax stamps dating to 240/39-212/1 and to an uncertain date in the 60s SE, 253/2-244/3), **Se 3** and **Se 7** in just four and two impressions respectively (**Se 3** once with a stamp dating to 243/2). **Se 2** seems to be identical to **McDowell 1935. IA1b(3)**, which, as noted, is a depiction of Seleukos I that closely resembles that of the *chreophylax* seal **Se 1**. Three certain and two possible (with illegible inscriptions) seals of the *bybliophylax* are known, **SU 20-24**. **SU 20** is known in 35 impressions, and **SU 23** (an uncertain example) in 15 impressions; the others have been identified on five or fewer bullae. None occur with a dated tax stamp, so their chronologies cannot be reconstructed. Most uninscribed official seals are known in fewer than ten impressions; however the anchor seal **SU 13** is found on 21 bullae, **SU 15** on 51, and **SU 14** on 110 bullae. These seals again are not attested in conjunction with tax stamps. The *bybliophylax* and anchor seals occur on flat bullae, the *chreophylax* seals **Se 1** and **Se 3** on napkin-ring bullae, **Se 7**⁴⁷⁶ and **Se 2** on flat bullae; thus again there is a relationship between bulla form and impressed seal. These official seals therefore correspond to those known from elsewhere, but account for a small proportion of seal impressions from the Archive Building.

⁴⁷¹ Messina and Mollo 2004: vol. I, 3–20; Messina 2006c: 66–69.

⁴⁷² Discussed further, p. 181.

⁴⁷³ See n. 202. **SU 1** is a similar seal, and thus may also be early in date.

⁴⁷⁴ Wallenfels and van der Spek 2014: 201, 207–208. The seal is discussed above, p. 50.

⁴⁷⁵ The similarities of *chreophylax* seals to coins of Antiochos I cannot, however, be taken as proof that these also date back to the early third century, as noted by Brown 1938: 615, and contra Messina 2006c: 66–67.

⁴⁷⁶ Messina and Mollo 2004: vol. I, 25.

Approximately 6,000 figurative seals are identified in *STISA*, which also lists almost 1,400 illegible impressions. These impressions are predominantly of figurative seals, since the distinctive shape and size of tax stamps and most official seals means that even poor impressions of these can usually be recognised. Thus it is likely that around 7,000 figurative seals are represented among impressions on the extant bullae. Such a number sounds large, but is small in comparison to the population of Seleukeia-Tigris, especially given that the bullae span several decades. In the first century AD, Pliny put this at 600,000,⁴⁷⁷ and Orosius stated that in the mid-second century AD it was 400,000.⁴⁷⁸ While these figures are unlikely to be precise,⁴⁷⁹ they give a sense of scale. Therefore only a tiny proportion of the city's inhabitants are documented interacting with this archive. It is possible that the Archive Building served only a city district. However, its central location, and the fact that many bullae discovered on the site's surface come from its proximity, suggest that this was the main such building for the city. The number of extant impressions per figurative seal varies considerably (Graph 2.1). 86% occur on just one bulla, and a further 9% on only two. In fact, 99% of figurative seals occur ten or fewer times, while a small handful occur several tens of times, and a very few occur hundreds of times.⁴⁸⁰ The most frequently attested seals are **M 59** (1,296 identified impressions) and **M 73** (916 impressions).

The impressions of *chreophylax* seals suggest that one function of the complex was registering documents. The iconography of the *chreophylax* seals and associated tax stamps demonstrates that these were used by royal officials. Thus the complex appears to be akin to that termed the *bīt šarri šaṭratti* by the inhabitants of Uruk. Royal registration of documents provided an additional guarantee for the parties involved, but will also have enabled the administration to monitor and tax transactions. The dominance of salt documents implies that the complex had further functions. It is unlikely that these were individuals' receipts for tax payments, kindly housed for them by the administration that also wanted to collect these taxes, and more probable that these documents related to tax collection. Likewise, it is unlikely that the *šatammu* of Esagil decided to place a document in the Archive Building for safe-keeping, and more probable that the bullae on which **AF 80** is impressed enclosed letters or reports that he had sent to royal officials.⁴⁸¹ Thus, rather than being characterised as a 'public' or 'municipal' archive,⁴⁸² or simply as a *chreophylakion*

⁴⁷⁷ *HN*. 6.122.

⁴⁷⁸ vii, 15.

⁴⁷⁹ Estimates for the population are gathered by van der Spek 2008: 36–37. The limited excavations that have taken place at Seleukeia-Tigris, and fact that the city wall is not known, mean that the estimate cannot be improved from archaeological evidence, Boiy 2004: 233–234.

⁴⁸⁰ This pattern was noted by Invernizzi, without elaboration, 1976: 170.

⁴⁸¹ As proposed by Wallenfels and van der Spek 2014: 208. This seal also occurs on temple inventories, letter-orders and an uncertain document relating to ration disbursements from Babylon, Wallenfels and van der Spek 2014: 201, 207–208.

⁴⁸² For example, Invernizzi 1994a.

or salt tax office,⁴⁸³ the building emerges as a royal administrative complex and records office.⁴⁸⁴

v. Seals attested at Uruk, Block G6 and the Archive Building

A few seals that occur on bullae from the Archive Building are also attested on bullae from Uruk and Block G6. There are also impressions that were made by very similar seals; where such seals are used in analogous ways, for example by co-occurring with particular other seals, it is probable that they were intended to be understood to be the same seal.⁴⁸⁵

Seals whose impressions are found both in Block G6 and the Archive Building include several salt stamps and figurative seals that are associated with salt stamps,⁴⁸⁶ and the royal portrait (possibly *chreophylax*) seal **Se 2= McDowell 1935, IA1b(3)**. Additionally, the figurative seals **At 49, TM 463, TF 1, Of 260** and **Og 130** co-occur on bullae from both locations.⁴⁸⁷ There are also similarities between anchor, *chreophylax* and *bybliophylax* seals impressed on bullae from the two areas. While perhaps not precisely the same seals, pairs such as the *chreophylax* seals **Se 1** and **McDowell 1935, IA1b(1)** are undoubtedly intended to closely resemble each other.⁴⁸⁸

Seals whose impressions are found at both Uruk and the Archive Building include anchor (and horse) seals (**SU 1, 2** and **9**), the *bybliophylax* seal **SU 20**, the *chreophylax* seal **Se 1**, royal portrait **Se 2**, and figurative seals **Od 33, TM 59** and **EkT 1/2**.⁴⁸⁹ **EkT 1/2** occurs in association with **SU 20** at both Uruk and Seleukeia-Tigris; the other two occur alone or with

⁴⁸³ For example, Capdetrey 2007: 319; Bencivenni 2014: 163.

⁴⁸⁴ As was suggested in some early interpretations of Invernizzi, such as Invernizzi, Negro Ponzi Mancini, and Valtz 1985: 92. See also Plantzos 1999: 30.

⁴⁸⁵ Slight differences may also result from the re-engraving of seals, which occurred at least occasionally. For example, on **MRAH O.205 A**, a *chreophylax* seal from Uruk, an earlier writing of *Orchōn* was erased, Boschloos et al. 2012: 31; Hameeuw and van Overmeire 2014: 121–122.

⁴⁸⁶ Discussed p. 108.

⁴⁸⁷ Only the appearances of **At 49** and **TM 463** at both locations are noted in *STISA*.

TF 1 is **McDowell 1935, IIB2a(2)** (Figures 3.17-18).

Of 260 is **McDowell 1935, IIIA1f(14)** (Figures 3.19-20).

Og 130 is **McDowell 1935, IID4c(3)**, a double *polos* seal (Figures 3.21-22). As well as the motif, the size of the two support this identification; **McDowell 1935, IID4c(3)** is 'diam. approx. 12 mm', **Og 130** '>11[mm]x>11[mm]', McDowell 1935: 120; Bollati and Messina 2004: vol. III, 194.

At 49, TM 463, TF 1, Of 260 and **Og 130** occur on a bulla found in Room 141 of Block G6, not Archive A as Messina states, 2005: 126.

TK 1 is not **McDowell 1935, IIIA1x(3)**, contra Bollati and Messina 2004: vol. II, 124 (Figures 3.23-24).

Alk 5 is not known from bullae from Block G6, contra Messina 2005: 126, n. 7.

⁴⁸⁸ Messina has suggested that **Se 1** is identical to **McDowell 1935 IA1b(1)** (2005: 126, n. 7), although previously he considered them to be similar, but different, seals (Messina and Mollo 2004: vol. I, 39). The dating of **Se 1** fits comfortably within the timespan covered by Archive A.

⁴⁸⁹ Bollati and Messina 2004: vol. III, 213–214; Messina 2005; 2007: 197. Messina also compares the uses of seals with similar motifs at Uruk and Seleukeia-Tigris; the motivations behind his selection of particular seals are however unclear, 2009: 180–184.

figurative seals.⁴⁹⁰ Bollati and Messina propose identifying **ErT 26**, a prominent seal at Seleukeia, with a seal impressed on a cuneiform tablet (recording a gift of a house and slave) from Uruk dating to 188/7.⁴⁹¹ However, the sizes and shapes of these seals differ.⁴⁹² Other similar seals are known from Seleukeia-Tigris, and there is no reason to think that these two seals were intended to be understood as identical. Messina has shown through comparison of high-resolution photographs that **MO 3** is not Lindström 2003, **No. 89-1**,⁴⁹³ but these differences are imperceptible without careful measuring. Moreover, the monogram design is unusual at Seleukeia-Tigris and Uruk, and both impressions occur with the *chreophylax* seal **Se 1**. Therefore, it is probable that they were intended to be understood as the same seal. **At 48** resembles Lindström 2003, **No. 79-1**, a *chreophylax* seal from Uruk. However, neither the inscription nor Athena's helmet and the accompanying Nike can be identified from the impression of **At 48**. Since impressions of *chreophylax* seals from other cities are not otherwise known at the Archive Building, it is safest to assume that these are different seals.⁴⁹⁴

In considering the significance of these connections, it is important to remember that bullae survive in significant quantities only from Uruk and Seleukeia-Tigris. We can only speculate as to what extent of overlap might have existed between, for example, seals impressed on hypothetical bullae from Antioch-Orontes and those from Seleukeia-Tigris.

vi. **Jebel Khalid**

a. *The history of the settlement*

Jebel Khalid is a heavily-fortified settlement situated on a limestone outcrop on the west bank of the Euphrates, presumably to control crossings (Figure 3.25).⁴⁹⁵ It was built on virgin soil in the early or mid-third century, and abandoned in the mid-first century,

⁴⁹⁰ **Od 33** (=Lindström 2003, **No. 509-1**) appears alone (at both cities; **TM 59** (=Lindström 2003, **No. 203-1**) occurs once in conjunction with seals from the **TM 58** group, on which see p. 100. **TM 59** is very similar to **TM 58**, a prominent seal at Seleukeia-Tigris. However, while Lindström 2003, **No. 203-1** is similar to **TM 58**, the details of the chin and neck seem to differ.

Ekt 1 and **Ekt 2** have both been identified as the same seal as Lindström 2003, **No. 81-2**, Bollati and Messina 2004: vol. III, 214. The difficulties in distinguishing between **Ekt 1** and **Ekt 2** suggest that they were intended to be identical, regardless of whether they were one or two seals.

⁴⁹¹ 2004: vol. II, 109. The seal at Uruk is Wallenfels 1998, **No. 4**.

⁴⁹² Wallenfels 1998, **No. 4** is impressed almost completely; only the very bottom of the seal is obscured by writing. It has an almond shape, and measures 9 x >14 mm; the plume or wing is complete. The photograph of **ErT 26** suggests an oval shape to the seal, which closely surrounds the head, seemingly cutting off the tip of the wing; this impression however measures >12 x > 15 mm. This apparently incomplete impression is therefore larger than the complete Urukean example. Messina previously considered the impressions to be made by separate seals, 2006a: 174.

⁴⁹³ 2005: 140–141.

⁴⁹⁴ Messina and Mollo suggest that **Se 7** may be a *chreophylax* seal from Uruk, because it is inscribed *chr(eo)phlakik(os?)* not *chreophylakōn*, as are other Seleukeia-Tigris examples, 2004: vol. I, 25. However, **Se 7** does not refer to Uruk, and the wording on *bybliophylax* seals and tax stamps from Seleukeia-Tigris does vary. Therefore, it is most likely that **Se 7** was used in Seleukeia-Tigris.

⁴⁹⁵ On Jebel Khalid, see Clarke and Connor 2002: vol. 1; Cohen 2006: 178–180.

meaning that occupation dates solely to the Seleukid period. Domestic insulae, a commercial quarter, a temple, the walls, and buildings on the separately-walled acropolis have been excavated, including an imposing complex on this acropolis, designated the 'Governor's Palace' (Figure 3.26). This dates from the mid- to late third century to the early first century.⁴⁹⁶

b. The bullae and impressed seals

Three flat bullae were found in Room 22 and near the door of Room 24 in the Governor's Palace, which Clarke suggests had administrative or archival functions.⁴⁹⁷ Other rooms on the lower floor were used for storing, preparing and consuming food, with residential areas perhaps in a lost upper storey.⁴⁹⁸ Two of the bullae are made from bitumen, and one from clay; the reverses are described as 'unmarked', suggesting that they sealed documents written on very smooth leather. A further flat clay bulla was found in an unstratified context near the main city gate.⁴⁹⁹ Each is impressed by a single seal; **IK S.1** depicts an anchor, **IK S.2** and **IK S.4** show a helmeted Athena, the former with traces of a monogram, while **IK S.3** shows Zeus holding Nike, with the legend NIKEΦΟΡΟ[Y].⁵⁰⁰ The find-spots of the bullae and iconography of the seals suggest the enclosed documents had a close association with the royal administration, while the discovery of figurative seals in residential contexts demonstrates a more widespread use of seals at Jebel Khalid.⁵⁰¹

vii. Kedesh

a. The history of the city

Although Kedesh, in modern Israel, is described by classical authors as a village,⁵⁰² a large, well-built structure has been discovered, dating to the Hellenistic period but constructed over a Persian predecessor. This was an elite residence, with bath facilities and evidence of fine dining.⁵⁰³ There was additionally a courtyard off which opened rooms for food preparation and storage, suggesting that the complex also had administrative, and possibly commercial, functions (Figure 3.27).⁵⁰⁴ The bullae were discovered in one such room (measuring 5.4 x 6 m), designated the 'Northwest Archives Room', and in the neighbouring corridor.⁵⁰⁵

⁴⁹⁶ Clarke 2002c: esp. 45-47.

⁴⁹⁷ 2002c: 44-45.

⁴⁹⁸ Clarke 2002c: 25-47.

⁴⁹⁹ Clarke 2002d: 22.

⁵⁰⁰ Clarke 2002a: 201-204.

⁵⁰¹ Jackson 2004.

⁵⁰² Berlin and Herbert 2012: 26; 2005: 36; Herbert and Berlin 2000: 123.

⁵⁰³ Berlin, Herbert, and Stone 2014: 310, 315-320; Herbert and Berlin 2003: 35-36.

⁵⁰⁴ Berlin and Herbert 2013: 375-377; 2012: 27-28; Herbert and Berlin 2003: 19-20, 22-31.

⁵⁰⁵ Herbert and Berlin 2003: 21-26.

The main period of Hellenistic occupation appears to date to the second century, when the Seleukids controlled the region.⁵⁰⁶ Herbert and Berlin interpret the complex as the seat of the governor of Galilee or the *strategos* of Koile-Syria and Phoenicia.⁵⁰⁷ The building was rapidly abandoned in the later second century. While the rest of the building shows evidence of subsequent squatter occupation, the Archives Room was deliberately destroyed. The door was blocked, and two infant bodies placed on the floor, before the room was burnt, suggesting that the archive had a particular ideological significance.⁵⁰⁸

b. The bullae and impressed seals

The bullae are not yet fully published. Preliminary reports indicate that the hoard consists of 2,043 flat bullae, of which 1,765 have legible images.⁵⁰⁹ The Rhodian amphorae handles also found here predominantly date from 170-145,⁵¹⁰ and the floor of the Archives Room is made from fragments of third century ceramic ware,⁵¹¹ implying that the bullae date to the Seleukid occupation. The five impressed seals with inscribed dates support this conclusion.⁵¹² The clay bullae were each impressed by one seal, and attached to papyrus documents.⁵¹³

The impressed seals are mainly figurative; portraits and deities are popular motifs.⁵¹⁴ The iconography is predominantly Greek, although local traditions are evident, for example in portrayals of Aphrodite influenced by depictions of the Phoenician goddess Tanit.⁵¹⁵ There are also the city seals of Kedesh and Sidon, and the seal inscribed, 'He who is over the land', as well as seven impressions of anchor seals, and a large number of royal portrait seals.⁵¹⁶ A few seals are impressed on several bullae.⁵¹⁷ However, although published accounts do not indicate precise figures, there is not the same dominance of a few seals as seen at the Archive Building.

The location of the find indicates an official context for the archive. The discovery of amphorae in the Archive Room, imply that some documents may have related to the receipt

⁵⁰⁶ Berlin and Herbert 2013: 377–378. The region was captured by Antiochos III in 199, and lost by Demetrios II to the Maccabean Jonathan in 144/3.

⁵⁰⁷ 2003: 53.

⁵⁰⁸ Herbert and Berlin 2003: 23–24, 54–55.

⁵⁰⁹ Berlin and Herbert 2013: 377; Herbert and Berlin 2003: 13, 19–20.

⁵¹⁰ Berlin, Herbert, and Stone 2014: 312. Some amphorae date to 140 and later; these are however considered to belong to the squatter occupation, Berlin, Herbert, and Stone 2014: 318, 321 n. 7.

⁵¹¹ Berlin, Herbert, and Stone 2014: 313–314.

⁵¹² Herbert and Berlin 2003: 50–51.

⁵¹³ Berlin and Herbert 2012: 26–27.

⁵¹⁴ Herbert 2003: 70, 80 n. 7.

⁵¹⁵ Çakmak 2009: 48–55, 196–203; 2011: 72–78.

⁵¹⁶ See p. 48.

⁵¹⁷ Apparent from Çakmak's account of impressions of 'Active Archer' seals, 2009: 88–89.

and distribution of goods, and perhaps tax collection.⁵¹⁸ It is possible that other bullae sealed private contracts that were registered here.⁵¹⁹

While this material is of a similar date to the bullae from Uruk, Nippur and Seleukeia-Tigris, there is no explicit indication here of taxation or a *bybliophylax* or *chreophylax*. The absence of tax stamps and napkin-ring bullae, the one-impresion-per-bulla rule, and impressions of city seals mean that the archive seems more similar to those of the Mediterranean world and Egypt than those of the Seleukid East. Nevertheless, the presence of anchor seals demonstrates that this archive had direct connections to contemporary assemblages from Mesopotamia.

viii. Unprovenanced and doubtful examples

The assemblages of bullae surveyed above are all that are certainly from the Seleukid empire. However, the forms of a number of unprovenanced bullae, and the iconography of anepigraphic impressed seals, suggest a Seleukid origin. These include three napkin-ring specimens in a private Danish collection,⁵²⁰ the unpublished napkin-ring bullae held in Yale,⁵²¹ and an object described as a 'docket' (probably a napkin-ring bulla) held by the Kalamazoo Valley Museum, Michigan.⁵²² On occasion a provenance can be suggested. For example, the British Museum numbers of the four (fragmentary and complete) napkin-ring bullae discovered by Rassam imply that they were discovered at Sippar.⁵²³ However, since the other Hellenistic material that he found comes from Babylon and its vicinity,⁵²⁴ these bullae are very likely also from BABYLON.⁵²⁵ They are impressed by almond-shaped metal seals with Mesopotamian motifs.⁵²⁶ The same seals recur on three of the bullae,⁵²⁷

⁵¹⁸ Berlin and Herbert 2012: 28.

⁵¹⁹ Ariel and Naveh 2003: 61–62; Herbert and Berlin 2003: 50–51.

⁵²⁰ Møller 1992: 61–64.

⁵²¹ See n. 319.

⁵²² [KVM 32.1174](#), Seri 2007.

⁵²³ [BM 77099+77102](#) (=AH 83-1-18 2478+2481), [77209](#) (=AH 83-1-18. 2589), [77210](#) (=AH 83-1-18. 2590), [77211](#) (=AH 83-1-18. 2591).

⁵²⁴ Rassam simultaneously excavated several sites, including Babylon, Borsippa, Sippar (Abu Habbah) and Nippur; Reade 1986a: 105–6; 1993: 56–59. When excavated material arrived at the British Museum it was assigned a 'date-number' signifying when it arrived, often accompanied by an initial to indicate the provenance. However, at times material from several sites was included within a 'date-number'. Among the material assigned the date number 'AH (i.e. Abu Habbah) 83-1-18' are uninscribed bullae, Neo-Babylonian tablets from Sippar, and Hellenistic tablets from Babylon and Borsippa, Walker 1988: xii–xiii.

⁵²⁵ A Hellenistic cemetery and coins have been found at Sippar, and van der Spek has argued that a text concerning an Ebabbar temple may refer to that of Sippar, 1992: 240, 242–243. Therefore, a Sippar origin remains possible.

⁵²⁶ Drawings of (most of) the impressions on [BM 77099+77102](#), [BM 77209](#) and [BM 77210](#) are published by Mitchell and Searight 2008, [761](#), [762](#), [763](#).

⁵²⁷ The impressions on [BM 77211](#) mirror those on [BM 77102](#), while a further seal occurs on both [BM 77099](#) and [77210](#), Mitchell and Searight 2008, [Nos. 761-f](#) and [763-b](#).

suggesting that these are remnants from a single archive. Rassam excavated several areas of Babylon, so their find-spot cannot be determined further.⁵²⁸

There are other bullae whose date is uncertain (Map 5). Two flat clay bullae were discovered at PASARGADAE, dated – by their archaeological contexts – to ca. 330-280.⁵²⁹ Seleukos I conquered the region in the late fourth century, meaning that these may date to the period of Seleukid control. Three bullae impressed by seals with possibly Hellenistic motifs were found at NINEVEH,⁵³⁰ which was possibly re-founded under the Seleukids. However, most evidence for the use of Greek language and imagery dates from the Parthian era.⁵³¹ A few hundred unprovenanced flat bullae seem to come from DOLICHE, in Kommagene, although it is unclear whether these constitute a single archive.⁵³² Most date to the imperial period, but some impressed seals have been dated, iconographically, to the Hellenistic era,⁵³³ one of which has been interpreted as depicting Seleukos II.⁵³⁴ However, this identification is improbable, since the man is bearded and lacks a diadem.⁵³⁵ Furthermore, the history of Kommagene is poorly attested, and it is uncertain whether the city was ever under Seleukid control.⁵³⁶ Given these uncertainties, the bullae from Persepolis, Nineveh and Kommagene will not feature further in this thesis.

ix. Seleukid seals beyond the empire

Delos was never under Seleukid control, but from the reign of Antiochos III onwards friendly relations existed between the island and the Seleukid monarchs. Seleukid trade concentrated on Delos after it was declared a free port.⁵³⁷ Statues of several late Seleukid monarchs were erected on Delos, as was a decree honouring Antiochos VII, while Antiochos VIII dedicated a statue there of the Roman consul Papirius Carbo. The statue of Antiochos IX was erected by his father's *philos*, Sosistratos, who also dedicated a statue of Antiochos' teacher Krateros.⁵³⁸ Therefore close links existed between the later Seleukids, their *philoï* and Delos.

These connections explain the presence of impressions of a few Seleukid seals on flat bullae discovered on the island. Approximately 15,000 bullae, impressed by around 14,000 seals

⁵²⁸ Hilprecht 1904: 261–263.

⁵²⁹ Stronach 1978: 179, pl. 162.

⁵³⁰ Mitchell and Searight 2008, **Nos. 764, 782-783**. The iconography of the latter seal is not clearly Hellenistic.

⁵³¹ Reade 1998: 68–74.

⁵³² Maaskant-Kleibrink 1971: 62; Lesperance 2010: 47–48.

⁵³³ Plantzos, for example, suggests that they date from the first century BC onwards, 1999: 29.

⁵³⁴ Maaskant-Kleibrink 1971, **No. 9**.

⁵³⁵ Seleukos II is only portrayed with a beard on coins during his eastern anabasis, making Maaskant-Kleibrink's theory that the seal dates to the period before his accession unlikely.

⁵³⁶ Cohen 2006: 30–32, 155; Sherwin-White and Kuhrt 1993: 14–15, 190–194.

⁵³⁷ Rostovtzeff 1941: 702.

⁵³⁸ Habicht 2006c: 169–172; Rostovtzeff 1941: 692–693; Savalli-Lestrade 1998: 86.

were found in a private house in the Skardhana quarter; this archive appears to belong to a family that stored documents for others. These bullae often have a sausage shape, and so are notably different to those found at Seleukid sites (Figure 3.28). Dated seals indicate that the bullae span at least the period 128/7-69;⁵³⁹ thus this archive is of a later date than the finds from Mesopotamia. Among the impressions occurs one seal that appears to depict Antiochos VIII, as well as others that portray Ptolemaic kings. One impression, alone on a bulla, is of a large seal with an anchor and horse protome (**SP 8**). There are 17 impressions of **SP 9**, which depicts Nike and is inscribed *basileos Antiochou*. This seal always occurs in conjunction with at least one other seal, but since the assemblage is not fully published, these seals are not identifiable.⁵⁴⁰ It is possible that further seals were used by individuals connected to the Seleukid court and administration that, lacking distinctive iconography, cannot be identified. Official seals are however very rare in this archive; other examples relate to cities in the Kyklades and western Asia Minor and to the Athenian magistrates on Delos,⁵⁴¹ pointing to the trading links of Delos.

There are a few other possible occurrences of Seleukid seals beyond the empire. At Kallipolis impressions of three anchor seals are known. Two depict only an anchor, one an anchor accompanied not only by a horse's head but also by a bird sitting on the anchor's fluke, rotated at 180° to the horse's head.⁵⁴² It is unclear if any of these are a Seleukid anchor seal. Seleukid monarchs have also been identified among ruler portrait seals at Kallipolis and at Nea Paphos; however it is uncertain if these are indeed Seleukids.⁵⁴³

The bullae from Delos remind us that Seleukid officials, and especially those of high status, travelled around the empire and beyond. The blurred line between official and private is apparent; it is likely that the individuals using explicitly Seleukid seals were recognised on Delos as occupying important positions within the Seleukid hierarchy, but possible that they acted here in relation to more private interests.

4. Scope and Approaches

The aim of this work is to use the bullae as a new way of approaching Seleukid administration, exploring aspects such as archival practices, seal use and fiscal procedures. It does not aim to be a comprehensive examination of all Seleukid bullae, but rather an analytical interpretation based primarily on published material. I focus on finds from Seleukeia-Tigris, since the size of the corpora from this city enable statistical analysis to be

⁵³⁹ Boussac 1992: ix–xi.

⁵⁴⁰ Boussac 1988: 320; 1992: 15–17.

⁵⁴¹ Boussac 1992: 11–18; 1993: 680–682.

⁵⁴² Pantos 1984, **Nos. 94-96**.

⁵⁴³ See p. 48.

undertaken, in order to trace seal-bearers' interactions and to identify trends in archival practice. The existence of three archives from the city moreover helps elucidate seal-bearers' activities. From these I look out to the finds from Uruk, and to the smaller groups of bullae found at other sites.

Undertaking statistical analysis necessitates the creation of databases, particularly for those finds where such information is not readily extractable from publications. I have created databases of the bullae and impressed seals from the Archive Building and from Block G6 in Microsoft Access, available on the enclosed CD. Although these are not the only databases of this material, they do not duplicate existing ones. Museum databases, such as that of the Museo Civico D'Arte Antica, catalogue the bullae that they house. However, the museum's priorities mean that this does not contain information on which seal impression appears on which bulla;⁵⁴⁴ this is also the case for databases of the Kelsey Museum and the Oriental Institute Museum.⁵⁴⁵ A further database of the Turin bullae was created for identifying seal impressions, to which I have not had access; its potential for conducting statistical analysis however proved limited.⁵⁴⁶

My databases are based primarily on the published catalogues, but incorporate information from museum databases and my own observations. They were created by inputting data from the catalogues into Microsoft Excel spreadsheets, which were subsequently uploaded into Microsoft Access databases. Checks were undertaken to identify typographical errors. There are three main tables, 'Tbl Bullae' (with fields including the bulla's publication number and form), 'Tbl Seal' (including publication number and classification), and a junction table, 'Jct Tbl Impressions', which lists each seal that occurs on each bulla. Subsidiary tables include information on aspects such as find-spots. These databases enable the information to be organised by seal, seal impression, or bulla. Certain changes have been made to the formatting of entries in order to improve computer analysis and to reduce the likelihood of typographical errors. In particular, iconographic codes that varied only in the use of capitals are altered,⁵⁴⁷ and bullae from the Archive Building are entered in the standard format Sn-nnnnn, with extra zeros added as necessary (so bullae with excavation numbers beginning S- become S0-).

Where I have examined a bulla, information is added on its form. This is however not detailed, a decision partly taken because of constraints of time, but also because it is difficult

⁵⁴⁴ Although stored as a Microsoft Access file, it is not a relational database.

⁵⁴⁵ The Kelsey Museum also has a database based on the *Seleucia Excavation Records*, which contains information on the discovery of objects.

⁵⁴⁶ Messina 2002: 36. Microsoft Excel spreadsheets were also created by Iossif in his work on the Seleukid pantheon; these list the number of impressions of selected seals relating to deities and royal portraits, and so serve a particular aim (2014: 38 and n. 15).

⁵⁴⁷ For example AF ('Animali fantastici') remains unchanged, Af ('Afrodite') becomes Aph.

to define nuanced differences in forms of bullae. I attempt however to distinguish between napkin-ring, flat (and convex), token and container bullae, since these categories appear to have had ancient resonance and are also important for understanding when several bullae may have sealed a single document. Understanding the original form of a bulla from a cast is difficult, and these categorisations should not be taken as definitive.

I have at times altered published information as a result of my examination, for example removing an incorrect reference to an impression. This has been done on an organic, not systematic, basis. I made a greater effort to correct the data with regard to seals and bullae that feature extensively in my discussion, resulting in an uneven bias to the extent of these corrections. Alterations made on the basis of my examinations are incorporated into my analysis but not usually explicitly referred to; changes are however noted in the databases.⁵⁴⁸ Appendix C provides further information on the databases.

5. Conclusions

The stories of the sites where bullae have been discovered differ. For instance, the influences of the new Hellenistic world were felt in Uruk, but this city remained distant from the court, while Babylon occasionally came into direct contact with the monarchy. Seleukeia-Tigris was a royal city, inhabited by individuals who followed a largely Greek way of life, while Jebel Khalid was a small outpost, dominated by its garrison. Both these latter settlements were new foundations, while at Kedesh old buildings were appropriated for use by the new Seleukid administrators. Delos was of great interest to the Seleukids, but always lay beyond their territory.

Through the bullae we observe a large number of individuals creating and storing documents in private houses, temples and official complexes. Despite their different contexts, almost all of the archives record some involvement of royal officials. That from Kedesh appears to be controlled by such officials, as probably also were those at Jebel Khalid, the Archive Building at Seleukeia-Tigris, and the Summer Palace at Babylon. The infrequent attestations of officials in some groups of bullae, such as those from the Rēš temple and Archive A, enable us to understand how documents with official involvement were subsequently treated, and to contextualise officials' activities within their local environments.

A few direct connections are evident when the same seal appears in different archives. There are also a number of similarities between the archives. Most date to the first half of the second century, and include tax stamps and *chreophylax* seals. However, there are

⁵⁴⁸ Because I do not focus on iconography, I neither usually describe the motifs of overlooked impressions, nor re-categorise the iconography of seals.

differences. Flat bullae are rare in the ancient Mesopotamian cities, but common in the Mediterranean world, and salt stamps are associated with flat bullae in the Archive Building, but with napkin-ring bullae in Block G6 and Uruk. Impressions from the Archive Building are dominated by a few seals, while elsewhere seals are only rarely known in more than one impression. The office of the *chreophylax* plays an important role in material from Uruk, but is less well documented at Seleukeia-Tigris. The bullae from the various find-spots therefore give us several interrelated views on the practicalities of local administration.

Chapter 4: Encounters with Individuals

1. Introduction

Through seal impressions, we encounter many individuals who lived within the Seleukid empire. The sheer number of impressions, their anonymity (to us, at least), and the difficulties in moving from the fact of an impression's existence to an understanding of the motivations behind its creation, can make the information that these impressions offer seem extraordinarily impersonal. Nonetheless, behind the impressions are hidden real individuals, who worked together, talked to each other, gossiped and argued – even if we cannot now put a name to them or dialogue into their mouths. Our encounters with these individuals are largely confined to their interactions with each other, which nevertheless allow us to consider their roles and relationships, and to reconstruct aspects of local administration in Hellenistic Babylonia.

Repeated interactions between groups of seal-bearers indicate that some individuals used figurative seals in their official capacities. The statuses of the officials whom we see varied. The individual who impressed a royal name seal on bullae at Delos was almost certainly a member of the Seleukid elite, while those who sealed hundreds of salt documents at Seleukeia-Tigris are unlikely to have come to a monarch's attention. Fleshing out these officials further from their seal impressions is challenging, and for many aspects we are reliant on guess-work; for example, it is safe to assume that most, perhaps all, were men.⁵⁴⁹ It is not always easy to distinguish local inhabitants and poorly-attested officials. It is moreover unlikely that the divisions between 'official' and 'private' spheres were clear-cut; for instance, a tax collector presumably still had to register a slave sale.

A few seals are attested both at the Archive Building and at Uruk and/or Block G6, enabling us to add further nuance to our understanding of some officials, and to trace aspects of the interactions of inhabitants of Block G6 and Uruk with the royal bureaucracy. Local inhabitants' lives can again only be fleshed out to a limited extent. We are able to say, for instance, that the owners of Archive B probably represent two generations of a wealthy family, while cuneiform tablets enable us to put a name to some seal-bearers from Uruk.

In this chapter we will meet some of the individuals living and working in the Seleukid empire, with an emphasis on those involved in the royal bureaucracy. The focus is on the material from Seleukeia-Tigris. I first discuss the practicalities of recognising groups of

⁵⁴⁹ The Seleukid officials identified by Ramsey are all men, 2009: 261–281. In his prosopography of Seleukid officials, Grainger includes a high priestess of the cult to queen Laodike, and a female servant of the queen Berenike, as well as mistresses of Seleukos II; those holding administrative and military positions are all men, 1997: 85, 103, 107, 110.

colleagues, and then detail such groups of colleagues at the Archive Building. Next, I explore aspects of the conventions that existed in this administrative environment, such as whether borrowing seals was permissible. The bullae from Block G6 are brought in to illuminate individuals' roles and the chronology of their activities. I subsequently discuss the difficulties in similarly interpreting bullae from other sites, before considering outsiders' interactions with the royal bureaucracy. I conclude by examining whether there are links between seal choice and individuals' positions.

2. Colleagues at Seleukeia-Tigris and beyond

i. Identifying groups of colleagues

The first step in using the bullae to explore local bureaucracy is to identify individuals who held administrative positions, and to recognise other officials with whom they worked closely, their colleagues. While the bureaucracy will be conceptualised as a network, I do not use the tools developed for Social Network Analysis.⁵⁵⁰ This is primarily because recorded interactions usually involve small, exclusive clusters of individuals and there are hundreds of apparently isolated individuals, making visualisation of the system as a network problematic.

To identify groups of colleagues, certain conditions must be met. First, the individuals must impress their seals on the same bulla, proving that they interacted to create a document.⁵⁵¹ Secondly, significant numbers of such bullae need to survive, in order to demonstrate that the individuals' interaction was of a sustained nature. Such conditions are met only at Seleukeia-Tigris. For example, many bullae from Uruk bear several impressions, but seals are rarely impressed on more than one extant bulla. Thus we can list many groups of seal-bearers who interacted once, but they appear predominantly to be private individuals who came together to witness a particular document. By contrast, many bullae from the Archive Building bear several impressions, and a number of seals recur in particular combinations on large numbers of extant bullae.⁵⁵² Thus we can begin to reconstruct groups of colleagues, but only with regard to particular caches of bullae.

⁵⁵⁰ For an explanation of Social Network Analysis techniques, and applications of these in historical studies, see Waerzeggers 2014: esp. 213-216; Ruffini 2008: esp. 14-40.

⁵⁵¹ Since most Hellenistic bullae have only single seal impressions, such connections have not previously been studied in detail. Connections evidenced by the co-occurrence of seals on bullae are considered by Schmidt and Gates with regard to the Achaemenid Persepolis material, but largely to answer questions about dating and iconography, Schmidt 1957: 12-17 and Table II; Gates 2002: esp. 119-125. Gates also explores associated seals on Roman bullae from Karanis, which sealed containers, 2003: 93-94; 2014: 146-147.

⁵⁵² A few repeated associations are noted in *STISA*, but not systematically, and these are not explored further. For example, Bollati and Messina note that **ApT 10** and **M 59** occur with salt stamps dating from 114-133 SE, but not the other figurative seals with which they occur (2004: vol. II, 51; 2004: vol. III, 54), although they comment that **Tk 36** occurs with both **ApT 10** and **M 59** (2004: vol. II,

It is possible that groups of officials routinely impressed their seals on separate bullae attached to the same document. Could such interactions be recoverable from the find-spots of bullae in the Archive Building? The bullae were not found evenly distributed throughout the complex. Some rooms were largely empty, while others contained thousands of bullae (Graph 3.3). However, the majority of impressions of figurative seals known in 200 or more impressions were found in one, occasionally two, rooms (Graph 4.1). For example, 98% of impressions of **M 73** were found in Room 4. As Graphs 4.2-4.5 demonstrate, this is also broadly true for seals known in 25-199 impressions. Some distortion has occurred. The 1% of impressions of **M 73** found in Room 5, for instance, have probably become accidentally separated from those in Room 4, either during the operation of the archive or over the many centuries between the building's destruction and its excavation. On the other hand, the fact that 67% of impressions of **Ek 1** were found in Room 2 and 25% in Room 1 suggests that this seal-bearer's documents were archived in two rooms.⁵⁵³ Thus, while the find-spot of a particular bulla cannot prove that its document was intentionally archived in that room, in aggregate the find-spots indicate where groups of documents were deliberately placed. This makes it possible to suggest cases where documents may have been sealed by more than one bulla. Yet this is inevitably more speculative than co-occurrences of seals on bullae, since some documents may have been archived decades before further ones were added.

Fingerprints on bullae offer another way of identifying individuals who created documents together. Invernizzi and Papotti succeeded in identifying the same fingerprints on **S-3669** and **S-6611**.⁵⁵⁴ These bullae are impressed by, respectively, the *atelōn* and *epitelōn* salt stamps of 213/2, demonstrating that the same individual was responsible for both stamps. I have not pursued this approach further, owing to the difficulties in finding clear fingerprint impressions.

ii. Groups of colleagues at Seleukeia-Tigris

Tables 4.1-4.8 tabulate co-occurrences of seals on bullae from the Archive Building.⁵⁵⁵ The information is broken down by room for ease of presentation and to support identification of cases where seals impressed on separate bullae may be related. Rooms 7 and 10-12 are omitted, because very small quantities of bullae were recovered from these rooms. The seals

126). There are also typographical errors in some of the connections noted by *STISA*; for example **Ek 8** is said to occur with the non-existent **Ekt 215** (2004: vol. III, 6).

⁵⁵³ The varying quantities of surviving impressions mean that a dividing line cannot be set at a particular percentage; whereas the discovery of 10% of impressions of a seal known in hundreds of impressions in an unusual room suggests that they were deliberately archived separately, this is obviously not the case for a seal known in 30 impressions.

⁵⁵⁴ 1991: 39–41.

⁵⁵⁵ Although produced from an analysis run in Microsoft Access, they show the same information as an 'Actor-by-actor' matrix produced through Social Network Analysis software (for an example of which, see Waerzeggers 2014: 222).

are ordered to make apparent clusters of related seals. Tax stamps have been grouped together, as have illegible impressions and rarely- and occasionally-attested seals,⁵⁵⁶ in order to facilitate identification of patterns. The intersection between two seals gives the number of bullae (found in this room) on which they are impressed together; the intersection of a seal with itself gives the total number of bullae impressed by this seal that were found in this room.⁵⁵⁷ Instances where three or more seals are impressed on the same bulla are not explicitly indicated, although where three or more seals have a close connection, they always co-occur on at least one bulla.⁵⁵⁸ Tables 4.1-4.8 omit seals known in more than ten impressions in the archive as a whole, but nine or fewer in the room in question; these excluded seals are included in Tables 4.10-4.17.

Tables 4.1-4.8 enable us to identify a number of individuals who repeatedly sealed documents together; these groups are summarised in Tables 4.18 and 4.19. Particularly prominent are the groups associated with salt stamps, such as the pair who used the seals **AtT 39** and **OdT 1**, or the bearers of **M 59**, **TM 220** and **Of 41** (Rooms 4 and 6). There are also groups of seals that are not associated with salt stamps, such as that formed by **Ek 1**, **ErT 26** and **Og 301** (found in Room 2), and the large group associated with **TM 58** (Room 5). Several seals occur together only a very few times. For instance, **EgT 12** and **Od 15** co-occur on just three bullae. On the one hand, the general isolation of groups of seals suggests that such co-occurrences should be taken seriously; on the other hand, the known issues with the reliability of the data means that there is a need for caution.⁵⁵⁹ Most of these groups of seal-bearers frequently interacted with bearers of rarely-attested seals, including, for example, the group formed by **Ap 146**, **TM 53** and **Er 298** (Room 4). There are however some frequently-attested seals that do not occur in conjunction with rarely-attested seals, such as the pair **M 73** and **Nb 1**.

There are then a considerable number of frequently-attested seals whose bearers never interact with other bearers of frequently-attested seals, at least in the sense of co-impressing their seals on bullae, such as **Gn 1**, **Od 15** and **Nf 1** (Rooms 1 and 2). Most such

⁵⁵⁶ For my use of 'frequently-attested', 'occasionally-attested' and 'rarely-attested', see p. 51.

⁵⁵⁷ Duplicate impressions of a seal on a bulla are excluded. Rarely- and occasionally-attested seals are grouped together; here the intersections give the number of co-occurrences of such seals with other seals, but not necessarily the total number of bullae on which these occur (since two seals known in 1-2 impressions could occur on a bulla with a tax stamp, for example). The intersection of a group with itself gives the total number of impressions of such seals found in the room.

Tax stamps known in fewer than 10 impressions are omitted from these Tables.

⁵⁵⁸ For example, **Ani 291**, **At 180** and **M 101** (Room 9) can all be securely identified only on **S9-326**, although other co-occurrences of pairs of these seals indicate that the three were certainly associated.

⁵⁵⁹ I am sceptical about co-occurrences of **M 17** and **M 230** (Room 3), since these are similar mask seals. Both are listed as occurring on **S7-3359**, on which certainly only one seal is impressed; I have not examined the other bullae on which both are said to occur. By contrast, **EgT 12** and **Od 15** are very different seals, which are unlikely to have become confused; it is nonetheless possible that their apparent co-occurrences are due to typographical errors.

seals also do not occur in conjunction with tax stamps or rarely-attested seals, although there are exceptions, such as **Ap 163**, **Er 13** and **Er 152** (Room 4), which occur with tax stamps, and **AtT 44**, **TF 125** and **Tk 1** (Room 8), which are often impressed alongside rare seals. The bearers of such seals cannot be placed into groups of colleagues, but nonetheless had an unusually strong connection with the Archive Building. The concentrated find-spots of impressions of their seals moreover suggest that they were involved in the operation of the archive, since it is unlikely that the administration would have had the capacity to file documents according to private individuals. It is also possible that these individuals did work in groups, which are now hidden because they did not co-impress their seals on bullae. For example, **Gn 1** and **GyT 51** both occur once alongside **Nb 1**, and impressions of all three seals are concentrated in Room 4, suggesting that their bearers' activities may have been connected.

The same connections between particular seals are seen on bullae that were found in secondary contexts (Table 4.9). For example, the seals **Ek 1**, **Og 301**, **ErT 26** and **Em 61** are again associated on such bullae, while **ApT 33** and **Se 2** remain isolated. One group of seals however emerges most clearly from consideration of these bullae, namely that formed by **AtT 35**, **GyT 20** and **M 51**. Tables 4.10-4.17 demonstrate that occurrences of frequently-attested seals in unusual rooms also conform to the patterns seen elsewhere. For example, **Ek 1**, **Em 68** and **Og 301** occur together in Room 3, just as in their usual Room 2. This means that the groups of seal-bearers remain small and exclusive. It moreover supports the argument that a few impressions of a seal in an unusual room do not indicate that these documents were deliberately stored separately.

I have considered only seals that are impressed on ten or more extant bullae, since this seems a minimum point at which it is reasonable to interpret patterns in seal-use as evidence of sustained connections between their bearers.⁵⁶⁰ This however hides close connections between some seals. In particular, **Tk 200**, **EkT 1/2** and **ApT 67** occur on several bullae together with the *bybliophylax* seals **SU 22** and **SU 20**.⁵⁶¹ **EkT 1/2** also occurs with **SU 20** on a bulla found at Uruk. This strongly implies that these co-occurrences resulted from the bearers' official roles.⁵⁶² Other repeated associations involving seals

⁵⁶⁰ In particular, errors in *STISA*, such as those discussed in n. 559, mean that great weight cannot be put on instances where seals are said to co-occur on just a handful of bullae.

⁵⁶¹ Noted by Messina and Mollo 2004: vol. I, 27–28.

⁵⁶² The low numbers of attestations of these seals are in part a result of the difficulties of identifying impressions, exacerbated for these seals because they are impressed on the edge of bullae (see p. 149). **TIn 8** (known in five impressions, all with a *bybliophylax* seal) is probably the same seal as **EkT 2** (known in one impression, with a *bybliophylax* seal), which is very similar to **EkT 1** (Messina and Mollo 2004: vol. I, 111; Bollati and Messina 2004: vol. III, 7; Messina 2005: 132, n. 38). **TIn 172** (three impressions, all with a *bybliophylax* seal) and **TIn 148** (one impression, with a *bybliophylax* seal) are probably **ApT 67** (Messina and Mollo 2004: vol. I, 116–117) and **TIn 306** and **429** (one impression each, with a *bybliophylax* seal) may also be **ApT 67. If 51** (two impressions, both with a *bybliophylax*

known in fewer than ten impressions include that of **GyT 2** with **Alk 82** and that of **GyT 26** with **Ani 337**. Some individuals acting in an official capacity are therefore almost certainly overlooked by omitting rarely- and occasionally-attested seals.

Through examining repeated co-occurrences of seals on bullae we can identify several groups of individuals who acted together to create tens, sometimes hundreds, of documents that were subsequently stored, according to particular rules, in the Archive Building. It is logical to interpret these as groups of colleagues, responsible for aspects of local administration.

iii. The interactions of colleagues at Seleukeia

a. *Interpreting interactions*

Examining the interactions which took place within these groups enables us to add greater nuance to our understanding of local administrative structures. The evidence offered by the bullae forces us to focus on co-occurrences of seals, but does allow us to consider aspects such as atypical uses of seals, instances where one seal-bearer is replaced by another, and the centrality of particular figures to a group.

It is necessary briefly to consider why mistaken interpretations of interactions can occur. Firstly, typographical errors can cause confusion. For example, I have seen four bullae that *STISA* lists as impressed by both **TM 220** and **ApT 10** (not normally companion seals); only one of these seals in fact occurs on each bulla.⁵⁶³ This suggests that the one supposed co-occurrence of **ApT 10** with **TM 220** that I have not seen, on S6-6844, is likewise a typographical error.⁵⁶⁴ There are, however, genuine instances of unusual combinations, such as the occurrence of **TM 230** on S8-408 with a salt stamp dating to 184/3, whereas it otherwise occurs with salt stamps dating to 183/2.⁵⁶⁵ Therefore over-correction must be avoided, but corrupt data causes problems in identifying unusual co-occurrences of seals.

Secondly, it is important to bear in mind the material reality of the bullae. For example, S-8725 is listed in *STISA* as impressed by just a salt stamp and the figurative seals **ApT 10** and **M 59**, whereas they are usually accompanied by a third figurative seal. While these are now the only legible impressions, half of this bulla is missing. The positions of the surviving impressions indicate that, as usual, they were accompanied by a third figurative seal (Figure

seal) is almost certainly **Tk 42**. **Tk 42** and **Tk 200** are themselves very similar. Making such identifications would increase the numbers of extant impressions to nine of **EKT 1/2**, eight of **ApT 67**, four of **Tk 42** with **SU 20** and five of **TK 200** with **SU 22**.

⁵⁶³ S-8481, S-8489, S-9184, S6-6959. The two seals have been confused on further bullae; for example, **TM 220** is listed in *STISA* as appearing on S-8417, when the impressed seal is **ApT 10**.

⁵⁶⁴ This conclusion is reinforced by the fact that **Alk 85.5**, **M 59** and **Tk 36** are listed for S6-6844, which are companion seals of **ApT 10**.

⁵⁶⁵ Messina and Mollo 2004: vol. I, 76. There may be a second unusual co-occurrence with a stamp dating to 184/3 on S6-7639, which I have not examined.

4.1). Yet there are specimens where it is certain that only two figurative seals accompanied a salt stamp. For example, on S-6584 and S6-6959 only **M 59** and **TM 220** are impressed (Figures 4.2-4.3), and on S-9275 only **TM 220** and **Em 51** (Figure 4.4).

Thirdly, it is necessary to take into account illegible impressions. It is probable that, for example, the majority of the 26 illegible impressions that co-occur on bullae from Room 2 with **M 59** are of its usual companion seals, here **Tk 25** and **TM 230**.

b. Salt-groups and replacement seals

The groups of figurative seals that occur with dated salt stamps offer the greatest possibilities for tracing the interactions between seal-bearers, and transitions between different groups.

There are several groups of figurative seals which repeatedly are impressed together on bullae alongside salt stamps, for which I use the term 'salt-group' as a convenient shorthand. Such salt-groups are known from Archive Building bullae only in the years 194/3 and 184/3-180/79. **Ap 163**, **At 151 Er 13** and **Er 152** do occur repeatedly – but separately – alongside **Alk 7**, the *epitelōn* stamp for 231/0. Since these seal-bearers did not act as a group to create salt bullae together, this involvement in the salt tax was of a different nature to that of the later salt-groups. It is nonetheless possible that similar groups of officials were involved in salt documents prior to 194/3 and 184/3, but did not impress their seals.⁵⁶⁶ 184/3 was a transition year into the new system, in which approximately 60% of salt bullae have accompanying impressions, in contrast to over 80% of salt bullae for subsequent years.⁵⁶⁷ It is possible that the new system was introduced part way through the year, or initially applied only to certain documents. A more gradual development of new sealing protocols may also be implied by the occurrences of **Of 41** (a member of the salt-group for 184/3) on a few salt bullae from 186/5.⁵⁶⁸ Thus the organisation of groups of colleagues connected with the salt stamp, and expectations regarding whether they should seal documents, varied over the life of the Archive Building.

The groups of seal-bearers associated with the salt tax usually changed annually, but a few seal-bearers were associated with the salt tax over several years. For example, the bearer of **M 59** sealed salt documents in 184/3 alongside the bearers of **TM 220** and **Of 41**, and again in 183/2, now alongside the bearers of **TM 230** and **Tk 25**. From 184/3, only three

⁵⁶⁶ Such seals cannot previously have been routinely impressed on a second bulla attached to the salt document, since, as Table 4.19 demonstrates, there are not enough groups of seal-bearers among extant bullae for all earlier salt bullae to have had such accompanying bullae.

⁵⁶⁷ Mollo 1996: 150.

⁵⁶⁸ Its occurrences alongside **Alk 76** on S-7859 and S-9591 from the Archive Building are noted by Bollati and Messina 2004: vol. III, 67. It also occurs with **Alk 75** on a bulla from Archive B, McDowell 1935.IIIC1a(3), Appendix F. It is however possible that the bearer of **Of 41**'s roles in 186/5 and 184/3 differed.

seal-bearers from a salt-group usually sealed a document, even when further seal-bearers were associated with that year's stamp. The conventions governing this were explored by Mollo, who writes:

'On bullae with three or more accompanying figurative impressions, two or more fixed series of impressions occur that are constantly repeated on all bullae from that year; these series are composed of two fixed impressions for each year and a third that varies according to the series... From 129-131 SE two alternative series are attested for each year, while in the 133 there are three series; for each year one series is clearly predominant over the others. Among the twelve seals that constitute these associations, two appear in series of different years: one is a head of Athena in profile to the right, which appears as a fixed element in 129 and in 131 [later identified as **TM 220**], and one a comic mask that appears as a fixed element in the years 129, 131, 133 and as a variable element in 130 [**M 59**].'⁵⁶⁹

This explanation can be revisited. Table 4.20 lists the series of figurative seals, and the number of extant salt bullae on which each seal is impressed. As Mollo observes, salt stamps dating to 184/3-182/1 are accompanied by two figurative seals that are 'fixed', and two that vary, and in 180/79 by two 'fixed' and three varying figurative seals. For example, in 180/79 **Mn 6** and **Ap 14** both occasionally replaced **Tk 36**.⁵⁷⁰ Contrary to Mollo's statement, **TM 220** is occasionally replaced by **Ani 156** in 131 SE (182/1 BC).

⁵⁶⁹ Mollo 1996: 146. 'Sulle cretulae con tre o più impronte figurate compaiono due o più serie fisse di impronte che si ripetono costantemente su tutte le cretulae dello stesso anno; tali serie sono composte da due impronte fisse per ciascun anno e da una terza che varia a seconda della serie... Dal 129 al 131 e.s. le serie alternative attestate sono due per ogni anno, mentre nel 133 le serie diventano 3; per ogni anno si ha una serie nettamente predominante sulle altre. Tra le dodici impronte che costituiscono tali associazioni due compaiono in serie di anni differenti: si tratta di una testa di Atena di profilo a destra, che compare come [e]lemento fisso nel 129 e nel 131, e di una maschera comica che compare come elemento fisso negli anni 129, 131, 133 e come elemento variabile nel 130.'

⁵⁷⁰ The fact that certain seals replace each other can be observed from Tables 4.1-4.9; these are seals which do not co-occur on bullae. Identifying replacement seals is again hindered by errors in the data. *STISA* does not list co-occurrences of **Ap 14** with **Tk 36**, making the identification of these as replacement seals unproblematic. However, on S-8498 **Mn 6** is recorded as occurring with **Tk 36**. But the impression identified as **Tk 36** is damaged, and is placed where an additional figurative seal, not belonging to the main group of seal-bearers, is usually located (see p. 151), suggesting that it is a different seal.

There are a few seals that occur on several salt bullae in conjunction with these groups of seals, but which do not seem to be a member of the group, or a replacement for one of the members. For example, **Of 207** is impressed on seven bullae, four of which are also impressed by **Alk 86**. It is not a replacement seal, since it co-occurs with **M 59**, **ApT 10** and **Tk 36**. However, **Of 207** is very similar to **Tk 36**. On both S-8455 and S-8513, only one seal depicting a female figure is impressed, but both seals are listed by *STISA*, and on S-8662 the seal identified as **Of 207** may be a duplicate impression of **Tk 36**. I would therefore identify **Of 207** with **Tk 36**. Other seals require a different interpretation. For instance, **ZeT 3** appears on four **Alk 85** bullae, accompanying **M 59**, **ApT 10** and **Mn 6**. Since it is not a replacement seal, it seems most appropriate to group this seal with the over 100 impressions of rarely-attested seals that occur with **Alk 85**, although the fact that this seal occurs several times in conjunction with **Alk 85** is of interest for understanding such interactions.

If 63 and **Of 266** might be considered part of the salt-group for 194/3.⁵⁷¹ Since these seals appear in conjunction with each other and with both **AtT 39** and **OdT 1**, the salt-group for this year comprised four seal-bearers. As Mollo notes, in 194/3 the associated seal-bearers seem primarily concerned with the *atelōn* stamp **Alk 59**.⁵⁷² Only **AtT 39** occurs on several bullae with the *epitelōn* version, **Alk 60**. However only a few fragmentary salt bullae survive from 194/3, and so the significance of these patterns is uncertain.

While replacement seals are a frequently-attested phenomenon in the salt-groups, they are otherwise rare at the Archive Building. For example, the seals **M 73** and **Nb 1** are strongly associated with each other and only each other (Room 4). Likewise the seals in the group around **TM 58** are all connected with each other (Room 5). The only other instance of replacement seals are **Em 68** and **ErT 26**, which both co-occur with **Og 301** and **Ek 1** but not with each other (Rooms 1 and 2).⁵⁷³

M 59 was part of the salt-group in 183/2, was briefly replaced by **GyT 2** in 182/1, and was again part of the salt-group in 180/79.⁵⁷⁴ **GyT 2** therefore was not a new seal acquired by the same bearer, and the bearer of **M 59** had not ceased to work for the administration. It seems that he was simply unavailable for a short time, perhaps through ill-health, or perhaps required elsewhere. We are not able to trace other replacement seal-bearers in the same way. It is possible that in some cases a seal-bearer did acquire a new seal. Yet the fact that such replacements are particularly associated with salt documents suggests that they typically signify new individuals, as there seems no reason that these officials would be more likely to replace or lose their seals than other officials.

The replacement seal-bearers in salt-groups have different relationships with *atelōn* and *epitelōn* stamps. **Tk 35** and **GyT 2** are only known in conjunction with *epitelōn* stamps. Other replacement seal-bearers are concerned with both stamps, but to different degrees; **Tk 36** can be identified on 81% of the 368 extant bullae impressed by the *epitelōn* stamp **Alk 86**, but on only 16% of the 378 bullae sealed by the *atelōn* stamp **Alk 85**. This suggests that, while the same officials were usually responsible for *atelōn* and *epitelōn* salt documents, there were differences in the timing of the documents' creation.

One-off replacement of seals can be identified on tablets from the Persepolis Fortification archive. For example, a certain Irtuppiya once used his personal seal for a transaction

⁵⁷¹ Mollo suggests that the bullae from 194/3 have a series of accompanying figurative seals, but does not describe the seals in question, 1996: 146.

⁵⁷² 1996: 146.

⁵⁷³ **Em 68** and **ErT 26** are said to occur together on **S7-4108**, with both **Em 68** and **Ek 1**; I am inclined to discount this as a typographical error.

⁵⁷⁴ Salt bullae from 181/0 are missing from the Archive Building, and the specimen from Archive B is fragmentary, so it is not possible to ascertain whether **M 59** was part of this salt-group.

concerning provisions for cattle, rather than the normal office seal **PFS 7**.⁵⁷⁵ Identifying such one-off replacements when only impressions survive is problematic. Such a switch to a different seal may be seen in the one appearance of **Ap 167** alongside **M 59**, **ApT 10** and **Alk 85** on S6-7361; perhaps the bearer of **Mn 6**, **Tk 36** or **Ap 14** could not find his own seal when it came to sealing this document. However, it is very unusual for a third, rarely-attested seal to occur alongside just two members of a salt-group; I know of only one further possible case.⁵⁷⁶ This implies that there was a strong expectation that officials at the Archive Building would not temporarily borrow others' seals.⁵⁷⁷

c. Minor seals?

It often seems from Tables 4.1-4.9 and 4.20 that one seal from a group is impressed on significantly fewer bullae than the others, suggesting that it should be thought of as a minor seal. For example, **M 59** has been identified on 68% of **Alk 83** bullae, the replacement pair **TM 220/Ani 156** on 67% and **Em 51** on just 42%. This phenomenon however is due only to fragmentary bullae and errors in identifying seals. On the 89 **Alk 83** bullae that I have examined, **M 59** can be identified on 90%, **Em 51** on 90% and **TM 220/Ani 156** on 94% (Table 4.21); **Em 51** no longer appears to be a minor seal. Usually all three members of this salt-group impressed their seals. There are nonetheless a few cases where it is certain that only two members did so. Three salt bullae dating to 183/2-180/79, from the sample of 498 salt bullae which I have examined, are impressed by only two members of the salt-group. Therefore they account for less than 1% (Table 4.22). By contrast, seven of the 33 salt bullae from 184/3 (almost 20%) that I have examined are not impressed by all members of the group. Clearly there was a different notion in 184/3 of the correct procedure for sealing salt documents. As the new sealing protocols for salt documents developed, it became the convention that all three members of the group impressed their seal.

Other cases where it appears that some members of a group are absent similarly vanish when the physical bullae are considered. For instance, **Ek 1** seems to occur on tens of bullae from Room 1 without its companion seals **Em 68** and **Og 301** (Table 4.1). However, while *STISA* notes only the impression of **Ek 1** on most of the bullae S7-6720–S7-6729 and S7-6843-6853, these bullae are in fact also impressed by **Ek 1**'s companion seals. It is highly probable that S7-6854-6861 (which I have not examined), again recorded as impressed only by **Ek 1**, likewise are impressed by its companion seals. Nonetheless, there are cases where it is certain that not all seals from a group were impressed. For example, **M 73** and **Nb 1** occur alone on a number of bullae (Figure 4.5). Therefore, while typically all members of a

⁵⁷⁵ Garrison 1991: 12–15.

⁵⁷⁶ See p. 152.

⁵⁷⁷ On tablets from Uruk, borrowing of seals is also rare, and seemingly restricted to related individuals, Wallenfels 1996: 119.

group were expected to seal a document, this was more common with regard to particular groups and at certain times.

d. Atypical uses

Occurrences of seals with unusual companion seals are rare but not unknown. Atypical combinations are again easiest to trace in the salt-groups. Here there are instances where a seal-bearer is attested with the tax stamp of a year in which he does not normally appear. In particular, **TM 230** is impressed on one bulla with salt tax stamp from 184/3, while the seal usually occurs with stamps dating to 183/2,⁵⁷⁸ and **TM 220** is impressed on a salt bullae from 183/2 found in Archive B, but is not attested on salt bullae of this date from the Archive Building.⁵⁷⁹ These instances may indicate that the transition between salt-groups was not always smooth; alternatively, further officials may routinely have been involved in the salt tax, whose activities are now largely invisible.

Some seals beyond the salt-groups are also attested alongside unusual companion seals. In particular **At 151**, which is part of the **TM 58** group in Room 5, occurs in Room 4 both alone on bullae and in conjunction with a salt stamp.⁵⁸⁰ These attestations suggest that its bearer held different roles. Once more, examining the bullae reveals that other atypical occurrences of seals are doubtful. For example, although **Ek 1** is listed as appearing on a few salt bullae, it does not seem to be impressed on S7-6449 with **Alk 44** (Figure 4.6).

The few instances where a seal is used atypically emphasise that the seal-bearers were individuals, who might change roles. They also suggest that there were further complexities to administrative structures, now largely lost to us, which led, for example, to **TM 220** continuing to be involved in the operation of the salt tax in 183/2.

e. Initial conclusions

Groups of colleagues typically all impressed their seal on a document; this is particularly true for salt documents from the late 180s. There are however instances where one seal-bearer from a group is missing, where a seal-bearer switches seal, and where a seal is used atypically. These remind us that this was a living system, in which individuals might be absent, misplace their seal, or act in an alternative role. Yet most uses of seals seem very routine; while there appears to have been some pragmatism regarding who sealed which document and with what seal, the apparent rigidity of the system is more striking.

There are also several unexpected features. First, although the dated bullae indicate that material in this archive spans over a century, with three well-represented decades, the

⁵⁷⁸ See p. 102.

⁵⁷⁹ On McDowell 1935, A1c(1).

⁵⁸⁰ Bollati and Messina note its appearance together with tax stamps dating to 231/0, and I have seen many of the **TM 58** bullae, meaning that these two uses are certain.

number of groups of colleagues is remarkably small. Secondly, it is difficult to draw analogies between the groups; there does not, for example, seem to be another large group similar to that around **TM 58**. The exclusivity of the groups convinces us that we are seeing colleagues, with defined responsibilities. It is frustrating that, because the groups emerge and disappear fully formed, it is not possible to trace a seal-bearer's career; we do not know, for instance, what the bearer of **GyT 2** did before or after his brief involvement with the salt tax in 183/2. More worryingly, it implies that people did not normally change roles. The salt documents suggest that this may in part be due to the regular appointment of new officials; for comparison, in Ptolemaic Egypt the scribes associated with salt and funerary tax receipts were often appointed annually.⁵⁸¹ There may also have been a fashion for buying a new seal when new tax stamps were issued, or when changing roles.

f. The perspective from Block G6

Incorporating the material from the residential insula Block G6 at Seleukeia-Tigris enables us to reach a better understanding of some of these groups of colleagues. Salt bullae dating to most years between 189/8-154/3 were found in Archive B at Block G6. Although some of these are now fragmentary, it is possible on others to identify the figurative seals impressed. In 182/1 and 180/79 these figurative seals are those of the salt-groups identified from the Archive Building bullae.⁵⁸² This suggests that figurative seals impressed on salt bullae from later years belonged to similar groups of officials.⁵⁸³

These bullae demonstrate that the bearer of **Tk 36** was involved in the salt tax in 181/0, as well as in 180/79, and that the bearer of **M 59** continued to be involved in the salt tax in 179/8, now working with the bearers of two new seals, **McDowell 1935, IIIA2c(5)** and **McDowell 1935, IIID4c(2)**.⁵⁸⁴ In 178/7 the stamp is accompanied by at least two fragmentary seals, which cannot be identified. Then in 177/6, a familiar seal occurs in association with the salt stamp, **Og 301**, here accompanied by two further unclear impressions, one of which is possibly **Ek 1**. Both **Og 301** and **Ek 1** occur in 176/5, now seemingly alongside their Archive Building companion **ErT 26**. Too little survives of the salt bullae from 175/4 and 174/3 to establish whether these stamps had accompanying seals. But in 173/2, **Ek 1** again is impressed, now alongside a herm that may be **Em 68**; it is possible that there was originally a third figurative seal. The second salt bulla dating to 173/2 from Archive B has a different set of accompanying figurative seals, one of which may

⁵⁸¹ Muhs 2011: 219, 239.

⁵⁸² For figurative seals on salt bullae from Block G6, see Appendix F.

⁵⁸³ The surviving impression accompanying the salt stamp from 184/3 is not **Of 41**, **TM 220** or **Tk 35**. However, a significant number of Archive Building salt bullae from this year are not impressed by these seals, and specimens on which these seals do occur are often also impressed by rarely-attested seals; therefore, this is not a concern.

⁵⁸⁴ Neither seal seems to be known from Archive Building bullae.

be **GyT 26**.⁵⁸⁵ Perhaps new officials were appointed half-way through the year, or perhaps there was a more complex relationship between the bullae from the two archives; a further possibility is that there had been a delay in issuing the salt stamp for 172/1.⁵⁸⁶ The accompanying seals for bullae from the next two years do not seem to be otherwise known, but in 169/8 we again encounter familiar seals, **GyT 20**, **M51** and **AtT 35**. Salt bullae for subsequent years are fragmentary, but seem usually to have several accompanying seals. Then on the salt bullae from 157/6 occurs a Ganymede seal that is very similar to **Gn 3**; at least one further figurative seal impression is now illegible.⁵⁸⁷

It is unclear if groups of officials were involved in sealing salt documents from prior to 184/3 that were archived in Block G6. Those from 209/8 and 192/1 in Archive A and that from 188/7 in Archive B certainly have at least two figurative seals impressed, whereas two or more accompanying seals are rare on Archive Building salt bullae from these years. This implies that there were once greater differences in sealing protocols between salt documents destined for family archives and those stored in the Archive Building. Accompanying seals are also rare on Archive Building salt bullae from the 150s, indicating that at some point sealing protocols again diverged.

Thus we can significantly increase our list of salt-groups (Table 4.23). Moreover, we discover that at least two, and perhaps three, groups of seals which are not associated with the salt tax on Archive Building bullae are associated with it on Block G6 bullae, namely the **Ek 1** groups, the **GyT 20** group and possibly the **Gn 3** group. These seals usually occur in the same combinations; in particular, **Em 68** and **ErT 26** appear to function as replacement seals on the Block G6 bullae as at the Archive Building. It therefore seems probable that the Archive Building bullae sealed by these groups also concerned the salt tax.⁵⁸⁸ The bullae impressed by seals from the **Ek 1** and **GyT 20** groups are thick, rounded pieces of clay (Figures 2.6 and 4.7), like many salt bullae, and so it is plausible that they were attached to documents alongside salt bullae. However, their find-spots do not support this interpretation. In Room 2, a large number of salt bullae without accompanying impressions

⁵⁸⁵ For the association of this seal with **Ani 337**, see p. 102. The seals on **McDowell 1935, A1c(6)** are not **Ani 337**, nor **GyT 6** or **ApT 50**, which also occur on a few Archive Building bullae with **GyT 26**.

⁵⁸⁶ See n. 978.

⁵⁸⁷ I have not been able to employ Messina's technique of comparing high-quality photographs (see p. 88) to determine whether the impressions at Block G6 and the Archive Building were made by identical seals. **McDowell 1935, IID5a(1)** seems to include a mark to the left of the herm, not known from impressions of **Em 68**. It is possible that this seal was recut, or that this is not part of the design. The fact that two seals depicting very similar herms occur alongside **Og 301** suggests that they were intended to be understood as the same seal, if they are in fact different seals. **Gn 3** is unusual in that Ganymede is to the left of the eagle, and their bodies are in close proximity. These features are also seen in the seal impressed on **McDowell 1935, A1d(31)**. Again, this suggests that they were intended to be identical. For comparison, the marks to the right of Tyche on **Tk 36** and the details of Apollo's wreath and hair on **ApT 10** are not clear in all impressions.

⁵⁸⁸ Identifying these as salt-groups also means that replacement seals become a phenomenon restricted to salt-groups.

of figurative seals were found, including approximately 300 bullae impressed by **Alk 28** and over 300 impressed by **Alk 44**. These could be associated with the approximately 150 bullae impressed by the **Ek 1** group in this room. However, only 20 salt bullae were found in Room 1, some of which already have accompanying figurative impressions, while more than 50 **Ek 1** bullae were found here. Therefore, it is unlikely that all of the Archive Building bullae sealed by these three groups were attached to the documents with salt bullae.

g. Dating seals

Salt bullae from the years 216/5-180/79 are well-represented at the Archive Building; there is then a gap until their reappearance in 158/7 and 155/4. The fact that the impressions of the **Ek 1**, **GyT 20** and **Gn 3** groups at Block G6 fall within this gap suggests that their use at the Archive Building may be of a similar date. This forces us to think more generally about the dating of figurative seals on Archive Building bullae.

Approximately 1,650 figurative seals occur only once in conjunction with a legible tax stamp. While we can pinpoint the date of that use, we are not able to understand the length of their use.⁵⁸⁹ However, some 32 figurative seals are recorded in my database as occurring alongside tax stamps dating to at least two different years (Tables 4.24-4.25).⁵⁹⁰ *STISA* explicitly lists the same dates for six of these seals; we can therefore be confident of these dates. These seals are all known for a five-year period or less.

The dates produced by the database suggest that several seals had long lives. For example, **Ek 1** seemingly was used for approaching three decades, from 209/8 to 183/2 (and in fact for almost four decades, given its appearance in 173/2 in Block G6), and **M 59** for over three decades, from 211/10 to 180/79 (or 179/8, from Block G6). Such long uses seem remarkable, given that at Hellenistic Uruk individuals changed their seal after around eight years,⁵⁹¹ while in the Achaemenid Murašû archive the longest observed use of a seal is ten years.⁵⁹² In fact, many apparently long lives are probably due to typographical errors. No dates are stated in *STISA* for **Ek 1**, while the (admittedly, still long) time-span of **M 59** is given as '114-133 SE' (199/8-180/79 BC). Yet, relying solely on the dates noted in *STISA* is problematic, since cross-references between figurative seals and tax stamps are not always accurate.⁵⁹³ Considering information from *STISA* and the database in conjunction suggests that seals were typically used for around five years. For example, **Er 239** was used between

⁵⁸⁹ Further seals occur more than once with tax stamps from a single year (discussed p. 122); again, we can identify only one year in which they were used.

⁵⁹⁰ This excludes cases where stamps of different dates occur on the same bulla, discussed p. 192.

⁵⁹¹ See p. 40.

⁵⁹² Bregstein 1997: 365

⁵⁹³ For example, **Ap 118** is not noted as appearing with a tax stamp, but the plates reveal it does; incidentally, the bulla in question is **S-9908** not **S-9907**.

211/10 and 208/07, and **Mr 3** between 214/3 and 210/09. I would suggest that most apparently longer timespans are typographical errors.⁵⁹⁴

Several seals from salt-groups initially seem to have unusually long life-spans. For example, *STISA* says that **M 59** and **ApT 10** were used between 199/8 and 180/79. However, no bulla impressed by a salt stamp of 199/8 is listed for either seal. The two are said to occur on S6-7245, which is impressed by **Alk 23** (dating to 211/210) and one figurative seal; it is however extremely doubtful that this is either **M 59** or **ApT 10** (Figure 4.8).⁵⁹⁵ The situation is similar for other supposed early impressions of these seals.⁵⁹⁶ The apparently long lives of seals from salt-groups probably arise because typographical errors are particularly frequent in listing the large numbers of bullae on which they are impressed. Therefore, the typical period of use of such seals is likely again to be only around five years.

We can now return to the dates of our groups of colleagues (summarised in Table 4.26). Some of these seals do not occur together with tax stamps, and so we cannot suggest a date of use for, for example, the group **TM 53**, **Ap 146** and **Er 298. At 151**, part of the **TM 58** group, certainly occurs with salt stamps dating to 231/0. **Ek 8** (also part of this group) apparently occurs on S-7967 with a stamp dating to 186/5; this bulla is however now missing, and I would discount this date. Since seals were usually used for short periods, it is probable that the bullae sealed by the **TM 58** group date to the late third century, and so are early in date relative to the bulk of extant material from the Archive Building. **M 101** appears with a stamp dating to 205/4, suggesting that this group of seals is also of an early date. **GyT 20** occurs on S7-2381 together with **Alk 60** (dating to 194/3),⁵⁹⁷ far earlier than its Block G6 attestation with a stamp dating to 169/8. It seems that this seal was in use for an unusually long period, of around 25 years. Since **GyT 20** occurs alone in 194/3 and with its companion seals **At 35** and **M 51** in 169/8, it is probable that the Archive Building bullae on

⁵⁹⁴ For instance, I would suggest that *STISA*'s claim that **Ani 204** appears with salt stamps of 193/2 and 155/4 is a typographical error, perhaps for 185/4, since such an entry appears in the database. Conversely, I would discount the long time-span the database suggests for both **Ek 1** and **GyT 26**, on the grounds that no dated occurrences of either are noted by *STISA*.

⁵⁹⁵ When I saw this bulla, I did not know it was supposed to be an early occurrence of these two seals. Comparison with other bullae photographed at the same time suggests that **M 59** and its companion seals would be readily apparent if they were impressed on S6-7245 (Figure 4.9).

⁵⁹⁶ **ApT 10** is not readily identifiable on S6-7039 (**Alk 73**, 187/6), and nor is **M 59** on S6-6968 (**Alk 74**, 187/6); S6-5467, supposedly impressed by **ApT 10** and **Alk 75** (186/5), and S6-6023, supposedly impressed by **M 59** and **Alk 77** (185/4) are only partially preserved and it is doubtful that these are the impressed seals. I have not seen S6-6828, supposedly impressed by **M 59** and **TM 220** and **Alk 62** (193/2).

I have not examined the bullae on which there are said to be early attestations of **Mn 6**, **TM 220** or **Tk 25** (Table Supp.-4.1).

⁵⁹⁷ This impression is also identified as **M 126**; however, a photograph of this bulla is used to illustrate **GyT 20** in *STISA*, indicating that this impression was considered to be made by the same seal as other **GyT 20** impressions.

which these three seals co-occur also date to ca. 169/8. In the absence of other evidence,⁵⁹⁸ I would suggest the Archive Building bullae impressed by the **Ek 1** group date to the late 160s, and those impressed by **Gn 3** to the 150s, contemporary with their Block G6 appearances.

This reconstruction means that **Gn 3**'s bearer did not work with **Of 41**'s bearer, who had also been involved with the salt tax, but almost thirty years earlier. It is probable that those individuals involved with the salt tax came from prominent local families, meaning that the bearer of **Gn 3** may nonetheless have been aware of the identity of the bearer of **Of 41**. It however seems likely that by the 150s most people working at the Archive Building were not certain of the identities of the bearers of seals belonging to the **TM 58** or **M 101** groups, who had been active five to seven decades earlier.

h. Officials at the Archive Building

Considerable quantities of documents once housed by the Archive Building now appear to be missing. First, there is the emptiness of several of the rooms.⁵⁹⁹ Secondly, it is unlikely that only very small quantities of documents relating to the *katagraphē*, grain, thirtieth and *andrapodikē* taxes and the *chreophylax* and *bybliophylax* were originally stored in this building. Thirdly, salt documents from 179/8-159/8, 157/6-156/5 and 154/3 are missing, although Block G6 bullae demonstrate that they were produced. Finally, it seems that many bullae sealed by figurative seals are also missing. Among the seal-bearers represented at the Archive Building are a few who are associated with salt documents from the 170s-150s found in Block G6. It is probable that other officials involved in the salt tax over this period likewise sealed and stored documents in the Archive Building. However, impressions of seals such as **McDowell 1935, IIIA1f(10), IIIA2c(6)** and **IB3(2)** do not occur on extant Archive Building bullae. It is furthermore likely that bullae sealed by groups of seal-bearers comparable to the **TM 58** group or **Nb 1-M 73** pair are now missing.

Consequently, we do not have a freeze-frame of the Archive Building during its usual operation. Attempting to create a composite picture of the men concerned with the Archive Building is therefore hazardous. Nonetheless, some suggestions can be made. Around four men were regularly involved in the salt tax, at least from the early second century (this assumes that the bearer of the tax stamp did not impress his own figurative seal). There was at least one man concerned with the other attested taxes, and perhaps two *chreophylakes*⁶⁰⁰ and a *bybliophylax*, the latter working with at least one other individual. Additionally, there

⁵⁹⁸ No dates are noted by *STISA* for any seals associated with **Ek 1**; sporadic dates are offered by the database for **Ek 1**, which are probably due to typographical errors.

⁵⁹⁹ See p. 83.

⁶⁰⁰ Messina and Mollo suggest that there was more than one *chreophylax*, because their seals are inscribed 'of the *chreophylakes*', 2004: vol. I, 26. This is supported by the overlap in use of **Se 1** and **Se 3**.

was probably at least one group of individuals concerned with documents without fiscal or official seals, and some men who sealed documents without the involvement of other officials. The large number of bullae impressed by anchor seals suggests that the a bearer of such a seal may have been based at the Archive Building. It is possible that further individuals did not seal documents. This picture suggests that around two dozen men were active there at any given moment. Such a figure fits with the picture of administrative structures in Ptolemaic Egypt. For instance, relatively few Egyptian scribes and Greek officials seem to have been involved in the creation of tax receipts in early Ptolemaic Thebes,⁶⁰¹ while in the notary office in late-second-century Krokodilopolis worked the *agoranomos*, his subordinate, and two further individuals who were involved in creating a register of contracts.⁶⁰²

Hierarchies and senior officials are not readily identifiable from the bullae. The usual convention was for all members of a group to seal a document, and there is no evidence that one group of seal-bearers came under the authority of another. It is however possible that **Ani 2** was used by a senior official. **Ani 2** apparently occurs with salt stamps spanning a period of two decades, with **M 17**, with seals from the **Ek 1** and **Gn 3** groups, and on several bullae alone (Table 4.27). This could suggest that its bearer was a senior figure, who on rare occasions became involved in routine operations; the long time-span may also suggest that this was an heirloom or office seal. Without examining the relevant bullae, this suggestion however remains speculative.⁶⁰³ We would not expect communications from the king or an official such as the *strategos* of Babylonia, to require counter-sealing, so we would look for their seals among bullae with single impressions; I will return to whether these can be identified.⁶⁰⁴

The bullae may on one occasion record the presence of the court. The alternative salt stamp **Alk 25**, known for 211/10 reads 'Of the king's house, of the taxed ones', which could refer to the court, but could also refer more generally to a royal institution. The figurative seal which occurs with **Alk 25, Of 45**, is otherwise unknown; thus there are no further indications of who those 'of the king's house' were, or who oversaw their dealings with the Archive Building.

⁶⁰¹ Muhs 2011: 213.

⁶⁰² Vandorpe 2004: 164.

⁶⁰³ *STISA* does not note any co-occurrences with tax stamps or connections with other seals, and there is at least one error in its entry, since the bulla used to illustrate it in the plates is not included (**S6-3458**, Figure 4.10). I have seen two supposed impressions of **Ani 2**, but am uncertain whether it appears on either bulla (Figures 4.11-4.12). **Ani 2** deserves further investigation, but without undertaking this I would be wary of making far-reaching claims about its bearer's role.

⁶⁰⁴ Below, p. 126.

i. Further conclusions

A small number of men worked at the Archive Building at any moment. They had defined roles, which required them to work in small groups to create documents. Many of these documents concerned the salt tax, some other taxes. Other frequently-attested seal-bearers must also have had official roles; otherwise we would be forced to understand the Archive Building as a complex primarily used by a handful of men, each of whom repeatedly transacted business with one or two other individuals. However, while we can identify many users of anepigraphic figurative seals as officials, and can place some of them into groups of colleagues, their use of such seals prevents us from fully understanding their responsibilities. We can nonetheless understand aspects of the conventions that governed their professional lives.

Usually all members of a group were expected to seal a document. Seal-bearers typically can only be identified as part of one group, which means that we cannot trace individuals' careers. One exception is the bearer of **At 151**, who was involved in the salt tax, and was also part of the **TM 58** group; it is not possible to establish the chronology of these roles. Officials involved in the salt tax seem to have been appointed annually. However individuals could be active in a similar role for a few years, such as the bearer of **Ek 1** who is attested in 177/6-173/2. The fact that seal-bearers sometimes occur with unusual tax stamps may indicate that this transition was not always smooth, or that certain seal-bearers held similar posts in other years that are largely hidden from us. On occasion, a new seal replaced one seal in a group. This phenomenon seems to be confined to salt-groups, although this may be because much of our documentation relates to the salt tax. In the case of the bearer of **M 59** we know that he soon resumed his duties; in other cases we are not able to establish what happened to the previous member of the group, or to prove beyond doubt that the new seal was used by a new person.

iv. Beyond Seleukeia-Tigris

It is not possible to reach a similar understanding of officials' activities from bullae from other sites.

At Uruk and Nippur, impressions of fiscal stamps and office seals demonstrate the local presence of officials. Several figurative seals are impressed on salt bullae from Uruk, but we do not have more than one bulla per year, so cannot ascertain whether these are groups of colleagues akin to, for example, **M 59**, **ApT 10** and **Tk 36**. Bullae impressed by *chreophylax* seals and *andrapodikē* and *epōnion* stamps at Uruk appear not to have been sealed by further officials using figurative seals, since figurative seals do not recur when more than one bulla impressed by these seals survive from a particular year.

The discovery of impressions of dynastic seals at Kedesh and Jebel Khalid suggests communication, at least, with royal officials. However, since figurative seals do not repeatedly co-occur alongside these seals, we cannot further reconstruct the activities of their bearers. The few figurative seals known in several impressions at Kedesh may have been used by local officials, but since only one seal was impressed per bulla here, we again cannot explore their interactions further.

Cuneiform texts reveal that there were royal officials in Babylon, such as the *pāḥātu* (local governor) and a royally-appointed *zazakku* in the temple, who oversaw financial matters.⁶⁰⁵ The situation at Larsa is less clear; it may have come under the authority of officials at Uruk.⁶⁰⁶ The published bullae from the two cities however do not clearly relate to the activities of royal officials. While Lecomte has proposed that large seals with Greek-style portraits were used at Larsa by officials,⁶⁰⁷ the bullae and tablets from Uruk suggest that there is no reason to distinguish the users of such seals.⁶⁰⁸ The reported impressions of a royal portrait seal from Babylon are more suggestive of officialdom, but again such a seal may have been used by its bearer in his private capacity. These bullae therefore offer insights into the communities who used leather documents, but do not necessarily relate to royal officials.

Consequently, while some bullae from Uruk, Nippur, Jebel Khalid and Kedesh involved royal officials, and while we know from other sources of the presence of royal officials at Babylon, the bullae do not allow us to further understand their activities.

3. Individuals and the royal administration

i. Going about your own business

The majority of bullae from Uruk, Babylon and Larsa, as well as many from Seleukeia-Tigris, appear to record individuals conducting their private affairs, without involvement from the royal administration. Many napkin-ring bullae from Nippur, Larsa, Babylon, Uruk and Block G6 at Seleukeia-Tigris are sealed only by several figurative seals. It is probable that most of these enclosed records of sales, contracts, gifts and wills, sealed examples of which are known from earlier in Mesopotamian history and from Ptolemaic Egypt. It is likely that the individuals involved mirror those known from elsewhere, and so include at least one of the principal parties, a scribe⁶⁰⁹ and witnesses. Flat and napkin-ring bullae sealed by just one

⁶⁰⁵ Boiy 2004: 160–161, 210.

⁶⁰⁶ Larsa for example had relied on reports from Uruk to determine the calendar, Steele 2011: 335.

⁶⁰⁷ 1987: 234–235.

⁶⁰⁸ The Larsa impressions are comparable to, for example, Lindström 2003, **Nos. 279-1, 283-1, 297-4**.

⁶⁰⁹ The inscribed napkin-ring bulla names the scribe, see n. 76.

figurative seal are also known from Uruk and Block G6. These may have enclosed letters,⁶¹⁰ or legal documents that were felt to require only one party's seal; it is also possible that some documents had several flat bullae attached.

The bullae found in houses and temples remind us that these cities were lively places, thronged with people conducting their own affairs. Not unexpectedly, the owners of the archived documents interacted with a wide variety of other seal-bearers in the course of this. The large number of seal-bearers recorded at Uruk stems in part from the fact that these bullae relate to the activities of more than one household. However, the large number of seal-bearers attested from the family archives in Block G6 reminds us that an individual's affairs could bring him (or her) into contact with many people.

ii. Tablets from Uruk and Babylon

Yet people could not conduct their affairs without coming into contact with the royal administration, which demanded taxes on, and registration of, certain transactions. The bullae from Uruk indicate that inhabitants of this city had at least occasional dealings with the *chreophylax*, *bybliophylax* and fiscal officials. The bullae do not constitute family archives, and so do not elucidate the frequency of a family's interactions with royal officials.

Cuneiform tablets however suggest that individuals frequently came into contact with the royal records office, at least in the early second century. A few transactions concerning temple prebends refer to a record of ownership in the royal records office, as well as in a temple register.⁶¹¹ The double registration of transactions by the temple and royal administration almost certainly occurred only for transactions of interest to the temples; there is no reason to assume that the temples held copies of, for example, all slave sales. These references often relate to occasions when the ability of the seller to produce, and transfer, a document proving his right to an allotment was compromised. For example, in CM 12, 7 (and its duplicate, BRM 1, 98) Anu-mar-ittannu/Labaši/Anu-mar-ittannu has sold prebends belonging to his father and to two other individuals, to whom his relation is unclear. It is the royal and temple records of these latter two individuals' ownership that are noted. The situation in BRM 2, 33 is unclear, but the text unusually includes a clause guaranteeing that the sellers will orally confirm to anybody whom the buyer requires that they have sold the prebends to him. In BRM 2, 31, the prebend had been removed from the old owners because they had not performed their work, and the text stresses that it is now registered in the name of the new owner.⁶¹² This suggests that state registration of prebends

⁶¹⁰ Bullae however do not usually survive with letters from Ptolemaic Egypt, because these were typically removed when the document was opened, Vandorpe 1996: 240.

⁶¹¹ Other texts from the mid-third century refer only to the temple register, Joannès 2012: 246.

⁶¹² In YOS 20, 92, the seller is firstly selling a prebend registered in his father's name, and secondly selling only a third of it, both possible reasons for difficulties in handing over relevant documents to

was the norm, but was referred to only in unusual cases. The payment of charges is perhaps encapsulated by the frequent phrase in Akkadian sale documents that the seller bears responsibility for clearing the transaction. The tablets offer no information about the individuals at the royal registry office with whom local inhabitants interacted, beyond that a *dioikētēs* was perceived as being in charge.⁶¹³

A letter from Babylon refers to a record of a dowry in a royal register, which could not be found.⁶¹⁴ This reference therefore again occurs in the context of problems with the document trail. The patchy cuneiform record from Hellenistic Babylon makes it difficult to understand this royal register further.

Therefore, cuneiform documents suggest that the inhabitants of Uruk, and almost certainly of Babylon also, frequently came into contact with royal officials in order to register their rights to property, and could refer to these records later if need arose.

iii. The bullae from Seleukeia-Tigris

The bullae from Seleukeia-Tigris enable us to trace some such interactions between local inhabitants and royal officials. Our difficulties in understanding the nature of the documents enclosed by the bullae and in distinguishing rarely-attested officials and private individuals makes it challenging to recognise instances where an individual came into contact with the local administration. However, an instance where rarely-attested seals appear at Block G6 and the Archive Building, as well as the vast quantity of salt bullae, allow some suggestions to be made.

a. Reflecting on lost documents

Before examining the evidence that the bullae from Seleukeia-Tigris offer for individuals interacting with the local administration, let us consider the types of sealed documents that we might expect the Archive Building to have contained.

While tablets from Babylon and Uruk prove that sales and marriage contracts were registered at royal complexes, they may not have been deposited there as sealed copies. In many ancient registry offices, texts (or abstracts) were entered into a register.⁶¹⁵ It is possible that the Archive Building contained such unsealed registry rolls, now invisible to us, into which records of sales were entered.

the new owner. In OECT 9, 48 there is not such a clear problem, although again it is noted that the prebend is registered in his father's name.

⁶¹³ See n. 272.

⁶¹⁴ Jursa 2006: 171–172.

⁶¹⁵ Such a register, containing records of sales of real estate and loans, is known from late second century Pathyris, Vanderpe 2004: esp. 163–169. Third century examples survive from Thegonis and Tebtynis, Yiftach-Firanko 2008: 209. Similar registry copies of later dates are known from elsewhere, including Dura, see p. 43.

However, some sealed versions of transactions were certainly deposited in the Archive Building. The co-occurrence of several tax stamps and figurative seals on napkin-ring bullae from the Archive Building indicate that these bullae did not enclose paperwork relating to fiscal activities, such as tax farming contracts, but sealed a registered copy of a particular transaction.⁶¹⁶ It is possible that other bullae from the Archive Building likewise enclosed documents deposited there by local inhabitants. Sealed documents may in fact also have been stored in notary offices in Egypt. Texts from such offices are predominantly known from cartonnage.⁶¹⁷ When several sales and contracts are recorded on a single document, this is identified as a registry copy, while when a document concerns one transaction, it is usually considered to belong to a private archive. However, original versions of some loan contracts and provisional sales may have been kept in notary offices in Egypt,⁶¹⁸ as may have been some original copies of wills and donations.⁶¹⁹

Tax farming agreements and oaths taken by officials could also be sealed,⁶²⁰ and it is plausible that such documents were placed in this complex. The Persepolis Fortification Archive included sealed administrative documents, such as accounts.⁶²¹ Receipts, for example for salaries, could be sealed. It is unlikely that receipts belonging to private individuals would be placed in a registry office, but if the complex had wider administrative functions, receipts for the delivery and disbursements of goods might be expected, as at Persepolis. Similarly, private letters, sealed by their author, are unlikely to have been archived in such a complex, but letters and orders between officials might be stored there, as again is known at Persepolis. The difficulties in preserving bullae from opened documents however make it improbable that large quantities of letters are represented by extant bullae.

There are, therefore, a range of documents that could potentially have been sealed and deposited in the Archive Building, and similar complexes.

⁶¹⁶ The fact that such bullae all date to the third century may suggest that there was subsequently a move away from storing sealed copies of transactions in the Archive Building. Alternatively, later documents may have been removed from the building. A further possibility is that storing such sealed documents in the Archive Building was never the norm, and that there was a particular reason why these few documents were placed there. For example, they may have belonged to an official who chose to store his own paperwork in this administrative space. Against this suggestion is that fact that the *chreophylax* napkin-ring bullae were stored in Room 9 with other napkin-ring bullae, suggesting that this room was associated with documents sealed by napkin-rings, not with an individual's (probably, far more eclectic) paperwork.

⁶¹⁷ Depauw 2013: 261.

⁶¹⁸ Vierros 2012: 98.

⁶¹⁹ Vandorpe 2004: 132.

⁶²⁰ The sealing of documents relating to tax farming is referred to in *P. Rev.* Sections 7, 18, 27, 28, 29, 31, 40, 42 (=Bagnall and Derow 2004: No. 114). Oaths: Vandorpe 1996: 238.

⁶²¹ See n. 286.

b. Distinguishing between private individuals and rarely-attested officials

Rarely-attested seals often occur alongside frequently-attested seals and tax stamps at the Archive Building, as well as with other rarely-attested seals; there are also approximately 2,750 extant bullae that are sealed only by a rarely-attested seal. Distinguishing between officials who are rarely attested, and outsiders interacting with the administration is difficult, as a few case studies illustrate. It is probable that individuals such as the bearer of **TM 270**, known from 40 impressions (always without accompanying seals), the vast majority of which were found in Room 5,⁶²² had an official role which required him to archive these documents. The situation is more ambiguous with the bearer **Na 2**, impressed on 17 bullae from Room 5,⁶²³ again as the sole seal. It is possible that he was an official, now poorly attested, or a private individual, who dealt with officials at the Archive Building on a few occasions. The fact that all of the bullae which he sealed are found in Room 5 perhaps makes this latter scenario less likely, since it is improbable that documents sealed by a private individual would have been stored together in the complex. For a bearer of a seal such as **Ani 101**, known from just two extant bullae, both found in Room 5, once more without accompanying impressions, there is no reason to suggest an official role, but it cannot be entirely excluded.

Chreophylax seals are not routinely accompanied by a particular figurative seal(s). However a few figurative seals recur on several bullae with *chreophylax* seals,⁶²⁴ namely **Tk 89**, **Ae 2** (which occur with each other) and **TM 439**. **MO 3** is very similar to **Lindström 89-1**, both of which occur with the *chreophylax* seal **Se 1**, at Seleukeia-Tigris and Uruk respectively. Given that there are many *chreophylax* bullae on which these figurative seals are not impressed, the bearers of these seals might be private individuals, who happened to interact on more than one occasion with the *chreophylax*. On the other hand, accompanying figurative seals, apparently used by officials, occur on only some *bybliophylax* bullae, and it is possible that the situation was similar with *chreophylax* bullae. Thus these seal-bearers may have acted in an official capacity.

The roles of the bearers of rarely-attested seals which occur together with groups of frequently-attested seals, such as the **Ap 146** and **TM 58** groups, likewise remain ambiguous. They might be understood as parties and witnesses to contracts, but could also be further officials, whose duties required them to interact with the main group of colleagues only infrequently.

⁶²² Graph 4.3, Table 4.5.

⁶²³ Table 4.5. **Na 2** supposedly also occurs on **S6-7099**, found in Room 6, alongside the salt stamp **Alk 77**. Since **Na 2** does not otherwise occur with salt stamps, or beyond Room 5, I am inclined to discount this as a typographical error.

⁶²⁴ This is briefly noted by Mollo 1997: 94.

It is similarly impossible to determine the roles of bearers of most figurative seals known from impressions from Archives A and B. Most such seals are known in only one or two impressions, meaning that we cannot trace patterns in their use. However, **McDowell 1935, IIIA1f(1)** and **McDowell 1935, IIIA1b(2)** occur on four and three bullae, respectively. Both seals are impressed alone. All four impressions of **McDowell 1935, IIIA1f(1)** are countermarked, suggesting that there were similarities in its use on these documents. It is possible that the bearers of these seals were officials, otherwise unknown, with whom the owners of Archive B had to interact on occasion, or that they were individuals with whom the owners did business.⁶²⁵

As these examples illustrate, distinguishing between officials who are infrequently attested and outsiders to the administration from impressions on bullae is problematic.

c. Copies sealed by napkin-ring bullae

A few bullae from Block G6 and the Archive Building however do enable us to identify an individual interacting with the local administration. A few rarely-attested figurative seals are known from both the Archive Building and Block G6 in Seleukeia-Tigris, namely **At 49**, **TM 463**, **TF 1 Of 260** and **Og 130**. Closer examination reveals three closely-related napkin-ring bullae, which seem to represent one copy of a document being deposited in the Archive Building and another being stored in a family archive.

The impressions of **At 49**, **TM 463**, **TF 1**, **Of 260** and **Og 130** at Block G6 occur on the napkin-ring bulla **McDowell 1935, A1c(24)**, which is also impressed by a portrait seal, identified as Timarchos.⁶²⁶ This bulla was found in Room 141,⁶²⁷ where one further unpublished bulla was also discovered.⁶²⁸

At 49 occurs once at the Archive Building, on the complete napkin-ring bulla **S9-388** (found in a secondary context), which is also impressed by **TM 463**, **TF 1** and **Og 130** (Figure 4.13), and at least one further figurative seal (omitted by *STISA*), depicting a female figure, plausibly **Of 260**. Therefore, it seems that the same seals occur on both bullae, with the exception of the 'Timarchos' seal; moreover, **At 49** is countermarked on both (Figure 4.14). **TF 1** occurs on a second Archive Building napkin-ring bulla, **S6-932** (also found in a secondary context), again accompanied by **TM 463** and **Of 260**, as well as **Og 161**, another

⁶²⁵ It is unlikely that these seals belonged to the owners of Archive B, since seal-bearers did not usually seal their version of a document. For example, if a tax receipt in Egypt was sealed, this was by the tax collector and the document then kept by the tax payer, Vandorpe 1996: 237. Likewise, the Achaemenid Murašûs did not usually seal their own copy of a document, as noted above, p. 58.

⁶²⁶ **McDowell 1935, IA3o(1)**.

⁶²⁷ Figure 3.7.

⁶²⁸ The *Seleucia Excavation Records* record the discovery of a 'Seal impression in pellet.' (Find number **F 197**) in 'G 6, in brickwork but E. wall, R. III 141' on 12th October 1936, which is now in Baghdad; this cannot be the bulla McDowell published in 1935. The discovery of **McDowell 1935, A1c(24)** does not seem to be recorded by the *Seleucia Excavation Records*.

double *polos* seal, perhaps identical to **Og 130**.⁶²⁹ This is a fragmentary bulla, and it is possible that further seals (such as **At 49** or the Timarchos seal) were impressed. The Timarchos seal is not known on surviving bullae from the Archive Building, and **Of 260**, **Og 130** and **Og 161** do not occur on further bullae. **TM 463** is impressed on several further Archive Building bullae, most (perhaps all) of which are fragments from napkin-rings. This seal is usually accompanied by one or two rarely-attested figurative seals,⁶³⁰ while on **S9-495**, from Room 9, it occurs alongside the *chreophylax* seal **Se 1**.

Thus the creation of the document sealed by **McDowell 1935, A1c(24)** appears to have involved an inhabitant of Block G6 interacting with officials at the Archive Building, and may have resulted in a version also being archived in the Archive Building.⁶³¹ The bearer of **TM 463** perhaps had an official role, given his repeated involvement in napkin-ring bullae sealed by rarely-attested seals, or may have been a private individual, involved in several documents deposited at the Archive Building. The sealed texts might record a private transaction, such as a sale, or an agreement made with the administration, for instance relating to tax collection; it is not certain that this document concerned a private affair. Among the other seal-bearers we might expect a scribe, witnesses and the principal parties to the document.

McDowell 1935, A1c(24) demonstrates that the absence of an impression of an official seal, such as that of the *chreophylax*, does not mean that a document did not concern local officials. This opens up the possibility that officials were involved in other napkin-ring bullae from residential and temple buildings which are sealed only by figurative seals.

d. Interactions with the bearer of the salt stamp in Seleukeia-Tigris

The salt bullae from Block G6 imply that a household could come into contact with the salt office once, perhaps twice,⁶³² a year. While thousands of salt bullae in the Archive Building are impressed only by a salt stamp, many are also impressed by a rarely-attested figurative seal.⁶³³ The rationale for whether a salt bulla was sealed by an additional individual in part

⁶²⁹ There are no features that distinguish the motifs; **Og 161** is apparently slightly larger than **Og 130**, measuring '>15[mm]x>13[mm]', but it may be more fully impressed on **S6-932** (for measurements of **Og 130**, see n. 487)

⁶³⁰ The bullae and seals are: on **S-2533**, with **Er 230** (only this attestation); on **S-4015**, with **Pr 7** (only this attestation); on the fragmentary **S-6632**, with **Aph 48** (only this attestation) and **At 84** (also impressed on the fragmentary **S6-3913**, on which no other impressions survive); on the fragmentary **S6-908**, now alone; and on **S9-495**, with **Se 1**. Only **S9-495** was found in a primary context.

⁶³¹ It is possible that the same combination of seal-bearers also sealed documents relating to other individuals; thus **S9-388** is not necessarily the counterpart of **McDowell 1935, A1c(24)**.

⁶³² Two salt bullae relating to 173/2 and perhaps 156/5 are known from Archive B, see n. 434.

⁶³³ Whether documents were routinely sealed by several flat bullae is debated. Lesperance suggests that some documents may have had several bullae attached, 2010: 64. However Messina and Lindstrom argue that all necessary impressions could be fitted onto a single bulla, Lindström 2003: 10; Messina 2009: 179. The fact that the seals belonging to the salt-groups co-occur with salt stamps suggests that salt documents were usually sealed by a single bulla. Impressions accompanying a salt stamp therefore can be assumed to be all those associated with that document.

depended on whether it is impressed by an *atelōn* or *epitelōn* stamp, and also varies over time. Graph 4.6 shows the percentage of salt bullae on which at least one rarely-attested figurative seal occurs;⁶³⁴ typically around 5% of *epitelōn* bullae and 20% of *atelōn* bullae have at least one accompanying figurative seal.

Most of the fluctuations in the percentage of salt stamps accompanied by rarely-attested figurative seals are probably due to the disturbance suffered by the archive over the centuries. However, there are a few years in which noteworthy percentages of salt stamps have accompanying impressions. High percentages of *atelōn* and *epitelōn* salt stamps from 216/5 have accompanying figurative seals (48% and 24% respectively), as also do a relatively high percentage of *atelōn* bullae from 214/3 (29%). Although only small quantities of salt bullae from before 216/5 survive, unusually high percentages of these also have accompanying figurative seals. Thus at first far more salt documents were required to be co-impressed by figurative seals. In 194/3, high percentages of both *atelōn* and *epitelōn* bullae have rare figurative seals impressed (24% and 33% respectively), as do *epitelōn* bullae in 183/2 (22%). Therefore, the reforms that occurred with the introduction of salt-groups also affected the protocols concerning the sealing of bullae by additional individuals. Extremely low percentages of bullae from 155/4 have accompanying figurative seals, indicating that when salt-groups ceased to seal the salt bullae placed in the Archive Building, there was not a return to previous practice, but the introduction of new conventions. These occasional reforms to whether further individuals sealed documents again demonstrate that attitudes regarding the sealing of documentation produced by the salt office varied over time.

It is almost certain that further individuals were involved in documents sealed only by a salt stamp (and documents sealed only by a salt stamp and members of a salt-group), who did not impress their seal. It remains unclear how it was decided which specific documents required an additional seal impression. The greater emphasis on accompanying impressions for *atelōn* salt stamps suggests a greater concern for accountability with regard to documents relating to tax freedom.

Apart from those seals that belong to salt-groups, seals do not frequently recur with salt stamps.⁶³⁵ If households in Seleukeia-Tigris regularly interacted with the salt office, as the bullae from Block G6 imply, this is not visible from seal impressions from the Archive Building. However, almost 20 figurative seals (again, not associated with salt groups) occur on at least two bullae in conjunction with salt stamps from different years.⁶³⁶ Additionally, some 23 figurative seals, not clearly part of salt-groups, occur on at least two bullae in

⁶³⁴ Only salt stamps known in at least 25 impressions, dating from 215-179, are included.

⁶³⁵ As emerged from the discussion of dating seal use, p. 110.

⁶³⁶ The reliability of some of these dates is questionable, p. 110.

conjunction with salt stamps from a single year, although none on more than nine bullae. The latter seals are attested in a number of years, but particularly in 231/0, 194/3 and 187/6-180/79 (Table 4.28), suggesting that their presence may relate to the sealing protocols associated with the salt-groups.⁶³⁷ These seals *always* occur with salt stamps on extant bullae, suggesting that their involvement with the salt tax arose from a specific role.⁶³⁸ It is unlikely that these seals belonged to tax-payers, since it is then difficult to explain why the bearer of, for example, **Tk 138**, is attested four times with a salt stamp in 199/8, but is otherwise unknown. Moreover, a few of these seals occur with both *atelōn* and *epitelōn* salt stamps from a particular year, implying that this does not relate to their tax status.⁶³⁹ This suggests that some of the individuals impressing rarely-attested seals on salt documents did so in an official capacity, for example as a tax farmer. Other rarely-attested seals may have been used by individuals interacting, in their private capacity, with the local salt officials; we do not have to assume that all individuals who impressed a rarely-attested figurative seal on a salt document did so in the same capacity.

The salt bullae from Archive B suggest a family would come into contact with the salt office annually, but such annual interactions of families are not traceable from the salt bullae in the Archive Building. In fact, while most individuals are recorded interacting with the salt office just once, we see a few individuals interacting with the salt office several times in one year, and apparently never again. Our difficulties in understanding the reasons behind individuals' interactions with the bearer(s) of the salt stamp reminds us that, while the seal impressions offer a glimpse into the practicalities of local administration within a community, much remains obscure. The fact that individuals cannot be traced interacting with officials over several years at the Archive Building also implies that the salt documents in Block G6 and the Archive Building differed in nature, although both involved the same core group of officials..

iv. Conclusions

The royal administration affected the daily life of local people, in particular through the demand for taxes and the registration of documents. Such interactions between local people and the administration are recorded by bullae from Seleukeia-Tigris, Uruk and Nippur, as well as implicitly by those from Kedes, since placing a document in the administrative building here must have involved some engagement with the officials in charge. Such

⁶³⁷ Such a clustering is not observed for the former seals (as seen from Table 4.24).

⁶³⁸ This fact also means that, once again, we are not able to further trace the use of these seals.

⁶³⁹ **Ani 216** occurs with **Alk 59** and **Alk 60**; **GyT 17** and **M 21** occur with **Alk 61** and **Alk 62**; **TIn 18** occurs with **Alk 73** and **Alk 74**.

encounters with local officials were probably the main way that Seleukid rule manifested itself in individuals' lives.

However, much remains opaque about the nature and frequency of such interactions. Rarely-attested seal bearers were often involved in the routine business of the Archive Building, but it is difficult to understand their roles, and to differentiate between officials who are infrequently attested and private individuals coming to the Archive Building to, for example, register sales. Additionally it is probable that many encounters escape us, because documents may have been recorded on unsealed registry rolls. Our understanding is also hampered by the fact that there seems to have been an emphasis on impressing official seals and figurative seals borne by individuals with official roles, while seals of outsiders seem often to have been regarded as unnecessary.

The evidence from Block G6 implies that certain households of Seleukeia-Tigris, at least, had dealings with salt officials on an approximately annual basis, also interacted on occasion with the *chreophylax* and *bybliophylax*, and held copies of documents stored at the Archive Building. It seems that slave sales had to be registered there; it is unclear which other transactions might be registered there, and the extent to which this was optional. The Uruk tablets however suggest that it was a common procedure for a wide variety of transactions.

4. Seal choice and status

While it is plausible that some bullae from the Archive Building impressed by a single seal related to very senior individuals, we cannot recognise these from their seal use alone. Can we however identify position and/or seniority from the iconography of the seals?

i. Motifs of figurative seals

In contrast to the iconographic potency of the tax stamps and office seals, the figurative seals used by the groups of colleagues, and by the bearers of frequently-attested, but isolated, seals, at Seleukeia-Tigris are not distinguished by particular iconographic traits. Like most seals at Seleukeia-Tigris, almost all have Greek motifs, but these include a wide range of subjects, from masks and palm trees to deities and portraits. Within particular groups of colleagues, individuals used seals with different subjects. For example, the size and motifs of the seals within the **TM 58** group vary considerably. These include **TM 58**, a high-quality, large portrait seal; **Im 11**, a large, but shallowly-engraved seal, which makes distinguishing its motif (a masculine figure) from impressions difficult; and **At 151**, a small but deeply-carved seal portraying Athena. The subjects of seals used by members of different salt-groups varied; it is not the case, for example, that one seal always depicted Apollo. Therefore motifs seem to have been a largely private choice.

There is no clear connection between the subject of the seal and the activity of its bearer; mask seals (designated '**M**') for example were used by individuals connected with the salt tax (**M 59**, **McDowell 1935, III d3a(5)**), by individuals who belonged to groups of colleagues (**M 73**, **M 101**), by well-attested, isolated seal-bearers (**M 17**, **M 230**) and by individuals who are only infrequently attested at the Archive Building (for example, **M 4**). Mask seals were also extremely popular at Delos,⁶⁴⁰ again suggesting that the motif did not indicate a particular status or role.⁶⁴¹

The subjects of figurative seals are not closely connected with Seleukid rule. There is not, for example, a particular preponderance of seals depicting Apollo, Alexander, elephants, or other designs known from Seleukid coins, either among all seals or among frequently-attested seals.⁶⁴² Many seals that use subjects which appear on coins do not closely resemble coin-motifs in the specific depiction.⁶⁴³ Personal preference therefore seems to have been the overriding factor behind the selection of a seal motif. This lack of connection between motif and position is also seen in the Murašû and Persepolis archives. For example, Parnakka, who was in charge of the Persepolitan economy, opted for a seal not in the Achaemenid court style but with an Assyrianising design.⁶⁴⁴

The preponderance of Greek influences in seal motifs is probably due to the fact that the culture of Seleukeia-Tigris was predominantly Greco-Macedonian. That it was not a requirement for officials to use Greek motifs can be seen from the fact that the bearer of **Nb 1** (depicting the Mesopotamian deity Nabû)⁶⁴⁵ sealed hundreds of documents stored in the Archive Building. Nabû was associated with Apollo, who was regarded as the Seleukids' ancestor. However, since prominent seals cannot usually be interpreted as expressing allegiance, it is best understood as evidence of the personal interests (but not necessarily ethnicity) of its bearer.

⁶⁴⁰ Boussac 1997: 145–146.

⁶⁴¹ Messina argues that we may see similar groups of individuals choosing seals with particular motifs at Seleukeia-Tigris, but does not give examples, 2009: 180–183. Invernizzi suggests that there might be a link between particular frequently-attested motifs and specific departments of administration, but again does not take this further, 2003: 319.

⁶⁴² Iossif suggests that the designs on coins influenced seal choice, 2014: 41–45. However his analysis is distorted by the fact that a few frequently-attested seals bear such motifs, such as **ApT 10** and **Tk 36**. Considering seals, rather than impressions, and including subjects both present and absent from coins emphasises that popular seal designs at Seleukeia are not closely correlated to coin designs; for example mask and animal seals were extremely popular.

⁶⁴³ Iossif 2014: 45–46.

⁶⁴⁴ Root 1991: 22. Garrison's study of Darius I's use of royal name seals suggests that they may be an exception, since these seem to have been bestowed on senior administrators without a link to the elite families, 2014: 88–89.

⁶⁴⁵ The depiction is however not strikingly Mesopotamian; the figure is naked and holds an ambiguous long object, while the clearest reference to Nabû is a crescent moon, Bollati and Messina 2004: vol. II, 59, also Erickson 2009: 112.

ii. High-quality, iconographically potent seals

Certain seals stand out as unusually large and high-quality products, including certain male portrait seals, as well as several seals depicting Athena and Apollo,⁶⁴⁶ and, of course, the unscripted royal portrait seals. The bearers of such seals must have been wealthy in order to afford such pieces, while the royal portrait seals may have been given as gifts or distributed to officials. However, at the Archive Building at Seleukeia-Tigris there is no clear divide in the use of large, high-quality seals and other seals. Most large, high-quality seals are known in only a very few impressions.⁶⁴⁷ Thus they do not seem to belong to local officials involved in the production of routine documentation. Many such seals occur alone,⁶⁴⁸ others together with salt stamps,⁶⁴⁹ or with other rarely-attested seals,⁶⁵⁰ while a few occur with groups of frequently-attested seals.⁶⁵¹ Therefore, their bearers do not seem to occupy a particular role.

It is nonetheless possible that some of these seals were used by the upper echelons of the Seleukid world. In particular, large seals with iconography that could be linked to the Seleukid dynasty such as **Pro 10** (a horse protome, whose motif resembles coins minted at Seleukeia-Tigris)⁶⁵² or **Ap 1** (an Apollo seal, in a pose that again is reminiscent of depictions of coins minted at Seleukeia-Tigris)⁶⁵³ may have been used by influential courtiers, whose prominence is minimised because we have moved from a 'bird's eye' view of empire to a 'worm's eye' view, in switching our focus from epigraphic documents and literary narratives to the bullae. The fact that some such seals occur alongside salt stamps and frequently-attested seals, which do relate to routine documentation, suggests that such officials could on occasion be affected by, and become involved in, local taxation and administration.

It is probable that the king's own seal had a potent motif. Ptolemy X Alexander's seal, which survives on a Ptolemaic royal ordinance, depicts an eagle, symbolising the Ptolemies' patron Zeus.⁶⁵⁴ Wallenfels' earlier proposal that **SU 2** is Antiochos I's seal has, rightly, been discounted.⁶⁵⁵ The most distinctive Seleukid seals are the anchor seals, which Wallenfels now considers, on the basis of their iconography and wide geographical distribution, to

⁶⁴⁶ Messina and Mollo list a number of seals which are unusually large and/or whose motif is similar to Seleukid coins, 2004: vol. I, 30.

⁶⁴⁷ This is noted by Iossif, who considers a greater number of impressions of a seal to indicate the higher status of its bearer, but observes that such seals do not fit this theory, 2014: 40 and n. 20.

⁶⁴⁸ For example, **AtT 1**, **AtT 14**, **AtT 15**.

⁶⁴⁹ For example, **At 51**, which occurs with **Alk 83**, and **At 205**, which occurs with **Alk 19**.

⁶⁵⁰ For example, **At 188**, which is accompanied by several other rare seals on **S-4109**.

⁶⁵¹ For example, **EgT 3**, which occurs with seals from the **Ek 1** group on **S7-4618**.

⁶⁵² Bollati and Messina 2004: vol. III, 160.

⁶⁵³ Bollati and Messina 2004: vol. II, 38.

⁶⁵⁴ Bencivenni 2014: 162; Lenger 1964: 180–183, No. 62. The seal is illustrated by Leemans 1843: vol. I, Pl. II No. 14.

⁶⁵⁵ See p. 47.

belong to ‘the Seleucid kings themselves or those empowered to act in their names’.⁶⁵⁶ This seal has however also been identified with the royal treasury;⁶⁵⁷ a proposal which perhaps fits better with the standardised iconography and use. It is plausible that royal portrait seals or seals depicting Apollo, such as **ApT 6**, which appear alone on large bullae, were used by monarchs, but impossible to prove this.

iii. Conclusions

There are no certain restrictions on the motifs selected by individuals who worked within the local bureaucracy. Seal choice cannot be used to identify an individual as holding an official position, or as working within a specific area of the administration. The quality of certain seals suggests that they were used by wealthy individuals, but their roles within Seleukid structures cannot be reconstructed on the basis of iconography. The attestations of such seals on bullae from the Archive Building, Uruk and Jebel Khalid nonetheless are suggestive of interactions between local bureaucrats and the upper echelons.

5. Conclusions

The seal impressions enable us to trace aspects of the daily business of a variety of people living in the central regions of the Seleukid empire in the late third and early second centuries. While most individuals remain anonymous to us, we can begin to understand something of their roles and activities. We can identify groups of colleagues, who held responsibilities within the royal administration at a local level, and can observe that the ways in which they fulfilled these responsibilities varied over time. Very occasionally we get glimpses of individuals’ stories, as when **At 151** transferred to a new job, the seemingly rapid replacement of the bearers of **Tk 36**, **Ap 14** and **Mn 6**, or the bearer of **GyT 20**’s change from interacting just once with the salt office in 194/3 to becoming one of the men closely associated with the salt stamp in 169/8. The appearances and disappearances of seals thus hint at personal and professional misfortunes and achievements. The seal impressions remind us that Seleukid administrative and fiscal structures were not abstract entities, but were created by, and made up of, individuals, forming a living network which cannot be cleaved from the world around them. We return to the picture of empire as interaction, as described by Ma,⁶⁵⁸ but with greater understanding of those involved at the local level, particularly in Seleukeia-Tigris, and a greater sense of the routine interactions that underpinned the activities of the upper echelons.

The worm’s eye perspective of our evidence makes the presence of the Seleukid elite hard to identify. Trying to uncover these individuals relies largely on looking for ostentatious and

⁶⁵⁶ 2015: 63.

⁶⁵⁷ See n. 191.

⁶⁵⁸ See n. 56.

unusual seal-choices; however, while there may be some links between seal-choice and status, we cannot directly extrapolate from the former to the latter.

There was some flexibility to protocols, seen for example in the possible borrowing of the seal **Ap 167**, suggesting that one member of the salt-group had mislaid his seal, or in the absence of **M 59** on S-9275, implying that its bearer was unable to be present. There were also moments of reform. Nonetheless the general rigidity of local administration is striking; most documents required the involvement of particular individuals, and procedures for sealing salt documents rarely changed.

There are many aspects of local administration that remain confusing, even at the Archive Building. For example, it is difficult to trace promotions and dismissals and there are strangely few identifiable groups of officials. Some of these features may relate to the nature of the administrative structures. For instance, it is possible that appointments often were short-term, and that many documents with which officials were involved were not sealed and stored in the Archive Building. Others may be due to our distorted view. Consideration of the evidence from the Archive Building and Block G6 together suggests that vast quantities of documents were removed from the former building, and that far more groups of colleagues concerned with the salt tax originally existed.

The bullae also record the interactions of private individuals with their associates and with local officials. The latter remind us that the Seleukid administration did not (always, at least), interact with civic communities as an entity, but had to engage with many hundreds of individuals at a local level, creating vast paperwork trails. Understanding the nature and frequency of these interactions is difficult, not least because often individuals did not impress their seal on documents with which they were involved. The twin perspectives of Block G6 and the Archive Building at Seleukeia-Tigris, and the references in cuneiform texts to the royal records at Uruk and Babylon, however enable us to understand some of the reasons for these interactions, and suggest that the need to pay taxes and to register documents regularly brought inhabitants into contact with the royal bureaucracy.

Chapter 5: Sealed objects and the material document

1. Introduction

The process of creating a document involves a range of conscious and unconscious decisions concerning its material form, including the choice of materials, the style of the handwriting and the layout of the text. Such decisions can then convey meaning to users of the document. These can be specific messages; for example, the fact that this work is bound in dark blue, with gold lettering on its side, informs the reader that it is a thesis submitted at University College London, while in Mesopotamia the shape and size of a cuneiform tablet indicated the document's nature.⁶⁵⁹ Physical features can also signify social and professional status and training. As well as through the quality of materials, this can be through aspects such as the manner in which a document is folded. Daybell, in the context of early modern English letter-writers, cites a father who admonished his son when he did not fold his letter like a gentleman but 'lyke those that come out of a grammar schoole', and a letter that is suspected of being a forgery because it was not folded in the manner customary for letters from that office.⁶⁶⁰ The signs that conveyed such messages varied across time and place. For example, in Achaemenid Nippur, placing your seal on the left edge of a cuneiform tablet indicated that you were one of the principal parties, and sealing with a finger-nail signalled you were a debtor.⁶⁶¹ By contrast, in Hellenistic Uruk principal parties placed their seals on the right edge of tablets and finger-nails no longer functioned as an alternative to seals.⁶⁶²

While cuneiform tablets are routinely considered as material objects,⁶⁶³ investigations of the materiality of ancient leather documents are more limited, as Allen notes in her discussion of the physical features of the Achaemenid Arshama dossier.⁶⁶⁴ While sealing protocols on some Seleukid bullae have been discussed,⁶⁶⁵ they have not been used to explore the broader context of the choices made. For example, consistent differences between material features of documents produced in the administrative and private spheres would imply that those who created documents within the administration had been specially trained to do so. An effort to distinguish visually between types of document would suggest a concern for facilitating future consultation, while the absence of such differentiation would suggest that those using the archives had time to hunt for a particular document and sufficient literacy to engage with the texts. Thus reflecting on documents as

⁶⁵⁹ Jursa 2005: 4–5; Radner 1995: 63–74.

⁶⁶⁰ 2012: 62, 97.

⁶⁶¹ Bregstein 1997: 354–357.

⁶⁶² Wallenfels 1994: 151; 2000: 336, 339; Oelsner 2003: 193.

⁶⁶³ See n. 659 and Taylor 2011: 5–12; Charpin 2010: 30–31.

⁶⁶⁴ 2013: 23–24.

⁶⁶⁵ For example, Lindström 2003: esp. 7–11; Wallenfels 2000: 336–341.

material objects enables us more fully to understand the social environment of their creation and use, as well as to reach a sense of the value placed on them through consideration of the time and materials expended.

Since only the bullae survive, many physical aspects of the documents are irrecoverable, such as the layout of texts. The bullae nonetheless enable us to approach the materials used, the manner(s) in which documents were folded, the forms of bullae and the sealing protocols employed. I first discuss the selection of material and the process of writing the text, before exploring how documents were folded. The bulk of this chapter examines, in conjunction, the forms of bullae and sealing protocols.

2. Preparing the document

i. Choosing materials

People had various choices when selecting materials for creating a document. Some are visible to us, including whether to use clay or bitumen for the bulla, whether to write on leather or papyrus and whether to use high-quality leather and cords. Other choices are now invisible, such as the colour of ink and the type of pen.

The reverse surfaces of bullae indicate that in Babylonia and at Jebel Khalid most documents were written on leather.⁶⁶⁶ By contrast, those at Kedesh and Delos were usually written on papyrus. This regional difference is unsurprising, given that papyrus was manufactured in Egypt, and became increasingly expensive the further it had to be transported. This geographical divide explains why, for example, Ptolemaic bullae from Edfu and Thmouis sealed papyri,⁶⁶⁷ while most texts from Parthian and Roman Dura are written on leather.⁶⁶⁸

The leather used at Uruk, Seleukeia-Tigris and Babylon was nonetheless not a cheap material.⁶⁶⁹ Impressions of hairs and pores are not usually visible on the reverse surfaces of bullae, indicating that the leather had been well prepared. Charred remains observed by Lindström prove that it was also extremely thin, leading her to argue that it should be described as parchment.⁶⁷⁰ Such high-grade writing material was used for documents stored not only in the Archive Building at Seleukeia-Tigris but also in Block G6 at Seleukeia-Tigris and in the Urukian temples. While it is possible that the administration provided the writing material for documents in which officials were involved,⁶⁷¹ it is unlikely that officials

⁶⁶⁶ As noted in Chapter 3.

⁶⁶⁷ Milne 1916: 87; Edgar 1907: 154–155; Murray 1907: 62.

⁶⁶⁸ Welles 1959: 4.

⁶⁶⁹ Uruk: Lindström 2003: 13. Comments regarding bullae from Seleukeia-Tigris and Babylon are based on my observations.

⁶⁷⁰ 2003: 13.

⁶⁷¹ In Ptolemaic Egypt there is some evidence that individuals provided material for tax receipts, since the use of wood for tax receipts in Pathyris is associated with particular individuals, rather than particular officials or document types, Vandorpe and Waebens 2009: 185–187.

were involved in all of the documents sealed exclusively by figurative seals from Uruk and Block G6. Consequently, the material for at least some of these must have been provided by private individuals. High-quality leather was therefore available for purchase in Uruk and Seleukeia and was considered a sensible, perhaps necessary, expense for a document that was to be sealed and archived.

Some caution is however required in concluding that considerable resources were regularly expended on documents. First, most documents probably required only small pieces of leather.⁶⁷² Secondly, it is impossible to know whether old documents were routinely recycled, either for drafts or for new texts that would in turn be sealed. Reuse of leather documents was common in the Achaemenid and Hellenistic eras, including within the administration; examples of such palimpsests include a post-Seleukid tax receipt from Baktria, Achaemenid satrapal documents from Baktria and a customs receipts from Achaemenid Egypt.⁶⁷³ Thus it is possible that Seleukid efforts to economise are hidden from the modern observer.

Although most sealed documents from Babylonia were written on leather, a few were on papyrus. It is possible that further factors, beyond the regional divide, influenced this choice. At Uruk, the two bullae that sealed papyri are impressed by an anchor seal.⁶⁷⁴ Similar anchor bullae sealing papyri are also known from Seleukeia-Tigris.⁶⁷⁵ Invernizzi suggests that bearers of these seals had unusual access to papyrus,⁶⁷⁶ while Lindström argues that the documents were written in the west of the empire.⁶⁷⁷ An association between writing material and particular individuals or offices is seen elsewhere; for example, the use of papyrus was primarily associated with the Roman army at Dura in the third century AD,⁶⁷⁸ and at Achaemenid Daskyleion the seal **DS 85** often sealed leather documents, while most documents were on papyrus.⁶⁷⁹ However, not all impressions of anchor seals at Seleukeia-Tigris sealed papyrus documents, and conversely not all bullae that sealed papyrus were impressed by anchor seals. For example S-4019 from the Archive Building is an anchor bulla that sealed a leather document (Figure 5.2), as are S-6702 and S-7667. Meanwhile, S-6667 and S-6670 sealed papyrus documents, as did McDowell 1935, AIIb(17) (a surface find) and McDowell 1935, AIIa(1) and AIIa(36) (from Block G6, Figures 2.6, 5.3-5.6). All are impressed

⁶⁷² For example the Baktrian tax receipt measures only 6.1 by 14 cm, <http://jameelcentre.ashmolean.org/collection/921/object/11358> (accessed 19-04-2016).

⁶⁷³ Rea, Senior, and Hollis 1994: 262; Naveh and Shaked 2012: 16, 51; Kuhrt 2007: 681–701, esp. 700 n. 1.

⁶⁷⁴ Lindström 2003: 12–13, Nos. 258, 268.

⁶⁷⁵ These include S-6576 and S-6580, Figure 5.1.

⁶⁷⁶ 2003: 307–308.

⁶⁷⁷ 2003: 32.

⁶⁷⁸ Welles 1959: 4.

⁶⁷⁹ Kaptan 2002: vol. I, 14–15.

by rarely-attested figurative seals,⁶⁸⁰ suggesting that they do not represent a particular office or group of people. While the use of papyrus was rare in Seleukeia and Uruk, in the former city at least it seems that it was available for purchase,⁶⁸¹ and perhaps functioned as a symbol of status and wealth.

Both clay and bitumen were used to form bullae at Uruk, Seleukeia and Jebel Khalid, while only clay bullae are known from Kedesh, Babylon, Nippur and Larsa. This divide is probably in part due to the fact that far more bullae are known from Uruk and Seleukeia than other sites. It is also probably due in part to geography, as bitumen was less readily available at Kedesh.⁶⁸² Both clay and bitumen were used by the administration and by private individuals. There do not seem to be 'rules' governing which bullae were made from bitumen and which from clay, since salt stamps appear on both.⁶⁸³ At Uruk and Seleukeia clay is the more popular choice,⁶⁸⁴ perhaps because it seems usually to have resulted in a more legible impression. The clay used to form bullae does not have inclusions, such as shells, stones or vegetation, indicating that it was refined, as was the clay used for cuneiform tablets.⁶⁸⁵ The bitumen must have been procured, stored, and then warmed to shape it into a bulla.⁶⁸⁶ Therefore, in both cases time and resources were invested in the creation of sealed documents.

Charred strings used to bind the document survive in a few bullae from Block G6 and Uruk (Figures 5.7-5.8);⁶⁸⁷ where these do not survive, their impressions are visible in the clay or bitumen. The string was usually very fine (Figure 5.9),⁶⁸⁸ far thinner than that used to tie the Arshama documents, for example (Figure 5.10). In some cases it may have been leather cord, since individual fibres cannot be distinguished.⁶⁸⁹ On other documents slightly thicker string was used (Figure 5.11, and also 5.49). Therefore, cord was available in different grades, and perhaps different materials. Although salt documents are usually secured with fine cord, other documents are also sealed with fine cord, and thicker string is used for some salt documents (Figures 5.12-13). Therefore, this choice again seems to relate primarily to

⁶⁸⁰ The only one of these seals that is known on a second bulla is **TM 464**, which occurs on S-4111; I have not seen this bulla.

⁶⁸¹ The fact that several such bullae are known suggests that some were created at Seleukeia-Tigris.

⁶⁸² On bitumen as used particularly in Mesopotamia, Schwartz and Hollander 2000: 84.

⁶⁸³ For example, McDowell 1935, A1c(1)-(5) are clay, A1c(6)-(10) bitumen.

⁶⁸⁴ It is difficult to quantify the percentages of each because it can be difficult to distinguish by eye between clay and bitumen bullae, as many of the former have been darkened by fire.

⁶⁸⁵ Robson 2007: 70; Taylor 2011: 6–7.

⁶⁸⁶ On the procurement and processing of bitumen, Schwartz and Hollander 2000: 84–90.

⁶⁸⁷ For Uruk examples, Lindström 2003: 8.

⁶⁸⁸ Stressed also by Wetzel, Schmidt, and Mallwitz 1957: 44.

⁶⁸⁹ The sealed Achaemenid Baktrian document was tied with a strip of leather, Naveh and Shaked 2012: 38.

availability and individual preferences. The frequent use of fine cord once more indicates that resources were considered worth expending on sealed documents.

In conclusion, the administration used considerable quantities of leather, clay and string, as well as bitumen and papyri, in the creation of documents. These materials were of high quality. However, such materials were not the exclusive prerogative of the administration, but were also accessible to private individuals. There appears to have been a consensus that such materials were appropriate when a document was to be archived. The occasional use of papyrus in Babylonia may have emphasised the status of those involved in the document; the use of bitumen, by contrast, seems not to have conveyed a particular message.

ii. Writing the document

The processes of writing documents are largely lost to us, although limited suggestions can be made on the basis of comparisons with practices elsewhere. For example, the Baktrian tax receipt seems to have been written by one scribe, but the initial lines are in smaller writing, suggesting that they were drafted in advance of the text's completion.⁶⁹⁰ This suggests that parts of the – seemingly highly-standardised – Seleukid salt documents may also have been written in advance.

Also irrecoverable is the language of the texts. The Greek texts on tax stamps and official seals imply that the administration regularly used Greek.⁶⁹¹ Moreover, the use of Greek under the Parthians, for example in the Avroman documents, suggests a widespread use in the Seleukid era. Nonetheless, it is probable that many documents that fell outside official interests were written in Aramaic.⁶⁹² It is possible that the administration also used Aramaic. Such flexibility is seen elsewhere; the early Ptolemaic administration accepted the use of Demotic,⁶⁹³ while Aramaic, Elamite and Persian were employed at Achaemenid Persepolis.⁶⁹⁴ On the other hand, there is no certain use of Aramaic in Seleukid inscriptions with royal involvement.⁶⁹⁵ It has also been suggested that some sealed documents were written in Babylonian, using inked cuneiform.⁶⁹⁶ The discovery of bullae and tablets together in the Urukian temples demonstrates that there were individuals who used both media. Cuneiform could be inked, as demonstrated by two Assyrian tablets with painted cuneiform signs found at Nineveh.⁶⁹⁷ The seal **AF 80** has a cuneiform inscription, but this

⁶⁹⁰ Rea, Senior, and Hollis 1994: 262.

⁶⁹¹ Lindström 2003: 14.

⁶⁹² On the popularity of Aramaic, see p. 72.

⁶⁹³ Thompson 1994: 72–75; 1992: 323–324.

⁶⁹⁴ Henkelman 2008: 89–93, 150–152, 161–162.

⁶⁹⁵ A possible exception is a road-marker from Pasargadae, on which there is an Aramaic summary below the Greek text, Lewis 1978: 160–162.

⁶⁹⁶ Petrie 2002: 92; Baker 2013a: 58; Wallenfels 2000: 336.

⁶⁹⁷ Reade 1986b: 217, 220 and Fig. 2.

does not prove the language of the document.⁶⁹⁸ The cuneiform inscriptions on two napkin-ring bullae suggest that these documents were in Akkadian,⁶⁹⁹ but it is possible that they were in Greek or Aramaic, and the scribes switched to Akkadian when moving to the clay surface of the bulla. While this aspect of the documents remains largely hidden to us, in the multi-lingual Seleukid East it would have conveyed information to the reader about a text's contents and creator(s).

iii. Exterior writing and the anonymity of seal impressions

There is also no way of determining whether there was often writing on the outer surface of a document packet. This however is important in reflecting on how documents were later used, since labelling the contents would have made retrieving a document far more straightforward. It also influences how we understand the relationship between sealed documents and cuneiform tablets. Wallenfels, Hameeuw and van Overmeire see a contrast between sealing tablets and sealing bullae, arguing that the former involved labelling impressions, while the latter was anonymous.⁷⁰⁰ In fact, the names of seal-bearers were written on the outer surface of six-witness contracts from Elephantine, next to the flat bulla where they were to impress their seal.⁷⁰¹ It is therefore probable that impressions on Seleukid flat bullae were also labelled.⁷⁰² It is more difficult to imagine how the names of seal-bearers could be linked to seal impressions on a napkin-ring bulla. The cuneiform inscription labelling the seal impression of the scribe on a napkin-ring bulla is placed by the relevant impression, mimicking practice on tablets.⁷⁰³ The fact that the label is placed alongside this impression could suggest that other impressions were typically anonymous. Alternatively, the location of this label may be linked to the fact that this scribe was comfortable switching between writing media. It may have been accepted that labels on the leather document were not so directly associated with impressions on napkin-ring bullae, or these may indeed have been anonymous. Regardless, the contrast is not as simple as leather versus cuneiform; rather, the different relationships of seal impressions to the documents' surfaces will have required more than one practice to have been developed for labelling leather documents.

The importance of whether seal impressions were labelled may be overestimated by modern scholars. Seal impressions were not always labelled on tablets,⁷⁰⁴ and often seem

⁶⁹⁸ For example, at Persepolis, Parnakka used an Aramaic-inscribed seal on Elamite tablets, Garrison and Root 2001: vol. I, 7–8.

⁶⁹⁹ For the bullae, see n. 76. Oelsner suggests the sealed documents were in Akkadian, rendered in the Greek or Aramaic script, 1986: 472, n. 904. Wallenfels proposes inked cuneiform, 2000: 336.

⁷⁰⁰ Wallenfels 2000: 336; Hameeuw and van Overmeire 2014: 114.

⁷⁰¹ Vandorpe 1996: 233. See also Vandorpe 2014: 143–144.

⁷⁰² Messina 2009: 180; Rostovtzeff 1932: 24.

⁷⁰³ See n. 76.

⁷⁰⁴ For example, labels were not used at Persepolis, Root 2008: 94–95.

intended to guarantee that correct processes had been followed, rather than to enable later identification of individuals.⁷⁰⁵ Consequently, the difference between anonymous and captioned impressions may not have seemed particularly significant. Rather than positing a sharp divide between anonymous bullae and labelled tablets, the two media are best understood as parallel technologies.

iv. Rolling the document

After the text had been written, the document needed to be secured into a package. The internal surface of a napkin-ring bulla is usually smoothly rounded, without corners or ridges (Figure 5.14), indicating that these enclosed rolled, not folded, documents. Similarly, the reverse surfaces of 'lips'⁷⁰⁶ of flat bullae lack ridges caused by folds, suggesting that these too typically sealed flattened rolls (Figure 5.15).⁷⁰⁷ By contrast the Delian bullae, for example, sealed folded documents.⁷⁰⁸

On only a few occasions is the reverse of a flat bulla marked by a ridge caused by the outer edge of the rolled document lying under the clay (Figure 5.17).⁷⁰⁹ Therefore flat bullae were not usually placed over this outer edge. The bullae of the Arshama letters, Wadi Daliyeh documents and Achaemenid Baktrian letter were also placed away from this edge,⁷¹⁰ as were those on six-witness contracts from Elephantine,⁷¹¹ implying that this was standard practice in the late first millennium Near East. It is difficult to investigate the inner surface of complete napkin-ring bullae to ascertain where this ridge is typically located for such bullae. Such ridges are however rare on pieces of clay from the sides of broken napkin-ring bullae, suggesting that the edge of the roll was often placed near the join in the clay ring, an area that is frequently damaged.⁷¹²

The consistency with which documents were rolled and flat bullae located away from the outer edge of the roll demonstrates that strong conventions governed the creation of document packages. The same features are seen on bullae from the Archive Building and Jebel Khalid and on bullae impressed only by figurative seals from Block G6 and Babylon, which have no clear connection to the administration. Therefore, in contrast to the situation

⁷⁰⁵ See p. 40.

⁷⁰⁶ I use 'lips' to refer to protruding pieces of clay at the upper and lower edges of a bulla, which extended around the document packet. These are termed 'wings' by Allen, 2013: 26.

⁷⁰⁷ Such ridges are visible on the Arshama bullae (Figure 5.16). Here the associated documents survive, and were originally folded, Allen 2013: 24–25.

⁷⁰⁸ Boussac 1992: xiii.

⁷⁰⁹ Such lines can also be seen on, for example [S-5341](#), [S-5358](#), [S-5507](#), [S-5517](#), [S-6120](#).

⁷¹⁰ As indicated by the locations of discolouration on the unfolded Arshama documents, and from images of sealed documents from Baktria and the Levant, Allen 2013: 25, Fig. 1; Naveh and Shaked 2012: 187; Leith 1997: Pl. XII.

⁷¹¹ Vandorpe 1996: Fig. 1.

⁷¹² There are exceptions where such a ridge is visible, and lies to the side of the internal hole, including [BM 77099+771022](#) and [McDowell 1935, A1c\(6\)](#) (Figures 5.18-19).

in early modern England,⁷¹³ the folding of a document does not seem to have indicated status or role in the Seleukid empire.

Likewise, there seems to have been a shared sense of the proper way to tie the document package, common to both the administrative and private spheres. The string impressions indicate that the normal procedure with both napkin-ring and flat bullae was to wrap string around the document a couple of times (which left impressions on the reverse surface of the bulla), place clay over these loops, and then create further loops of string, before adding a final layer of clay (meaning that these loops are visible only as holes at the edge of unbroken bullae). The loops of string usually lie parallel to each other, in contrast to sealings from Achaemenid Persepolis, which are often formed over a cross in the strings.⁷¹⁴ Whereas Achaemenid bullae from the Levant were formed over knots in the string,⁷¹⁵ I do not know of impressions of knots in Seleukid bullae; the string ends were simply encased in clay, and are visible on the reverse surface on a few specimens (Figures 5.20-5.21). On convex bullae there is only one loop of string, which is entirely surrounded by clay; thus the procedure for tying these differed from that for tying most documents.⁷¹⁶

Therefore, there were fixed ideas about how to roll and secure a document package in the Seleukid empire. While these differed from those employed at other times and places, there was no distinction between procedures within the administration and beyond. Rather, the most notable differences relate to the shapes of bullae, with documents that were sealed by convex bullae tied in an unusual way.

v. Interpreting choices

Many material aspects relating to the initial stages of creating a document are invisible. Those that we can see indicate that there was a shared understanding across Babylonia of the materials to use and the way to roll and secure a document. Although choices could be made, including whether to use clay or bitumen for the bulla, there are no notable differences in the decisions made between administrative and private spheres. However, these Seleukid norms were not defaults in the ancient world; the Arshama documents were folded and tied with thick string, while the Levantine Achaemenid documents were secured with knotted strings. Thus the shared features at the various Seleukid sites did not simply happen, but indicate that influences occurred between the different cities, and between the administration and local inhabitants.

⁷¹³ See p. 129.

⁷¹⁴ Schmidt 1957: 6.

⁷¹⁵ Leith 1997: 18; Avigad 1976: 3.

⁷¹⁶ The cords on some other flat bullae are also entirely enclosed by clay, including specimens impressed by *chreophylax* seals (discussed p. 148) and by figurative seals (for example, Lindström 2003: Pl. 5).

3. Sealing the document

i. Understanding bulla forms

The material aspect that is most accessible to us today is the form of a bulla. Napkin-ring and flat bullae were conceived as distinct categories by their creators, since salt documents stored in Block G6 are consistently sealed with napkin-rings while those in the Archive Building use flat bullae. Within the broad categories of napkin-ring and flat bullae, shapes and sizes vary considerably. McDowell identified ‘container’ bullae (large pieces, which he suggested sealed packages and other objects) and ‘convex’ (with convex reverses) forms of flat bullae.⁷¹⁷ Subsequently Messina categorised flat bullae as ‘flat’ (small, flat disks of clay, similar to later wax sealings) and ‘saddleback’ (with lips).⁷¹⁸ Meanwhile Invernizzi focused on how strings lay.⁷¹⁹ These scholars do not distinguish subcategories of napkin-ring bullae.⁷²⁰ Such nuanced differences in form enable us to recognise the norms that governed the creation of bullae. They also have implications for understanding how bullae relate to each other, since a large bulla with a concave reverse cannot have sealed the same document as a small bulla with a convex reverse. Yet distinguishing subcategories of form is problematic. These were hand-made objects, which all display slight differences. In categorising Neo-Assyrian ‘tokens’ (shaped pieces of clay, perhaps used for accounting) from Ziyaret Tepe, McGinnis et al. discuss difficulties in deciding, for example, how short a cylinder has to be to count as ‘squat’, and in understanding which features had ancient resonance.⁷²¹ Many differences may result simply from the amount of clay available, the dexterity of the creator, or the hurry of production.

There are similar problems when considering the Seleukid evidence. For example, there are many flat bullae that are small (ca. 1 x 1.5 cm) but thick (ca. 1 cm), have a defined edge between the sides and the obverse (rather than being smoothly rounded), a flat or concave obverse impressed by a single figurative seal, a notably convex reverse and a single central cord entirely enclosed by clay,⁷²² referred to by McDowell (and by me) as ‘convex’ bullae (Figure 2.4). Other bullae fulfil the majority, but not all, of these criteria. For example, S-7712 is a small, thick bulla impressed by a single figurative seal (omitted by *STISA*), with a flat obverse and a single, enclosed cord, but it has a relatively flat reverse. Defining a strict set of criteria to which all ‘convex’ bullae must conform would exclude many bullae that

⁷¹⁷ 1935: 2–4, 10, 15.

⁷¹⁸ 2014: 126–127.

⁷¹⁹ 1968a: 77–79.

⁷²⁰ Subcategories have been distinguished among some other bullae; in particular, Herbert describes ‘pinched’ and ‘triangular’ forms among the Roman bullae from Zeugma, 2013: 210–211.

⁷²¹ 2014: 293–295, stressed also by Zimansky 1993: 514–515. Different categories were originally identified for the Ziyaret Tepe tokens, Monroe 2011: 88.

⁷²² Sometimes two cords lie together in this central groove, as with McDowell 1935, AIIa(14).

closely resemble the 'ideal' type, but stressing only one aspect would lead to the inclusion of many bullae whose forms differ significantly.

It is therefore inappropriate to create subcategories of bullae based only on features such as their curvature, given the subjectivity inherent in distinguishing such features and the many permutations. Nonetheless, there *was* an interplay between the shapes of bullae, the ways in which seals were impressed, and the seals themselves, and so bulla form is an integral part of the following discussion of sealing protocols.

ii. Sealing protocols and bullae form

Variations in the shapes of bullae and locations of seal impressions enable their makers' concerns to be explored, including attitudes towards standardisation, the orientation of impressions and the overlapping of impressions. In this section, I examine sealing protocols with reference to napkin-ring bullae, for which I distinguish 'crowded' and 'orientated' forms. I then move to flat bullae, first considering those impressed by figurative seals, before turning to those impressed by official seals and tax stamps.

a. 'Crowded' napkin-ring bullae

The density of the seal impressions on their surface leads me to suggest a category of napkin-ring bullae that I term 'crowded'. These bullae are thick rings, which are usually (although not always) smoothly joined. Impressions can occur anywhere on the obverse surface, including over the join. Most are between ca. 2.5 cm and ca. 5 cm in diameter. While the size was in part determined by the number of impressions, there can be considerable areas of blank space (Figure 5.22).⁷²³ Bullae impressed by the same sets of seals can vary significantly in size,⁷²⁴ suggesting that such variations were not meaningful.

'Crowded' napkin-ring bullae are known only from the Seleukid era. The impressed tax stamps prove that these were created between at least 257/6-146/5, but a longer period of use is possible. All bullae found in Babylon, Nippur and Larsa have such a form, and they are very common at Uruk; such bullae are also known from the Archive Building and Block G6 at Seleukeia-Tigris. Many such bullae are sealed only by figurative seals. These include rarely-attested, occasionally-attested and frequently-attested seals. Notably, the groups of officials connected to the bearers of **TM 58**, **Ani 291** and **Ap 146** at the Archive Building chose to use 'crowded' napkin-ring bullae.⁷²⁵ Specimens sealed by *chreophylax* seals and tax

⁷²³ The sizes of the central holes suggest that some of these bullae sealed unusually large documents; others however have small central holes surrounded by thick walls of clay.

⁷²⁴ For example, **S-5440**, impressed by seals from the **TM 58** group, has a maximum diameter of 3.4 cm, while the fragmentary piece **S-5318**, also impressed by these seals, was at least 4.8 cm in diameter. It is possible that these sealed documents of different lengths; the central hole of the former measures .8 x 1.6 cm, while that of the latter is >1.8 x 2.8 cm.

⁷²⁵ **Ap 146** group: Figure 5.23. **TM 58** group: Figure 5.24. **Ani 291** group: Figure 5.25 There are several complete napkin-rings impressed by seals from these groups. Other very thick, curved

stamps are known from Uruk, Nippur and Seleukeia-Tigris. Therefore this form was not restricted to the ancient Mesopotamian cities or to non-administrative contexts. Even so, this form has been regarded as derived from cuneiform tablets, since such bullae seem the norm in ancient Mesopotamian cities.⁷²⁶ Connections have been proposed between the sealing protocols employed on the two media, including with regard to ‘crowded’ napkin-ring bullae impressed by official seals.⁷²⁷ This could suggest that individuals with a background in cuneiform culture were influential in the development of sealing protocols within the administration, or that officials were happy to use the sealing protocols preferred by local inhabitants. However, examination of the protocols for impressing seals on such objects suggests that links with cuneiform tablets are doubtful.

Although Rostovtzeff thought that the positioning of impressions was ‘chaotic’,⁷²⁸ Wallenfels has demonstrated that conventions governed this on some Urukian *chreophylax* bullae.⁷²⁹ On these, the large *chreophylax* seal is impressed by the join in the napkin-ring. Next to it are impressed a couple of figurative seals, interpreted as those of the principal parties; these are sometimes impressed twice, side-by-side. After these further tax stamps could be impressed. These seals are sometimes surrounded with a dotted line, created by impressing a wedge, stylus or reed; on other bullae, a large blank space was left. Other figurative seals are impressed on the remainder of the bulla, usually orientated in a different direction to those of the principal parties. These are interpreted as belonging to witnesses. Thus it is possible to see the primary area by the join of a napkin-ring bulla as equivalent to the right edge of contemporary tablets. However, as Wallenfels acknowledges, duplicate and countermarked impressions are common on bullae, but not on tablets, meaning that there are differences in sealing protocols on the two media.⁷³⁰ Moreover, other Urukian *chreophylax* bullae do not follow this arrangement of impressions, or use of demarcated zones.⁷³¹ These seem to be particularly common on the bullae in the Yale Babylonian Collection, which appear to represent a distinct archival group.⁷³² Therefore, their use may have been at the request of the parties involved, rather than the decision of the *chreophylax*.

fragments, with seals impressed over the break in the clay, and several cords, such as S-5318 (Figure 5.26), are certainly pieces from napkin-ring bullae. All fragments impressed by seals from these groups that I have seen can plausibly be understood as coming from napkin-rings.

⁷²⁶ Rostovtzeff 1932: 18, 54. This is followed for example by Plantzos 1999: 30.

⁷²⁷ Messina 2009: 179; Wallenfels 2000: 337, 341.

⁷²⁸ 1932: 5.

⁷²⁹ 2000: 337.

⁷³⁰ 2000: 337–339.

⁷³¹ Hameeuw and van Overmeire 2014: 114. They argue that on MRAH O.204, O.207 and O.209 ‘Greek’ seals are clustered near the join, 2014: 116, 128. But this divide is not strict. A ‘Mesopotamian’ seal appears in the ‘Greek’ group on MRAH O.204, while three ‘Greek’ seals are together on O.207 but two dispersed among ‘Mesopotamian’ seals, and on MRAH O.209 there are only two ‘Greek’ examples, making it uncertain that any grouping was intentional.

⁷³² See p. 73.

Impressions on ‘crowded’ napkin-ring *chreophylax* bullae from elsewhere are not consistently arranged. On the fragmentary specimen from Nippur, the tax stamps are impressed next to the *chreophylax* seal, but there is no clear order to the impressions of figurative seals.⁷³³ Just over 50 *chreophylax* napkin-ring bullae survive from the Archive Building, some of which are fragmentary. Mollo notes that there is not a strict order to how seals are arranged on the more complete specimens, but that the *chreophylax* seal was often impressed on one side of the napkin-ring (and so not next to the join) and tax stamps tend to occupy the upper portion of the bulla.⁷³⁴ However, it often does not seem that an effort was made to draw attention to the *chreophylax* seal; on several bullae its impression is overlaid by other impressions. The figurative seals are arranged without any apparent orientation. I am not aware of dividing lines on these *chreophylax* bullae, and duplicate impressions are rare, occurring just twice.⁷³⁵

Duplicate impressions, dividing lines and countermarked impressions are however seen on many ‘crowded’ napkin-ring bullae which lack the involvement of Urukian *chreophylakes*. Dotted lines occur on many ‘crowded’ napkin-ring bullae from Uruk,⁷³⁶ as well as on at least four specimens from the Archive Building,⁷³⁷ on several from Block G6,⁷³⁸ and on one from Babylon;⁷³⁹ legible impressions on these are of rarely-attested figurative seals. Dotted lines do not always serve the same purpose. The dots on McDowell 1935, Aid(58) are used to demarcate an area of the surface (Figure 5.27), as on the Urukian examples, but on S6-1317 from the Archive Building the dots draw attention to one impression (Figure 5.28). Blank space was also used to group impressions on other bullae. For example on BM 77099+77102, from Babylon, impressions of four seals are grouped on one side of the napkin-ring, three seals are impressed on the top of the napkin-ring, and just one seal is placed on the other side (Figure 5.29). The second and third groups occur in the same arrangement on the fragmentary BM 77211 (Figure 5.30), demonstrating that the arrangement was deliberate. Duplicate impressions occur on several ‘crowded’ napkin-ring bullae from Archive A at Seleukeia-Tigris (Figure 5.31) and on a few tens of such bullae from

⁷³³ See Gibson 1994: 98.

⁷³⁴ 1997: 94.

⁷³⁵ **AF 18** is impressed twice on S-3959, which is also impressed by **Se 1**, and **TM 197** is impressed twice on S9-344, which is also impressed by **Se 3**.

⁷³⁶ Wallenfels 2000: 337; Rostovtzeff 1932: 5.

⁷³⁷ S-6691, S-6716, S6-1317, S9-606. These bullae were found in different rooms. Only S6-1317 is well-preserved.

⁷³⁸ Archive A: McDowell 1935, Aid(49), Aid(58), Aid(59). Archive B: McDowell 1935, Aic(20), Aid(75), Aid(87). A dotted line is also visible on McDowell 1935, Aid(71), a surface find.

⁷³⁹ BM 77209.

the Archive Building (Figure 5.32),⁷⁴⁰ as well as on one specimen from Babylon,⁷⁴¹ and on other napkin-ring bullae from Uruk.⁷⁴² As with the Urukean *chreophylax* bullae, these can be located side-by-side. Counter-marking also occurs on a few other ‘crowded’ napkin-ring bullae; for example, **At 49** is countermarked on both a bulla from the Archive Building and from Block G6.⁷⁴³ The reason(s) for countermarking impressions is debated. McDowell suggests that it indicated that an authorised agent had impressed the seal,⁷⁴⁴ while Kuhrt proposes that it may have been procedural.⁷⁴⁵ The infrequent use of countermarking makes it more likely that it marked the borrowing of a seal than an individual’s status in a transaction; it is improbable, for example, that debtors’ impressions were routinely countermarked.

Dividing lines, duplicate impressions and countermarking could therefore be used to draw attention to particular impressions on ‘crowded’ napkin-ring bullae. The sporadic attestations of dividing lines and duplicate impressions suggests that they were added on an ad hoc basis. The use of dividing lines seems particularly common in private settings, while duplicate impressions seem favoured in Uruk. The significance of countermarking remains unclear, as does why this occurs more frequently on bullae than tablets.

Dividing lines and blank space are not used on napkin-ring bullae from the Archive Building created by the groups associated with **TM 58**, **Ani 291** or **Ap 146**. Nor is there a set order to impressions on these bullae. For example, on S-5440, **TM 58** is impressed above **Ek 8** and **DsT 6**, and below **At 151**, with **TM 447** on the opposite side, while on S-5326 **TM 447** lies between **TM 58** and **DsT 6**. Impressions on these bullae often overlap; for example, on S-5440 **TM 58** is significantly obscured by other seals (Figure 5.33). There can however be considerable blank space, meaning that the overlaps could have been avoided. In other cases seals are impressed at the edge of the bulla, resulting in a poor impression, as with **TM 58** on S-7531 (Figure 5.34). This suggests that the later legibility of impressions was not a great concern. The absence of zones, varying order of impressions, and extensive overlaps will also have made it difficult to check quickly whether a particular individual had sealed a document.

⁷⁴⁰ The lack of published information on bulla form means a precise figure cannot be given. I have examined approximately 20 ‘crowded’ napkin-ring bullae on which at least one seal is impressed twice.

⁷⁴¹ Wetzel, Schmidt, and Mallwitz 1957, **No. 144.f-g**.

⁷⁴² Wallenfels 2000: 338.

⁷⁴³ See p. 120 and Figures 4.13-4.14. I know of one other case from Block G6, on McDowell 1935, A1c(24), and three other instances on Michigan surface finds (McDowell 1935, A1d(54), KM 35883 and KM 35912), as well as three other Archive Building examples, on S-5513, S-6574 and S-6707.

⁷⁴⁴ 1935: 10, 70.

⁷⁴⁵ 1999: 452.

The use of ‘crowded’ napkin-ring bullae by *chreophylakes* in Uruk, Seleukeia and Nippur implies that these officials were expected to seal documents with such bullae, at least when several seals were to be impressed. Flat bullae sealed by only a *chreophylax* seal are known from Uruk and the Archive Building, while from Block G6 (and from the Archive Building) come flat bullae sealed by only **Se 2**, which closely resembles the *chreophylax* seal **Se 1**, and may in fact be a *chreophylax* seal.⁷⁴⁶ Therefore, the forms of the *chreophylax* bullae were governed, at least in part, by how many individuals were to seal a document, rather than by the preferences of local inhabitants for ‘crowded’ napkin-ring bullae.

Since this new form of napkin-ring bulla and techniques such as dividing lines are seen both in the administrative and private spheres and at several cities, borrowing must have occurred. We cannot trace the direction of this borrowing, although the occasional adoption by *chreophylakes* of dotted lines and duplicate impressions may have been inspired by their frequent use on private documents. The only evidence for cuneiform tablets as an influence behind such bullae is that the area adjacent to the join of the napkin-ring could be considered a primary zone, akin to the right edge of a tablet; but this does not prove a direct connection. Is it nonetheless possible that inhabitants of ancient Mesopotamian cities perceived napkin-ring bullae as connected to cuneiform tablets, given their apparent preference for this form? And is this evidence of a shared culture of document creation in these cities, separate to that which existed at Seleukeia-Tigris? Differences are also seen in the use of flat bullae, since flat bullae with several impressions are known from Seleukeia-Tigris but not Uruk. However, there are other possible explanations for this difference. Firstly, it may reflect the perspectives of the archives. Flat bullae with several impressions are very rare in the residential archives at Seleukeia, and are common only at the Archive Building. (Hypothetical) bullae from the royal records office at Uruk might resemble those from the Archive Building. Secondly, the bullae from the ancient Mesopotamian cities are predominantly from illicit or early excavations, which are more likely to have recovered larger napkin-ring bullae, and overlooked smaller flat bullae. Therefore, no strong evidence supports the notion that leather documents were sealed differently in the ancient Mesopotamian cities from in Seleukeia-Tigris.

It is probable that motivations behind the decision to create a ‘crowded’ napkin-ring bulla varied. For the *chreophylakes*, such bullae became the established way that they sealed particular documents. For other seal-bearers, such bullae may have been selected primarily because the form was convenient when several individuals were to seal the same document, and a text was to be fully enclosed. The decisions of the groups of seal-bearers associated with **TM 58**, **Ani 291** and **Ap 146** to use this form was unusual at the Archive Building. Their

⁷⁴⁶ See p. 81.

choice may have been due to such practical considerations, or might reflect a concern that their documents should be recognisable, but alternatively could reflect a desire to behave idiosyncratically.

b. 'Orientated' napkin-ring bullae

There is a group of highly-standardised napkin-ring bullae, which display notable differences to the 'crowded' specimens. Two impressions are located on opposite sides of these bullae, upright on both sides; I therefore refer to these as 'orientated'. Such bullae are typically smaller than the 'crowded' napkin-ring specimens, usually measuring between 2 and 3 cm in diameter, although again variations in size are seen. A further difference from the 'crowded' napkin-rings is that the join is usually pointed, and seals are not impressed near this join. When there are only two impressions, the upper curve is left blank, as for example on S-6688 (Figure 5.35). This bulla is impressed twice by the same seal; other 'orientated' bullae have two different seals impressed (Figure 5.36). This form is also used for salt stamps from Block G6. Here, the tax stamp is impressed on both sides, and figurative seals are impressed over the upper surface (Figure 5.37).⁷⁴⁷ The emphasis on the position of impressions suggests that the duplication does not indicate that the stamp was used by two officials,⁷⁴⁸ but rather results from the form of the bulla. Moreover, both impressions of **McDowell 1935, IIIA1f(8)** are countermarked on the orientated napkin-ring McDowell 1935, A1b(3), suggesting that both were made by the same user.

The sharp point means that the bulla must usually have rested on one side. Therefore, when different seals were impressed, one would have been hidden. It is possible that external markings indicated the second impression, or that the intention was that such a document would always be picked up to see which seals were impressed. As with 'crowded' napkin-ring bullae, quick recognition of which seals are impressed does not seem to have been an aim. Where duplicate impressions occur on such bullae, they do not serve to draw attention to a particular seal. The duplication may have indicated that there was deliberately only one seal associated with this document, a practice that would serve an analogous function to modern statements that '[This page is intentionally left blank]'.

I know of approximately 20 'orientated' napkin-ring bullae from the Archive Building, which are predominantly impressed by a single, rare seal in duplicate,⁷⁴⁹ and of around five such bullae impressed by figurative seals from Block G6. All of the salt bullae from Block G6 have this form. There is at least one specimen certainly from Uruk,⁷⁵⁰ and a further specimen

⁷⁴⁷ Insufficient specimens survive to determine whether these were impressed in a fixed order.

⁷⁴⁸ Contra Brown 1938: 610.

⁷⁴⁹ **Nk 15** is attested on eight bullae; the others on only one or two bullae. I have not examined all impressions of **Nk 15**, so do not know whether it routinely occurs on 'orientated' napkin-rings.

⁷⁵⁰ Lindström 2003, No. 254. The placement of the seals on Lindström 2003, Nos. 302 and 312 is unclear, and the impressions on both are illegible, but these may be further examples from Uruk.

probably from Uruk.⁷⁵¹ However, salt bullae from Uruk are napkin-rings, but stamps are never impressed twice, and impressions are not orientated consistently.⁷⁵²

The consistencies in form and sealing procedures demonstrate that 'orientated' napkin-rings were considered a distinct type of bulla. Again, both the administration and private individuals used these bullae,⁷⁵³ and they were created in different cities. The form existed by 208, and was still in use over half a century later, in the 150s. It appears to be an invention of the Seleukid East, since similar bullae are not known in the Mediterranean world. The form demonstrates how the principle of creating a ring of clay around a document could be adapted, and reinforces the argument that the napkin-ring form was not regarded as derived from cuneiform tablets. The use of such bullae with salt stamps at Seleukeia-Tigris over several decades implies that new office holders were instructed that this was the correct form for these documents. Such bullae were not adopted for salt documents archived in the temples at Uruk, demonstrating that there were limits to regional co-ordination of administrative sealing protocols.

We are unable fully to interpret the messages conveyed by this manner of sealing. It is unlikely that the use of an 'orientated' napkin-ring bulla served as a visual signal concerning the specific type of document, given that some sealed documents associated with the salt tax, and others did not. It is therefore probable that it functioned as a general reminder, for example to prevent salt documents destined for the Archive Building from becoming confused with those retained by individuals.

c. Sealing protocols and forms of flat bullae

The forms and sealing protocols relating to flat bullae also varied. Here, rather than focusing on features such as the presence of lips or thickness of bullae, I order my analysis according to the types of seals impressed.

Flat bullae impressed by one figurative seal

S-5276 is a flat bulla, 1.8 x 1.9 cm, and 2-4 mm thick, from the Archive Building (Figure 5.38); its reverse is relatively flat, with a slight curve towards the top. Impressed in the centre of the obverse is a figurative seal, **Er 115**, known only from this impression. The bulla is slightly larger than the seal, although not carefully shaped to fit it. S-5276 is typical of a flat bulla impressed by one figurative seal. However, features such as their thickness, the shaping of the sides, the presence of lips and the curvature of the reverse vary. Bullae impressed by a particular figurative seal are usually of a similar shape and size. For example,

⁷⁵¹ YBC 3088 is a napkin-ring of uncertain provenance, impressed twice by a figurative seal, Wallenfels 2000: n. 85.

⁷⁵² The location of the impressions is not always clear, but it is apparent that on Delaporte 1923, No. A182 there is not a focus on the sides of the bulla.

⁷⁵³ There is no reason to link those impressed solely by figurative seals with the salt tax.

Se 32 appears on flat bullae with a slightly convex reverse, a rounded left edge and a straight right edge (Figure 5.39). **S-7699** and **S-7692**, both impressed by **TM 399**, share a pinched corner at the upper edge (Figure 5.40), while **Na 2** was routinely impressed on thick bullae with sharp edges (Figure 5.41). Meanwhile, **M 79** was often impressed on larger-than-necessary bullae (Figures 5.42-5.44). This suggests that seal-bearers were usually responsible for shaping the clay into which they impressed their seal. There are no consistent differences in form between bullae impressed by frequently-attested and rarely-attested figurative seals. For example, the frequently-attested seals **ApT 33**, **Gn 1** and **M 17** all occur on rounded discs of clay (Figures 5.45-5.48). While there are nuanced differences between these bullae,⁷⁵⁴ there are no common features which distinguish these from those impressed by the occasionally-attested **TM 399** or **Se 32**. There are also no features which are specific to particular sites; flat bullae at Uruk, Jebel Khalid and Kedesh are also usually thin discs with rounded sides, slightly larger than the impressed seal. Thus features of flat bullae could be distinctive in a similar way to an individual's handwriting, but did not generally encode further meaning.

The impression was usually aligned with the cords binding the document, although there are exceptions (Figure 5.49). A few seals were often impressed at unusual angles, including **M 79** (Figures 5.42-5.44). Therefore, it was acceptable to fail to follow the 'correct' way to impress a seal. Certain seal-bearers' tendency to skew impressions may suggest that they were unusually clumsy or had a particular disregard for convention.⁷⁵⁵ Most flat bullae are unmarked beyond the seal impression. However on one specimen, **S7-6441**, small dots surround the seal impression (Figure 5.50), perhaps to draw attention to it.

Flat bullae impressed by figurative seals are common at Seleukeia-Tigris, but unusual at Uruk. At Uruk they are particularly associated with large royal portrait seals. Others however are impressed by unremarkable figurative seals, with both Greek and Mesopotamian motifs. One of these belonged to one Anu-mukin-apli, who appears as a witness in a division of property at Uruk, recorded on a cuneiform tablet.⁷⁵⁶ Flat bullae may have been associated with a particular group of seal-bearers at Uruk, or with certain types

⁷⁵⁴ For instance, **ApT 33** is usually impressed on small discs, while bullae impressed by **M 17** are often larger and very rounded.

⁷⁵⁵ The fact that certain seal-bearers often impress their seals at unusual angles could suggest that they folded their documents differently from most seal-bearers. For example, on Ptolemaic notary contracts a short abstract was written to the left of the main text and sealed by a single bulla; one might expect the impression here to be aligned with the main text, and so orientated at right-angles to the cord. However, the impression on one such notary contract is indeed at right-angles to the cord, but is upside down with respect to the Greek text (Figure 2.15 and Pestman 1993: 327). Therefore, the occasional instances of impressions occurring at right-angles to the cord on Seleukid bullae cannot be taken as evidence that the enclosed documents were folded in an unusual manner.

⁷⁵⁶ Lindström 2003: 120, **No. 281-1**, Wallenfels 1994: 40, **No. 187**.

of documents; alternatively their rarity may be due simply to the difficulties in recovering flat bullae compared to larger napkin-ring specimens.

Flat bullae impressed by several figurative seals

Many flat bullae from Seleukeia-Tigris are impressed by several figurative seals. Such bullae are usually rounded, oval pieces of clay, large enough to fit the impressions. Bullae impressed by a group of seals again tend to have a similar shape, as was noted with regard to the **EK 1** group.⁷⁵⁷ The orientation of impressions is more relaxed than when only one seal is impressed. While impressions are often aligned with the cords, as are the two impressions of **TM 96** on S6-912 (Figure 5.51), exceptions occur, including on S6-909, where one of the two impressions of **TM 119** is at right angles to the other (Figure 5.52). In contrast to the 'crowded' napkin-rings, neither blank space nor dividing lines were used to organise impressions into groups on these bullae.

Once more, there are no differences in the bulla forms and sealing protocols employed by bearers of frequently-attested and rarely-attested seals, or at the Archive Building and Block G6. For example the Archive Building bulla S-9335, impressed by five otherwise unknown seals (Figure 5.53), those impressed by **EK 1** (known in hundreds of impressions, Figure 2.6), and McDowell 1935, Aid(70), a bulla from Archive A impressed by rare seals (Figure 5.54) are all very similar in form. There are however differences between these Seleukid specimens and those from Delos, Edfu and Elephantine. At Delos, flat bullae with multiple impressions usually have an elongated sausage shape (Figure 3.28), while the bullae from Edfu (Figure 5.55) and Elephantine⁷⁵⁸ are typically flat in contrast to the more rounded Seleukid examples.

Such flat bullae impressed by several figurative seals are known (within the Seleukid empire) only from the Archive Building and Block G6 at Seleukeia-Tigris, but at Block G6 they are very rare. This suggests that their absence at Uruk may be predominantly due to the fact that we do not have bullae from the royal administrative complex there.

Male portraits on wedge-profile bullae

Although meaningful subcategories of flat bullae cannot generally be identified, there are a couple of exceptions.

The first are bullae sealed by users of large, high-quality male portrait seals. Such seals sometimes occur on bullae with a thick left edge and a much thinner right edge, giving them a wedge profile. The impressions are positioned so that the portrait (facing to the right)⁷⁵⁹ cuts off at the ear (Figures 5.3, 5.56-5.58). These bullae typically have flat reverses, without

⁷⁵⁷ See p. 109.

⁷⁵⁸ See Vanderpe 1996: Fig. 1.

⁷⁵⁹ Thick and thin edges of the bulla are reversed if the portrait faces to the left.

lips. At least one example enclosed a papyrus document,⁷⁶⁰ others leather. Not all large, high-quality male portrait seals are partially impressed in this manner, but there are a few seals which are known in several such impressions.⁷⁶¹ This, combined with the deliberate shaping of the left edge, demonstrates that the partial impression was intentional. Many of these seals depict non-royal individuals, but royal portraits can be impressed thus (Figure 5.59); here the partial impression means that the ends of the diadem are omitted.

Such bullae are known from Block G6 and the Archive Building at Seleukeia-Tigris, Uruk⁷⁶² and also from Kallipolis.⁷⁶³ Therefore these seal-bearers made a choice that had resonance in the wider Hellenistic world. While the upper and lower limits of a flat bulla are determined by the size of the document packet, its width is unrestricted and there is no practical reason not to impress the left or right edge of a seal. Moreover, the thick left edge of these bullae proves that there was not a lack of clay. The fact that the seals involved are high-quality examples suggests that this gesture was intended to underline their bearers' status, perhaps by emphasising the large size of their seal, or by demonstrating their ability to disregard convention.⁷⁶⁴

Convex bullae

A second subcategory of flat bullae is the convex specimens. These are characterised by a convex reverse, a flat or concave obverse, and a central, enclosed cord (Figure 2.4). The lips at the top and bottom of many of these bullae indicate that the sealed documents had been made into narrower rolls than those sealed by napkin-ring bullae or most flat bullae. These bullae are always impressed by a small figurative seal, most of which are rarely attested. However, a few occur on several such bullae, such as **Tr 1** (known in 40 impressions, Figure 5.60).

Such bullae are very common at Block G6; other specimens were found in the Archive Building, while at least one comes from Uruk (Figure 5.61). While McDowell argued that these bullae sealed double documents, they may have sealed single-version documents.⁷⁶⁵

⁷⁶⁰ **S-6667**.

⁷⁶¹ For example, **TM 256** is impressed partially on **S-9370** and on **S7-2140** (Messina and Mollo 2004: vol. I, Pl. 32), while **TM 270**, known in 40 impressions, is seemingly always partially impressed, since a complete photograph could not be found to illustrate it, Messina and Mollo 2004: vol. I, Pl. 33. By contrast, **TM 98** was impressed once thus, and once completely (Messina and Mollo 2004: vol. I, Pl. 25); intriguingly, the complete impression is countermarked.

⁷⁶² For example, Lindström 2003, **Nos. 191, 192**.

⁷⁶³ For example, Pantos 1984, Pl. 38, **No. 269** on **MA 14445**, Pl. 39, **Nos. 271** and **272** on **MA 14466** and **14498**, Pl. 42, **No. 284** on **MA 14536** and **14537**.

⁷⁶⁴ At Persepolis, the royal woman Irtaštuna made multiple partial impressions of her seal on tablets, rather than rolling it; this made the impression of the seal highly recognisable, but the actual motif difficult to understand, and seems to have been an 'exercise in power', Root 2008: 108.

⁷⁶⁵ 1935: 3, followed by Invernizzi 2003: 304. McDowell assumes that lumps of clay were attached to loose ends of the string binding the interior version (after this had been tied), and then pressed between the interior and exterior. However, it is possible that the lump of clay was placed on the

Although the extent of the convex bulge is pronounced on these bullae, the reverses of some larger bullae also have a central bulge. This is particularly evident on the Achaemenid Arshama bulla Sigill. Aram V (Figure 5.62), which certainly sealed a single-version document. The central bulge indicates that the clay sat in a well in the document packet, presumably caused by the leather being bound so tightly that edges of the packet curved upwards. In order to bind the document thus, it seems probable that several such bullae were formed over a single cord wrapped round the document, in a similar manner to that securing the Avroman parchments.⁷⁶⁶

The high level of standardisation in these bullae indicates that strong conventions governed their creation. The form is primarily a product of the way that the document is folded and tied, but also relates to seal choice, since these bullae are associated with small figurative seals. It is possible that such documents had a particular nature, and that individuals who created such documents typically used small figurative seals. Again, such bullae seem confined to the Seleukid East, hinting at divides between this region and the Mediterranean world. As with the 'orientated' napkin-ring bullae, we have to accept that we cannot fully understand the meanings encoded by the form.

Official seals and flat bullae

No forms of flat bullae or sealing protocols are exclusively associated with official seals. Such bullae are again usually slightly larger than the impressed seal and the impression is aligned with the cords. Nonetheless some official seals are impressed on relatively distinctive flat bullae. For example, anchor seals occur on thin bullae, with a very flat reverse and no lips (Figure 5.63), suggesting that they sealed unusually large document packages, which were possibly folded, rather than rolled.

Some impressions of *chreophylax* seals occur on large flat bullae. Impressions of **Se 7** and **Se 2** (which is not certainly a *chreophylax* seal) from Seleukeia-Tigris are characterised by their large size (in part a product of the size of the seals), convex reverse, and entirely enclosed cord; flat *chreophylax* bullae from Uruk seem to have similar features.⁷⁶⁷ Thus the process of tying these differed slightly to that for most documents. It is uncertain why this would be desirable, but these nuanced differences nonetheless make these bullae distinctive. The use of both flat and napkin-ring bullae by the *chreophylakes* at both Uruk and Seleukeia-Tigris suggests that there was regional co-ordination of sealing protocols for

document before the cord was looped around the folded document, and that the form results from the way that the document was folded.

⁷⁶⁶ Minns 1915: 22.

⁷⁶⁷ Few images of the reverses of flat *chreophylax* bullae from Uruk are available, but it is apparent that these are typically thick bullae, several of which seem to have a single cord, including Lindström 2003, No. 308.

these officials. At Seleukeia-Tigris, different officials seem responsible for the two types of document, whereas at Uruk, the same *chreophylax* seems to have produced both.

Bybliophylax seals occur on thick, oblong-shaped bullae with distinct sides and often a very convex reverse, indicating that the clay had been carefully shaped and that the document was tied so as to create a well in which the bulla sat (Figures 5.64-5.66). When an additional figurative seal accompanies a *bybliophylax* seal, it is impressed on the right-hand or upper side of the bulla (Figure 5.66). These impressions can easily be overlooked, as demonstrated by Rostovtzeff's failure to observe **Ekt 1** on Lindström 2003, No. 81(=Rostovtzeff 1932, No. 79). Again, this implies that those looking for a particular text had the time and knowledge to sort through archived documents. Locating these figurative seals on the side of the bulla also emphasises the *bybliophylax* seal, and suggests that accompanying figurative seals were perceived as different to and, it seems, less important than the official seal.

While the bullae impressed by official seals are broadly comparable to, for example, the large flat bullae impressed by **Na 2** (Figure 5.41) or **Ds 5** (Figure 5.67), they are sufficiently distinctive to be quickly identifiable to modern researchers, and presumably also to the ancient users of the archives. The bearer of the anchor seal took the time and trouble to fashion bullae carefully, while the *bybliophylakes* and the *chreophylakes* developed particular protocols for tying documents and impressing accompanying seals. There are no clear developments to these protocols, suggesting that they were handed down from one office-holder to the next.

Salt stamps and flat bullae

Bullae impressed by the port and *andrapodikē* tax stamps from Archive A, Block G6, are flat specimens, as are those impressed by salt stamps from the Archive Building. Since salt bullae from Block G6 and from the temples at Uruk are napkin-rings, the decision as to whether to impress a salt stamp on a napkin-ring or flat bulla appears to have been primarily dependent upon the document's destination. Flat salt bullae from the Archive Building vary somewhat in form. Some are thin discs, others much thicker, with rounded edges (Figures 5.68-5.69); some had lips which enclosed the edge of the document, and others did not (Figures 5.70-5.71). There are also specimens that have been pinched to create two faces (Figure 5.72). Early stamps tend to occur on large, rounded bullae (Figure 5.73),⁷⁶⁸ suggesting that there was a gradual reduction in the size of salt bullae. However, salt bullae from the second century include 'thin', 'rounded' and 'pinched' examples, so there was not a transition between these forms. Both 'rounded and 'pinched' salt bullae can have

⁷⁶⁸ This is also true of, for example, **Alk 3** on S9-602, **Alk 4** on S9-519, and **Alk 12** on S7-5649 and S7-5650.

an accompanying figurative impression, implying that these differences in form result from factors such as who shaped the bulla and how much clay they had at hand.

Strong conventions governed the impressing of seals on salt bullae.⁷⁶⁹ When only a salt stamp is impressed, it is again usually aligned with the strings.⁷⁷⁰ The bulla is usually a little larger than the impressed stamp, but there are cases where the stamp did not entirely fit, or is impressed more clearly on one side (Figure 5.74), suggesting occasional carelessness in impressing these stamps.

Where one figurative seal is impressed on a salt bulla, it is normally placed below the salt stamp; there are however a few bullae on which these positions are reversed. The prominence of such an additional seal varies; for example, **Og 77** is very visible on S-8370 (Figure 5.72), whereas the impression of **Er 192** on S-9616 could easily be overlooked (Figure 5.75). Seals with distinctive motifs are impressed like any other seal; for example the royal portrait seal **Se 37** is still located below the salt stamp on S-6089 (Figure 5.76). The figurative seal is usually aligned with the string, but again there are exceptions (Figure 5.77). Overlaps of impressions suggest that the salt stamp was usually impressed before the figurative seal (Figure 5.78). Since bearers of most figurative seals seem to have been infrequently involved in such documents, the bearer of the salt stamp presumably formed the bulla and instructed the bearer of the figurative seal whether an impression of it was required, and where to impress it if so. Perhaps occasionally, the salt official forgot to explain clearly what to do, or the individual impressing his figurative seal failed to comply.

There are also those flat bullae on which several figurative seals, belonging to members of a salt-group, are impressed alongside the salt stamp. Such bullae almost always have two distinct faces. From 183/2 onwards, the figurative seals are usually arranged in an arch spanning the lower surface, with one to the left-hand side (Position 1), one in the middle (Position 2), and one to the right-hand side (Position 3, Figure 5.79).⁷⁷¹ This arch arrangement occurs on some earlier bullae impressed by salt-groups (Figure 5.80), although there is considerably more flexibility about the positioning of impressions on salt bullae from 194/3 and 184/3. On some bullae from 183/2 onwards the figurative seals are crowded towards the right-hand side of the bulla, with one seal impressed centrally, one to the upper right and one to the lower right (Figure 5.81).

The accompanying figurative seals occur in different positions. Examination of a sample of 261 bullae sealed by **Alk 86**, on which impressions of figurative seals are arranged in an

⁷⁶⁹ Invernizzi's discussion of salt bullae focuses on their forms, rather than sealing protocols, 1968a: 77–79.

⁷⁷⁰ Invernizzi's 'Type C' and 'F', 1968a: 78. At least one rotated example is known, S-5070, Invernizzi 1968: 90.

⁷⁷¹ Invernizzi's 'Type B', 1968a: 71.

arch, reveals that the habitual order here is **M 59** to the left, **ApT 10** in the centre and **Tk 36** to the right (Table 5.1). On the 45 **Alk 86** bullae I have examined where impressions are crowded to the right, **ApT 10** is typically the central seal, **Tk 36** that to the upper right and **M 59** that to the lower right (Table 5.2). Therefore, the lower seal on these is equivalent to the left-hand seal where impressions are arranged in an arch. This crowding is perhaps a product of the fact that right-handed individuals will approach the clay from the right-hand side. The absence of a strict rule about the locations of seals suggests that these positions did not indicate the roles of the seal-bearers, but related to factors such as where they usually stood. Although **Tk 36**, **Mn 6** and **Ap 14** are replacement seals, **Mn 6** and **Ap 14** usually appear in Positions 1 or 2, whereas **Tk 36** is usually in Position 3. This supports the argument that these were used by new individuals, and hints at the disruption that the arrival of a new seal-bearer to a group could cause. I have examined smaller quantities of bullae impressed by other salt stamps, making statistical analysis problematic; nonetheless it seems that there was usually a habitual order to impressions (Tables 5.3-5.4, 5.6-5.7). Such an order is however not visible from the sample of 89 **Alk 83** bullae that I have examined (Table 5.5). This suggests that the bearers of **TM 220**, **Em 51** and **M 59** (the seals impressed alongside **Alk 83**) had an unusual relationship. Understanding this further is impossible; we might imagine that they were particularly good friends, who frequently altered the order in which they stood, or that the switching of positions is symptomatic of a rivalry between them.

Despite the habitual sequence of impressions, seals were not impressed in a set order. For example, **M 59** (Position 1) is impressed over **ApT 10** (Position 2) on **S-9203**, while on **S-9170** **ApT 10** (Position 2) is impressed over **M 59** (Position 1, Figures 5.82-83). There is no sign that the seal-bearers tried to avoid overlapping impressions, which at times cause significant distortion, as happens to that of **Tk 36** on **S-8656** and **S-8719** (Figures 5.84-5.85). Again, the fact of impressing seals seems more important than ease of later identification.

Where a fourth seal occurs, impressions of the three salt-group seals form a central arch, and the additional seal is placed in the lower centre of the bulla (Figure 5.86). This suggests that there was a concern that the fact of this additional impression was quickly identifiable. However, the precise seal impressed is not always easily recognisable, as it is often only partially impressed. For example, on **S-9598** only the profile of the head on **TM 259** is visible, (Figure 5.87), as is that of **Se 37** on **S6-984** (Figure 5.88). In other cases, one of the main seals overlaps the fourth seal (Figure 5.89). Using more clay, or overlapping impressions of salt-group seals, would have prevented this; once again recognition of impressions does not appear a priority.

On rare occasions an additional seal is impressed within the upper arch of seal impressions. An otherwise unknown seal depicting a herm is impressed centrally between **M 59** and **Tk 36** on S-8564 (Figure 5.90),⁷⁷² and the rarely-attested **Ap 167** is impressed on S6-7361 in Position 1, alongside **M 59** and **ApT 10**, while a fourth seal is impressed at the lower centre (Figure 5.91). In these cases the rarely-attested seal is impressed where the third salt-group seal would be expected. These might both be unusual cases of a seal being temporarily borrowed. By contrast the rarely-attested **ApT 15** is impressed at the lower centre on S-8546, with **ApT 10** and **M 59** above it (Figure 5.92); here the positioning makes it probable that the former was used by an additional seal-bearer, and that the third member of the salt-group did not seal this document.

A noteworthy feature of impressions of salt-group seals is that they are often orientated at odd angles. For instance, **ApT 10** is upside down on S-8500 and sideways on S-8581 (Figures 5.93-5.94), **Tk 36** upside down on S-8513 and sideways on S-8537 (Figures 5.95-5.96), and **Ap 14** is upside down on S-8606 (Figure 5.97). This is in sharp contrast to the usual convention that impressions should be aligned with the strings. Such a lack of diligence perhaps results from the fact that the process of impressing these seals was extremely routine.

The seals that accompany salt bullae at Seleukeia-Tigris are mostly very small figurative seals, measuring just over 1 cm in diameter, suggesting that there were strong conventions regarding the size of seal appropriate for officials who sealed salt documents. One presumes that the bearer of a large seal such as **TM 58** would have been required to acquire a new seal, had he become involved in the salt tax. This small size enables impressions of the three figurative seals to be fitted on to the front of a flat bulla or across the bridge of a napkin-ring specimen. It would however have been possible to use more clay to create larger (or several) bullae. The demand for standardisation in the size of bullae seems to prevail over an individual's possible desire to have a large seal, suggesting that freedom to choose the size of one's seal was one way in which status was communicated within the administration.

However, the earlier observation that iconography appears to have been the free choice of the seal-bearer remains valid. Several of the salt-group seals are very similar to other figurative seals, and some are similar to each other. **ApT 10** and **TM 220** can readily be distinguished when an impression is examined, but there are a number of instances in *STISA* where they have become confused;⁷⁷³ this confusion demonstrates that the features which distinguish them can be overlooked at a quick glance. Seals within a salt-group however always use different iconography; in no year were two portrait seals included, or two mask

⁷⁷² This seal is not included in *STISA*.

⁷⁷³ See p. 102.

seals. This suggests that individuals avoided having a similar seal to their colleagues. Given the general lack of emphasis on easily identifiable impressions, it is probable that this arose simply from a desire to have a distinctive seal.

In conclusion, various protocols governed how to form bullae and impress seals on salt documents, which differed from those seen with regard to other documents. Many of these were not important for the document's validity; it did not, for instance, matter what order the figurative seals of members of salt-groups came in. The conventions governing the orientation of impressions were remarkably relaxed for these individuals, perhaps because they created hundreds of documents annually. By contrast, unusually strong conventions apparently governed the size of seals used by these individuals. There seems to have been no intention to make these bullae imposing, and indeed, it would seem to have been sensible at times to have used more clay, in order to ensure that all impressions were legible. The fact that this was not done suggests firstly that there was a sense of what a properly sealed salt document should look like, and secondly that later legibility of impressions was not a priority.

d. Duplicate impressions and countermarked seals on flat bullae

Duplicate and countermarked impressions occur on some flat bullae from the Archive Building and Block G6 at Seleukeia-Tigris.

Tax-stamps and rarely-attested, occasionally-attested and frequently-attested seals, including salt-group seals are all occasionally impressed in duplicate. Sometimes the second impression seems to have been created because the sealer was not happy with the first. For example, **Alk 14** is impressed twice on S-6646 (Figure 5.98).⁷⁷⁴ Neither version is complete, but the upper version includes the Seleukid anchor, perhaps indicating that this was regarded as important. In other cases the size of the bulla suggests that there was always the intention to impress a seal twice.⁷⁷⁵ Such duplicate impressions are relatively rare,⁷⁷⁶ and are more common for salt-group seals than other frequent seals (Table 5.8); this relates perhaps to the fact that the rules governing the impressions on these bullae differed from the general protocols. On salt bullae, the duplicate impression is normally located in the position of the fourth seal (Figures 5.99-5.100), and the other members of the salt-group also impress their seals.⁷⁷⁷ The seal was presumably impressed twice by its bearer, since it

⁷⁷⁴ There are three other instances where a salt stamp is impressed twice on such bullae; **Alk 7** on S6-10324, **Alk 19** on S-5600 and a salt stamp of uncertain date and type on S7-4294.

⁷⁷⁵ For example, Figure 5.51.

⁷⁷⁶ Again, the lack of published information on bullae form at the Archive Building makes quantifying difficult; I know of 41 duplicate impressions on flat bullae of figurative seals, and one duplicate impression on what is probably a flat bulla from Block G6, that of **McDowell 1935, IIIA1e(4)** on AId(11).

⁷⁷⁷ A rare exception is S-8541, on which duplicate impressions of **ApT 10** are located side-by-side.

seems unlikely that an outsider to the group would have borrowed this seal. There is no clear reason for such duplicate impressions; they are not connected to a particular seal or salt stamp, and nor do the first impressions seem particularly poor. They may be an example of human idiosyncrasy, or may have a significance that is now lost to us.

A few countermarked figurative seal impressions on flat bullae (including convex bullae) are known from Block G6 and the Archive Building (Figure 5.101). Impressions of ten seals are countermarked on what appear to be flat bullae from Block G6. I know of 15 countermarked impressions from the Archive Building; here, frequently-attested seals and tax stamps are not countermarked. Therefore countermarking appears more common in connection with private transactions, as we saw also with regard to countermarking on 'crowded' napkin-rings. The scarcity of this practice again suggests it is unlikely to indicate the seal-bearer's status in the transaction, but we remain unable to fully reconstruct its significance.

iii. People, place and protocols

Sealing protocols and forms of bullae varied according to the stamps and seals impressed, and the locations where the document was created and was to be archived. We are able to recognise the existence of protocols, but often cannot fully understand the meanings that they conveyed. 'Crowded' and 'orientated' napkin-rings and convex bullae were all novel to Seleukid Babylonia, and never spread beyond the empire. Forms of bullae that had been known previously, such as the very large Arshama bullae, with their lunate top and bottom edges and curved sides, were not produced in Seleukid Babylonia; nor were sausage-shaped bullae like those known from Delos. Thus many of the messages encoded by the forms of bullae and sealing protocols were specific to Seleukid society. Individuals were nonetheless happy to adapt to local practice; the bearers of Seleukid seals on Delos did impress these on sausage-shaped bullae.⁷⁷⁸ The wedge-profile portrait bullae are an exception to this localism, since their partial impressions made a statement that had a resonance around the Mediterranean, emphasising that the upper echelons of Seleukid society participated in an international elite culture.

Whereas the sealing protocols of Seleukid Babylonia appear specific to this region, the handwriting of Hellenistic Baktrian documents is similar to contemporary examples from Egypt. The bullae therefore demonstrate that, despite the shared scribal milieu, there were differences in the culture of document creation across the Hellenistic world. The new forms of bullae hint at the flux of the early Hellenistic world, in which procedures for registering documents and demanding taxes were altered, and distinctive ways of sealing documents created. Frustratingly, we are not able to trace the developments of the early third century,

⁷⁷⁸ See in particular the impression of **SP 9** on 74/8559, Boussac 1992: Pl. 2.

and so cannot reconstruct whether, for example, 'crowded' or 'orientated' napkin-rings came first, or whether particular forms originated in certain cities. We can however see that the new forms of bullae were ultimately employed in both administrative and private spheres across Babylonia.

Sealing protocols may have differed slightly between Uruk and Seleukeia-Tigris. For example, at Uruk, duplicate impressions seem particularly common on 'crowded' napkin-ring bullae, flat bullae are rare and seem primarily associated with royal portrait seals, and the salt office did not use 'orientated' napkin-rings. However, while it is likely that the latter bullae represent genuine divergences in practice between the cities, other apparent differences may be due only to the perspectives offered by the extant finds, and to the fact that many Urukian bullae come from early and/or illicit excavations. Napkin-ring bullae neither seem to have been derived from, nor considered connected with, cuneiform tablets. More remarkable is the level of connection seen between these two cities: the new convex, 'orientated' and 'crowded' bullae are found at both. There were however differences in sealing protocols at Kedesh, notably in that flat bullae are not impressed by several seals here, and that napkin-ring bullae are unknown. The Seleukid administration may have decided not to introduce these forms in this region, just as they chose to continue minting on the Ptolemaic standard and retained certain Ptolemaic titles here, or these forms may have never been adopted in the west of the empire. Unfortunately, the few bullae from Jebel Khalid cannot help us to answer this question; while these are all flat specimens, we would not expect to find any of the impressed seals on napkin-ring bullae at Seleukeia-Tigris or Uruk.

It is probable that most people working with the archived documents were literate. It may have been possible to navigate aspects of the archives if you were semi-literate, since the seal motifs and forms of bullae acted as visual clues regarding documents' contents and creators. These aspects will also have helped literate individuals to navigate the archives more quickly. However it does not look as if it was possible to quickly sort documents without carefully examining the impressions or reading the texts. Many of the more subtle differences in the forms of bullae seem to be the result of individual habits, since bullae impressed by the same seal often share characteristics. Perhaps surprisingly, later legibility of impressions does not appear to have been a great concern. There were nonetheless strong conventions governing how particular bullae were sealed, most notably in that seals were usually aligned with the strings binding the document on flat bullae, and were impressed the right way up on both sides of 'orientated' napkin-rings. These conventions were not essential, and were of greater concern with regard to certain documents. In particular, members of salt-groups were unusually careless in the orientation of their impressions.

4. Conclusions

People in the Seleukid empire made choices about aspects of the physical form of their documents, including the materials used, the shape of the bulla and positioning of the seals. It is likely that other decisions now elude us, such as the colour of the ink or style of the handwriting. Many of these choices probably did not convey particular meanings, but others offered visual clues as to the document's contents and creators. Both meaningful and idiosyncratic aspects help us to understand the production and use of documents. There were strong expectations about the right way to seal many types of documents. *Bybliophylakes* always carefully formed oblong bullae on which to impress their seals, whereas holders of salt stamps had only to form a roughly oval piece of clay, approximately the size of the stamp, and members of salt-groups often ignored conventions about the orientation of impressions. Meanwhile, users of figurative seals had considerable freedom regarding the thickness and shape of their bullae. Such idiosyncratic variations remind us that individuals are hidden behind these documents, who had their own preferences about how to shape bullae, and on occasion hurried the job.

No sealing protocol or bulla form was used exclusively by the administration; nor were particular materials or methods of folding the document reserved for the administrative sphere. Private individuals were able to buy high-quality materials for their own documents, and considered this worth doing. This level of investment indicates that most sealed documents were created by individuals with some wealth, and suggests that they were intended to last for several years. Thus the administrative use of documents was a part of the wider culture of document creation within the Hellenistic East.

In this chapter we have observed a variety of individuals at work, writing and sealing documents. We have seen how protocols for sealing particular documents had to be transmitted between individuals over time and space, as evidenced, for example by the way that the Block G6 salt bullae of the 150s resemble those that were created three decades earlier. Explaining to local inhabitants where to impress seals on tax documents, teaching new officials how to form bullae correctly, or developing an arrangement for seal impressions on salt bullae, do not seem the most important activities of an official. My focus on such aspects is of course a product of the available evidence; nevertheless, these aspects serve as a reminder that such activities are likely to have been a significant part of many local officials' experience of working within the royal administration.

Chapter 6. Archives and archival practice

1. Introduction

In this chapter, I explore archival organisation and the bureaucratic stages of record-keeping, in order to gain a greater understanding of the use of documents in local administration. The finds of bullae represent – at times very large – collections of documents, which were found in a range of buildings. Categorising the settings in which the bullae were found according to a binary division of ‘private’ and ‘public’ is inappropriate; for example, priestly families on occasion stored personal documents within temples, which could also house institutional archives. Nonetheless, consideration of who controlled access to the archives, and who decided which documents were to be stored, is important for understanding the uses of documents and the relationships between the different archives.

An analysis of the find-spots of bullae allows us to understand, at least tentatively, the logic behind where particular documents were stored. The archives, like the bureaucracy more generally, were not abstract entities, but the creation of a multitude of individuals, who may not always have seen eye-to-eye about how to file documents. The archives contained material from several decades, and so a further question of this chapter is whether officials in the mid-second century appear to have been aware of how space within the Archive Building, in particular, had been organised before their time, and what their attitudes were towards these earlier documents.

Tracing the histories of archives is difficult. The archaeology of the buildings in which documents were found can offer only limited information as to the archives’ early lives, since documents may have been moved between buildings. Understanding the date at which an archive ceased to function is also problematic. For instance, it may be apparent that documents were burnt, but unclear when this occurred. Nonetheless, investigating the events surrounding the ends of archives is important for reconstructing normal uses of documents, and for considering the transition from Seleukid to Parthian rule.

After an initial discussion of the use of the term ‘archive’, this chapter is structured around the life of a document. I follow its creation, archiving, retrieval, or, if a document remained in an archive (as did all those associated with surviving bullae), the ending of the archive’s operation; I pause in this section also to consider the archives’ early lives.

2. Creating archives in the scholarship

I have described the caches of bullae as ‘archives’, as have others who have worked on this material. Is this an appropriate term? Designating finds of bullae as ‘archives’ suggests that documents were stored to enable future consultation, that they were intended to be kept

for long periods, and that there was some coherence to them.⁷⁷⁹ The term also has connotations regarding the nature of the documents. For example, if the 'Archive Building' at Seleukeia-Tigris was described as an 'Administrative Building' it would suggest a greater focus on temporary documents, such as accounts and reports. Meanwhile, collections of literary and scholarly texts are generally described as libraries. However, in Mesopotamia such a division between 'libraries' and 'archives' is often inappropriate, since some groups of cuneiform tablets contain both scholarly texts, such as ritual instructions, and legal documents, such as sales.⁷⁸⁰

In Chapter 4 I made some initial observations about the possible nature of the (lost) documents, to which I will return in Chapter 7. Here it suffices to note that many documents sealed only by figurative seals were most likely legal in nature, while those sealed by tax stamps related to fiscal procedures. Other documents in buildings such as the Governor's Palace at Jebel Khalid, the Persian-Hellenistic Administrative Building at Kedesh and the Archive Building at Seleukeia-Tigris probably related to administrative matters. 'Archive' is an acceptable term for collections of such documents.

Most finds of Seleukid bullae appear to represent groups of sealed documents that were deliberately stored together. This is indicated by the themes that are often visible in the impressed seals, such as the concentration of impressions of salt stamps in the northern suite of the Archive Building, of *chreophylax* seals in certain rooms of the temples at Uruk, and the repetition of seals on different bullae from Rassam's find. Although only a few bullae were found in the Governor's Palace at Jebel Khalid and the Ebabbar temple at Larsa, their discovery in particular rooms within these buildings (Rooms 22 and 24, respectively) suggests that these too are the remnants of collections of documents that were deliberately stored together.⁷⁸¹ It therefore seems appropriate to designate the assemblages as archives.

A further issue to consider is whether it is certain that the find-spots of bullae represent the places where documents were stored. Large quantities of third-millennium seal impressions come from rubbish tips;⁷⁸² by contrast, there is no evidence that any of the surviving Seleukid bullae were thrown away in antiquity. However, Baker has suggested that documents were moved into the Rēš temple at Uruk for protection at a time of violence,⁷⁸³ and it is not unthinkable that documents were taken to, for example, the Archive Building at Seleukeia-Tigris for similar reasons. But the long timespans covered by the tax stamps impressed on bullae both from the Urukean temples and from the Archive Building

⁷⁷⁹ See the discussions of Faraguna 2013: 8; Brosius 2003a: esp. 5-11.

⁷⁸⁰ Robson 2013: 41; Pedersén 1998: 2-3.

⁷⁸¹ The same cannot be said for the scattered finds from Nippur and from the German excavations at Babylon.

⁷⁸² Collon 1990: 24.

⁷⁸³ 2013a: 58; 2013b: 40.

suggest that these collections of documents were built up over several decades, rather than the results of rushed movements of documents. Moreover, the discovery of the bullae in specific rooms, such as the rooms around the north-west courtyards of the Rēš temple, suggests that particular areas were associated with document storage. There is also no reason to doubt that the rooms in which bullae were found housed documents. Baker argues that the lack of archival furnishings indicates that documents were not permanently stored in the temples,⁷⁸⁴ but archaeological evidence for such furnishings can be minimal.⁷⁸⁵ Therefore, it is probable that the find-spots of bullae represent where documents were usually stored.

However, the rooms in which documents were stored were often not solely used for this purpose. For example, Room 89 of the Rēš temple contained cult objects, namely pedestals and figurines, as well as tablets and bullae,⁷⁸⁶ while the archive room at Kedesh contained a large number of storage jars. By contrast, the Archive Building seems to have been used exclusively to house documents. Ceramics, including storage jars and dining ware, were found in later Parthian levels, but only the bullae, nails and ash are associated with the Seleukid Level V.⁷⁸⁷

Rooms 16 and 301 in Block G6 are also presented as exclusively archival spaces. McDowell states that the bullae of Archive A were found burnt in a corner of the (partially-excavated) Room 301, while the rest of the room did not show traces of fire.⁷⁸⁸ The bullae of Archive B were found on raised platforms along the east and west sides of Room 16, among charred wood, nails and bronze straps, which led McDowell to suggest that the documents were stored in wooden chests. He notes that some grain and pottery were also found here. Again, only the bullae are described as burnt, and he states that no other objects were recovered from the floor.⁷⁸⁹

The (unpublished) *Seleucia Excavation Records* however reveal that a number of further objects were assigned to Level IV of Room 16. These include a figurine, beads, a bronze disk and a water jar stand (Table Supp.-6.1), none of which has any clear link to the bullae. An unusual vessel with a spout and a hole in its base has been interpreted as a utensil for softening bitumen to create the bullae (Figure 6.1).⁷⁹⁰ Finds assigned to Level III include lamps, figurines, and a bronze stick. The latter object has been associated with the creation

⁷⁸⁴ 2013b: 40.

⁷⁸⁵ See p. 167.

⁷⁸⁶ Lindström 2003: 69.

⁷⁸⁷ Invernizzi 1968b: 35. Wells, cisterns, and kilns with terracotta figurines, found to the west of the Archive Building are also dated to Level IV, Invernizzi 1972: 15.

⁷⁸⁸ 1935: 11.

⁷⁸⁹ 1935: 11–12.

⁷⁹⁰ Hopkins 1972: 44; Debevoise 1934: 19–20. Other suggestions for its use include warming wine or smoking a drug. See also n. 800.

of bitumen bullae.⁷⁹¹ The confusion about whether this stick belongs to Level III or IV indicates the uncertainty in interpreting the stratigraphy; the allocation of the bullae to Level IV rests primarily on the fact that the impressed tax stamps date their creation to the Seleukid era.⁷⁹² Rather than artificially separating the bullae from the other finds, it should be accepted that this room was not used exclusively for document storage, at least at the point of its abandonment.

The bullae of Archive A were not found in isolation either; objects assigned to Level IV of Room 301 in the *Seleucia Excavation Records* include bowls, plates, spindles and figurines (Table Supp.-6.2). Deep foundations from later buildings and Grave 40 cut through Room 301, and there was considerable uncertainty about which finds should be assigned to Level IV.⁷⁹³ The confident attribution of the bullae to Level IV is again due to the datable tax stamps.⁷⁹⁴ These bullae also appear to have been found in at least two clusters. Hopkins describes how a further four bitumen bullae were discovered in Court 205 of Level II, which lies above Room 301 (Figure 6.2), 'near the brick pillar of the third level'. These were impressed with an *andrapodikē* stamp and salt stamps,⁷⁹⁵ and were found with coins dating to AD 9-10, lamps, figurines and pottery, tweezers and large pieces of lead and bronze. The bullae were nonetheless grouped by McDowell in Archive A, while the other objects did not make it into his account.⁷⁹⁶ Therefore, Room 301 was also not exclusively an archival space. To conclude, the fact that most bullae sealed documents that were stored, for a number of years, in meaningful groups makes it appropriate to designate the finds as archives. Nonetheless, the rooms in which they were found often had more than one function.

3. Creating documents: further considerations

Many aspects of the creation of a document were dealt with in Chapter 5, but two issues which relate to the question of archival practice remain to be discussed, namely where documents were written and whether copies were routinely created.

⁷⁹¹ Hopkins 1972: 44.

⁷⁹² As is acknowledged by McDowell 1931: 29.

⁷⁹³ Manasseh 1933: 2; Hopkins 1972: 55.

⁷⁹⁴ The difficulty of understanding the level of these bullae is stressed by Yeivin 1931, 'Some notes on the work of the Michigan Expedition Season, 1930-31', 3. The bullae were attributed to Level III before a separate Level IV was distinguished, McDowell 1931: 26 and n. 1.

⁷⁹⁵ 1972: 92.

⁷⁹⁶ No bullae are listed in the *Seleucia Excavation Records* as discovered in Court 205. However, Yeivin, writing in May 1930, also spoke of the discovery in the 'third [later designated fourth] layer from the top' of 'two deposits of bitumen sealings bearing dates round about 180 B.C.' (1930: 'Some notes on the work of the Michigan Expedition Season, 1929-30', 4, emphasis added). It is likely that three of these four bullae are those with the find number C03253A described as 'three dated impressions (2 salt tax ____), bitumen, Dates 166 B.C.-229 B.C.' and assigned to 'G6, III, R. 301, sub. IV, level, nearly 6 ft.' This second group therefore appears to quickly have been attributed to Level IV, presumably on the basis of the impressed tax stamps.

i. Travelling documents, travelling seals?

Both seals and documents are highly portable objects, and we cannot know for certain where documents were written and sealed. The seal-bearers involved must have gathered together to impress their seals, since in the summer heat of Mesopotamia clay bullae would have hardened quickly. Most sealed fiscal documents were written in the city in which they were subsequently archived, since tax stamps usually name this city. It appears that some documents were created in the vicinity of the Archive Building at Seleukeia-Tigris, since blank lumps of clay, probably for fashioning bullae, were found in the complex.⁷⁹⁷ Scribes are highly unlikely to have written texts inside the dark building itself, which suggests that they worked in the open space outside. Documents sealed by the *chreophylax* and fiscal officials at Uruk were almost certainly not written in the temples where they were archived. Unless the *chreophylax* and bearers of fiscal stamps were initiated into the priesthood, they are highly unlikely to have been able to enter the north-west courtyards of the Rēš (where many bullae were found), since these were associated with divine cellas.⁷⁹⁸ Therefore, these documents were probably written at the royal records office in the city.⁷⁹⁹ Some of the documents archived in Block G6 at Seleukeia-Tigris involved individuals active at the Archive Building. Again, these documents were probably created at the latter location and then carried the short distance to Block G6 by the residents of this insula.⁸⁰⁰ It is likely that documents relating to private business were created in the commercial districts of the various cities, as well as in local neighbourhoods.

A few documents and seal-bearers travelled more widely. This is clearest in the different city seals impressed on bullae found at Kedesh and in the attestations of a few seals both at Uruk and at Seleukeia, including the *chreophylax* seal **Se 1**, anchor and horse seals (such as **SU 2**), the *bybliophylax* seal **SU 20** and accompanying figurative seal **EKT 1/2**.⁸⁰¹ The last cuneiform slave sale tablet, on which **SU 2** is impressed, was certainly written in Uruk, since this is stated by the text.⁸⁰² **SU 2** also occurs on a bulla from Seleukeia-Tigris alongside the *katagraphē* stamp **SU 18**; it is probable that this was sealed in Seleukeia-Tigris, since *katagraphē* stamps are only attested in this city. Thus the bearer of **SU 2** travelled between Seleukeia-Tigris and Uruk.⁸⁰³ This seal belongs to the early stages of Seleukid

⁷⁹⁷ Invernizzi 1996: 134, and see p. 87.

⁷⁹⁸ On restrictions in access to temples in Hellenistic Uruk: Baker 2013b: 39; Corò 2014: 190. Restrictions on access to the priesthood, and to the physical space of temples, are discussed with regard to the Neo-Babylonian era by Waerzeggers and Jursa 2008: esp. 2-4, 22-23; Waerzeggers 2011: 64-66.

⁷⁹⁹ See pp. 20, 116.

⁸⁰⁰ This may suggest that the unusual jug (see n. 790) was not used for softening bitumen, although it is possible that other documents were sealed in the house.

⁸⁰¹ For references for seals known from two locations, see p. 87.

⁸⁰² BRM 2, 10 rev. 13'.

⁸⁰³ Messina 2005: 130-131, contra Lindström 2003: 60-61.

administration,⁸⁰⁴ and does not prove that travel by officials was subsequently common. As Lindström argues, it seems unlikely that frequent travel by officials would have been practical.⁸⁰⁵ A few bullae found at Uruk are impressed by *chreophylax* seals that were usually used in Seleukeia-Tigris; these were probably created in Seleukeia-Tigris and later transported by private individuals to Uruk, since this official's authority usually related to only one city. **SU 20** and **EKT 1/2** occur together on bullae from Seleukeia-Tigris and on a bulla from Uruk; here it is again more likely that the sealed document travelled, rather than both seal-bearers. Other instances are ambiguous; for example the occurrences of **Od 33** on bullae from both Uruk and Seleukeia-Tigris (without accompanying seals) may indicate the movement of the seal-bearer or the sealed documents.

The practicalities of the movements of documents and people in the Seleukid empire are poorly known.⁸⁰⁶ Presumably there was a system of messengers and royal roads by which officials could send documents and obtain provisions when travelling. Civic envoys and private individuals were certainly able to travel around the empire, but are unlikely to have been able to draw on such resources.

ii. Copying documents

Copies of some documents were made. Around 60 cuneiform texts from Hellenistic Uruk are known in more than one version, usually with slight variations in spelling but with the same seal impressions; these presumably belonged to different interested parties.⁸⁰⁷ A few cuneiform texts refer to Greek copies and to copies placed in the royal records office; these latter texts also mention temple registers, meaning that there were at least three versions of some transactions.⁸⁰⁸ The extant cuneiform version differed from the Greek copy or the version in the royal registry in terms of language.⁸⁰⁹ The registered version may also have been an abstract, rather than a full copy.⁸¹⁰ Documents which refer to royal and temple registers often relate to cases where there was a need to document the seller's right to transfer property,⁸¹¹ suggesting that such registration was a frequent occurrence, and that several copies often existed of legal transactions. Such copies were not necessarily produced

⁸⁰⁴ Wallenfels 2015: 61–62.

⁸⁰⁵ 2003: 60.

⁸⁰⁶ See p. 21.

⁸⁰⁷ Wallenfels 1994: 4–5.

⁸⁰⁸ Joannès 2012: 246–250. Joannès suggests that there were two temple registers, one in the treasury of Anu, and one in the temple of the gods of Uruk; it is however possible that the properties were registered as part of the 'property of Anu' in the temple of the gods of Uruk. Clancier has suggested that all Hellenistic cuneiform tablets are copies of leather originals, 2005: 90–93. But it is highly doubtful that all cuneiform documents are secondary records, and more probable that some individuals preferred to record their legal affairs (or at least, those relating to the temple) and scholarly works on clay tablets.

⁸⁰⁹ The administration in Uruk almost certainly used Greek or Aramaic, see p. 133.

⁸¹⁰ Registry rolls of abstracts are known from third century Egypt, Yiftach-Firanko 2008: 209.

⁸¹¹ See p. 116.

simultaneously; one cuneiform tablet states that it was created a month after the leather version.⁸¹²

Understanding the production of copies from bullae is more challenging. Wallenfels proposes that bullae bearing the same sets of impressions probably sealed identical documents,⁸¹³ speculating that *McDowell 1935, A1d(58)-(59)*, and *(66)-(69)* represent copies. However, it is unlikely that identical documents were stored in the same family archive. Copies of cuneiform tablets are found together in some Neo-Babylonian archives, but usually only one version is sealed, suggesting that the second version was created for scribal training or later archival purposes, perhaps relating to the division of property.⁸¹⁴ Therefore, bullae impressed by the same seals that are found together probably enclosed different documents which happened to involve the same individuals.⁸¹⁵ For comparison, the same scribes and witnesses reappear in documents relating to particular sellers in Hellenistic cuneiform texts from Uruk. For example, Doty notes that Ša-Anu-iššû/Nanâ-iddin//Ebabbar-šum-ibni wrote both NCBT 1971, in which Anu-uballit/Anu-zēr-iddin//Ekur-zakir is the buyer, and MLC 2188, in which Anu-uballit's wife is the buyer, and that Anu-aḥ-ittan/Lābāši//Aḥūtu witnessed both documents.⁸¹⁶

iii. Conclusions

The documents enclosed by bullae were usually created in the locality of their final destination, but at times they may have been created by a seal-bearer far from home, or with the intent of being sent to a different city. The actual space where documents were written cannot be identified with certainty, although suggestions can be made on the basis of, for example, knowledge about the restrictions in access to Mesopotamian temples. Although more than one version of a document could be created, it seems probable that such 'copies' often contained slight differences, including in language and perhaps in the level of detail. Bullae with identical sets of impressions cannot be assumed to have sealed identical documents.

⁸¹² Clancier 2005: 88.

⁸¹³ 2000: 340.

⁸¹⁴ Baker 2003: 246; 2004: 13.

⁸¹⁵ Criscuolo argues that the production of copies in administrative archives may have been quite frequent and widespread, 2013: esp. 254-255. It however remains unlikely that such an archive often housed several sealed, identical copies of a document.

⁸¹⁶ 2012: 6-8.

4. Placing documents in the archives

i. Controlling the archives

Although archives are often characterised as ‘private’ or ‘public’,⁸¹⁷ greater nuance is needed, since documents of personal importance were on occasion stored within institutional buildings, while conversely an individual might store texts relating to his personal affairs and his official position together.⁸¹⁸ Moreover, it is not always clear whether a space should be regarded as public (or institutional) or private. In particular, Baker has shown that priestly families owned rooms within the Hellenistic temples of Uruk.⁸¹⁹ Rather than categorising the archive as ‘private’ or ‘public’, I will consider who is likely to have had access to the documents and who decided what to archive.

Local officials lived in the palatial complexes at Kedesh and Jebel Khalid. It is probable that access to the buildings, and to the stored documents, was heavily restricted. Both complexes were part of an imposing display of imperial power. At Jebel Khalid the double-walling of the acropolis emphasised the separation of this space from the wider settlement. The bullae were found towards the rear of the Governor’s Palace; thus these sealed documents were firmly under the governor’s control. Likewise, at Kedesh, the Persian-Hellenistic Administrative Building was a large, visually-impressive structure,⁸²⁰ and the archive room situated away from the entrance to the building.⁸²¹ It seems that the officials in charge of the complex could choose which documents to store and who could access them.

Invernizzi characterises the Archive Building as a public archive, for the people of Seleukeia-Tigris:

‘It may be termed a public, city archive... in the sense that it did not belong to a private or religious institution, but was accessible to members of the entire community of citizens who wished or needed to preserve their documents, or copies of them, in it.’⁸²²

This description implies that local inhabitants were able to choose which documents to store, and to access them at will. However, the dominance of impressions of tax stamps and of a very few figurative seals indicates that documents in this building typically involved officials. Moreover, the presumed position of the entrances suggests that access was heavily restricted,⁸²³ while the logic to the locations of documents within the building⁸²⁴ suggests that only a few individuals decided where to file documents. Consequently, citizens of

⁸¹⁷ For example, Plantzos 1999: 32; Messina 2007: 197; Lesperance 2010: 43; Herbert 2013: 211.

⁸¹⁸ Brosius 2003a: 11–12; Davies 2003: 330; Vandorpe 2008: 160–161; Depauw 2013: 261–262.

⁸¹⁹ 2013b: esp. 25.

⁸²⁰ Berlin and Herbert 2012: 28–29; 2013: 377–379.

⁸²¹ <https://sites.lsa.umich.edu/telkedesh/research-questions/finding-the-entrance/> accessed 25-04-2016.

⁸²² 2003: 314, followed by Capdetrey 2006a: 112.

⁸²³ See p. 83.

⁸²⁴ See pp. 99, 170.

Seleukeia-Tigris almost certainly had to access the complex via local officials. The tax stamps indicate that these officials were indeed part of the royal administration, and imply that the entire complex should be conceptualised as being managed by royal officials. This interpretation is supported by the fact that at Uruk, Babylon and Sardeis records offices are referred to as 'royal', emphasising that these complexes were regarded as belonging to the royal, not civic, sphere.

At the royal records office at Uruk and the Archive Building at Seleukeia-Tigris, certain documents, including slave sales, had to be registered, while the registration of others was perhaps optional. In the Archive Building there is one impression that may be a *chreophylax* seal from Uruk, **At 48**. However, no inscription can be identified on it, and no further impressions can be positively identified as seals of royal officials from other cities. This implies that there were restrictions, whether formal or implicit, on the types of documents that could be placed in the complex. Whereas members of the temple elite at Uruk could place documents sealed at Seleukeia-Tigris in the temples, if a citizen of Seleukeia-Tigris registered a slave sale at, for example, Antioch-Orontes or Babylon, it seems that they could not deposit this document in the Archive Building at Seleukeia-Tigris. The dominance of salt stamp impressions also suggests that there were restrictions on the types of documents housed in this Building. Therefore, the Archive Building was concerned primarily with documenting local affairs from the administration's perspective.

Despite the building's inaccessibility, it is probable that most local inhabitants had some awareness of the documents archived there. Moreover, its size and location meant that the Archive Building was an imposing presence in the city,⁸²⁵ which many people will have seen as they went about their daily lives. Its size may have been partially intended to assert royal power, rather than reflecting the practical needs of the administration, since the archive from Delos demonstrates that large numbers of documents could be fitted into a considerably smaller space.⁸²⁶ Thus the Archive Building provided a means by which royal power was both integrated into civic life and loomed over it.

By contrast, Archives A and B in Block G6 represent collections of documents stored by families in a domestic setting. The householders were able to choose to store documents that mattered to them, and could consult them and move them to other locations at their leisure. It is highly probable that most families who owned land and property in Seleukeia-

⁸²⁵ Coqueugniot 2013: 44. Its size and location are sufficiently impressive that Hopkins thought it might be the palace, as he states in his journal ('Journal, Oct-Dec 1936', Nov. 1st) and also hints at, 1937: 30.

⁸²⁶ Alternatively, the building may have had other functions, now lost to us; however there is no archaeological evidence for further uses.

Tigris (and elsewhere) had similar archives, documenting their business dealings and recording occasional interactions with the royal administration.

The cuneiform tablets found in the Urukian temples belonged to individuals who were members of the temple elite, whose status enabled access to the temple precinct.⁸²⁷ The sealed leather documents almost certainly belonged to the same group. Thus there were restrictions on access to these archives, but they were ones that related to the more general limitations on entry to the temples. Although the Rēš and Irigal temples dominated the city landscape, most inhabitants (and the royal officials) may not have been aware of the documents they contained.⁸²⁸ The cuneiform legal documents relate primarily to individuals' involvement in temple affairs, such as the sale of prebends and of urban properties relating to the temple.⁸²⁹ These concerns suggest that the documents were not placed here simply for safe-guarding or registration,⁸³⁰ or because the temple was an extension of the home for the priestly families, but because of this connection with temple matters. It is possible that the documents sealed by bullae were concerned with similar matters, including those sealed by royal officials. As has been stressed, the temples were not exclusively cuneiform environments, and transactions involving temple prebends and land could be subject to royal registration.

In conclusion, private individuals were able to access at their leisure the documents that they stored in the temples at Uruk and Block G6 at Seleukeia-Tigris, while officials appear to have mediated access to documents in the Governor's Palace at Jebel Khalid, the Administrative Building at Kedesh and the Archive Building at Seleukeia-Tigris. References in cuneiform tablets demonstrate that a private individual could refer to a document in a royal register if need arose. Nonetheless the designation of archives as 'royal', and the scale and centrality of the buildings involved, suggests that this registration and taxation should be understood as one way in which the Seleukid empire exerted power over local communities.

ii. Archival furnishings

Examining the storage of documents enables us to consider the practicalities of working with documents, and once more to explore whether there were significant differences between archives controlled by officials and those in residential and temple settings.

Most archival spaces in the Seleukid empire had shelves and chests, but no more specialist furnishings. Charcoal and nails were found amongst the bullae in the Archive Building, and palm wood in Room 90 of Bit Rēš, suggesting that documents were placed on shelves in

⁸²⁷ See p. 161.

⁸²⁸ Robson 2013: 56.

⁸²⁹ Joannès 2012: 249.

⁸³⁰ As discussed by Corò 2014: 190; Jursa 2005: 140.

these rooms,⁸³¹ while those in Archive B appear to have been stored in chests.⁸³² Other containers, such as baskets or cloth wrappings, are unlikely to have left archaeological traces. However, in a few cases such containers have left impressions on the obverses of bullae. Parallel lines are visible on some specimens, the reverses of which have the usual impression of leather. Therefore, these marks were not caused by the writing material but by a wrapping or container, perhaps reed baskets. These bullae are not all impressed by a specific seal or type of seal, nor all found at one site (Figures 6.3-6.5 and Table 6.1), suggesting a consensus about appropriate ways to store documents across Hellenistic Babylonia. An impression of what appears to be textiles also occurs towards the bottom of S6-868 (Figure 6.6), although this may have occurred when sealing, not storing, the document. It therefore looks as if documents were typically stored on shelves, sometimes in baskets and other containers.

Similarly minimal infrastructure is also found in other Hellenistic archives.⁸³³ For example, documents in Thesprotia seem to have been placed in a large pithos and perhaps a wooden box, while some may have been on shelves,⁸³⁴ and in Edfu, the documents were apparently found in a large jar.⁸³⁵ Likewise, in the house on Delos, documents appear to have been placed in chests or on shelves.⁸³⁶ By contrast, the *chreophylakion* at Dura had a durable series of mud-brick pigeonholes, with labels inscribed. Other pigeonhole systems may however have been made of wood, rendering them invisible to us.⁸³⁷

iii. The use of space

The Akkadian contracts that refer to royal registration do not offer details concerning how documents were filed in these archives. They typically state only the individual in whose name the property had been registered, and do not give further details, such as the date on which this occurred.⁸³⁸ The bullae themselves do offer some hints. For certain excavations,

⁸³¹ Invernizzi 1968a: 73; Lindström 2003: 69; Messina 2006c: 55–56.

⁸³² See p. 159.

⁸³³ Coqueugniot surveys furnishings associated with Hellenistic archives, 2013: 47–53.

⁸³⁴ Preka-Alexandri 1996: 196–197.

⁸³⁵ Milne 1916: 87. There is some doubt about this, since the documents were discovered by clandestine diggers. Storage jars were certainly used for a number of cuneiform archives, Pedersén 1998: 243. However, there is no evidence that Seleukid bullae were found in such containers.

⁸³⁶ Boussac 1988: 310; 1993: 678.

⁸³⁷ As suggested by Hopkins for Archive B, primarily because the platforms at the edges of Room 16 are of a similar size to the benches at Dura's *chreophylakion*. He further proposes that the bronze cylinders found here relate to a ladder, presumably (and rather implausibly, given the quantities of bullae discovered) envisaging a very high system of pigeonholes, 1972: 44–45. Pigeonholes were used for storing cuneiform texts, for example in the first-millennium Šamaš temple at Sippar and Nabû temple at Dur-Šarrukin, Pedersén 1998: 193–194, 155–158.

⁸³⁸ CM 12, 7, obv. 5-8, for example reads 'with regard to the rations that are recorded under the name of Šapik, son of Anu-ah-ušabši, and Nanaya-iddin, son of Kidin-Anu, under the property of Anu in the temple of the gods of Uruk (and) in the record office', '<ina> muḥḥi kurummat ša šumišu ša Šapik ša māri ša Anu-ah-ušabši u Nanaya-iddin māri ša Kidin-Anu ina makkūr Anu ina bīt ilī ša Uruk ina bīt šaṭāri šaṭratta'.

such as that of Block G6, insufficient information was recorded about the precise find-spots of bullae to identify patterns.⁸³⁹ In other cases, more detailed information enables the rationale behind documents' locations to be explored. For example, at Delos bullae impressed by the same seal were often found together, while at Cyrene bullae were grouped according to the number of impressions, suggesting that they were filed by document type.⁸⁴⁰ Here I focus on the locations of bullae within the Rēš temple and the Archive Building.

a. The use of space in the temples of Uruk

Bullae were found in different rooms within the Rēš and Irigal temples, suggesting that they represent several archives. Lindström argues that several rooms in the Rēš temple included documents belonging both to a variety of private individuals and to the temple administration.⁸⁴¹ She considers that flat bullae sealed only by *chreophylax*, *bybliophylax* and royal portrait seals and by seals with dynastic motifs enclosed official decrees, which she argues only the temple authority would have received. However, flat bullae sealed by such seals are also found in Block G6 at Seleukeia. Moreover, only a very few of the cuneiform texts relate to temple administration;⁸⁴² most record individuals' rights to prebends and urban property. Tablets and bullae were found together in some rooms, and it is unlikely that the contents of the two document types differed significantly. Consequently, it is improbable that many (if any) of the sealed leather documents were part of archives belonging to the temple administration, although they may nonetheless have concerned matters relating to the temple.

Lindström stresses the heterogeneity of bullae in the different rooms of Rēš and Irigal, emphasising the mix of forms of bullae found within each room, and that the impressed tax stamps often span several decades. She interprets only the documents from the north-west gate of the Irigal as a family archive, belonging to the prebendary gate-keeper Dumqi-Anu,

⁸³⁹ The only published information on the find-spots of the bullae is that given by McDowell, who identifies bullae as belonging to Archive A or B, or as found elsewhere (1935: 15–24). Matching McDowell's account with the *Seleucia Excavation Records* is difficult because McDowell renumbered the bullae that he published, and their field numbers are now lost. It is nonetheless sometimes possible. For example D04136, listed as found in 'G6 I R. 38' and described as a 'Seal impression, draped female winged figure (?), clay', must be McDowell 1935, AIIb(4), since this is impressed by a Nike seal, and noted as found in Level I of Room 38. D04259, found in 'G6 I R. 260, 120 cm. deep', and described as 'Sealing, square, man's head r. and monogram, bitumen' must be McDowell 1935, AIIb(15), listed by McDowell as found in Level II of Room 260. These identifications demonstrate that McDowell's account of the find-spots contains the majority of information recorded by the *Seleucia Excavation Records*.

The excavation journals of Waterman and Hopkins do not offer more detailed information. For example, the bullae found in Room 301 are noted by Waterman simply as '[No.] 6) mass of seal signet impressions 301 – possibly 4th level', 'Excavation Journal, Dec. 1, 1929 to Jan. 16, 1930', Friday Jan. 10th. Hopkins never notes the discovery of bullae in 'Journal, Oct-Dec 1936'.

⁸⁴⁰ Boussac 1988: 309–312.

⁸⁴¹ 2003: 68–69.

⁸⁴² Beaulieu 1989.

on the basis of the tablets' contents.⁸⁴³ It is worth noting that the bullae would not have been identified as a family archive without the tablets, since seals do not frequently recur on these.⁸⁴⁴

In Rooms 29c and 29d were discovered large collections of tablets, and some napkin-ring bullae. Dossiers relating to families can be distinguished among these tablets, but they are not family archives.⁸⁴⁵ Among the bullae there is one impressed by a salt stamp, a few impressed by *chreophylax* seals and others impressed only by figurative seals. Thus, as Lindström argues, it seems preferable to understand the sealed leather documents as deposited there by several families, like the tablets. Dossiers are perhaps visible among the bullae also, since a few seals recur on more than one bulla found in these rooms.⁸⁴⁶

However, certain forms of bullae and types of seal impressions are concentrated in some rooms. In Room 90 of Bīt Rēš almost 50 napkin-ring bullae were found, again including a few impressed by tax stamps and *chreophylax* seals, and 24 flat bullae sealed by a *bybliophylax* seal, various *chreophylax* seals, an anchor seal, and royal portrait seals.⁸⁴⁷ By contrast, Room 89 of Bīt Rēš contained over 60 napkin-ring bullae, some with the involvement of tax officials and the *chreophylax*, and only three flat bullae, impressed by a royal portrait seal and *chreophylax* and *bybliophylax* seals.⁸⁴⁸ Thus the *chreophylakes* and bearers of royal portrait seals were unusually frequently involved in the bullae placed in Room 90. Such royal portrait seals could be adopted by members of the temple elite, as demonstrated by Diophantos' use of one in 163.⁸⁴⁹ An earlier cuneiform text refers to Diophantos, who then held the post of *rab ša rēš āli ša Uruk*, writing a parchment letter concerning the delegation of the assignment of *bīt ritti* properties; this offers an indication of the possible nature of sealed leather documents.⁸⁵⁰ Room 90 may have been used as an archival space largely by such elite individuals, or have been considered particularly appropriate for filing documents sealed by the *chreophylakes* and bearers of royal portrait seals. Both Rooms 90 and 89 also seem to have been particularly associated with leather documents, not cuneiform tablets; in Room 89 two unpublished fragments of cuneiform texts were discovered, and in Room 90 only one tablet.

⁸⁴³ Lindström 2003: 72–74; Oelsner 1996: 108.

⁸⁴⁴ Lindström 2003: 200, Table 9. The bullae are all napkin-rings, just one of which is impressed by a *chreophylax* seal, Lindström 2003: 74.

⁸⁴⁵ Baker 2013b: 40 and n. 77.

⁸⁴⁶ Lindström 2003: 199–200, Table 9.

⁸⁴⁷ Lindström 2003: 207.

⁸⁴⁸ Lindström 2003: 207.

⁸⁴⁹ See p. 49.

⁸⁵⁰ BM 114408, Corò Capitanio 2012: esp. 153–155. The *bīt ritti* system is not fully understood; the temple assigned tracts of land designated as such to individuals, perhaps in relation to new housing projects, Corò Capitanio 2012: 155–156; Baker 2005: 30–36.

Where the 27 bullae in the Yale Babylonian Collection that are from Uruk were discovered is unknown. However, many seals recur on these bullae,⁸⁵¹ suggesting that they form a coherent group, probably a family archive. This collection of documents may, like that of Dumqi-Anu, nonetheless have been stored within a temple.

In conclusion, the bullae of the Yale Babylonian Collection and those found together with the tablets of Dumqi-Anu probably enclosed leather documents belonging to particular families. The latter assemblage was certainly stored in a temple. Other groups of bullae found in the temples do not seem to belong to particular families. It appears nonetheless that conventions governed where documents were placed, although it is unclear whether these related to the individuals involved, or to the nature of documents.

b. The use of space at the Archive Building

It is possible to reconstruct where documents sealed by frequently-attested figurative seals were stored in the Archive Building, at the level of rooms.⁸⁵² Impressions of tax stamps are also concentrated in particular rooms. Bullae impressed by the non-salt tax stamps are predominantly found in Room 9, while salt bullae are distributed between Room 2, 4, 5 and 6, with impressions of each stamp usually in a single room (Graphs 6.1-6.6). Likewise, impressions of official seals are typically concentrated in a single room (Graph 6.7).⁸⁵³ As was argued in connection with figurative seals, it is probable that small quantities of impressions found separately from the main group have become accidentally separated. However where large percentages of impressions of a seal are found in two rooms, it is probable that the documents were intentionally archived in two spaces. It is certainly true that the sheer number of documents, the apparent darkness of the complex, and the fact that many seals had similar motifs, make archiving and retrieving documents seem difficult. Nonetheless, the space was clearly sufficiently usable for individuals to be able to choose to store groups of documents together.

Is it possible to reconstruct smaller groups within rooms, representing documents stored together on shelves? The bullae have certainly been disturbed, as is demonstrated by the fact that a few impressions of a particular seal have often become separated from the main body of impressions of that seal. Messina nonetheless argues that small groups of bullae that were archived together can be identified on the basis of find-spots.⁸⁵⁴ However, this is not supported by examination of the distribution of bullae.

⁸⁵¹ See p. 73.

⁸⁵² See p. 99.

⁸⁵³ Messina and Mollo note that impressions of **SU 20** and **SU 23** are distributed between several rooms, 2004: vol. I, 27. However, only a very few impressions of these seals are known; for example, just four impressions of **SU 23** were found in Room 1 and four in Room 2, and fewer specimens elsewhere. The significance of this distribution is therefore uncertain.

⁸⁵⁴ Messina 2002: esp. 9.

It is tempting to argue that the distribution of bullae in Room 5 reflects meaningful groups. Here bullae were predominantly found along the west wall, while some were in the centre of the room and others on the east side. Bullae from the **TM 58** group were predominantly found towards the southern end of the west wall, and salt bullae sealed by an **M 59** group at the northern end of this wall (Table 6.2).⁸⁵⁵ Towards the centre of this west wall salt bullae from 194/3 and 155/4 were found, while salt bullae from the late third century were distributed towards the southern end of this wall, together with the **TM 58** bullae. This distribution could be regarded as showing the remnants of groups that had been stored together. It is interesting that the **TM 58** bullae were found alongside early salt bullae, since it was suggested that they might date to the late third century,⁸⁵⁶ although it is baffling as to why salt bullae from 194/3 and 155/4 would be stored together.

However, such groups cannot be observed in other rooms. Bullae found by the west wall in Room 3 include specimens impressed by seals from the **Gn 3** group and the frequently-attested seals **M 17** and **M 230**, as well as by rare seals (Table 6.3), while the few bullae by the east wall are predominantly impressed by rarely-attested seals. But very few bullae were found by the east wall, making the significance of this uncertain. In Rooms 2 and 4, larger quantities of bullae were found, among which several groups of seal-bearers are represented, yet it is not possible to identify the remnants of meaningful groups from the find-spots of bullae. In Room 2, bullae from both the **M 59** and **Ek 1** groups, as well as salt bullae, were found intermingled along both east and west walls (Table 6.4). In Room 4, bullae impressed by the pair **M 73** and **Nb 1** are found along the east and west walls and in the centre of the room, as are bullae impressed by the **At 39** salt-group; other salt bullae are also scattered around the room (Table 6.5). Therefore, patterns cannot generally be identified at this level.

It is not unexpected that the impressed seals were important in determining where a document was stored in the Archive Building. However, if we flip the question to consider which seals the different rooms contained, the rationale behind the filing system becomes considerably more confusing. The discovery of *chreophylax* and *katagraphē* bullae in the southern suite, and of salt bullae in the northern rooms, suggests that there was a concern to house related documents together. It is also possible to offer broad characterisations of the documents stored in some rooms: Room 9 is convincingly associated with napkin-ring bullae (some relating to the *chreophylakes*) and Room 6 appears to have been predominantly concerned with the salt tax. However, Room 5 contains a mixture of bullae impressed by salt stamps, the **TM 58** group, and frequently-attested, but isolated seals.

⁸⁵⁵ For the location of areas within the rooms, see Messina 2002: 38. Seals are ordered in Tables 6.3-5 to facilitate comparison with Tables 4.1-17.

⁸⁵⁶ See p. 111.

Moreover, it is not the case that consecutive rooms were associated with the salt tax, and others with groups of figurative seals. Rather, Rooms 2, 4, 5 and 6 all contain considerable quantities of impressions of salt stamps, but, except for Room 6, contain considerable quantities of impressions of other seals too. In particular, in Rooms 2 and 5 were found a number of napkin-ring bullae, which were not associated with salt stamps at the Archive Building. Therefore, the northern suite contained documents relating to the salt tax and a wide variety of other documents.

Despite their distribution across non-consecutive rooms, one might expect bullae impressed by salt stamps nevertheless to have been stored in chronological order, perhaps with *atelōn* and *epitelōn* examples separated. This, however, was not the case. For instance, as Graphs 6.3-6.4 demonstrate, most *epitelōn* and *atelōn* salt documents from 198/7-190/89 were found together in Room 4, but a third of *atelōn* impressions from 194/3 were in Room 6. Most *epitelōn* impressions from 202/1-200/199 were found in Room 2, while their *atelōn* counterparts were mostly in Rooms 5 and 6. Archive users may have had additional clues to guide them as to the contents of particular shelves, such as labels attached to baskets or texts inscribed on shelves. Even so, it seems that individuals either had to know, or be told, where to look for salt documents from a particular year, or would have needed to spend a considerable amount of time hunting along the shelves.

Whether a salt bulla was also impressed by a figurative seal does not seem to have affected where it was stored. For example 65% of bullae impressed only by **Alk 28** (209/8, *atelōn*) were found in Room 2 and 33% in Room 4, while 55% of bullae impressed by **Alk 28** and at least one figurative seal were found in Room 2 and 40% in Room 4 (Table 6.6). Similarly, bullae impressed only by **Alk 43** (201/0, *atelōn*) and those impressed by **Alk 43** and a figurative seal were both predominantly found in Rooms 2 and 5 (Table 6.7). Replacement seals also did not influence where a document was placed.⁸⁵⁷ Therefore, the seals which co-occur with tax stamps appear not to have influenced where sealed documents were subsequently stored.

Given the concentration of impressions in particular rooms, it is not possible to argue that the bullae were greatly disturbed. It is also unlikely that the apparent lack of logic is due to chaotic movements of documents within the building prior to its destruction, since this would require large quantities of documents to have been moved between a few rooms without any apparent aim. Rather, the find-spots are likely to reflect, in general, where

⁸⁵⁷ Salt documents from 182/1 were found in Room 5 and 6, whether sealed by **TM 220** or **Ani 156**. Salt documents from 180/79 sealed by **Tk 36** were discovered in Room 6 (or out of context), while the few bullae sealed by the replacement seals **Mn 6** and **Ap 14** were found in Rooms 4 and 5 respectively. However the quantities involved are so small that this may be due to the disturbance of the complex, and is not proof that these were archived differently.

documents were stored during the archive's operation. Moreover, it is possible to discern traces of an organisational system. Graphs 6.1-6.6 demonstrate that the date was usually more important than the tax type in determining the location of a salt document. Early salt documents were mostly stored in Rooms 4 and 5, with a few from 211/10-208/7 in Room 2 (Graphs 6.1-6.2), where many documents from the turn of the second century were also placed (Graphs 6.3-6.4). Documents from 198/7 onwards were stored in Room 4. Many from 189/8 were placed in Room 2 (Graphs 6.5-6.6), after which they were generally located in Room 6. The very late salt documents from 154/4 were however again placed in Rooms 4 and 5. In years for which *epitelōn* and *atelōn* documents were mostly found in different rooms, connections can sometimes still be seen. For example, most *epitelōn* impressions from 183/2 were in Room 2. 86% of *atelōn* impressions from this year were found in Room 6, but 8% are together with their *epitelōn* counterparts in Room 2. The location of earlier documents is also more varied than those of later years. Perhaps the former documents had been subject to greater movement over their many decades in the archive, or perhaps the motivations behind retaining these particular documents affected where they were stored. Thus, some conventions are detectable; it is also apparent that at certain moments, individuals decided to store documents in new spaces.

Documents in other archives, such as at the *chreophylakion* at Dura, were also kept for many decades, but at Dura the chronological filing system facilitated consultation.⁸⁵⁸ At the Archive Building at Seleukeia-Tigris there was apparently never an effort to move all early documents into the same space. Later users of the complex must have accepted that they would work around older documents. While durable, leather does deteriorate over time and ink fades.⁸⁵⁹ Therefore, the mid-third-century documents in the Archive Building may in fact have been illegible by the time of the archive's destruction. It is possible that some old documents were retained as having a symbolic importance; alternatively, their retention could be simply due to a failure to remove obsolete documents.

This lack of clear logic to the use of space means that cases where impressions of seals were archived in two rooms, as occurs with impressions of **Od 15** (Rooms 1 and 4) and **ApT 33** (Rooms 3 and 4), cannot be taken as evidence that their bearer occupied two roles within the administration, or sealed different types of document. It also means that the space in which impressions of a seal were found cannot be used to determine the status or responsibilities of an official. For example, while it is possible that the napkin-ring bullae sealed by the **At 180** group in Room 9 were associated with the napkin-ring bullae sealed

⁸⁵⁸ Brown 1944: 168–176.

⁸⁵⁹ Woods 2006: 204–205. However, Houston suggests that Roman literary manuscripts might last one or two centuries, 2014: 120–121, 174–176.

by the *chreophylakes*, also placed in Room 9, the variety of documents in Room 5, in particular, emphasise that this is far from a certain interpretation.

To conclude, the use of space in the Archive Building does not fit our expectations of what would be logical, namely groups of rooms arranged thematically, and fiscal documents placed sequentially. The reality is far more complex. It is clear that 'rules' governed where documents were housed, but, beyond the evident concern for keeping together documents sealed by a particular individual, these 'rules' are not easily understood. It is unlikely that this is entirely due to our heavily-filtered perspective on the material. It seems that there were moments at which it was decided that it was best, or easiest, to start storing particular documents in new spaces, without first removing all of the older ones, creating a complicated logic to the locations of documents. No space was reserved for documents of a particular type, or belonging to a certain group of officials, suggesting that there may have been tensions among officials regarding where to store documents. Regardless of the use of labels, any new official entering the complex for the first time would presumably have needed a guide to explain where to find documents.

c. Conclusions

The inhabitants of Block G6 probably applied some organisational principles to their documents, perhaps using chests to group them thematically, but these are now lost to us. With larger collections of documents, it is often apparent that bullae sealed by an individual were stored together, and sometimes possible to identify general themes behind the documents stored in particular rooms. It is not, however, usually possible to identify small groups of documents, representing the contents of shelves. Nor does it seem possible fully to understand the rationale behind the grouping of apparently disparate documents in the rooms of the Rēš temple or the Archive Building. The hints of logic that we glimpse suggest that our bafflement is partially because we are trying to reconstruct archival organisation from only seal impressions, but it also appears that overarching rules did not govern the locations of documents at the Archive Building. One document in the royal register at Babylon could not be located,⁸⁶⁰ indicating that there were indeed at times difficulties in managing archived material.

5. Using the archives

Documents are often archived to enable their future consultation, or at least to create the illusion that this could happen. Such consultation is envisaged by references in cuneiform tablets to royal records at Uruk. Alternatively, there might be an intention to extract information from the text at a specific future point, for example to calculate income

⁸⁶⁰ See p. 117.

received.⁸⁶¹ A text might be removed from an archive following consultation or, for example, on the payment of a debt or fulfilment of a contract, or simply when a new official was appointed to a post. Documents were not stored indefinitely in the ancient world; waste paper from scribal offices was recycled as cartonnage in Ptolemaic Egypt. Documents in an archive at the time of its destruction might be awaiting processing, or be stored because future consultation was still envisaged; others might have remained because of bureaucratic failures to remove texts.⁸⁶²

It is difficult to recognise from surviving bullae if documents were consulted or removed from the various archives while they were operational. Unsealed texts, such as unsealed registry rolls, are invisible to us; consultation of such records in royal complexes may be implied by references in cuneiform documents, but is otherwise irrecoverable. Bullae that sealed double documents and bullae that sealed single-version documents cannot easily be distinguished.⁸⁶³ Consultation of the exterior text of a double document is again invisible to us. Opening a single-version document probably led to that bulla breaking;⁸⁶⁴ thus consultation will mean that the bulla is no longer present in an archive. Removal of a sealed document because it was obsolete or because it was required elsewhere will also have led to the removal of a bulla from the archive. Thus distinguishing the reasons behind the absence of bullae is problematic. Recognising the absence of bullae is in itself challenging, since it is impossible to ascertain which sealed documents were originally stored in an archive. For instance, there is no way to determine whether Archive B at Block G6 had ever contained salt documents from the 190s and earlier, perhaps later removed as obsolete, if Archive A once housed further napkin-ring bullae impressed by a *chreophylax* seal, possibly broken open to consult the enclosed text, or if further napkin-ring bullae had once been placed in Room 29c of Bit Rěš, perhaps taken by their owner to his home. However, the surviving quantities of different types of seals in the larger Archive Building offer some hints regarding the removal of sealed documents.

The removal of sealed documents from the Archive Building is suggested firstly by the fact that the number of bullae found in the different rooms varies considerably (Graph 3.1). Secondly, very few surviving bullae are impressed by *chreophylax* and *bybliophylax* seals, or by tax stamps other than the salt stamp. Salt bullae from the period 179/8-159/8 are now missing, although the bullae from Block G6 indicate that they were created, as are many salt

⁸⁶¹ For example, composite records were created from salt-tax and logeitic registers in Ptolemaic Egypt, Clarysse and Thompson 2006: vol. 2, 350–356. Similarly, documents sent to Persepolis were used to draw up summary accounts of goods received and distributed, Brosius 2003b: 265–266.

⁸⁶² Such bureaucratic failure seems to lie behind the archiving in their current form of the Persepolis Fortification Texts: Henkelman 2008: 136–138, 172–177.

⁸⁶³ See p. 34.

⁸⁶⁴ See p. 58.

bullae from before 216/5, although the sporadic impressions of earlier salt stamps at the Archive Building imply that they also were once archived there. In addition, as discussed in Chapter 4, it is probable that many bullae sealed only by figurative seals have been removed. Some of these absences may be due to disturbances caused by later building work.⁸⁶⁵ However, the almost entirely empty southern suite, and the complete absence of *chreophylax* documents from the second century and of salt documents from the 170s and 160s suggests that many documents were deliberately removed.

The absence of the later salt documents suggests that these were removed on a large scale towards the end of the building's life, perhaps for safeguarding elsewhere. The speed at which this removal occurred is unclear, as is the extent to which it affected documents other than the salt documents. The find-spots of the remaining bullae indicates that this was undertaken with systematic thought; those responsible did not, for example, grab all the documents from Room 1 first. The extant bullae therefore do not provide a 'freeze-frame' of the archive's normal operation, but rather represent documents that were *not* selected for this final removal.

What about the removal of material during the archive's routine operation? Only a few extant tax stamps date to the third century, implying that an effort had been made to remove most early tax documents while the archive was functioning. It is rare for more than one impression of a *katagraphē*, *andrapodikē* or thirtieth stamp to survive, and, with the exception of *epitelōn* bullae from 231/0, most salt stamps from before 216/5 survive in only one impression. It is possible that the removal of early tax documents was undertaken carelessly, with a few specimens omitted. Alternatively, there might be a connection between these early tax documents that we are not now able to fully recognise. It could be, for example, that they relate to a certain group of people, or were the personal documents of an official.⁸⁶⁶

As Graphs 6.8-6.9 show, the number of surviving impressions of salt stamps varies greatly over the well-represented period 216/5-180/79; some stamps are impressed on very few surviving bullae, and others on hundreds of specimens. There is no chronological trend to this,⁸⁶⁷ and nor can any periodic pattern be detected. It seems unlikely that the small number of extant impressions of some stamps relates to the final clearing of the building, since the complete absence of impressions dating from 179/8-159/8 suggests that this was undertaken systematically. It is also unlikely that in some years a salt stamp was produced

⁸⁶⁵ The disruption caused by such building work is stressed by Invernizzi 1970: 22. However, Messina suggests it had a minimal effect, 2002: 8.

⁸⁶⁶ See n. 616.

⁸⁶⁷ The R² value for both trendlines is only 0.0011 (0 would mean that there is no correlation, 1 would mean perfect correlation).

with the intention of archiving a handful of documents and in other years many hundreds of documents.⁸⁶⁸ The quantities of impressions do not relate to the rooms in which documents were stored; for example, the *epitelōn* bullae from 187/6-183/2 were all stored in Room 6 of the Archive Building, but are now known in vastly different quantities. The rapid changes in the number of surviving bullae also demonstrate that the different numbers cannot solely be the result of differences in who paid taxes, since this would imply dramatic changes in demands or population. Could the changing quantities reflect wider political and military events? For instance, years for which very few salt bullae survive might relate to years when amnesties were granted on tax demands, resulting in fewer documents being produced. But, while we could link the very few impressions of salt stamps dating to 188/7 to Seleukos IV's accession, there is no similar explanation for the small quantities known from 196/5 and 195/4, or 206/5-202/1.

However, there is not a normal distribution to the number of extant impressions of each stamp, as we would expect if approximately the same number of salt documents had been sealed each year and then undergone a similar level of removal (Graphs 6.10-6.12). Instead, there are a few stamps for which over 500 impressions survive, which suggests that they were impressed on an unusually large number of bullae; then a group known in 301-500 impressions, which suggests that fewer bullae were sealed by these stamps; a group for which 51-300 impressions survive, which suggests that many bullae impressed by these stamps were removed from the building; and a final group of stamps that survive in 50 or fewer impressions, whose bullae must largely have been removed.⁸⁶⁹ In the absence of other explanations, it seems probable that these varying quantities of surviving impressions arise from the internal affairs of this administrative complex, and perhaps simply from the fluctuating appetite for clearing out old documents. This removal of documents means that it is not possible to reconstruct the proportions of bullae that were originally impressed by *epitelōn* and by *atelōn* stamps.⁸⁷⁰ The surviving quantities however suggest that typically more bullae were impressed by *epitelōn* stamps.

The variations in the numbers of extant impressions of stamps demonstrate that salt documents were retrieved during the normal operation of the archive, either for consultation or simply for removal; again, the complex emerges as a functioning archive. A general effort seems to have been made during the second century to remove obsolete third-century material, and towards the end of the archive's life to remove recent material. There

⁸⁶⁸ Postulating the existence of a second archive, used sporadically to house salt documents, seems far-fetched.

⁸⁶⁹ Graph 6.10 includes both *atelōn* and *epitelōn* stamps; separating *atelōn* and *epitelōn* stamps produces broadly similar groupings (Graphs 6.11-6.12); it is notable that stamps known in exceptionally high numbers of extant impressions are *epitelōn* examples.

⁸⁷⁰ Contra Mollo 1996: 149, 155.

was also occasionally either greater need to retrieve documents relating to the salt tax, or perhaps greater enthusiasm for sorting these documents. It is harder to trace whether other documents were also removed, but no reason to assume that this did not occur. Therefore, it appears that there was some concern for managing archived material, but overhauls of documents seem to have been sporadic at best.

In conclusion, the various collections of documents can be deemed to have been functioning archives in the sense that documents could be, and were, retrieved for later use. In the case of the smaller collections housed in residential and temple settings, it is not possible to trace such retrievals, but there is no reason to doubt that they occurred. Some remaining documents may have still had a practical significance, but others may have been kept simply out of a sense that documents sealed by royal officials should be retained, or because of a failure to remove obsolete documents. At Jebel Khalid and Kedesh it is similarly difficult to trace the use of archived documents, but again no reason to doubt that this occurred. The sheer scale of the Archive Building, oddities in the arrangement of material and strangeness of its layout make it difficult to believe that it was a functioning archive. Yet specific documents were selected for removal, both during the archive's operation and towards the end of its life; thus these thousands of documents were not considered waste-paper, but played a role in the activities of the local bureaucracy.

6. The beginnings and ends of the archives

Understanding the early histories of the archives is difficult. Documents could, of course, be moved between buildings. For example, a document dating to the early sixth century was found in Room 29c of the Rēš temple, even though the main temple in Uruk then was Eanna.⁸⁷¹ The Rēš temple underwent substantial transformations in the mid-third century and at the end of the third century. Some of the bullae in the temple date to the late third century. It is possible that these were placed immediately in the locations where they would be discovered two millennia later, and were undisturbed by the later building work.⁸⁷² But equally they may initially have been stored elsewhere, and only moved to the Rēš temple in the early second century. Likewise, even if we could determine the precise date of the completion of a complex such as the Archive Building at Seleukeia-Tigris or the Governor's Palace at Jebel Khalid, this would not provide a date for the moment at which the collections

⁸⁷¹ Baker 2014: 188–191. On the possible movement of tablets between the temples, see also Robson 2013: 51.

⁸⁷² The late-third century work did not in general concern the rooms in which documents were stored, although Room 90, in which late-third-century documents dating were found, was remodelled, Lindström 2003: 69, 207.

of documents that they ultimately housed began to be built up, or at which documents began to be stored in these buildings.

The impression of **SU 2** on the last slave sale tablet from Uruk demonstrates that the foundations of the Seleukid administrative system, with the use of particular seals to mark certain transactions, were in place in the early third century, during the reign of Antiochos I. Most bullae from Hellenistic Babylonia however date from the late third century onwards, suggesting that there may have been a new emphasis on archiving documents at this time. Parallel developments are seen in Egypt, where state notary offices were increasingly used for the registration of documents in the late third century.⁸⁷³

We observe archives at the point of their abandonment; understanding this abandonment is thus important in reconstructing their usual functioning. Since most seem to relate exclusively to the Seleukid era, consideration of the ends of the archives also enables us to consider the changes that the Parthian conquest brought.

Several of the archives clearly met violent destruction, including Kedesh, Delos, Block G6 and the Archive Building.⁸⁷⁴ At Uruk abandonment was more gradual. The last dated bulla from the Irigal dates to 146, that from the Rēš to 141, but tablets from Uruk demonstrate that the sanctuaries still existed at the end of the second century,⁸⁷⁵ although perhaps no longer as functioning temples.⁸⁷⁶ This implies that the system of archiving bullae impressed by tax stamps in the temples disappeared at the beginning of the Parthian era.

The apparent frequency of violent destruction is in part because burnt archives are more likely to have been preserved, or at least to have been identifiable in the archaeological record by earlier generations of excavators. Although the bullae found during German excavations at Babylon were all burnt,⁸⁷⁷ they were found at different locations, and there is no reason to suppose that they were destroyed in the same conflagration. In other cases we can link destruction to known events. At Delos the 'Maison des Sceaux' and other houses in the northern quarter were burnt in an extensive fire that has been connected with the raid of Archelaos in 69.⁸⁷⁸ At Kedesh the destruction is dated on the basis of Rhodian amphorae and ceramics to 144 or 143.⁸⁷⁹ Here, only the North-west Archives Room was burnt, indicating a deliberate decision to destroy the documents that it contained.

⁸⁷³ Vandorpe 2015b: 102–104.

⁸⁷⁴ Jebel Khalid was suddenly abandoned in ca. 75/74, Wright 2011: 120. The difficulties in dating the bullae however mean that it is possible that the enclosed documents had become obsolete long before the final destruction of the settlement.

⁸⁷⁵ Lindström 2003: 66.

⁸⁷⁶ The Rēš temple became a fortified area in the Parthian era, and perhaps already in the late Seleukid period, Baker 2014: 200–203.

⁸⁷⁷ Wetzell, Schmidt, and Mallwitz 1957: 43.

⁸⁷⁸ Boussac 1993: 678.

⁸⁷⁹ Berlin and Herbert 2012: 27.

Furthermore, bodies of two children were found in this room, apparently sacrificial victims. This implies a desire of local inhabitants to distance themselves from the Seleukid past, and demonstrates that collections of documents could have charged connotations.⁸⁸⁰

In other cases, the circumstances of the destruction of archives are less clear. The destruction of Level IV of Block G6 has been linked to the changing political situation in the mid-second century,⁸⁸¹ and McDowell describes how some bullae from Archive A were deliberately smashed into very small pieces ‘not for the purposes of cancellation but with hostile intent’, and that ‘on a number of them the seal impressions have been gouged out’.⁸⁸² The implication is that here, as at Kedesh, there was a desire to erase documents relating to the Seleukid past. However, many bullae from the Archive Building and Uruk are similarly fragmentary, suggesting that all were accidentally broken. My examination of the bullae has not revealed any instances of seal impressions being deliberately removed.⁸⁸³ Therefore, it is best to regard these documents as left in situ. The account of their burnt state also requires further consideration. Although McDowell describes the bullae as burnt, and the rest of the rooms as untouched,⁸⁸⁴ Hopkins suggests a more wide-scale burning of Block G6 between the Parthian and Seleukid levels.⁸⁸⁵ While the *Seleucia Excavation Records* occasionally include terse descriptions of the condition in which objects were found, noting for example blackening on ceramics, there are no such comments about the bullae. While McDowell himself excavated Archive A,⁸⁸⁶ the narrative that he was creating, both in terms of stratigraphy (Seleukid level, separated entirely from later Parthian finds, with destruction layer in between) and in terms of deliberate destruction of archives certainly required a description of the kind he provides. Yet the difficulties in determining whether objects belonged to the Seleukid or Parthian level implies that the stratigraphy could not be so easily interpreted.⁸⁸⁷ Therefore, I would be hesitant in following McDowell in

⁸⁸⁰ Berlin and Herbert 2005: 43.

⁸⁸¹ Hopkins for example suggests that it could be connected with Demetrios II's occupation of Babylonia in 140 or Antiochos VII's arrival in the area in 130, while McDowell suggested that it occurred when Demetrios II defeated Alexander Balas: Hopkins 1972: 5, citing an unpublished report of McDowell.

⁸⁸² McDowell 1931: 26; 1935: 11. See also the remarks of Yeivin 1931: ‘Some notes on the work of the Michigan Expedition Season, 1930-31’, 34.

⁸⁸³ McDowell describes the impression of **McDowell 1935, IC1a(12)** on McDowell 1935, AId(10) as ‘almost entirely destroyed by gouging’, 1935: 55. However, examination of this piece indicates that the surface has simply broken away, Figure 6.7. Moreover, if you wanted to destroy these objects, some quick, determined stamping would suffice; partially removing a seal impression from a thin surface, without destroying the bulla entirely, would seem a difficult task, without obvious purpose.

⁸⁸⁴ See p. 159.

⁸⁸⁵ 1972: 5.

⁸⁸⁶ Waterman notes that McDowell excavated Archive A, ‘Excavation Journal, Dec. 1, 1929 to Jan. 16, 1930’, Jan 10th, 1930. The equivalent records for Archive B are not held by the Kelsey Museum.

⁸⁸⁷ See p. 160.

understanding Archives A and B as deliberately burnt, and then placing this into a wider narrative about hostility towards Seleukid administration.

Dating the destruction of both Block G6 and the Archive Building is difficult. Although the latest tax stamps in both date to the 150s it is possible that this is evidence of changes to fiscal practices at this time, rather than evidence that they were destroyed at the same moment. Scholars initially also associated the destruction of the Archive Building with the political upheavals of the mid-second century.⁸⁸⁸ Very problematic for such a dating however are impressions found in the Archive Building of three seals portraying a bearded monarch. **Se 47**, known in 14 impressions, depicts a bearded ruler with tight curling hair, wearing a diadem and facing to the left, while **Se 48**, known in only one impression, shows a bearded monarch facing right, wearing a Macedonian *kausia* above his diadem (Figures 5.51, 6.8).⁸⁸⁹ These have been identified as showing Demetrios II in his second reign (129-126/5),⁸⁹⁰ following his release from Parthian captivity. This would mean that the building was destroyed around three decades after the last dated bullae and six decades after the bulk of dateable material. The third seal, **Se 49**, which is known in two impressions, shows a bearded monarch facing right, with curls of hair below his diadem (Figure 6.9); he has been identified as either the Parthian Mithradates I (ca. 171-138) or Demetrios II.⁸⁹¹

Since seal portraits are not accompanied by an identifying legend, and **Se 47** and **Se 48** are impressed alone on bullae,⁸⁹² there is no additional information with which to date their use. Relying on an identification based solely on iconography to produce such a late date for the archive's destruction is uncomfortable. The portraits are moreover without exact parallel in Demetrios II's coinage.⁸⁹³ Furthermore, Demetrios did not hold Seleukeia during his second reign. Yet there is no alternative Seleukid candidate for the bearded monarch. Demetrios' appearance in his second reign, with a long beard (Figure 6.10), is notably different from that of other Seleukid kings, almost all of whom were clean-shaven.⁸⁹⁴ Seleukos II (246-226) grew facial hair during his eastern anabasis, and the usurper Achaios (222-213) was bearded. However, the seal portraits do not resemble either man (Figure

⁸⁸⁸ Invernizzi, Negro Ponzi Mancini, and Valtz 1985: 92.

⁸⁸⁹ On the *kausia*, see Saatsoglou-Paliadeli 1993: 122–142.

⁸⁹⁰ **Se 48**. The seal was initially considered an idealised portrait, and the diadem simply a ribbon associated with the *kausia*; Invernizzi 1984: 28; Invernizzi, Negro Ponzi Mancini, and Valtz 1985: 125, 176. The portrait was later identified as Demetrios II by Invernizzi 1990: 20, see also Invernizzi 1998: 108. This identification has been widely accepted, Fleischer 1991: 74; 1996: 323; Messina 2003: 26–29; Messina and Mollo 2004: vol. I, 38–39, 45.

⁸⁹¹ Messina and Mollo 2004: vol. I, 45.

⁸⁹² **Se 49** appears alone on **S6-12766**, and with two unidentifiable seals on **S9-598**.

⁸⁹³ For coin types of Demetrios II's second reign, see Houghton, Lorber, and Hoover 2002: vol. 1, 410–434; Houghton, Lorber, and Hoover 2002: vol. 2, Pls. 39–42.

⁸⁹⁴ The reasons for Demetrios' novel appearance are debated. Some argue that Demetrios modelled his beard on his Parthian captors (Smith 1988: 46, n. 2), others that he imitated Zeus (Mittag 2002: 389–398).

6.11-6.12).⁸⁹⁵ Nor were Seleukid monarchs depicted on coins facing left or, usually, wearing the *kausia*.⁸⁹⁶

Parthian monarchs had long beards and moustaches from the reign of Mithradates I (Figure 6.13),⁸⁹⁷ very similar to those of the ruler(s) depicted on **Se 47**, **Se 48** and **Se 49**. Parthian monarchs were also depicted on coins facing to the left from the time of Mithradates II (123-88, Figure 6.14). Identifying the seal portraits as Mithradates I initially sounds attractive, given that he minted at Seleukeia in the early 140s,⁸⁹⁸ and that this would place the destruction of the complex shortly after the last dated bullae. Yet the Parthians are not known to have worn the Macedonian *kausia*. The *kausia* recalls the coin portraits of Graeco-Bactrian rulers, such as Antimachos (ca. 180-170, Figure 6.15),⁸⁹⁹ but these monarchs were not bearded. Thus no exact parallels to the seal portraits can be found among the iconography of neighbouring dynasties.

The unusual portrayal of the enigmatic monarch of these seals is perhaps connected to the fact that seal portraits often do not correspond directly to coin portraits.⁹⁰⁰ For example, a gem depicting a monarch with a *kausia* (Figure 6.16) has been identified as Philip V (221-179) or Perseus of Macedon (179-168),⁹⁰¹ neither of whom was portrayed wearing a *kausia* on coins.⁹⁰² Therefore, we cannot base our interpretation of these seals on the iconography alone, but must consider the broader context of their use. There is no indication that the Parthians took over the Seleukid system of fiscal stamps or office seals, nor are there any impressions, beyond these three mysterious portrait seals, that indicate Parthian-era involvement in the documents stored at the Archive Building.⁹⁰³ This suggests that there were profound changes to administrative structures across Babylonia in the 150s, during which the Archive Building, which was closely associated with Seleukid fiscal practice, became obsolete. It is implausible that Demetrios II, or a member of his court, sent a document to Parthian Seleukeia-Tigris in the 120s, with the instruction that it was to be placed in this largely abandoned building, among the tax documents and paperwork created by his ancestors' administrators, or that a local recipient decided that this was a fitting

⁸⁹⁵ Seleukos II: Houghton and Lorber 2002: vol. 1, 231–233. Achaïos: Houghton and Lorber 2002: vol. 1, 348.

⁸⁹⁶ A rare exception are two bronze issues from Susa, showing Seleukos II wearing a *kausia*, Houghton and Lorber 2002: vol. 1, 281, nos. 797-798; 2002: vol. 2, pl. 84.

⁸⁹⁷ Smith 1988: 118–119.

⁸⁹⁸ Rezakhani 2013: 768–769.

⁸⁹⁹ Davis and Kraay 1973: 237–238, no.143.

⁹⁰⁰ Smith 1988: 12. Although Fleischer stresses the broad similarities between portraits in the two media, he too notes differences in the royal insignia and symbols that appear, 1996: 322–325.

⁹⁰¹ Richter 1968: no. 608.

⁹⁰² For their coinage, see Davis and Kraay 1973: nos. 123-128.

⁹⁰³ As stressed by Invernizzi 1994a: 354. The seal that Invernizzi once identified as depicting bearded Demetrios II with Kleopatra Thea (1991: 348–349. 1991: 348-349) is **EgT 3**, now considered to show Sarapis and Isis.

destination for such a document. It is also improbable that a local resident would have opted to use a provocative seal depicting Demetrios II in Seleukeia-Tigris in the 120s, and again unlikely that they would have decided to associate themselves with this obsolete complex. This suggests that the closure of the archive occurred towards the end of Seleukid control of the city, or in the early days of Parthian rule. Therefore, it is preferable to see these portraits, which do not have exact parallels, either as unusual depictions of Mithradates I, or as representations of a figure such as a local governor, playing with royal iconography during a volatile political period.

To conclude, sealed documents with the involvement of royal officials were at times seen by local inhabitants as a potent expression of imperial power, as is most clearly the case at Kedesh. It is possible that the collapse of Seleukid power led to similar decisions to erase documents associated with their rule elsewhere. However, other bullae were burnt as part of wider conflagrations, not all of which were necessarily connected with Seleukid loss of territory. Meanwhile at Uruk sealed documents seem to have been abandoned without meeting violent destruction. There is therefore no single narrative regarding the ends of the archives.

Regardless of the moment of destruction of the various archives, profound changes to fiscal structures occurred in the mid-second century, which led to many documents becoming irrelevant, and meant that the complexes in which they had been housed could be repurposed. The Archive Building at Seleukeia and administrative building at Tel Kedesh were taken over for residential and industrial use, and the temples at Uruk served as fortified residential areas, while the various buildings at Jebel Khalid were simply abandoned. Although considerable continuity is seen in material culture in Mesopotamia throughout the second century, the loss of Seleukid control led to abrupt changes to archival practice and administrative structures.

7. Conclusions

Documents were archived in official complexes, private houses and temples within the Seleukid empire. Although some of the documents stored in these different settings were closely related, and indeed involved the same seal-bearers, there were profound differences in who could access the various buildings. Royal officials controlled entry to the Archive Building, while only priestly families could enter the temples in Uruk. Families could amass collections of documents that were important to them in their own homes, while conventions, which we cannot fully grasp, governed which documents could be placed in official complexes and also, it seems, the different rooms of the temples in Uruk. But regardless of the setting, documents were typically placed on shelves, in baskets or chests; significant investment does not appear to have been made in storage facilities tailor-made

for documents. As with the shared notion of how to fold and tie documents, this again reminds us that the administrative archiving of documents was part of a far broader concern for creating and storing documents.

Finding a particular document was not particularly difficult in the case of small collections, but would seem to present a considerable challenge in the large Archive Building at Seleukeia-Tigris, given its apparent darkness and lack of overarching logic to the use of space. Although it is perhaps tempting to suggest that storage of documents here was largely symbolic, documents relating to particular seal-bearers were housed together and some documents were removed from the building, demonstrating that it was a functioning archive.

This tension between the functional archive and the only partial logic governing the locations of documents enables us to consider how the royal administration may have been seen by officials and by local people. On the one hand, the Archive Building was an imposing complex at the centre of Seleukeia-Tigris, dominating the square onto which it fronted, but inaccessible to most individuals. Among the men who controlled its operations were those who had the authority to work with royal tax stamps and seals. Standardised documents were created, sealed according to set procedures, and systematically deposited, enabling the retrieval of required documents years later. In its appearance, location and functions, the archive therefore acted as a symbol of royal power and wealth. Yet investigating the realities of archival practice takes us behind the mask of Seleukid authority. There seem to have been no overarching 'rules' for where to place a document. The annual quantities of salt stamps that remain in the complex suggest that there were only sporadic efforts to review archived material. It usually seems to have been regarded as easier to work around old documents than to remove them. Hints emerge of individuals' decisions to change where documents were filed, suggesting that there may have been disputes over the use of space. While it is frustrating that the locations of documents and quantities of extant bullae are not easily explicable, the choices underlying them represent human idiosyncrasies in the operation of the archive, unsurprising to anyone who has ever worked in a large administration, or had to hunt for a particular document in someone else's filing system. Through this study we therefore begin to reconstruct the living archive behind the hollow version that survives, and the at times chaotic realities behind the enforcement of Seleukid control, in which required documents could not always be located and time was presumably wasted hunting for texts that had been moved to an unexpected location.

While the Parthian conquest did not bring profound cultural changes, the struggles for the Seleukid throne in the 150s and 140s and ultimate loss of Mesopotamia and, later, the southern Levant, were accompanied by changes to fiscal and administrative organisation. It

is inappropriate to create a narrative in which the destruction of all collections of documents is seen as evidence of hostility towards Seleukid structures, although at Kedesh at least this seems to be the necessary interpretation. Such hostility reminds us of the power that royal officials could wield over local inhabitants, and the resentment that tax demands could cause.

Chapter 7. Administration, taxation and the evidence of the bullae

1. Introduction

We cannot fully recover the contents of the documents once enclosed by bullae, the nature of the demands recorded by tax stamps, or the roles of officials. In this chapter, I aim firstly to consider which aspects of administrative and fiscal practices we can reconstruct from the evidence of the bullae, and where the limits to this lie, and secondly to reflect on the implications of the bullae for comprehending Seleukid administration.

We have seen that a few cuneiform tablets refer to the registration of prebend ownership and marriage agreements at local royal complexes.⁹⁰⁴ The close association of the Archive Building at Seleukeia-Tigris with the royal administration is demonstrated by the tax stamps and official seals impressed on the majority of bullae archived there. One of the officials named on such seals is the *chreophylax*, known from elsewhere as a registry official. This suggests that legal documents were registered at the Archive Building. The similarities in the combinations of figurative seals impressed on a bulla from Block G6 and two Archive Building bullae however imply that a document in a family archive could be a copy of a document stored at the Archive Building, without either version being impressed by an inscribed, official seal.⁹⁰⁵ This raises questions about our understanding of the use of such seals. We can identify some users of figurative seals at the Archive Building as officials, since their seals repeatedly occur in set combinations, which would be nonsensical for private individuals interacting with their business associates and neighbours. But because these individuals used anepigraphic seals, their roles are difficult to understand. Their presence nonetheless again has implications for reconstructing the responsibilities of officials who did use inscribed seals, and the types of documents stored in the Archive Building.

The bullae enable us to trace changes in sealing protocols. For example, the napkin-ring form appears an innovation of the early Seleukid era, while over the late third and second centuries expectations changed regarding who sealed salt documents at Seleukeia-Tigris. A further aim of this chapter is to consider whether it is possible to understand the motivations behind such reforms, or to identify disruption to local administration.

In what follows, I initially assess our understanding of the named officials and taxes, before turning to the enigmatic individuals who used anepigraphic seals. I next explore the evidence for disruption and reform to local administrative practice. I end by reflecting on

⁹⁰⁴ See p. 116.

⁹⁰⁵ See p. 87.

the administrative and fiscal practices recorded by the bullae, and their broader geographical and historical context.

2. Interpreting named officials and taxes

In this section, I examine the extents to which it is possible to reconstruct the responsibilities of officials who used inscribed seals and to understand the nature of the demands recorded by tax stamps. The legends on these seals offer suggestions – but not full explanations – regarding the nature of the taxes and officials' roles. Such legends also do not indicate the contents of the enclosed documents; for understanding this, we are reliant on co-occurrences of seals, the find-spots of bullae, and parallels from elsewhere.

i. The *chreophylax* seals and associated tax stamps

A number of bullae from Uruk, Seleukeia-Tigris and Nippur are impressed by a *chreophylax* seal and one or more tax stamps; this combination of official seal and tax stamps implies that these bullae enclosed a complete version of a registered document. I first review the different seals, before considering their relations with each other,⁹⁰⁶ the production of seals, and the possible meanings of the symbols on tax stamps.

a. Interpreting the *chreophylax* seals and associated tax stamps

The *chreophylax* at Parthian Dura registered a range of documents, including mortgages, loans, gifts and inheritances.⁹⁰⁷ The Seleukid *chreophylakes* in Mesopotamia were involved in the registration of transactions connected with slaves, as is demonstrated by the co-occurrences of their seals alongside *andrapodikē* stamps.⁹⁰⁸ One impression of a *chreophylax* seal occurs alongside that of a grain stamp, while others are not accompanied by stamps naming a commodity, implying that these bullae enclosed documents relating to other goods. Bullae sealed by *chreophylax* seals in conjunction with other seals are always napkin-ring bullae. The *chreophylakes* also sealed flat bullae, without any accompanying impressions. Both flat and napkin-ring *chreophylax* bullae are found in the Rēš temple at Uruk, the Archive Building at Seleukeia-Tigris and, it seems, Block G6 at Seleukeia-Tigris;⁹⁰⁹ therefore, the different forms did not relate to the destination of the sealed documents, but presumably to their contents.

One type of stamp that co-occurs with *chreophylax* seals records the thirtieth tax (*triakostē*); such stamps are known from Uruk and Seleukeia-Tigris. The name of this tax indicates that

⁹⁰⁶ Previously discussed by Mollo 1997: 91–100.

⁹⁰⁷ See p. 43.

⁹⁰⁸ Co-occurrences of tax stamps and *chreophylax* seals at Uruk and Seleukeia-Tigris are listed in Tables 3.1 and 7.1, respectively.

⁹⁰⁹ See p. 142.

it was a demand for 3.3% of the value of a transaction. Such percentage taxes on sales are attested elsewhere in the Hellenistic world; for instance, in early Ptolemaic Egypt a 10% sales tax was demanded.⁹¹⁰ A thirtieth of a transaction is easier to calculate in the Mesopotamian sexagesimal system, weighing or counting coins in shekels and minas, than in a decimal currency.⁹¹¹ This suggests that the decision to set the tax at this level was influenced by local accounting practices.

Katagraphē stamps also co-occur with *chreophylax* seals. In Ptolemaic Egypt the act of *katagraphē* was the requirement for sales of land, property and slaves to be registered with notary officials.⁹¹² It seems that the *katagraphē* stamps refer to a similar registration requirement in Mesopotamia, since they occur alongside *andrapodikē* and thirtieth stamps. *Katagraphē* stamps are known only from Seleukeia-Tigris. Cuneiform tablets and bullae nonetheless demonstrate that in Uruk certain transactions were registered with royal officials. It is possible that in this city it was not considered necessary to mark this registration with a stamp. Alternatively, the *epōnion* stamps, which are known only at Uruk, may have recorded such registration. It is certain that this was not another name for the thirtieth tax, since thirtieth and *epōnion* stamps occur on one bulla together. Moreover, as we shall see, the use of *epōnion* stamps at Uruk seems similar to that of the *katagraphē* stamps at Seleukeia-Tigris. One *epōnion* stamp has the further specification of the harbour, *limenos*, suggesting that this transaction related to imported commodities.

Some of the documents impressed by a *chreophylax* seal, *katagraphē/epōnion* and thirtieth stamps related to slaves, as indicated by the co-occurrence of these with *andrapodikē* stamps. It seems probable that this stamp refers to a fee levied on sales of slaves.⁹¹³ Early *andrapodikē* stamps from the Archive Building at Seleukeia-Tigris include a reference to the agora, and the designation *atelōn* or *epitelōn*. The complete *andrapodikē* stamp from Block G6 at Seleukeia-Tigris instead describes the slave as imported, while those at Uruk and Nippur state only the tax, date and city. In Egypt, taxes on slave sales varied according to whether, for example, the sale took place by auction (in which case, an additional brokerage fee had to be paid) or whether the slave was sold by the state (in which case, criers' and clerical fees were demanded).⁹¹⁴ It is likely that the references on stamps to the agora and to imported slaves similarly relate to the precise fees demanded. The small numbers of

⁹¹⁰ Muhs 2005: 19, 67.

⁹¹¹ Coined money continued to be weighted in Hellenistic Mesopotamia, Vargyas 2000: 516–520.

⁹¹² Yiftach-Firanko 2014a: 314–315.

⁹¹³ McDowell's suggestion that it referred to the registration of a slave to assess his value has been discounted as without parallel: McDowell 1935: 139–141; Brown 1938: 612–613. Rougemont notes Martinez-Sève suggested to him that the tax may also have been demanded on enfranchisements of slaves, 2012: 64, n. 182. However, the designations of 'imported' and 'of the agora' on some stamps suggest that these, at least, relate to slave sales.

⁹¹⁴ Scholl 2014: 451–452.

extant impressions mean that it is not possible to trace temporal developments to these designations. The absence of additional details on the Uruk stamps may relate only to local divergences in the production of tax stamps; it is possible that the demands imposed here also varied.

A *chreophylax* seal and *katagraphē* stamp occur once with a grain stamp in Seleukeia-Tigris. The grain tax could be a tithe, similar to the third of the grain crop demanded in Seleukid Jerusalem.⁹¹⁵ Agricultural tithes were also imposed in Ptolemaic Egypt.⁹¹⁶ The movement of grain could also be taxed, as at late-third-century Herakleia-Latmos, then under Seleukid control.⁹¹⁷ The occurrence of the grain stamp with a *katagraphē* stamp and *chreophylax* seal suggests that the grain tax related to an assessment of land and thus was a tithe, but it is impossible to prove this.⁹¹⁸

Therefore, some suggestions can be made regarding the demands to which these tax stamps related and the role of the *chreophylakes*. Nonetheless, we cannot understand fully the nature of the grain tax, for example, or determine whether there were differences in the precise imposts levied on slave sales between Uruk, Seleukeia-Tigris and Nippur.

b. The relations between the chreophylax seals and associated tax stamps

These tax stamps, and the *chreophylax* seals, are impressed in various combinations, as is evident from Tables 3.2 and 7.1. *Chreophylax* seals occur on some napkin-ring bullae alongside impressions of figurative seals, but without accompanying tax stamps.⁹¹⁹ Such bullae are known from the Archive Building, Block G6 and Uruk, demonstrating that the occasional absence of tax stamps was not due to the documents' destination. Since the same *chreophylax* seals do occur *with* tax stamps, the absence of tax stamps is also not a temporal development. Either further taxes were not demanded on some transactions, or further taxes were not documented via the use of tax stamps.

When a *chreophylax* seal is accompanied by one or more tax stamps, it seems that the *katagraphē* or *epōnion* stamp is always present (depending on whether the bulla is from Seleukeia-Tigris or Uruk).⁹²⁰ *Katagraphē/epōnion* stamps appear always to need to be accompanied by further tax stamps or a *chreophylax* seal.⁹²¹ *Katagraphē/epōnion* stamps

⁹¹⁵ Joseph. *AJ* 13.49.

⁹¹⁶ Clarysse and Vandorpe 1998.

⁹¹⁷ Ma 2002, "Dossier", No. 31.

⁹¹⁸ By contrast, the grain tax is considered a tax on trade by Messina and Mollo 2004: vol. I, 22.

⁹¹⁹ For example: from the Archive Building, [S9-350](#); from Block G6, [McDowell 1935, A1c\(12\)](#); from Uruk, Rostovtzeff 1932, [No. 27](#).

⁹²⁰ On [S9-520](#) the only identifiable tax stamp accompanying the *chreophylax* seal is a thirtieth stamp; however, a further tax stamp impression is illegible (**Inc 6**). On [S9-529](#), [S9-535](#) and [S9-545](#) an illegible tax stamp occurs with the *chreophylax* seal.

⁹²¹ Bullae from Uruk and Seleukeia-Tigris on which no further tax stamp or *chreophylax* seal can be securely identified are fragmentary specimens, see Tables 3.1 and 7.18 and Mollo 1997: 91.

can occur with only a *chreophylax* seal (and figurative seals); such bullae are known from both the Archive Building and Block G6, as well as from Uruk.⁹²² These bullae presumably enclosed registered documents which did not relate to slaves, and on which a thirtieth tax was not demanded. *Katagraphē* stamps can also occur alongside other tax stamps (and figurative seals), without a *chreophylax* seal.⁹²³ But there are bullae on which a *katagraphē* stamp occurs with other tax stamps *and with* a *chreophylax* seal (and figurative seals).⁹²⁴ Therefore, the presence of further tax stamps did not determine whether a *katagraphē* stamp was accompanied by a *chreophylax* seal.⁹²⁵ By contrast, *epōnion* stamps at Uruk seem always to occur with a *chreophylax* seal. Therefore, if both stamps did relate to the same procedure, there were slight differences in their use.

Andrapodikē stamps always occur with a *katagraphē/epōnion* stamp at the Archive Building in Seleukeia-Tigris and at Uruk, implying that this was the usual requirement.⁹²⁶ Thirtieth stamps occur with either a *katagraphē/epōnion* stamp or an uncertain tax stamp, suggesting that they also were always accompanied by a *katagraphē/epōnion* stamp. At Uruk, *andrapodikē* stamps were not typically impressed alongside a thirtieth stamp.⁹²⁷ While *andrapodikē* and thirtieth stamps can occur together at Seleukeia-Tigris, on a number of bullae only one of these stamps is impressed. On S9-334, S9-335 and S9-333, from 253/2, 249/8, and 231/0 respectively, the *andrapodikē* and *katagraphē* stamps are impressed without the thirtieth stamp (or *chreophylax* seal), but on S9-472 and S9-355, which date to 253/2 and 237/6, a thirtieth stamp accompanies the *andrapodikē* and *katagraphē* stamps (again without a *chreophylax* seal). The dates demonstrate that the different combinations are not due to changes over time. Was the thirtieth tax only imposed on the latter transactions, or did officials fail to impress the relevant stamp on the former bullae? On the one hand, the frequent use of tax stamps suggests that their impression was required when the relevant taxes were imposed. On the other hand, registration dockets were not always added to documents in Egypt,⁹²⁸ suggesting that there may have been some flexibility to procedures.

⁹²² Seleukeia-Tigris: on S9-353 and S9-356, from 222/1, and McDowell 1935, A1c(13), of uncertain date, *katagraphē* stamps occur with the *chreophylax* seal and figurative seals, but without further tax stamps. Uruk: for example, Rostovtzeff 1932, Nos. 17-2, 25-2; MRAH O.205.

⁹²³ For example, S9-333, dating to 231/0, is certainly impressed by *andrapodikē* and *katagraphē* stamps, without a thirtieth stamp or *chreophylax* seal.

⁹²⁴ On S9-552 (228/7), S9-553 (224/3), S9-556 (218/7) the *andrapodikē*, thirtieth and *katagraphē* stamps and a *chreophylax* seal are impressed, while on S9-351 (236/5) occur a *katagraphē* and thirtieth stamp and an uncertain tax stamp, as well as a *chreophylax* seal.

⁹²⁵ Mollo notes the difficulties in understanding the relationship of these two officials, but suggests only that the *chreophylax* seal may have been considered optional in certain cases, 1997: 98.

⁹²⁶ The bullae from Block G6 impressed by *andrapodikē* stamps are fragmentary. That from Nippur is accompanied by an illegible tax stamp.

⁹²⁷ There is only one attestation of a thirtieth stamp at Uruk, which occurs alongside an *epōnion* stamp on the fragmentary bulla Lindström 2003, No. 100.

⁹²⁸ Vandorpe 2013: 179; Muhs 2010: 587.

It is possible that, at Seleukeia-Tigris, whether a *chreophylax* seal was impressed on a bulla alongside two or more tax stamps was connected with changes in the use of *andrapodikē* stamps. Instances where an *andrapodikē* stamp certainly lacks an accompanying *chreophylax* impression all date to 231/0 or earlier, and an *andrapodikē* stamp is first attested alongside a *chreophylax* seal in 228/7. However, fragmentary bullae may hide earlier co-occurrences of *andrapodikē* stamps with a *chreophylax* seal, and more complex conventions may have governed which seals were impressed together.

In short, various conventions can be distinguished, in particular that *katagraphē/epōnion*, thirtieth, *andrapodikē* and grain stamps had to be accompanied by a further tax stamp or a *chreophylax* seal, while *chreophylax* seals did not need to be accompanied by tax stamps. The occurrences of *chreophylax* seals alongside *andrapodikē* stamps from the early 220s onwards suggest that conventions concerning which stamps were impressed together changed over time, but it remains unclear why only some impressions of *andrapodikē* stamps are accompanied by thirtieth stamps. It is also uncertain why *chreophylax* seals were not accompanied by figurative seals when impressed on flat bullae, but always were on napkin-ring bullae; the two forms however suggest that these represent two types of document.

c. Distributing tax stamps

On three napkin-ring bullae from the Archive Building the *andrapodikē* stamp dates to one year, and the *katagraphē* stamp to the subsequent year.⁹²⁹ These stamps were almost certainly impressed at the same time, since it would have been difficult at a later date to sufficiently dampen a clay bulla (or warm a bitumen specimen) to achieve a clear impression. This suggests that these bullae were created shortly after the new year, before new stamps had been introduced for all the taxes. The three bullae date from 253/2, 237/6 and 223/2; thus delays in issuing *andrapodikē* stamps were not confined to a short period. Three is a surprisingly high number, given that only 14 bullae survive from the Archive Building with at least two legible tax stamp impressions, where the stamps date to the same year.⁹³⁰ This suggests that the use of stamps of different dates was not unusual, and that in some years there may have been a considerable delay before a new *andrapodikē* stamp came into use. It was apparently not essential for a document's validity that this date was correct. This also means that it is very unlikely that the distribution of tax stamps to officials was a grand ceremonial affair.

⁹²⁹ [S9-334](#), [S9-382](#), [S9-492](#).

⁹³⁰ [S9-472](#), [S9-358](#), [S9-393](#), [S9-476](#), [S9-548](#), [S9-355](#), [S9-333](#), [S9-541](#), [S9-552](#), [S9-477](#), [S9-553](#), [S9-466](#), [S9-528](#), [S9-360](#). On other bullae, the date of one stamp is restored. No bullae are known from Uruk that are impressed by stamps of different dates. However, the site has yielded very few bullae impressed by two or more legible tax stamps, and it is possible that there were similar delays in issuing tax stamps here.

d. Symbols on tax stamps

The *katagraphē*, thirtieth, *andrapodikē*, grain and *epōnion* stamps usually include a symbol, as also do salt stamps.⁹³¹ This is typically a half anchor; other symbols include a double *polos*, and a monogram. Some stamps have one symbol, others several. When an *atelōn* and *epitelōn* version of an *andrapodikē* or salt stamp are known, the symbols are usually the same on both. However, the symbols were not the same on all stamps of a particular year. For example, a half anchor, monogram, Nike and a head appear on the *andrapodikē* stamps **Adk 5** and **Adk 6**, but a half anchor and a statue on the *katagraphē* stamp **Kat 7**, although all date to 239/8.

The monograms may relate to the officials who used the stamps, but a similar explanation is unlikely for the limited repertoire of other symbols. Since there was usually only one version of a stamp for an entire year, the symbols cannot relate to different tax districts, or to the immediate destination of revenues. The symbols are more varied and are allotted more space on earlier stamps, and increasingly become confined to a small half anchor. It is possible that they originally served an administrative purpose, for example relating to the production of stamps, which gradually ceased to matter. The symbol was perhaps retained as part of a 'proper' tax stamp. Symbols on coins seem occasionally to have served as controls and to distinguish between batches of coins, but often to have functioned as 'dynastic blazons'.⁹³² Thus it is possible that the anchor, in particular, was always included on tax stamps primarily to emphasise Seleukid iconography.

e. Conclusions

The responsibilities of the *chreophylakes* and the associated tax officials remain elusive. Some impressions of *chreophylax* seals occur alone, some with rarely-attested figurative seals, and others with rarely-attested figurative seals and tax stamps. Our knowledge of the *katagraphē* and the *chreophylax* elsewhere leads us to associate both with the registration of documents. However, at Seleukeia-Tigris the two officials' seals can occur together or separately, implying that they marked different processes.

The use of the *epōnion* stamp at Uruk is reminiscent of that of the *katagraphē* stamp at Seleukeia-Tigris, suggesting that these were alternative names for the same imposition. There were also variations in the legends on *andrapodikē* stamps used in the two cities.

⁹³¹ This element is missing on a few impressions, including that of **Tri 1**.

⁹³² Houghton and Lorber 2002: vol. 1, xxi-xxii. Aperghis has proposed that the symbols relate to the users of coins, 2008: 142-144; 2010: 57-59. However, it remains very uncertain that the Seleukids would have wanted to introduce such a complex system for marking the intended use of newly-minted coins, and the parallels that he offers are weak; for instance, there is a significant difference between countersealing a receipt, whose function is solely to record a transaction, and marking a coin, which will go on to circulate in the marketplace.

Moreover, the use of the thirtieth stamp differs between Seleukeia-Tigris (where it frequently accompanies *andrapodikē* stamps) and Uruk (where it is only once attested). These features all suggest that local officials had some influence over the precise demands imposed, and were responsible for the production of tax stamps. At Seleukeia-Tigris, there were occasional delays in producing new stamps.

The thirtieth, *katagraphē/epōnion* and *andrapodikē* stamps had to be accompanied by other tax stamps or the *chreophylax* seal. This emphasises the complexity of the fiscal system, which imposed several taxes on some transactions. The requirement for several officials to seal documents also suggests a concern for accountability. However, it remains unclear why different combinations of tax stamps occur. The absence of a thirtieth stamp alongside an *andrapodikē* stamp may indicate that the former tax was not demanded on this transaction, or the decision to impress a stamp may have been more idiosyncratic.

Slave sales account for approximately half of the bullae impressed by *katagraphē* stamps at the Archive Building and half of those impressed by *epōnion* stamps at Uruk. We expect a wider variety of transactions to be registered at the royal record offices, including land and prebend sales.⁹³³ The fact that prebend sales cannot be clearly identified among the bullae demonstrates that over-reliance on impressed tax stamps can distort our understanding. Moreover, the difficulties in identifying expected documents suggest that a *chreophylax* seal or *katagraphē/epōnion* stamp may not occur on every document registered at the Archive Building or at the royal records office in Uruk.⁹³⁴

ii. **The *bybliophylax* seals and other tax stamps**

Bybliophylax seals and the port, Euphrates and salt tax stamps occur on bullae without accompanying tax stamps or official seals. We are reliant, therefore, on the names of the taxes and the titles of officials, on parallels from elsewhere, and on the find-spots of bullae for interpreting their uses. Since only one official seal or tax stamp occurs on these bullae, it is possible that they enclosed, on occasion at least, documents relating to tax collection, rather than documents recording tax payments. In this section, I treat these seals in turn, examining the extent to which it is possible to understand their use.

a. **The *bybliophylax* seals**

In addition to the *bybliophylax* seals known from Mesopotamian bullae, a Seleukid *bybliophylax* occurs in an epigraphic dossier from western Asia Minor. Following Antiochos II's sale of land near Kyzikos to queen Laodike, Metrophanes (perhaps a *strategos* with

⁹³³ The notion that land sales *must* have been registered and taxed leads Hannestad to erroneously claim that the bullae record such taxes, 2012: 985.

⁹³⁴ Contra Posner 1972: 129; Messina 2007: 197.

responsibilities in north-west Asia Minor)⁹³⁵ informed a local *oikonomos* that, as instructed by Antiochos, he had told Timoxenos, the *bybliophylax* at the royal records office at Sardeis, to file a record of the sale and survey of the land.⁹³⁶ This inscription has led to the suggestion that the *bybliophylax* was a very senior official concerned with royal estates,⁹³⁷ and that there may only have been one such official in the empire.⁹³⁸

But RC 18-20 concern only a royal estate, and offer no indication of how Timoxenos related to other officials at Sardeis. The several bullae impressed by *bybliophylax* seals found in Archive A of Block G6 and the Rēš temple of Uruk demonstrate that individuals in Babylonia could come into contact relatively frequently with this official. This makes it probable that there was more than one such official in the entirety of the empire. It is possible that the enclosed documents related to royal estates. The fact that the owners of Archive A seem to have been liable to pay the salt tax suggests that they were not exceptionally privileged, and so are unlikely to have been recipients of a gift estate; it however remains possible that their involvement in a royal estate was of a different nature. Nonetheless, the frequency of bullae sealed by *bybliophylakes* in Babylonia suggests that these officials may have had broader responsibilities, and been concerned with land ownership or archival processes more generally.

Some impressions of *bybliophylax* seals are accompanied by a figurative seal; the recurrences of the same figurative seals on several *bybliophylax* bullae suggest that their bearers acted in an official capacity here.⁹³⁹ However, not all impressions of *bybliophylax* seals have such an accompanying impression. Bullae both with and without such impressions are known from the Archive Building and the Rēš temple at Uruk, indicating that this was not dependent on a document's destination; it may have related to a document's contents, or have been a more idiosyncratic decision.

b. Taxing ports and journeys on the Euphrates

The port (*limenos*) and journey on the Euphrates (*ploiōn Euphratou*) stamps are known in only a few impressions, so it is difficult to understand how many people were affected by these taxes, how frequently an individual might have to pay them, or to identify the nature of the sealed documents.

The port tax is attested at Block G6 at Seleukeia-Tigris. The tax presumably refers to charges demanded on the import (and perhaps export) of goods. Taxes on the imports and exports

⁹³⁵ This is the suggestion of Welles 1934: 92. Capdetrey suggests he is in fact a *dioikētēs*, 2006a: 115.

⁹³⁶ RC 18-19; the survey is RC 20.

⁹³⁷ See n. 167.

⁹³⁸ Lindström 2003: 62.

⁹³⁹ See p. 101.

are well known in Seleukid Asia Minor, including at Herakleia-Latmos.⁹⁴⁰ Various interpretations are possible for the 'boat journey on the Euphrates' tax, attested at Uruk. Rostovtzeff understood this as a due for the use of the waterway, Wallenfels as a tax on ferry boat services, and Lindström as a toll on produce moved on waterways.⁹⁴¹ Tolls had been levied on the movement of goods via canals in Achaemenid Babylonia,⁹⁴² making Lindström's suggestion the most probable. The Euphrates stamps include personal names, which indicate that different individuals were involved in this tax in the attested years, but offer no further indications of their role. Thus only very limited suggestions can be made about the uses of these stamps.

c. The salt tax

By contrast, the large quantities of bullae impressed by salt stamps, and their discovery in different contexts, offer some suggestions as to the nature of the salt tax, and the associated documents.

Interpreting the salt tax

The salt tax has generally been interpreted as a tax on the sale of salt, although opinions vary as to whether this was payable by merchants or purchasers of salt.⁹⁴³ A tax on the salt trade is known from second-century-AD Palmyra,⁹⁴⁴ and fourth-century-BC Byzantion;⁹⁴⁵ Lysimachos also taxed salt procurement in the Troad.⁹⁴⁶ In Hellenistic Priene the Attalid monarchs controlled revenues from one salt pan, and the city the revenues of two others,⁹⁴⁷ while in Roman Asia Minor and Macedonia salt pans usually came under imperial control.⁹⁴⁸ Similar taxes are known from further afield. Salt was an important state revenue in late-first-millennium-BC India and China,⁹⁴⁹ while modern examples include the French gabelle and the British salt tax in India.⁹⁵⁰ The infamous hatred of these latter taxes emphasises the

⁹⁴⁰ Ma 2002, "Dossier", No. 31.

⁹⁴¹ Rostovtzeff 1932: 87–90; Wallenfels 2000: 334; Lindström 2003: 54.

⁹⁴² Abraham 2004: 32–33.

⁹⁴³ For example, Messina, Mollo and Invernizzi consider that the tax was demanded on the trade of salt, Mollo 1996: 151; Invernizzi 2003: 313; Messina 2006c: 29; 2009: 177. McDowell postulated that a tax was demanded on the (compulsory) sale of salt from the producer to the wholesaler, 1935: 192–197. Rostovtzeff meanwhile argued that both the import of salt into a city, and the (compulsory) purchase of salt from a merchant were taxed, 1932: 81–87. Aperghis suggests that the state exercised a salt monopoly, and imposed compulsory purchase, but added to this an additional charge levied on top of the purchase price, the tax itself, 2004: 155; 2011: 24. This interpretation is followed by Bresson 2016: 180 and n. 34.

⁹⁴⁴ Matthews 1984: 172–173, 177–178, 180.

⁹⁴⁵ Arist. [*Oec.*] 1346b, 20.

⁹⁴⁶ Ath. iii 73, d.

⁹⁴⁷ *I. Priene* 67, with Thonemann 2011b: 329–331; Tsigarida 2015: 279–282.

⁹⁴⁸ Asia Minor: Thonemann 2011: 330, Cicero *Leg. Man* 16. Macedonia: Livy xlv, 29, 11–13, Davies 2001: 25.

⁹⁴⁹ Plin. *HN* xxxi, 77, Kurlansky 2002: 30–34.

⁹⁵⁰ Kurlansky 2002: 225–234, 337–352.

importance of salt, for example for curing hides and preserving food.⁹⁵¹ Salt therefore could be a lucrative resource for those who controlled its production and sale.

The quantities of extant bullae impressed by salt stamps imply that this tax was regularly paid by many people. It is generally assumed that there was a state monopoly on salt production, and that it was compulsory to purchase a fixed amount of salt annually.⁹⁵² A monopoly on salt production in Hellenistic Mesopotamia is however unlikely. Salt came largely from salines, ubiquitous in southern Babylonia, which dried out naturally in the summer heat.⁹⁵³ Pastoralists, a notoriously difficult group to control, traditionally gathered salt; their equipment was limited to a sack or pot in which to place the salt.⁹⁵⁴ There is no earlier evidence for temple or state institutions extracting salt, or for cities controlling salt works in Mesopotamia; nor are taxes on salt attested.⁹⁵⁵ By contrast, Chinese salt works were complex structures, which the state could easily control. Similarly, in western Asia Minor, salt pans could be spoken of as 'constructed', and access to them restricted, leading to them occasionally becoming the subject of arbitrations.⁹⁵⁶ The Ottomans did attempt to impose a monopoly on salt production in Mesopotamia, but had to invest considerable resources in preventing clandestine exploitation of salines and in exploiting inferior salines in order to stop non-monopoly salt from entering the market.⁹⁵⁷ Thus it is unlikely that the Seleukids were able to control salt production here. Moreover, whereas a variety of monopolies are attested in Ptolemaic Egypt, including on beer, wool and wine,⁹⁵⁸ monopolies are otherwise unknown in Seleukid Babylonia. It is improbable that a monopoly would have been exceptionally imposed on salt production, when this was particularly difficult to enforce. Therefore, if the Seleukid salt tax concerned salt, it can only have been a tax on its sale. This would parallel the later Palmyrene salt tax, as well as Seleukid taxes on slave sales, where the administration presumably neither supplied the slaves nor required their purchase.

An alternative is to disassociate the salt tax from salt. When Rostovtzeff and McDowell initially discussed the Seleukid salt tax, it was believed that in Ptolemaic Egypt there was compulsory purchase of monopoly salt. In fact, the Ptolemaic salt tax was not directly connected with the acquisition of salt. This salt tax was introduced by Ptolemy II Philadelphos in 264 as a capitation tax on all adults, in place of the yoke tax, a capitation tax

⁹⁵¹ Stressed by Bresson 2016: 180.

⁹⁵² See, in particular, the arguments of McDowell, Rostovtzeff and Aperghis, n. 943.

⁹⁵³ Potts 1984: 248–257; 1997: 104–105.

⁹⁵⁴ Potts 1984: 254–255; 1997: 105; Jursa 2010: 78.

⁹⁵⁵ Briant 2002: 932; Jursa 2010: 78–79.

⁹⁵⁶ For example, access to salt works was disputed between Arsinoë and Troizen, Ager 1996, No. 138.

⁹⁵⁷ Potts 1984: 254.

⁹⁵⁸ These were again enforced via control of the fixed installations associated with their production; factories and tools were locked up when not in use, Muhs 2005: 73, 79–82.

on men only.⁹⁵⁹ The census was used as the basis for demands, and it was increasingly paid at the same time as other head taxes, such as the wool tax.⁹⁶⁰ There is a possible reference to ‘illegal salt’, which might mean salt acquired without paying the proper tax,⁹⁶¹ but there is no evidence for taxes paid on purchases of salt or for a state salt monopoly.⁹⁶² Rather salt, wool, and yokes appear to have offered convenient names for taxes, giving a quasi-justification for an imposition without bestowing any benefit on the payer.

The uneven recovery of bullae undoubtedly distorts our understanding of the use of tax stamps. However, the volume of bullae impressed by salt stamps and the involvement of at least three officials in sealing many such bullae suggest that the Seleukid salt tax was of considerable importance, not one tax among many on the sale of goods. Antiochos III and Demetrios I exempted certain groups in Jerusalem, including priests and temple scribes, from a salt tax and from head and crown taxes.⁹⁶³ The head tax was certainly a capitation charge, and it is likely that the latter was too,⁹⁶⁴ suggesting that this salt tax should be interpreted similarly. A further, less conclusive, argument that a capitation tax was demanded in Babylonia is that an *Astronomical Diary* records the counting of the inhabitants of Babylon, servants of the king, and the *politai* of Babylon and Seleukeia-Tigris in 145.⁹⁶⁵ This entry moreover suggests that privileged groups were counted separately, which one might link with the *atelōn* stamps. However, the text does not note the Greek name for such a tax, and the latest known salt stamp dates from the previous year.

Brown and Monson also interpret the Seleukid salt tax as a capitation charge,⁹⁶⁶ while Bickerman decided that it is not possible to establish its nature beyond doubt.⁹⁶⁷ This remains the case. However, it is possible to conclude that the practicalities of salt production in Mesopotamia make it unlikely that the Seleukids enforced a monopoly on this, while the volume of impressions of salt stamps, in particular, suggest that the tax was a capitation charge.

The nature of the sealed documents

The range of interpretations of the salt tax means that various proposals have been made regarding the contents of the sealed documents. For example, Invernizzi and McDowell

⁹⁵⁹ Clarysse and Thompson 2006: vol. 2, 39; Muhs 2005: 6.

⁹⁶⁰ Clarysse and Thompson 1995: 223–229; 2006: vol. 2, 45–49.

⁹⁶¹ Clarysse and Thompson 2006: vol. 2, 38–39; McGing 2002: 44–46. The official involved in this ‘illegal salt’ was also associated with the salt tax, but McGing suggests that there may not have been any practical connection between his involvement in the salt tax and salt production.

⁹⁶² Clarysse and Thompson 2006: vol. 2, 38–39.

⁹⁶³ Joseph. *AJ* 12.138–144, 13.49; 1 Macc. 10:29.

⁹⁶⁴ Aperghis 2011: 24–25.

⁹⁶⁵ AD-144, obv. 36–37.

⁹⁶⁶ Brown 1938: 610–611; Monson 2015: 191.

⁹⁶⁷ 1938: 112–114; 1988: 126; 2007: 329.

argue that they were records belonging to salt merchants,⁹⁶⁸ and Aperghis and Rostovtzeff that they were receipts,⁹⁶⁹ while Brown suggests they related to tax collection, such as collectors' lists of tax payers.⁹⁷⁰ If the salt tax is to be disassociated with the acquisition of salt, the proposal that they belonged to salt merchants can be discounted,⁹⁷¹ while the suggestion that they belonged to tax collectors makes the division between *epitelōn* bullae in Archive A and *atelōn* bullae in Archive B difficult to understand.⁹⁷² The salt bullae in Block G6 and the Rēš temple at Uruk may have enclosed receipts, but it is surprising that a receipt was issued to prove non-payment of a tax; salt tax receipts from Egypt all record payments. An alternative possibility is that the bullae enclosed census declarations, marking whether individuals were liable to pay the salt tax.⁹⁷³ A few household census declarations are known from Ptolemaic Egypt, three of which state that they were made 'for the salt tax',⁹⁷⁴ indicating that here there was a close relationship between these declarations and the salt tax. This suggestion is however not unproblematic. In particular, it would imply that declarations were often made annually, whereas Ptolemaic census declarations seem to have been made less frequently and the Astronomical Diary entry suggests that there was not a regular census in Mesopotamia. However, in Ptolemaic Egypt tax lists were updated annually,⁹⁷⁵ and annual declarations may have been optional,⁹⁷⁶ while the Astronomical Diary reference comes from a volatile period, which may have led to the creation of a new census system. Two salt documents dating to the same year were stored in Archive B on at least one occasion; this might indicate that, as in Roman Egypt, declarations could be made to more than one official,⁹⁷⁷ or might represent years when only a fraction of the household (or professional group) was initially registered; alternatively there may occasionally have been a delay in issuing the new salt stamp.⁹⁷⁸

⁹⁶⁸ Invernizzi 2003: 313; McDowell 1935: 185.

⁹⁶⁹ Aperghis 2004: 155–156; Rostovtzeff 1932: 85.

⁹⁷⁰ Brown 1938: 610–611.

⁹⁷¹ This proposal also necessitates the improbable assumption that most collections of bullae known from Babylonia belonged to salt merchants.

⁹⁷² Rostovtzeff argued that the *atelōn/epitelōn* statement could only refer to a commodity, not to individuals, 1932: 86–87. However, the divide between *epitelōn* stamps in Archive A and *atelōn* stamps in Archive B implies that the designation does relate to individuals, as assumed by, for example, Aperghis 2004: 155.

⁹⁷³ Those exempt from capitation taxes were nonetheless counted in Ptolemaic and Roman Egypt, Clarysse and Thompson 2006: vol. 2, 12; Bagnall and Frier 1994: 11–12.

⁹⁷⁴ Clarysse and Thompson 2006: vol. 2, 22.

⁹⁷⁵ Clarysse and Thompson 2006: vol. 2, 19.

⁹⁷⁶ Rathbone 1993: 90, 92.

⁹⁷⁷ Bagnall and Frier 1994: 19.

⁹⁷⁸ Two bullae impressed by the *atelōn* stamp for 173/2 certainly survive from Archive B; no bulla impressed by that for 172/1 is known, and it is thus possible that one of the 173/2 bullae was in fact created in 172/1 (for the possibility that two bullae impressed by the *atelōn* stamp for 156/5 also survive, which could not be explained thus, see p. 60).

The salt documents in the Archive Building were almost certainly not receipts, since the administration is very unlikely to have stored these for individual tax-payers. These documents could plausibly be census declarations, perhaps filed once the relevant information had been added to registers. It is also possible that the same stamp was impressed on different types of documents, and that those in the Archive Building were registers or records relating to tax collection. This suggestion is indeed more probable, since the rarely-attested figurative seals that occur on some salt bullae seem to have been used by individuals involved in tax collection, rather than by tax payers.⁹⁷⁹

In Egypt, it seems that village scribes, and perhaps tax collectors, usually drew up census lists in rural communities,⁹⁸⁰ while local notary offices were responsible for registering contracts. However, late Ptolemaic papyri from crocodile mummies found at Tebtunis suggest that census lists might come from the same space as registered copies of legal transactions.⁹⁸¹ Thus the dual function of the Archive Building as containing documents relating to the salt tax and documents relating to the registration of transactions may have had a parallel here.

The different salt stamps that occur in the 150s on bullae from the Archive Building and from Block G6 suggest that at times more than one bearer of a salt stamp was active in Seleukeia-Tigris. As well as the bullae impressed by salt stamps stored in the Archive Building, there were also bullae sealed by members of salt-groups but not by a salt stamp, such as those sealed by the **EK 1** group. There is no year in which we know both types of bullae were produced, and so it is possible that the latter replaced the former. Alternatively, several types of documents relating to the salt tax may have been created, at least in certain years. The use of different stamps and variations in the impressed seals suggest that further complexities of the process of collecting the salt tax, and documenting this, are now hidden from us.

To conclude, much remains elusive about the nature of the salt tax, the contents of the documents, and the roles of the officials involved in its collection. It is nonetheless probable that the Seleukid salt tax was a capitation tax, similar to the Ptolemaic salt tax, and that many of the extant bullae were created as part of the processes of registering people and collecting taxes, rather than as simple tax receipts.

iii. Conclusions: Interpreting named officials and taxes

The titles of officials and names of taxes that occur on some seals offer suggestions regarding the officials who were active in Babylonia, and the taxes that were demanded.

⁹⁷⁹ See p. 123.

⁹⁸⁰ Clarysse and Thompson 2006: vol. 2, 28–30.

⁹⁸¹ Hoogendijk 2010: 321.

Such texts demonstrate, for example, that a ‘thirtieth’ tax was imposed on certain transactions in Uruk and Seleukeia-Tigris, which it is logical to interpret as a demand for a thirtieth of the value of a transaction, and that local inhabitants occasionally came into contact with the *chreophylax*, who seems to have been a registry official. Where several tax stamps are impressed alongside figurative seals on a bulla, this bulla must have enclosed a copy of a registered document, on which the correct taxes had been paid.

It is however impossible fully to reconstruct the roles of officials and natures of taxes, or to determine the contents of other documents. The usual reconstruction of the activities of the *bybliophylax* is based on the epigraphical dossier RC 18-20 from Asia Minor, which however neither explains how this official related to others, nor proves that his responsibilities were the same in Babylonia. Similarly, the nature of the salt tax, and the contents of the documents sealed by salt stamps, cannot be determined beyond doubt; nor can we understand the relationship between the sealed documents and the actual payment of the tax. The relationships of some officials remain ambiguous; in particular, it is unclear why *chreophylakes* sealed some documents that are also stamped by a *katagraphē* stamp, but not others. Some of our difficulties in reconstructing the use of tax stamps may be because they were not used consistently. However, it is apparent that at times we are only glimpsing the complexities of the administrative and fiscal structures that lie behind these stamps. For example, while the two forms of *chreophylax* bullae imply that these officials routinely sealed two types of document, and that the absence of further tax stamps and figurative seals on flat *chreophylax* bullae was a deliberate decision, it remains one whose significance we cannot understand.

3. Interpreting users of anepigraphic seals

Some officials used anepigraphic seals with dynastic motifs, notably anchor seals, while others used figurative seals in their official capacities. It is impossible to prove the role of any bearer of an anepigraphic seal, except for the rare occasions when the seal is known from a labelled impression. As emphasised in Chapter 4, it is not always possible to differentiate between rarely-attested officials and individuals acting in their personal capacity. Neither the examination of the storage of documents in Chapter 6, nor that of the forms of bullae in Chapter 5, significantly improved our understanding of the roles of officials using anepigraphic seals. For example, while the fact that anchor seals are consistently impressed on large bullae with extremely flat reverses suggests that their bearers created lengthy, standardised documents, this does not enable us to understand their responsibilities. The anchor seals have generally been connected with the Royal

Treasury, primarily because of the frequent appearance of an anchor on tax stamps,⁹⁸² but it is possible that they related to another institution, such as the army.

The attestations of **AF 80**, known from tablets from Babylon as the seal of the *šatammu* of Esagil, demonstrates that the Archive Building contained some documents produced by high status individuals acting in an official capacity, albeit here in a temple role rather than as a royal appointee. Cuneiform tablets offer some limited suggestions as to royal officials whom we might expect to have used figurative seals. A tablet from Uruk implies that a *dioikētēs* was perceived as in charge of the local records office there.⁹⁸³ The roles of *dioikētai* in the Seleukid empire are not entirely clear, but they seem to have had financial responsibilities for a region.⁹⁸⁴ It is probable that letters and orders addressed to a *dioikētēs*, and written by him, would have been housed in a local records office. A later text suggests that a satrap was also involved in registering documents at Uruk.⁹⁸⁵ It is possible that other senior figures were involved in documents stored in the Archive Building at Seleukeia-Tigris, in particular. The Babylonian Chronicles and Astronomical Diaries mention that the satrap of Babylonia (*muma-ir māt Akkad*) and the *strategos* of Babylonia (*rab uqu*) were based at Seleukeia-Tigris. The former seems to have been responsible for governing the region, while the latter was a military position.⁹⁸⁶ There was additionally an official with the Akkadian title *pāḥātu*, probably the equivalent of the Greek title *epistatēs*.⁹⁸⁷ Seals naming such officials are not known, so it is likely that these individuals all used figurative seals. They are unlikely to have required others to counterseal documents, or to have become involved in routine paperwork, and so their papers were probably sealed by bullae impressed by a single, high-quality seal. However, there is no certain way to identify such men from their seals. Likewise, while chains of correspondence between officials, well known from inscriptions such as the Skythopolis dossier,⁹⁸⁸ may have been stored in the Archive Building, we cannot identify sequences of related correspondence from the bullae.

Most individuals who were involved in the documents stored at the Archive Building at Seleukeia-Tigris, and at similar complexes elsewhere, were almost certainly too junior to feature in sources like the Babylonian Chronicles. Those who impressed their seals alongside tax stamps were presumably involved in tax collection. Salt tax receipts in Egypt usually name the tax payer, a tax farmer and one or more scribes, who may have included a

⁹⁸² See n. 191.

⁹⁸³ See n. 272.

⁹⁸⁴ Aperghis 2004: 280–281.

⁹⁸⁵ BRM 2, 56 rev. 1'-3', Monerie 2012: 346–347.

⁹⁸⁶ Boiy 2004: 193–194, 218.

⁹⁸⁷ Boiy 2004: 205.

⁹⁸⁸ See n. 52.

tax collector.⁹⁸⁹ For example, *O. Taxes 2*, 33 records the payment of the salt tax by Chibos wife of Pekusis, through the official Polianthes son of Karanis, with three subscriptions written by Thotorches, Psenminis and Horos son of Esminis.⁹⁹⁰ Tax payments on sales in Egypt could be noted in a subscription to the document; for instance, *P. Adl 13*, a registration of a sale of land before the *agoranomos* Paniskos, records the payment of the 10% sales tax to the banker Paniskos (a different individual).⁹⁹¹ A text from Hellenistic Baktria also offers suggestions as to the individuals involved in tax payments.⁹⁹² Although the text is not entirely clear, it names Menodotos, the tax collector (*logētēs*) and Simos, who was associated with Diodoros, who was in charge of the revenues (*epi tōn prosodōn*).⁹⁹³ The position of a third individual, the representative of one Demonax, is lost. Such comparisons offer suggestions as to the roles of bearers of figurative seals who belonged to salt-groups, in particular. However, given our uncertainty regarding the nature of the sealed documents, it remains impossible to decide whether the bearer of a seal such as **M 59** should be regarded, for instance, as a tax farmer, and his companions as scribes and tax collectors assisting him, or if he should be understood as an *oikonomos*, making agreements with tax farmers.

How we understand the roles of bearers of anepigraphic seals which are not impressed alongside tax stamps depends on our interpretation of the *chreophylax* seals and *katagraphē* stamps. If we assume that these were impressed on only some documents registered at the Archive Building, then it is possible that most documents sealed only by anepigraphic seals and archived here were private legal documents. In this scenario, some legal documents were sealed only by the private parties involved (those bullae impressed only by rarely-attested figurative seals), and others by officials using anepigraphic seals (those bullae impressed by frequently-attested seals, such as **M 17**), who could be interpreted as figures such as registry officials, bankers and tax collectors. This scenario raises the question of why only some legal documents deposited at the Archive Building required an official to impress their (figurative) seal, and why many legal documents deposited there were not sealed by a *chreophylax* seal or any tax stamps. But we saw that we do not fully understand the motivations behind impressing *chreophylax* seals and *katagraphē* stamps, and so this is not an insurmountable objection.

⁹⁸⁹ Muhs 2005: 23.

⁹⁹⁰ Muhs 2011: 53–54.

⁹⁹¹ Vierros 2012: 74–76, 103, 256–258.

⁹⁹² See n. 13.

⁹⁹³ This individual was clearly a senior financial official; the scope of his responsibilities are discussed by Bernard and Rapin 1994: 284–286; Rapin 1996: 461; Aperghis 2004: 283.

Alternatively, if an impression of a *chreophylax* or *katagraphē* seal was required on all registered transactions,⁹⁹⁴ then the many documents sealed only by figurative seals in the Archive Building cannot have been private legal documents. They would need to be understood as administrative paperwork, such as letters between officials, royal ordinances, land surveys, reports of expenditures, records relating to tax collection, and oaths made by officials. *P. Rev.* for example refers to a wide range of sealed documents created in relation to the farming and collection of taxes in Egypt, including sealed copies of balanced accounts, created by the *oikonomos*, and sealed agreements regarding the production of wine and cultivation of sesame.⁹⁹⁵ In this scenario, most of the sealed documents at the Archive Building were internal documents created by the administration, and most seal-bearers were officials.

In conclusion, the Archive Building, and similar complexes in other cities, almost certainly contained both registered legal documents and administrative paperwork. Cuneiform tablets indicate that royal records offices housed a range of private legal documents. While many of these may have been entered into unsealed registers, others were stored as sealed documents, as demonstrated by the bullae in the Archive Building impressed by a *chreophylax* seal and several tax stamps. Meanwhile, the thousands of bullae impressed by salt stamps, and the two bullae sealed by a *šatammu* of Esagil, indicate that the Archive Building had a wider remit than just registering legal documents. It is however impossible to devise a means of clearly distinguishing between administrative paperwork and registered documents. The hollow archives that survive to us record officials creating and archiving vast quantities of paperwork in the course of undertaking a variety of tasks, but the roles of many individuals and the contents of their sealed documents remain slightly beyond our grasp.

4. Recognising disruption and reform

In 221-220, the usurper Molon conquered Seleukeia-Tigris; Antiochos III subsequently recaptured and punished the city. During this episode, many inhabitants were killed, the council exiled and the city fined 150 talents.⁹⁹⁶ A couple of bullae survive in the Archive Building dating to these years, which indicate that taxes on slave sales nonetheless continued to be charged. Moreover, the same *chreophylax* seal was used before, during, and after this period, and documents from these years were archived with those from neighbouring years in the Archive Building. Similarly, salt stamps were used as normal in

⁹⁹⁴ As is perhaps implied by a reference in BiMes 24, 27, 12-14 (a sale of a house and undeveloped lot, dating to 164/3) to a document validated by a royal seal, discussed by Joannès 2012: 248. It seems unlikely that a document impressed by, say **M 17**, would be referred to as such.

⁹⁹⁵ *P. Rev.* Sections 18, 27-29, 40, 42 (=Bagnall and Derow 2004: No. 114).

⁹⁹⁶ Polyb. 5.54.10-11.

161 and 160 despite the brief conquest of the city by the usurper Timarchos. The apparent continuity in taxation during these chaotic periods emphasises that wider political and military events did not necessarily affect local administrative practice. Only with the Parthian conquest can significant changes to fiscal and archival procedures be observed, when both tax stamps and archival complexes appear to have been abandoned.⁹⁹⁷

The local administration could clearly operate independently from the king and court, suggesting that we should be hesitant in attempting to associate reforms to sealing protocols with political events. Indeed, such reforms cannot easily be linked to wider events. For example, when fewer salt documents began to require accompanying figurative seals in 215 and when counter-sealing of salt documents by groups of officials was experimented with in 193,⁹⁹⁸ Antiochos III was fighting in Asia Minor, and we know little about the situation in Mesopotamia. The reintroduction of counter-sealing of salt documents by groups of officials in 184, early in Seleukos IV's reign, may indicate a greater concern for accountability, which could be linked to a greater desire of monarchs at this time to exploit all available funds. In 187 Antiochos III had seemingly sought to raise money, presumably to pay the Roman indemnity imposed by the treaty of Apameia of 189, since he received substantial gifts in Babylon and then reportedly died attempting to rob a temple in Elymais.⁹⁹⁹ But, while it is possible to suggest a possible motivation behind this change to sealing protocols, it cannot be directly linked with wider events.

Moreover, changes are not visible when we might expect them to be. In particular, Antiochos III's eastern anabasis resulted in a large increase in the output of Seleukeia-Tigris' mint around 210, almost certainly to pay troops.¹⁰⁰⁰ New magistrates and artists were appointed to the mint in conjunction with his visit of 210 and that of 204. However, no contemporary changes in fiscal demands as recorded by tax stamps are visible. Then, Antiochos IV seems to have been very concerned by fiscal procedures, as is most famously reflected in the accounts of the Maccabees, but also evident in his appointment of a new individual to the post of *zazakku* in the Esagil temple in 169.¹⁰⁰¹ Yet again, no changes can be detected in the use of tax stamps.

⁹⁹⁷ Monerie suggests that there was a reform to the royal records office at Uruk under Seleukos IV, on the grounds that texts referring to it date to his reign or earlier, and registration of a prebend sale before a satrap is referred to in BRM 2 56, rev. 1'-3', which dates to 168/7, 2012: 346-347. However, the royal records office is referred to in very few documents, making the significance of its apparent disappearance in the mid-second century uncertain; moreover, the continued use of *chreophylax* seals and tax stamps after the reign of Seleukos IV (for which, see Lindström 2003: 60-61) suggests that there were not significant changes to the registration of documents at this time.

⁹⁹⁸ See p. 122.

⁹⁹⁹ AD-187A rev. 7'-12', Diodorus 28.3, 29.15, Strabo 16.1.18.

¹⁰⁰⁰ Houghton and Lorber 2002: vol. 1, 437.

¹⁰⁰¹ Boiy 2004: 161, 210.

Therefore, while the bullae coincide with periods of intensive warfare, such as Molon's campaign for Seleukeia-Tigris and Antiochos III's anabasis, we cannot identify such episodes from seal impressions. This may in part be because identifiable changes primarily relate to sealing protocols. For example, Seleukeia-Tigris' punishment for supporting Molon may have involved an increase in the rates of taxes, while Antiochos III's visits may have enabled reductions to be negotiated. Nonetheless, new taxes do not seem to have been introduced in relation to wider events. The main development observable from the bullae is an apparent increase in the regulation of tax collection in the early second century, perhaps linked to Antiochos III's extensive campaigns and to his successors' need for funds. Such continuity in the production of tax stamps, and the decisions made regarding the creation and archiving of fiscal documents is remarkable, given the volatility of Seleukid political history, and emphasises that the local experience of empire did not necessarily mirror the narratives of monarchs' successes and failures.

The system of using tax stamps had certainly been introduced by 254/3, the date of the earliest surviving *andrapodikē* stamp from Seleukeia-Tigris. The earliest known impression of a tax stamp from Uruk dates to 238/7, but, given the scarcity of bullae from the mid-third century, this does not prove that tax stamps were adopted here later. Tax stamps were not, however, a departure from the previous system, but grew out of it, as demonstrated by the early *katagraphē* seal **SU 18**, which was in use around two decades prior to the earliest known tax stamp, along with **SU 2**, perhaps an anepigraphic *chreophylax* seal. These seals already contain elements seen in later official seals, notably the anchor on the latter and legend relating to the *katagraphē* on the former.

Indeed, slave sales and sales of urban properties were already registered and taxed in the Achaemenid era.¹⁰⁰² State registration of land sales also has a longer history, dating back at least to the Neo-Babylonian era. Capitation taxes were not demanded in Achaemenid Babylonia,¹⁰⁰³ but taxes were demanded on the basis of membership of professional groups and the ownership of land grants, such as 'bow-lands' and 'chariot-lands'.¹⁰⁰⁴ The terminology of this land grant system was then extended to land holdings that had not been allotted in a similar way. The separation between the name of the tax and the basis of the demand is reminiscent of the Seleukid salt tax. Yet there are notable differences between Achaemenid and Seleukid practice. In particular, the terminology of tax demands based on land holdings and professional groups disappears in the Seleukid era. Officials' titles changed, and the tax stamps and use of Greek represent significant innovations. Therefore,

¹⁰⁰² Stolper 1985: 29; 1989: esp. 82-85; van Driel 2002: 183-185; Jursa 2008: 609-610.

¹⁰⁰³ Baker and Wunsch 2001: esp. 199-200; Jursa 2011a: 443.

¹⁰⁰⁴ Jursa 2010: 647; 2011a: 440-441.

while Achaemenid legacies may be discerned within the Seleukid fiscal system in Babylonia, there were substantial reforms.

After the introduction of tax stamps, the Seleukid fiscal system did not remain static. The symbols and texts on tax stamps varied, and the protocols for impressing seals on bullae altered. Some monarchs may have been more concerned by administrative practice than others, but this cannot be identified from the sparse evidence of the bullae. The bullae nonetheless demonstrate that the bureaucracy in Seleukid Babylonia was neither the creation of a single individual, nor of one moment of innovation.¹⁰⁰⁵

5. The evidence of the bullae for administrative and fiscal practice

While many aspects of the bullae remain elusive, they enable us to draw some observations regarding Seleukid administrative and fiscal practice in Babylonia.

The royal administration was a significant imposition on local peoples' lives. The physical buildings, such as the Archive Building, shaped civic landscapes. The royal registers provided a useful record if an individual required proof of ownership but added additional fees to transactions. The tax stamps were one way in which dating by the Seleukid era was promulgated. They also served to promote the use of Greek, including for place names. Since some tax stamps continued to be used in the subsequent year, and documents impressed by tax stamps usually remained in the city of their creation, it is unclear what practical concerns the inclusion of the date and city served, and it is possible that they were mainly symbolic. The motifs on tax stamps, such as the half anchor, also seem to have primarily served to propagate Seleukid ideology.

The fiscal system shaped society through the grants of tax exemptions to certain individuals. The motivations behind these exemptions remain unclear, but the salt stamps from Seleukeia-Tigris demonstrate that here they were granted to groups of individuals, not to all citizens. The association of Archive A with *epitelōn* stamps and Archive B with *atelōn* stamps suggests that this exemption could be inherited. Such exemptions may have been

¹⁰⁰⁵ Antiochos I and Antiochos III have been regarded as introducing substantial reforms to fiscal structures in Babylonia. McDowell argues that Antiochos I was the 'great organizer of the Seleucid administrative system', who introduced a range of taxes, as well as tax stamps, and that the bureaucracy subsequently underwent little change, 1935: 137, 178–179. Similar sentiments are expressed by Doty 1977: 314–333; Mollo 1997: 100. Rostovtzeff meanwhile saw Antiochos III as the innovator, and attributed, for example, the creation of napkin-ring bullae to him (1932: 50, 69, followed by Plantzos 1999: 30–31). McEwan argued for two periods of reform, under first Antiochos I and then Antiochos III, 1988: 419–420. There is however little evidence that either king was responsible for significant changes. McDowell's dating of a salt stamp to 287/6 should be discounted (see n. 439), and so tax stamps are not known until far later than Antiochos I's reign. Meanwhile napkin-ring bullae and tax stamps were in fact in use at Uruk by 238/7, before Antiochos III's reign, Lindström 2003: 58. Given the few bullae that survive from the third century, it would be inappropriate to assert that it was instead Seleukos II, for example, who was a great innovator.

similar to those known from Ptolemaic Egypt, where salt tax exemptions were primarily focused on those involved in the promotion of Hellenic culture, such as Greek teachers and athletics coaches. *Atelōn* grants are not attested at Uruk, although there were individuals whom might be expected to have negotiated exemptions, most notably Anu-uballit Kephalon, who seemingly persuaded Antiochos II and Seleukos II to support his temple renovation efforts,¹⁰⁰⁶ and Diophantos, whose seal depicted Antiochos IV. The absence of *atelōn* grants therefore may be due to local differences in the production of tax stamps. While exemptions were probably awarded by senior officials, perhaps the king himself, it is likely that local officials were important in guaranteeing individuals' status.

The requirement to register transactions probably shaped the forms (and language) of legal documents, as is seen in Ptolemaic Egypt.¹⁰⁰⁷ However, there is no sign that the Seleukids tried to prevent the use of cuneiform. The state registration system operated in parallel with temple registers, and registered transactions could also be recorded on tablets. Therefore the disappearance of certain types of transactions from the cuneiform record was not solely due to the imposition of taxes,¹⁰⁰⁸ although the fact that a leather version of certain transactions was required will almost certainly have led to a decision not to also record some such transactions on clay.¹⁰⁰⁹

The tax stamps demonstrate that many local officials were involved in registering and taxing sales and, probably, in imposing a capitation tax. Salt, *andrapodikē* and *katagraphē/epōnion* stamps are well attested at both Uruk and Seleukeia-Tigris. However the scarcity of impressions of port and grain stamps at Seleukeia-Tigris and the thirtieth stamp at Uruk remind us that impressions of other stamps may not have survived. Moreover, it is likely that further taxes were levied but not documented with tax stamps. In particular, the activities of the *chreophylax* at Dura and the types of sales registered at Ptolemaic notary offices suggest that land sales should occupy a central place in the Seleukid registration and fiscal system. The tax stamps also offer no evidence for labour demands or military recruitment. Thus they give us only a partial insight into the taxes levied in Babylonia. The fact that some taxes seem not to have been recorded via tax stamps again hints at further complexities to fiscal structures that now elude us.

The officials responsible for registering documents, taxing sales, and imposing the salt tax belonged to the royal bureaucracy, as is demonstrated by the clear references to Seleukid power on the tax stamps, in particular through the anchor, and in the designation of the

¹⁰⁰⁶ Boiy argues that the kings must have provided financial support for the undertaking, 2010: 218.

¹⁰⁰⁷ Yiftach-Firanko 2014a: 320.

¹⁰⁰⁸ Contra Doty 1977: esp. 308-335; 2012: 2-3; McEwan 1988: 417.

¹⁰⁰⁹ As Stolper argues, it is also unlikely that the changes seen in sale formulae in cuneiform documents in the early third century were a result of administrative reforms, since these changes are not seen across Babylonia, 1994: 337.

archival complexes as the 'royal house of documents' or 'royal register for the Babylonians'. Thus tax collection in Babylonia was not delegated to civic administration. These royal officials may nonetheless often have been local men. We do not know how they were appointed or recompensed for their work. It is likely that only senior officials, such as the *dioikētēs*, were rewarded with royal estates and gifts, and probable that most local officials received a salary. It is possible that tax farmers were involved in the collection of some taxes, but hard to identify such men among the many officials and private individuals using anepigraphic seals.

Taxes on sales and the salt tax were probably demanded in cash. It is possible that the grain tax was paid in grain, as were harvest taxes in Jerusalem and Egypt. These tax demands thus were one part of a system that must also have incorporated the minting of bronze coins and creation of banks, and perhaps granaries. The relation of tax stamps to this broader system however is largely hidden.¹⁰¹⁰ The level of demands also cannot be determined, although it is probable that they were relatively onerous, in order to justify the expenditure on officials and paperwork.

The vast amounts of paperwork are suggestive of a highly bureaucratic state. The decision to seal many documents implies a desire to prove that procedures had been correctly followed. The resources collected through taxation, as well as accompanying paperwork, were presumably in part passed up the chain, from local centres such as Uruk to regional centres like Seleukeia-Tigris. However, the bullae do not provide clear evidence for these processes, but instead focus on the operation of administration at a civic level.

Features of the Seleukid taxation system in Babylonia have been regarded as connected with the ancient temples. For example, Kaye recently argued that the Seleukids did not normally tax sales within cities, and only did so in Babylonia because of the influence of the temples.¹⁰¹¹ However, the temples were not involved in levying these taxes. Moreover, the bullae indicate that there was no sharp divide in fiscal practice between the ancient Mesopotamian cities and the Greek foundation of Seleukeia-Tigris.¹⁰¹² Yet, despite the broad similarities in the taxes demanded in Uruk, Nippur and Seleukeia-Tigris, there were some differences in their names, the symbols on tax stamps and official seals, and the forms of bullae, including that orientated napkin-ring bullae were not used for salt documents at

¹⁰¹⁰ A close link between bronze coins and fiscal demands is suggested by the similarity in motifs on these coins and official seals, Lindström 2003: 49. The monograms on some coins seem to relate to mint officials; these cannot however be easily linked to the evidence of the tax stamps and figurative seals, on which monograms are rare. The importance of banks for enabling and controlling tax collection in Egypt is stressed by von Reden 2007: 268–270, 273–279.

¹⁰¹¹ 2015: esp. 88–89, 95.

¹⁰¹² Mollo suggests that the administrative system may have been less complex in Uruk than Seleukeia-Tigris, largely on the basis that *katagraphē* stamps are known only at the latter, 1997: 98. However, this is probably evidence only of differences in the production of stamps.

Uruk. This suggests that local men were able to determine many aspects relating to the daily functioning of the bureaucracy.

The local administration provided an essential backbone for the imperial project, supplying the resources necessary for the lifestyles and military campaigns of the upper echelons, and articulating the power and ideologies of the empire within civic environments. However, reforms to administrative protocols cannot be directly associated with political events. Moreover, the local bureaucracies continued to function even in times of warfare, demonstrating the extent to which they did not require guidance from senior officials.

6. Babylonia and the wider world

The bullae allow us to sketch an outline of administrative and fiscal practice in Babylonia. How does this fit with the picture produced by evidence from elsewhere?

i. Epigraphic dossiers

Most of our other evidence for Seleukid administrative and fiscal practice stems from epigraphic documents from western Asia Minor. There are a number of differences between the picture of the fiscal system conveyed by the bullae and that conveyed by inscriptions. The epigraphic evidence suggests that the Seleukid state did not tax sales in Asia Minor,¹⁰¹³ or impose a capitation or salt tax. Instead, a range of taxes on agriculture are recorded, as well as on the movement of goods. Moreover, in Asia Minor (Greek) cities, rather than individuals, seem to have been conceptualised as taxed by the royal administration. Cities negotiated with kings and senior officials as a unit, and fiscal exemptions were granted to all citizens. Most officials who appear in inscriptions hold very senior positions.¹⁰¹⁴

Some of these differences may arise simply from the different perspectives of the evidence. Inscriptions usually name only taxes on which exemptions have been granted, rather than giving a comprehensive list of all taxes demanded, while it seems that only certain taxes were documented via the use of tax stamps in Babylonia. There are occasional hints that there were greater similarities between the taxes demanded in Asia Minor and those imposed in Babylonia. In particular, a capitation tax demanded from all adults is referred to in a letter of the Attalid Eumenes II to the village of Kardakon,¹⁰¹⁵ a settlement which had previously been under Seleukid control. Likewise, the fact that inscriptions focus on the elite does not prove that there were not many local officials involved in royal administration in Asia Minor. However, tax exemptions do not seem to be granted to select groups within

¹⁰¹³ Kaye 2015: esp. 87-95.

¹⁰¹⁴ As noted by Ma, see n. 57.

¹⁰¹⁵ Austin, *HW²* No. 238, Cohen 1995: 330–331.

cities in Asia Minor, suggesting that there were real differences in how cities in the two regions interacted with the royal administration.

There is also no evidence of requirements to register people or documents with royal officials in Asia Minor. Cities could keep their own registers of people in local civic record offices. For example, in ca. 241 Smyrna, then loyal to Seleukos II, granted citizenship to inhabitants of Magnesia near Mount Sipylus and Old Magnesia, and decided that registers of inhabitants of Magnesia were to be deposited in the local records office and the individuals added to the citizen-lists of Smyrna; no reference is made to the involvement of royal officials in these processes.¹⁰¹⁶ Again, this may in part be due to the different perspectives provided by bullae and inscriptions. The reference to the royal archive at Sardeis demonstrate that such complexes existed in Seleukid Asia Minor, although it is unknown whether local inhabitants could (or had to) register documents there.

In conclusion, the bullae from Babylonia and inscriptions from Asia Minor appear to reflect different administrative systems. It is true that the former enclosed routine documents, while the latter record documents that were considered worth conserving for posterity. Yet there are remarkably few points of contact between the two. Neither the taxes nor the royal *chreophylakes* known from the bullae can be clearly identified in Seleukid Asia Minor. Moreover, there seem to be real differences between how the royal administration interacted with cities in the two regions. This suggests that the Seleukids created regional administrative frameworks, perhaps adapted from existing local models, rather than imposing one system across the empire.

ii. Ptolemaic Egypt

Ptolemaic administrative and fiscal practice in Egypt have notable similarities to those known from bullae from Babylonia. In particular, taxes on slave sales and a requirement to register transactions are known in both regions, as is a salt tax. As in Babylonia, Ptolemaic demands had their roots in earlier Egyptian history; for example, registration and taxation of sales are attested in the pharaonic era.¹⁰¹⁷ Yet there were profound differences between earlier practice and that of the Ptolemies, including in the names of taxes and in the use of tax farming.¹⁰¹⁸ The similarities in fiscal practice in third-century Egypt and Babylonia suggest that there was cross-fertilisation between the two kingdoms; in particular the existence of a salt tax in both suggest that one inspired the other. It is not now possible to determine beyond doubt the direction of this borrowing. In Egypt, the yoke tax was replaced by the salt tax in 264. The salt tax is known only from 250/49 in the Seleukid empire,

¹⁰¹⁶ *OGIS* 229 = Austin *HW²* No. 174. Royal power could nonetheless make itself felt in such archives, for example in the dating formulae used, as emphasised by Boffo 2013.

¹⁰¹⁷ Muhs 2005: 14, 19.

¹⁰¹⁸ Bingen 2007: esp. 165-169.

suggesting that it was copied from the Ptolemaic example, but it is possible that earlier salt stamps simply do not survive.

In both regions there was state involvement in, and taxation of, private legal documents. There is not the same coincidence of names with regard to this; registry officials in Egypt were known as *agoranomoi*, in contrast to the *chreophylakes* and *bybliophylakes* of Babylonia. However, in both regions state involvement in contracts seems to have increased over the Hellenistic era, suggesting that there may again have been mutual influences. In early-third-century Egypt there was state supervision of some transactions. Over the next two centuries the *agoranomoi*'s role extended from registering contracts to acting as notary officials.¹⁰¹⁹ In the Seleukid empire meanwhile, the office of *chreophylax* seems to have existed by 275. Developments in the *chreophylakes*' responsibilities over the third century are suggested by changes in the designs of their seals and tax stamps with which these co-occur.

The bullae suggest that there were significant differences in regional administration within the Seleukid empire. Administrative practice also differed between the core Ptolemaic territories of Egypt and the Levant, and their more peripheral holdings in Asia Minor and Cyprus.¹⁰²⁰ This may again suggest borrowing of administrative strategies between the kingdoms, although this may simply indicate that both responded pragmatically to their need to govern very different regions.

The loss of leather documents from Babylonia makes assessing the extent of similarities with Egypt difficult. For instance, the fact that the only capitation tax known from Seleukid stamps is the salt tax might suggest that here there was not the same diversity of capitation taxes as in Egypt. But alternatively other capitation taxes may have been demanded, but not documented with tax stamps. It is similarly unclear whether tax farming played a significant role in tax collection in Babylonia, as it did in Egypt, and whether there were any Seleukid royal monopolies. It is not possible to simply map the lost documents enclosed by the bullae onto Egyptian papyri. In particular, the large quantities of sealed salt documents from Seleukeia-Tigris do not have obvious counterparts. Moreover, in Egypt there does not seem to have been the same concern with sealing documents as in Babylonia.¹⁰²¹ It is however possible that this is again at least in part the product of our evidence, which forces us to

¹⁰¹⁹ Vandorpe 2015b: 102–105; Muhs 2010: 587–588. Yiftach-Firanko argues that *BGU* xiv 2367, which regulates identification of individuals in contracts dates to around 275, and indicates that Ptolemy II introduced strict requirements for private legal documents, 2008: n. 29; 2014b: 38; 2014c: 106–108.

¹⁰²⁰ Bagnall 1976: esp. 246–251.

¹⁰²¹ In particular, tax stamps were not used in Egypt, and it seems to have been more acceptable to use seal substitutes; for instance, one Greek notary contract was sealed with a bulla impressed by fingers, not a seal (Vandorpe 2015 http://www.trismegistos.org/seals/ov_lists/sealslist_1.pdf (accessed 10-07-2016), *Seal ID 876*, on *P. Stras.* 2 81).

focus on sealed documents in Babylonia, where only the bullae survive, and hides sealed documents in Egypt, where many documents come from cartonnage. Differences between rural and urban areas may also explain some of the difficulties in relating the bullae to papyri. Most Seleukid bullae stem from large cities, while most papyri come from the largely rural Fayum, where administrative practice differed from that in Alexandria. Thus the extent of similarities in fiscal and administrative practice between the two regions remain unclear.

In conclusion, in both Seleukid Babylonia and Ptolemaic Egypt, new fiscal and administrative structures developed in the early Hellenistic era. Similarities, in particular in the names of certain taxes and the development of requirements to register documents suggest mutual influences between the Ptolemaic and Seleukid empires were important in the evolution of administrative practice. The Seleukid bullae moreover demonstrate that Ptolemaic Egypt was not unusual in terms of its proliferation of paperwork. Nonetheless, administrative practice in Egypt and Babylonia was not identical; in particular, the use of tax stamps appears distinctively Seleukid.

7. Conclusions

The Seleukid empire was defined with regard to the king, as his *pragmata* – his affairs or concerns. Yet underpinning his power were the local officials responsible for the routine extraction of wealth. These men produced thousands of documents, some of which they sealed. Most of the officials whom we see through seal impressions were at the lower end of administrative hierarchies, responsible for collecting taxes and registering documents. It is unlikely that many of these men came to the king's attention. These officials nonetheless had some influence over aspects such as the local names of taxes and designs of tax stamps. More senior individuals were involved in the regional bureaucracy, including the *bybliophylax*, who is known from inscribed seals, and the *dioikētēs*, whose documents cannot clearly be identified.

The bullae leave much opaque about the bureaucracy in Babylonia; we cannot, for example, recognise the moment at which individuals handed over payments for taxes, or trace the procedures for transferring this wealth to the king and court. Nonetheless, the names of taxes and uses of stamps and official seals offer hints regarding the nature of the demands imposed by the administration, and the contents of the lost documents. For example, the thirtieth tax was presumably a requirement to pay a thirtieth of the value of a transaction, and was imposed on some slave sales.

Paying taxes and registering documents were two significant ways in which local inhabitants' lives were affected by living within the Seleukid empire. Documents stamped

with royal tax stamps and symbols, such as the anchor, were taken into their houses and temple spaces, while the large royal record offices became a part of the civic landscape, and a reference point at moments when documents could not be found. Thus royal power was engrained into daily life. However, despite the royal backdrop to local administration, stable royal power was not necessary to its functioning. Local taxes continued to be collected, and documents archived, throughout periods of warfare.

Substantial reforms were made to Achaemenid administrative and fiscal practice in Babylonia, in particular in the disappearance of the terminology of 'bow-lands' and 'chariot-lands', and new focus on the salt tax. There are notable differences between Seleukid practice in Babylonia and in Asia Minor, where tax exemptions were granted to entire cities and local royal officials are hard to identify. These differences seem to be regional, rather than dependent on whether a city was 'Greek' or not. The decision to tax sales and, probably, individuals, in Babylonia was not due to the presence of the ancient temples. Nonetheless, Babylonian heritage may be seen in aspects of Seleukid administration here, such as the setting of the percentage tax on sales at a thirtieth. The different administrative zones within the Seleukid empire emphasise the need to be wary of assuming that evidence from one region can be extrapolated to another.

Chapter 8. Conclusions

Bullae offer new ways of approaching Seleukid administration, and are useful in particular for understanding local bureaucracy in Babylonia. In this final chapter I review the evidence that they provide for understanding the administration, and consider the limitations of this. Next, I discuss the implications of considering the bullae as material objects, and as excavated and published objects. I conclude with a brief consideration of avenues for future research.

1. The evidence offered by the bullae for understanding Seleukid administration

Welles argued that a similar ‘complexity of organization and procedure [as that seen in Ptolemaic bureaucracy] must be assumed for the other Hellenistic kingdoms’, and that ‘the official correspondence of the Seleucid empire may have been comparable in volume to that of Ptolemaic Egypt’,¹⁰²² sentiments later echoed by Capdetrey, Austin, Sherwin-White, Kuhrt, and Taylor.¹⁰²³ However, little positive proof for this exists; the latter four authors all cite as the main evidence for the complexity of Seleukid bureaucracy the Skythopolis dossier from the Levant, which records the copying of letters and orders to several local officials in order to resolve a dispute.¹⁰²⁴

While the bullae leave much unclear, we can do more with them than simply list the taxes and officials who are named on impressed seals; one of the most important arguments of this thesis is that many individuals used figurative seals, with motifs that they had themselves selected, in their official capacities. Thus it is inappropriate to categorise these seals as ‘private’, as has been the usual practice hitherto. Through studying the uses of seals, we can populate Babylonia in the late third to mid-second centuries with a wide range of individuals, some involved in the royal administration, and others not, but who were nonetheless affected by its demands.

The quantities of bullae from Seleukeia-Tigris and Uruk demonstrate that the administration created vast amounts of paperwork. It is probable that many more archived documents remained unsealed, and thus are now invisible to us. However, tax stamps and seals naming officials are uncommon elsewhere in the Hellenistic world, suggesting that the Seleukid administration may have placed a particular emphasis on sealing documents. The tax stamps imply that registration of slave sales with royal officials was compulsory in

¹⁰²² 1934: xxxviii, 102.

¹⁰²³ See n. 59

¹⁰²⁴ See n. 52.

Babylonia, and that certain other transactions also had to be registered; meanwhile, cuneiform documents from Uruk indicate that prebend sales were usually – perhaps always – similarly registered. This requirement to register documents and pay taxes was probably the main way in which Seleukid rule made itself felt in people’s lives. The dynastic symbols on tax stamps and some seals emphasised that local officials acted as agents of the monarch, and meant that documents stored within houses and temples served as a constant reminder of Seleukid power. Through the vast Archive Building in Seleukeia-Tigris and royal records offices in Uruk and Babylon, the royal administration moreover shaped civic landscapes. While royal records could prove useful if difficulties arose in demonstrating ownership of particular property, it seems unlikely that requirements to pay taxes and to register documents were generally regarded as beneficial. Although it is inappropriate to regard the destruction of all archives as an indication of hatred of Seleukid rule, at Kedesh it does seem that the sealed documents in the Persian-Hellenistic Administrative Building were deliberately burnt because of their associations with the Seleukid administration.

Through study of the seal impressions, the bureaucracy emerges as a living structure, comprised of individuals and shaped by their decisions. While the surviving bullae do not offer a ‘freeze-frame’ of the operations of the Archive Building, they suggest that typically around two dozen men were active here. These men often worked in small groups, all of whom usually sealed documents together. While we cannot reconstruct their relationships with each other, such groups of colleagues almost certainly knew each other very well.

At times, individuals working at the Archive Building seem to have reformed procedures, for example altering the way in which a particular type of document was sealed, choosing to store certain documents in a new archival space, or deciding to remove groups of archived documents. More remarkable however is the level of continuity. Even when Seleukeia-Tigris was controlled by usurpers in the late third and mid-second centuries, tax collection apparently continued as usual. This implies that kings were not involved in the appointment, or work, of most of these local officials. Many documents seem to have been very routine in nature, and there were strong conventions regarding how to create and archive them. For example, there seem to have been limits on the size of seal that members of salt-groups could use, a rule that individuals working with the *bybliophylax* had to impress their figurative seal unobtrusively on the side of bullae, and an expectation that documents were filed in the Archive Building according to the impressed seal (but not necessarily according to their content). There are instances of idiosyncratic behaviour, where for instance an individual chose not to align an impression correctly, or used an unusually large lump of clay to form a bulla. Such cases demonstrate that most conventions governing the sealing and archiving of documents were habitual, rather than essential for

the validity, or retrieval, of a document; they moreover emphasise the presence of individuals behind the bullae.

Considering the evidence from Block G6 and the Archive Building at Seleukeia-Tigris in conjunction brings significant improvements to our understanding of the sealed documents. We are able to identify further officials using figurative seals, and to add nuance to our understanding of their roles. The double perspective of these archives also emphasises that seal impressions do not necessarily record everyone involved in a document. In particular, without the salt bullae from Archive B of Block G6, we would not conclude that a household might interact annually with the salt officials.

Bringing in the evidence from Uruk and other ancient Mesopotamian cities helps us to understand regional norms. Fiscal and administrative practice in these cities resembles that at Seleukeia-Tigris, despite their very different histories. Royal demands for taxation and registration affected transactions that took place among members of the temple communities. Although registration of certain transactions seems to have been obligatory, this does not mean that the state deliberately restricted the use of cuneiform.

While neither the registration of documents, nor the taxation of transactions, were Seleukid innovations, there were significant differences between Achaemenid and Seleukid administration in Babylonia. In particular, the tax stamps and official seals imply that Greek replaced Aramaic as the language of administration, and the salt tax seems to have been a new demand. Similar developments took place in Ptolemaic Egypt, including the introduction there of a salt tax, suggesting that there were mutual influences between the Ptolemaic and Seleukid kingdoms. There seem however to have been significant differences between Seleukid administration in Babylonia and in Asia Minor; in the latter, neither royal taxation of sales nor the salt tax are clearly attested. This suggests that there were distinct administrative zones within the Seleukid empire.

The bullae therefore enable us to consider a range of aspects of the practicalities of royal administration within civic communities, in particular in Babylonia. Nonetheless, much remains obscure. The fact that many officials used figurative seals, whose motifs cannot clearly be linked with status or role, makes understanding their responsibilities almost impossible. Identifying hierarchies is difficult, as is tracing the careers of individuals. Since not everybody involved in a document necessarily impressed their seal, we are also not able fully to reconstruct the range of individuals with whom officials interacted. The rationale for impressing stamps and seals cannot be entirely understood; in particular, the relationship between the *chreophylax* seals and *katagraphē* stamps remains unclear, and it is uncertain whether all transactions registered by royal officials were impressed by such a seal. Furthermore, the nature of many documents, including those relating to the salt tax, is

uncertain. Thus it must be accepted that there are limits to our ability to understand the practices that lie behind the bullae.

Some aspects that confuse us, such as the lack of an overarching rationale in the use of space at the Archive Building, seem to reflect ancient realities. However, many features that now baffle us, such as our inability to identify hierarchies or to understand the rationale for impressing figurative seals on some *bybliophylax* documents, are almost certainly due only to our perspective. The nature of most sealed documents and the broad structure of local administration could probably be coherently explained by most individuals on the street in Seleukeia-Tigris.

2. The bullae as objects

This thesis has also demonstrated that bullae should be considered as objects in their own right, and not simply as vessels for seal impressions. Many nuanced differences in the forms of bullae are simply because these are hand-made objects, which individuals shaped according to their personal preferences. However, form and sealing protocols could convey information to their users, although we are often unable fully to interpret these. One such category of bulla is the 'convex' type, described by McDowell, but largely overlooked since then; I demonstrate that it is a meaningful categorisation, and suggest that it was associated with a particular type of document, that was folded and tied in a distinctive manner and probably usually involved several bearers of figurative seals. Napkin-ring bullae have often been considered to be connected with cuneiform tablets. However, investigation of the various ways in which impressions can be located on the surface of such bullae suggests that there were distinct categories of napkin-ring bullae, and that napkin-rings were not regarded as derived from cuneiform tablets.

The bullae are additionally excavated objects. Messina and Lindström have previously used excavation records to improve our understanding of where bullae in the Archive Building at Seleukeia-Tigris and the temples at Uruk were discovered. My investigation of the records of the Michigan excavations at Seleukeia-Tigris, and in particular of the *Seleucia Excavation Records* and journals kept by Waterman and Hopkins, has demonstrated that these do not offer significant further information regarding the discovery of bullae to McDowell's published accounts. Archival records reveal the existence of some unpublished bullae in Baghdad, but do not offer further details on find-spots of bullae or note, for instance, the discovery of small fragments of bullae, briefly alluded to by McDowell.

Statistical approaches can help us to interpret bullae and seal impressions as relics of an administrative system. The bullae are however a partial sample of those originally created. Many sealed documents were removed from archives in antiquity. Bullae were also lost in

the initial destruction of archives and in the intervening centuries, while others may have been overlooked by archaeologists. Therefore we cannot use the number of surviving impressions of a seal to prove that its bearer was involved in a certain number of documents. Since the bullae have been disturbed over the centuries, we also cannot rely on a single find-spot to tell us where the associated document was archived; trends in find-spots are meaningful only when considered in aggregate.

Recognising the effects of approaching the bullae through modern publications is a further strand of my research. The decisions taken in the course of publishing bullae and seal impressions affect our understanding. In particular, many bullae are now very fragmentary, although this can be lost sight of in publications focused on seal impressions. Researchers face a number of challenges in working with bullae, including keeping track of large quantities of bullae, and identifying poorly-impressed seals. Such difficulties hint at some of the frustrations that individuals in the Seleukid empire may have experienced in working with sealed documents. It is however important not to exaggerate the similarities of these challenges, since the latter individuals had the actual documents, and were able to ask colleagues and family members about the contents and locations of documents.

My creation of relational databases of the bullae from Seleukeia-Tigris will facilitate others in asking their own questions of the material. My research has highlighted many errors in published catalogues, in particular in *STISA*, and emphasised the need for caution in making assertions regarding the use of seals without examining the relevant bullae. The corrupt data hinders work on the Archive Building bullae, the assemblage which offers the best possibilities for statistical analysis. It is not necessary to clean the data entirely, but in order to reach firmer conclusions about seal use, it would be helpful to check particular cases, such as the attestations of **Ani 2**, which is potentially a heirloom seal used by a senior official.

3. Avenues for future research

This thesis has included some unpublished bullae, and other bullae that were published in only a limited way. Re-examination of the bullae from the Michigan excavations at Seleukeia-Tigris improved our understanding of the relationship between the documents archived at the Archive Building and at Block G6 at Seleukeia-Tigris, and the responsibilities of certain seal-bearers. The inclusion of unpublished surface finds from the Michigan excavations at Seleukeia-Tigris did not, however, produce significant alterations to the picture derived from published finds from this city. Similarly, re-examination of bullae from Rassam's excavations confirmed that these are 'crowded' napkin-ring bullae, akin to those found by the German excavations at Babylon. The most significant result of this was the

realisation that the impressions on BM 77211 mirror those on BM 77102, offering another instance where bullae with the same sets of impressions apparently were found together.

It is probable that the bullae from Uruk that are now in the Oriental Museum, Chicago, and the Yale Babylonian Collection, New Haven, would prove to be similar to most excavated specimens from Uruk in Berlin. They are likely to be 'crowded' napkin-rings, impressed by figurative seals (mostly with Mesopotamian motifs), with some logic as to the positioning of impressions, including frequent use of dotted markings. Nonetheless, Wallenfels' account of the recurrence of seals on the Yale Babylonian Collection bullae implies that these were a separate archival group; therefore, there may be further differences between these bullae and published specimens, for example in terms of the quality of the leather on which the documents were written.¹⁰²⁵ The Oriental Museum's database suggests that many bullae in Chicago are complete or almost-complete 'crowded' napkin-ring bullae, which would enable further exploration of the positioning of impressions. Several are described as impressed by a seal depicting a figure with a flowing vase, suggesting that there may be related bullae within this collection. A future research project would be to examine these bullae in the hope of gaining a greater understanding of the bullae as physical objects and as remnants of collections of documents; it however is unlikely that study of these bullae would significantly improve our understanding of the activities of royal officials in Uruk.

By contrast, investigating the unpublished bullae from the Michigan excavations that are in Baghdad might improve our understanding of the relation between documents in the Archive Building and in Block G6. In particular, it would be interesting to discover what seals were impressed on the unpublished bulla F 197 from Room 141, given the close connections that exist between the other bulla from this room and two Archive Building bullae.

A further project suggested by my research is to explore in greater depth the Michigan excavations at Seleukeia-Tigris, in part to better understand the ancient history of Seleukeia-Tigris, but moreover to consider the excavation's place in the history of archaeology in early-twentieth-century Iraq. While the *Seleucia Excavation Records* and excavations journals in the Kelsey Museum offer few details regarding the discovery of the bullae, they provide considerable information about the aims and concerns of the archaeologists, and about the experience of working in Iraq in the 1920s and 1930s. In addition to Hopkins and Waterman's journals and the *Seleucia Excavation Records*, the Kelsey Museum houses unpublished photographs, drawings and reports (including several

¹⁰²⁵ In fact, Wallenfels' recent publication of those in the Yale Babylonian Collection (for which, see n. 319) reveals that they are indeed predominantly large napkin-ring bullae with several seals impressed, some with dotted markings, but, like most bullae, they seem to have enclosed documents written on fine leather, 2016: 14.

by Yeivin) relating to the excavations. Waterman's papers (which I have not yet investigated) are also available in the Bentley Historical Library of the University of Michigan. The social histories and broader context of the contemporary excavations at Karanis and Dura-Europos (sites at which Hopkins and Yeivin also dug) have been studied recently.¹⁰²⁶ These offer comparative examples through which to approach the Seleukeia-Tigris excavation, for example providing contextualisation for attitudes towards record keeping¹⁰²⁷ and the terminology applied to finds.¹⁰²⁸

Such archival records firstly offer the potential to explore the social history of the excavation. The journals emphasise Waterman and Hopkins' very different personalities. Waterman regularly provides a detailed schedule of who worked where on site, for instance beginning his account of the excavation with a description that he:

'Left Baghdad with General Hashim at 7:20 was at Tel Omar at 7:45, laid out two trial trenches... Workmen came at 9:15 am. 13 men, put six men in each trench'¹⁰²⁹

Hopkins by contrast is usually far vaguer, and often describes his feelings. For example, on 5th November 1936 he notes that:

'Struggled all day with Robinson trying with some success to get floor levels in Block B [=Block G6]'¹⁰³⁰

While on 6th December he comments that:

'I worked on the figurines but not very hard'.¹⁰³¹

Both men's journals record the concern for eliciting help from the RAF to take aerial photographs of the site,¹⁰³² as well as details of excavation life, including the many visitors to the site, their Thanksgiving celebrations,¹⁰³³ recipes for cooking rice,¹⁰³⁴ accounts of their own expenses,¹⁰³⁵ and interest in the budget and finds of the contemporary Michigan excavations at Karanis.¹⁰³⁶ Yeivin's unpublished reports meanwhile emphasise his desire for more resources, for example to enable plans to be produced on site, as well as the division between the 'white staff' and local workers.¹⁰³⁷

¹⁰²⁶ For example, Wilfong and Ferrara 2014; Baird 2007; 2011; 2012; 2014a.

¹⁰²⁷ The records produced by the contemporary Michigan excavations at Karanis are examined by Wilfong 2014; Encina 2014; Landvatter 2014. Baird discusses attitudes to record-keeping at Dura, 2014b: 6–13.

¹⁰²⁸ For example, some rooms at Dura were also described as 'liwans', Baird 2007: 37–39; 2012: 39.

¹⁰²⁹ 'Excavation Journal, Dec. 29, 1927 to Mar. 4, 1928', Dec. 29th, 1927.

¹⁰³⁰ Hopkins, 'Journal, Oct-Dec 1936'.

¹⁰³¹ Hopkins, 'Journal, Oct-Dec 1936'.

¹⁰³² Aerial photographs are referred to for example by Hopkins, 'Journal, Oct-Dec 1936' on Oct. 16th, Oct. 19th, Oct. 22nd, Oct. 24th, Oct. 29th, Oct. 30th, and Nov. 10th.

¹⁰³³ Hopkins, 'Journal, Oct-Dec 1936', Nov. 26th.

¹⁰³⁴ Hopkins, 'Journal, Oct-Dec 1936', Dec. 18th.

¹⁰³⁵ Unnumbered final pages of Hopkins, 'Journal, Oct-Dec 1936'.

¹⁰³⁶ Hopkins, 'Journal, Oct-Dec 1936', Oct. 26th.

¹⁰³⁷ 1930: 'Some notes on the work of the Michigan Expedition Season, 1929-30', 28.

Secondly, such records enable us to consider how the contemporary context shaped decisions regarding where to excavate and how to interpret finds. In particular, they document the ongoing desire to uncover Opis,¹⁰³⁸ the optimism that they had discovered Achaemenid and ‘pre-Flood’ remains,¹⁰³⁹ and the interest in identifying structures such as the palace and theatre.¹⁰⁴⁰ They enable consideration of why only certain parts of the excavation made it into published accounts; for instance, the insula to the north of Block G6 was partially excavated, although no plan or description was published.¹⁰⁴¹ Furthermore, they reveal initial interpretations of finds, indicating for example that Level IV of Block G6 was at one point considered to contain a casting workshop near to the find-spot of Archive B.¹⁰⁴²

The excavation of Seleukeia-Tigris is side-lined in histories of Classical archaeology and archaeology in Iraq.¹⁰⁴³ The early-twentieth-century excavation of a late-first-millennium city does not fit into the narrative of the hunt, at this time, for very early sites in Iraq, preferably with a Biblical connection. Meanwhile, its geographical location means that it is not clearly part of the story of the development of Classical archaeology. This tension can also be seen in contemporary accounts of the excavation. Hopkins, writing in 1936, emphasised Seleukid-era remains and evidence for Hellenism at Seleukeia-Tigris, describing, for example, the ‘genius’ behind the grid layout, but compared the city to Ur, Assur, Nineveh and Babylon, implicitly associating it with great Mesopotamian cities.¹⁰⁴⁴

What they uncovered was not the Hellenistic capital nor an ancient Near Eastern city, but predominantly Parthian-era remains. A further avenue of enquiry would be to explore their

¹⁰³⁸ For instance, Hopkins records a discussion of literary references to Opis on Nov. 1st, ‘Journal, Oct-Dec 1936’.

¹⁰³⁹ ‘B Season photo log’, p. 1 suggests a sewer in Trial Trench 4 was ‘possibly late Achaemenid’ and p. 2 notes decoration of a column as ‘characteristically Achaemenid’. Meanwhile Yeivin suggests that below the Hellenistic remains there was a:

‘water laid stratum of brownish clay free from any archaeological remains. Similar strata at KISH and UR have been interpreted as results of great floods. No doubt it was so in the case of SELEUCIA as well’,

and comments that:

‘Having spent the last few weeks of the season mostly in the drawing office, I can’t say whether the remains below the flood deposit are pre or post Alexandrian. One should imagine them to be PERSIAN or even LATE BABYLONIAN’,

(1930: ‘Some notes on the work of the Michigan Expedition Season, 1929-30’, 4-5).

¹⁰⁴⁰ For example, Hopkins’ initial jottings on ‘What to look for when it rains’ include ‘Walls of palace’ and ‘Theatre’ (‘Journal, Oct-Dec 1936’, initial undated page); he later notes that he thinks the palace may be on the site of the Archive Building (see n. 825).

¹⁰⁴¹ This is apparent from Yeivin, 1931: 29–30, Pl. I. It is also discussed by Yeivin in the unpublished report, 1930: ‘Some notes on the work of the Michigan Expedition Season, 1929-30’, 5.

¹⁰⁴² 1931: ‘Some notes on the work of the Michigan Expedition Season, 1930-31’, 33-34.

¹⁰⁴³ The excavations at Seleukeia-Tigris receive only very brief mentions in Bernhardsson’s history of archaeology in Iraq (2005: 139) and in Dyson’s account of the history of Classical archaeology in the United States (1998: 189), and are omitted entirely from Dyson’s broader history of the discipline of classical archaeology (2006).

¹⁰⁴⁴ Hopkins 1937: 32.

motivations for continuing to dig at this site, and institutions' reasons for funding them. Contemporary published reports do not explain the temporary cessation of excavations in 1932, while later accounts associate it with difficulties acquiring funds following the Great Depression.¹⁰⁴⁵ Difficulties acquiring funds certainly led to cessation of excavations in 1937-38,¹⁰⁴⁶ but whether this also lay behind the earlier pause, and whether this was directly linked to the Depression, is less clear. This was a moment when the end of British Mandate rule was creating doubts about whether excavations would continue to be able to acquire finds for museum collections.¹⁰⁴⁷ Concerns regarding the nature of any finds may also have led to difficulties in obtaining funding. Seleukeia-Tigris did not produce the spectacular paintings, sculpture or papyri of the contemporary Dura excavations. The Toledo and Cleveland Museums funded early seasons at Seleukeia-Tigris, but chose not to sponsor the 1936-37 season, suggesting that they had hoped for more visually-impressive objects. The archaeologists' own disappointment is suggested by Hopkins' journal, in which he frequently writes 'No special finds'.¹⁰⁴⁸ Yet Hopkins had chosen to leave his position at Yale, and thus the excavation of Dura, in order to move to Michigan and excavate at Seleukeia-Tigris, implying that he once regarded Seleukeia-Tigris as a promising site. Unpublished materials, including in the Yale Dura Archive, might shed light on Hopkins' motivations for this,¹⁰⁴⁹ while Waterman's papers might elucidate the reasons for the temporary pause in excavations in 1932. More generally, investigation of such documents would improve our understanding of contemporary attitudes towards the excavation of Seleukeia-Tigris.

Therefore, investigating archival materials would enable us to understand how the individuals involved and the context of 1920s and 1930s Iraq shaped the excavations, and the resulting publications, and to situate the excavation of Seleukeia-Tigris within the histories of Classical and Mesopotamian archaeology.

¹⁰⁴⁵ Commented on for example by <http://www.umich.edu/~kelseydb/Excavation/Seleucia.html> accessed 03-03-2015.

¹⁰⁴⁶ Hopkins 1937: 31.

¹⁰⁴⁷ Bernhardsson 2005: 169–183.

¹⁰⁴⁸ Such entries include those for 'Journal, Oct-Dec 1936', Oct. 12th, Oct. 13th, Oct. 27th, Nov. 6th, Nov. 7th, Nov. 9th, Nov. 20th, Nov. 23rd, Nov. 25th, Nov. 27th, Nov. 30th; this list is by no means comprehensive.

¹⁰⁴⁹ It is possible that such research would in fact emphasise the importance of personalities behind this decision. The recently-published letters of Clark Hopkins' wife, Susan, suggest that by 1933 Clark was bored at Dura, describing the finds as 'Adequate, but...not startling' (Dec. 15th, 1933, Hopkins, Goldman, and Goldman 2011: 203) and revealing that, when the excavation at Dura received funding for a further year in March 1934, 'we [Clark and Susan] were a wee bit disappointed to hear that, but Clark feels it is really necessary to finish up' (Hopkins, Goldman, and Goldman 2011: 211). Susan Hopkins' desire to live nearer to her family home in Wisconsin, which emerges from the letters (for example, 23rd Feb. 1929, Hopkins, Goldman, and Goldman 2011: 156), may also have motivated Clark's acceptance of the position at Michigan. Such comments emphasise that, just as the Seleukid administration was the product of individuals, who could behave idiosyncratically, so too were the modern excavations.

4. Final Remarks

Sherwin-White and Kuhrt begin their study of the Seleukid empire by citing Tarn's (fictional) description of a scholar hoping to discover an inscription that would answer a disputed issue,

‘What you desire just now is a long definite inscription to settle a controverted point in your favour. And if I could give it to you, just think how miserable you'd be. Nothing further to argue about there; and several quite happy and contentious professors would be reduced to such straits that I don't know what crimes you might all commit.’¹⁰⁵⁰

Their foregrounding of this quote emphasises the difficulties in approaching the Seleukid empire, and the desire to find further evidence to answer outstanding questions. The frustration in not being able to read the documents once enclosed by the bullae is immense. In the absence of such documents, the activities of users of figurative seals, in particular, remain enigmatic. We can recognise that the group of seal-bearers associated with the bearer of **TM 58** chose to use ‘crowded’ napkin-rings (an unusual choice at the Archive Building), that one of these individuals, the bearer of **At 151**, was also involved in the salt tax, and that documents associated with these seal-bearers remained in the Archive Building for decades. Yet we have little sense of what these documents were.

Nonetheless, the hollow archives formed by the surviving bullae allow us to glimpse some of the activities of officials working within the Seleukid administration, underneath the upper echelons of the king and court. At the Archive Building in Seleukeia-Tigris, and probably at similar complexes in other Mesopotamian cities, worked several small groups of men, responsible for extracting wealth from inhabitants, and creating and filing documents, usually according to well-established procedures. While this local bureaucracy presented a facade of power to the wider world, via imposing archival complexes and the use of tax stamps and official seals bearing potent dynastic symbols, within such complexes existed a more chaotic reality in which new sealing protocols were experimented with, documents and seals were misplaced, and the clearing out of old documents did not always happen.

¹⁰⁵⁰ Tarn 1938b: 17, cited by Sherwin-White and Kuhrt 1993: 5.

Bibliography

Archival Sources, Kelsey Museum of Archaeology, the University of Michigan

Seleucia Excavation Records, bound in five volumes as:

Vol. I. *Seasons A + B + C*.

Vol. II. *Season D*.

Vol. III. *Season E*.

Vol. IV. *Season F. Vol. 1*.

Vol. V. *Season F. Vol. 2*.

Excavation journals:

Waterman, L.: 'Excavation Journal, Dec. 29, 1927 to Mar. 4, 1928', Kelsey Museum of Archaeology, University of Michigan, Seleucia Box 7.4.

Waterman, L.: 'Excavation Journal, Dec. 1, 1929 to Jan. 16, 1930', Kelsey Museum of Archaeology, University of Michigan, Seleucia Box 7.9.

Hopkins, C.: 'Journal, Oct-Dec 1936', Kelsey Museum of Archaeology, University of Michigan, Seleucia Box 7.11.

Preliminary reports and notes:

Yeivin, S. 20th May 1930: 'Some notes on the work of the Michigan Expedition Season, 1929-30', Kelsey Museum of Archaeology, University of Michigan, Seleucia Box 3.1.

Yeivin, S. 3rd May 1931: 'Some notes on the work of the Michigan Expedition Season, 1930-31', Kelsey Museum of Archaeology, University of Michigan, Seleucia Box 3.8, III.

Photo Log

'B Season Photo Logs' [1928-1929], Kelsey Museum of Archaeology, University of Michigan, Seleucia Box 4.8.

Published works

[Anon.] 1983: 'Excavations in Iraq, 1981-82', *Iraq* 45, 199-224.

Abraham, K. 2004: *Business and Politics under the Persian Empire*, Bethesda, Maryland.

Ager, S. L. 1996: *Interstate Arbitrations in the Greek World, 337-90 B.C.*, Berkeley.

Allen, L. 2013: 'The letter as object: On the experience of Achaemenid letters', *Bulletin of the Institute of Classical Studies* 56, 21-36.

Allotte de la Fuye, C. F.-M. 1927: 'Monnaies trouvées à Susa au cours de la campagne de fouilles 1926-1927', *Revue d'assyriologie* 24, 127-134.

- Antela Bernárdez, B. 2009: 'The anchor and the crown. Seleucos' use of the "anchor" coin type in 305 B.C.', *Athenaeum* II, 605–608.
- Aperghis, G. G. 2004: *The Seleukid Royal Economy*, Cambridge.
- Aperghis, G. G. 2008: 'Managing an Empire—Teacher and Pupil', in S. M. R. Darbandi and A. Zournatzi (eds), *Ancient Greece and Ancient Iran: Cross-Cultural Encounters*, Athens, 137–147.
- Aperghis, G. G. 2010: 'Recipients and end-users on Seleukid coins', *Bulletin of the Institute of Classical Studies* 53, 55–84.
- Aperghis, G. G. 2011: 'Jewish Subjects and Seleukid Kings: A case study of economic interaction', in Z. Archibald, J. Davies, and V. Gabrielson (eds), *The Economies of Hellenistic Societies, Third to First Centuries BC*, Oxford, 19–41.
- Ariel, D. T., and Naveh, J. 2003: 'Selected Inscribed Sealings from Kedesh in the Upper Galilee', *Bulletin of the American Schools of Oriental Research* 329, 61–80.
- Arnaoutoglou, I. 1998: *Ancient Greek Laws: A Sourcebook*, London.
- Austin, M. M. 2006: *The Hellenistic World from Alexander to the Roman Conquest. A Selection of Ancient Sources in Translation*, 2nd ed., Cambridge.
- Avigad, N. 1976: *Bullae and Seals from a Post-Exilic Judean Archive*, Jerusalem.
- Bagnall, R. S. 1976: *The Administration of the Ptolemaic Possessions Outside Egypt*, Leiden.
- Bagnall, R. S. 2011: *Everyday Writing in the Graeco-Roman East*, Berkeley.
- Bagnall, R. S., and Derow, P. 2004: *The Hellenistic Period: Historical Sources in Translation*, 2nd ed., Oxford.
- Bagnall, R. S., and Frier, B. W. 1994: *The Demography of Roman Egypt*, Cambridge.
- Baird, J. A. 2007: 'The bizarre bazaar: Early excavations in the Roman East and problems of nomenclature', in B. Croxford, N. Ray, R. Roth, and N. White (eds), *TRAC 2006: Proceedings of the Sixteenth Annual Theoretical Roman Archaeology Conference*, Oxford, 34–42.
- Baird, J. A. 2011: 'Photographing Dura-Europos, 1928-1937: An archaeology of the archive', *American Journal of Archaeology* 115, 427–446.
- Baird, J. A. 2012: 'Constructing Dura-Europos, ancient and modern', in D. M. Totten and K. L. Samuels (eds), *Making Roman Places, Past and Present*, Portsmouth, RI, 34–49.
- Baird, J. A. 2014a: 'Towards an archaeology of archaeological archives', *Archaeological Review from Cambridge* 29, 14–32.
- Baird, J. A. 2014b: *The Inner Lives of Ancient Houses: An Archaeology of Dura-Europos*, Oxford.
- Baker, H. D. 2003: 'Record-keeping practices as revealed by the Neo-Babylonian private archival documents', in M. Brosius (ed.), *Ancient Archives and Archival Traditions. Concepts of Record-Keeping in the Ancient World*, Oxford, 241–263.
- Baker, H. D. 2004: *The archive of the Nappāhu family*. Archiv für Orientforschung. Beiheft 30, Wien.
- Baker, H. D. 2005: 'The property portfolio of a family of builders from Hellenistic Uruk', in H. D. Baker and M. Jursa (eds), *Approaching the Babylonian Economy*, Münster, 7–43.

- Baker, H. D. 2013a: 'The Image of the City in Hellenistic Babylonia', in E. Stavrianopoulou (ed.), *Shifting Social Imaginaries in the Hellenistic Period. Narrations, Practices, and Images*, Leiden, Boston, 51–65.
- Baker, H. D. 2013b: 'Beneath the stairs in the Rēš Temple of Hellenistic Uruk. A study in cultic topography and spatial organization', *Zeitschrift für Orient-Archäologie* 6, 18–42.
- Baker, H. D. 2014: 'Temple and city in Hellenistic Uruk: Sacred space and the transformation of Late Babylonian society', in E. Froot and R. Raja (eds), *Redefining the Sacred. Religious Architecture and Text in the Near East and Egypt 1000 BC - AD 300*, Turnhout, Belgium, 183–208.
- Baker, H. D., and Wunsch, C. 2001: 'Neo-Babylonian Notaries and Their Use of Seals', in W. W. Hallo and I. J. Winter (eds), *Seals and Seal Impressions. Proceedings of the XLVe Rencontre Assyriologique Internationale II*, Bethesda, Maryland, 197–213.
- Beaulieu, P.-A. 1989: 'Textes administratifs inédits d'époque hellénistique provenant des archives du Bit Rēš', *Revue d'assyriologie* 83, 53–87.
- Bencivenni, A. 2014: 'The King's Words: Hellenistic Royal Letters in Inscriptions', in K. Radner (ed.), *State Correspondence in the Ancient World. From New Kingdom Egypt to the Roman Empire*, Oxford, 141–171.
- Berlin, A. M., and Herbert, S. 2005: 'Life and Death on the Israel-Lebanon Border', *Biblical Archaeology Review* 31, 34–43.
- Berlin, A. M., and Herbert, S. C. 2012: 'Excavating Tel Kedesh: The story of a site and a project', *Archaeology* 65, 24–29.
- Berlin, A. M., and Herbert, S. C. 2013: 'Tel Kedesh', in D. M. Master (ed.), *The Oxford Encyclopedia of the Bible and Archaeology*, Oxford, 373–381.
- Berlin, A. M., Herbert, S. C., and Stone, P. 2014: 'Dining in State: The Table Wares from the Persian-Hellenistic Administrative Building at Kedesh', in P. G. Bilde and M. L. Lawall (eds), *Pottery, Peoples and Places: Study and Interpretation of Late Hellenistic Pottery*. Black Sea Studies 16, Aarhus, 307–321.
- Bernard, P., and Rapin, C. 1994: 'Un parchemin gréco-bactrien d'une collection privée', *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres*, 261–294.
- Bernhardsson, M. T. 2005: *Reclaiming a Plundered Past: Archaeology and Nation Building in Modern Iraq*, Austin, Texas.
- Bickerman, E. J. 1938: *Institutions des Séleucides*, Paris.
- Bickerman, E. J. 1988: *The Jews in the Greek Age*, Cambridge, Ma.
- Bickerman, E. J. 2007: 'The Seleucid Charter for Jerusalem', *Studies in Jewish and Christian History*, 2nd ed., Leiden, 315–356.
- Bingen, J. 2007: 'The Revenue Laws Papyrus. Greek tradition and Hellenistic adaption', *Hellenistic Egypt. Monarchy, Society, Economy, Culture. Edited and with an Introduction by Roger S. Bagnall*, Edinburgh, 157–188.
- Boardman, J. 1968: *Engraved Gems: The Ionides Collection*, London.
- Boardman, J. 1970: *Greek Gems and Finger Rings: Early Bronze Age to Late Classical*, London.
- Boardman, J. 1975: *Intaglios and Rings: Greek, Etruscan and Eastern, from a Private Collection*, London.

- Boardman, J. 2001: *Greek Gems and Finger Rings: Early Bronze Age to Late Classical (New Expanded Edition)*, 2nd ed., London.
- Boffo, L. 2013: 'La "presenza" dei re negli archivi delle poleis ellenistiche', in M. Faraguna (ed.), *Archives and archival documents in ancient societies*, Trieste, 201–244.
- Boiy, T. 2004: *Late Achaemenid and Hellenistic Babylon*, Leuven.
- Boiy, T. 2005: 'Akkadian-Greek Double Names in Hellenistic Babylonia', in W. van Soldt, R. Kalvelagen, and D. Katz (eds), *Ethnicity in Ancient Mesopotamia*, Leiden, 47–60.
- Boiy, T. 2010: 'Temple Building in Hellenistic Babylon', in M. J. Boda and J. Novotny (eds), *From the Foundations to the Crenellations. Essays on Temple Building in the Ancient Near East and Hebrew Bible*, Münster, 211–219.
- Bollati, A. 2003: 'Tyche nella glittica di Seleucia al Tigri', *Parthica* 5, 77–96.
- Bollati, A., and Messina, V. 2004: *Seleucia al Tigri. Le impronte di sigillo dagli Archivi. Figure umane, animali, vegetali, oggetti*, A. Invernizzi (ed.), Vol. III, III vols, Alessandria.
- Bollati, A., and Messina, V. 2004: *Seleucia al Tigri. Le impronte di sigillo dagli Archivi. Divinità*, A. Invernizzi (ed.), Vol. II, III vols, Alessandria.
- Boschloos, V., Devillers, A., Gubel, E., Hameeuw, H., Jean, C., van Goethem, S., and Overlaet, B. 2012: 'The ancient Near Eastern Glyptic Collections of the Royal Museums of Art and History Reconsidered', *Bulletin des musées royaux d'art et d'histoire, Parc du cinquanteaire, Bruxelles* 83, 23–44.
- Boussac, M.-F. 1988: 'Sceaux Déliens', *Revue Archéologique* 2. Nouvelle Série, 307–340.
- Boussac, M.-F. (ed.) 1992: *Les sceaux de Délos / Ta sphragismata tês Délou 1. Sceaux publics, Apollon, Hélios, Artémis, Hécate*. Hellēnogallikes ereunes = Recherches franco-helléniques 2, Athens.
- Boussac, M.-F. 1993: 'Archives personnelles à Délos', *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 137, 677–693.
- Boussac, M.-F. 1997: 'Masques et acteurs sur les sceaux de Délos', *Pallas* 47, 145–164.
- Bregstein, L. 1996: 'Sealing practices in the fifth century Murašû archive from Nippur, Iraq', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 53–63.
- Bregstein, L. 1997: 'Seal use in fifth century Nippur, Iraq: a study of seal selection and sealing practices in the Murašû archive', Unpublished PhD thesis, University of Pennsylvania.
- Bresson, A. 2016: *The Making of the Ancient Greek Economy: Institutions, Markets, and Growth in the City-States*, S. Rendall (tran.), Expanded and updated English ed., Princeton, N.J.
- Briant, P. 1996: 'The Seleucid Kingdom, the Achaemenid Empire and the History of the Near East in the First Millennium B.C.', in P. Bilde, T. Engberg-Pedersen, L. Hannestad, and J. Zahle (eds), *Religion and Religious Practice in the Seleucid Kingdom*, Aarhus, 40–65.
- Briant, P. 2002: *From Cyrus to Alexander. A History of the Persian Empire*, P. T. Daniels (tran.), Winona Lake, Indiana.
- Briant, P. 2006: 'L'Asie Mineure en transition', in P. Briant and F. Joannès (eds), *La transition entre l'empire achéménide et les royaumes hellénistiques*, Paris, 309–351.

- Briant, P. 2009: 'The Empire of Darius III in Perspective', in W. Heckel and L. A. Tritle (eds), *Alexander the Great. A New History*, Oxford, 147–170.
- Briant, P. 2010: *Alexander the Great and His Empire. A Short Introduction*, A. Kuhrt (tran.), Princeton.
- Brosius, M. 2003a: 'Ancient Archives and Concepts of Record-Keeping: An Introduction', in M. Brosius (ed.), *Ancient Archives and Archival Traditions. Concepts of Record-Keeping in the Ancient World*, Oxford, 1–16.
- Brosius, M. 2003b: 'Reconstructing an Archive: Account and Journal Texts from Persepolis', in M. Brosius (ed.), *Ancient Archives and Archival Traditions. Concepts of Record-Keeping in the Ancient World*, Oxford, 264–283.
- Brown, D. 2002: 'The Level of the Euphrates', in C. Wunsch (ed.), *Mining the Archives. Festschrift for Christopher Walker on the Occasion of His 60th Birthday*, Dresden, 37–56.
- Brown, F. E. 1938: 'Review of Stamped and Inscribed Objects from Seleucia on the Tigris by Robert H. McDowell', *American Journal of Archaeology* 42, 607–617.
- Brown, F. E. 1944: 'Inscriptions: Block G3', in M. I. Rostovtzeff, A. R. Bellinger, F. E. Brown, and C. B. Welles (eds), *The Excavations at Dura-Europos. Preliminary Report of the Ninth Season of Work 1935-1936. Part I: The Agora and Bazaar*, New Haven, 168–175.
- Çakmak, L. A. 2009: 'Mixed Signals: Androgyny, Identity, and Iconography on the Graeco-Persian Sealings from Tel Kedesh, Israel', Unpublished PhD thesis, University of Michigan.
- Çakmak, L. A. 2011: 'A Hybridized Aphrodite: the Anadyomene Motif at Tel Kedesh', in A. Kouremenos, S. Chandrasekaran, and R. Rossi (eds), *From Pella to Gandhara: Hybridisation and Identity in the Art and Architecture of the Hellenistic East*. British Archaeological Reports International Series 2221, Oxford, 65–83.
- Callieri, P. 2005: 'Review of A. Invernizzi (ed.), Seleucia al Tigri. Le impronte di sigillo dagli Archivi', *Mesopotamia, Rivista Di Archeologia* XL, 205–207.
- Callieri, P., and Bernard, P. 1995: 'Une borne routière grecque de la région de Persepolis', *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres* 139, 65–95.
- Cameron, G. C. 1948: *Persepolis Treasury Tablets*, Chicago.
- Canali de Rossi, F. 2004: *Iscrizioni dello estremo oriente greco: un repertorio*, Bonn.
- Capdetrey, L. 2004: 'La basilikon et les cités grecques dans le royaume séleucide: modalités de redistribution de la richesse royale et forms de dépendence des cités', *Topoi Supplément 6: Le roi et l'économie*, 105–129.
- Capdetrey, L. 2006a: 'Pouvoir et écrit. Production, reproduction et circulation des documents dans l'administration séleucide', in L. Capdetrey and J. Nelis-Clément (eds), *La circulation de l'information dans les états antiques*, Paris, 105–125.
- Capdetrey, L. 2006b: 'Économie royale et communautés locales dans le royaume séleucide: entre négociation et imposition', in R. Descat (ed.), *Approches de l'économie hellénistique*, Saint-Bertrand-de-Comminges, 359–386.
- Capdetrey, L. 2007: *Le pouvoir séleucide: territoire, administration, finances d'un royaume hellénistique*, Rennes.
- Capdetrey, L. 2015: 'Le royaume séleucide: un empire impossible?', in F. Hurlet (ed.), *Les empires: Antiquité et Moyen Âge. Analyse comparée*, Rennes, 57–80.

- Ceccarelli, P. 2014: *Ancient Greek Letter Writing: A Cultural History (600 BC- 150 BC)*, Oxford.
- Chandezon, C. 2004: 'Prélèvements royaux et fiscalité civique dans le royaume séleucide', *Topoi Supplément 6: Le roi et l'économie*, 131–148.
- Charpin, D. 2010: 'Outline for a diplomatics of Mesopotamian documents', in J. M. Todd (tran.), *Writing, Law and Kingship in Old Babylonian Mesopotamia*, Chicago, 25–42.
- Chrubasik, B. 2011: 'The men who would be king: kings and usurpers in the Seleukid Empire', Unpublished PhD thesis, University of Oxford.
- Clancier, P. 2005: 'Les scribes sur parchemin du temple d'Anu', *Revue d'assyriologie* 99, 85–104.
- Clancier, P. 2011: 'Cuneiform Culture's Last Guardians: The Old Urban Notability of Hellenistic Uruk', in K. Radner and E. Robson (eds), *The Oxford Handbook of Cuneiform Culture*, Oxford, 752–773.
- Clarke, G. W., and Connor, P. J. (eds) 2002: *Jebel Khalid on the Euphrates. Report on Excavations 1986-1996.*, Vol. 1, 4 vols. Mediterranean archaeology 5, Sydney.
- Clarke, G. W. 2002a: 'Four Hellenistic Seal Impressions', in G. W. Clarke and P. J. Connor (eds), *Jebel Khalid on the Euphrates. Report on Excavations 1986-1996.*, Vol. 1, 4 vols. Mediterranean archaeology 5, Sydney, 1:201–204.
- Clarke, G. W. 2002b: 'Introduction', in G. W. Clarke and P. J. Connor (eds), *Jebel Khalid on the Euphrates. Report on Excavations 1986-1996.*, Vol. 1, 4 vols. Mediterranean archaeology 5, Sydney, 1:vii–xi.
- Clarke, G. W. 2002c: 'The Governor's Palace, Acropolis', in G. W. Clarke and P. J. Connor (eds), *Jebel Khalid on the Euphrates. Report on Excavations 1986-1996.*, Vol. 1, 4 vols. Mediterranean archaeology 5, Sydney, 1:25–48.
- Clarke, G. W. 2002d: 'The Main Gate', in G. W. Clarke and P. J. Connor (eds), *Jebel Khalid on the Euphrates. Report on Excavations 1986-1996.*, Vol. 1, 4 vols. Mediterranean archaeology 5, Sydney, 1:17–23.
- Clarysse, W., and Thompson, D. J. 1995: 'The Salt-Tax Rate Once Again', *Chronique d'Égypte* 70, 223–229.
- Clarysse, W., and Thompson, D. J. 2006: *Counting the People in Hellenistic Egypt. Historical Studies*, Vol. 2, 2 vols, Cambridge.
- Clarysse, W., and Thompson, D. J. 2007: 'Two Greek texts on skin from Hellenistic Bactria', *Zeitschrift für Papyrologie und Epigraphik* 159, 273–279.
- Clarysse, W., and Vandorpe, K. 1998: 'The Ptolemaic Apomoiria', in H. Melaerts (ed.), *Le Culte du Souverain dans L'Égypte ptolémaïque au IIIe siècle avant notre ère*. *Studia Hellenistica* 34, Leuven, 5–42.
- Clay, A. T. 1923: *Babylonian records in the library of J. Pierpont Morgan. Part IV.*, New Haven.
- Cohen, G. M. 1991: 'Katoikia, katoikoi and Macedonians in Asia Minor', *Ancient Society* 22, 41–50.
- Cohen, G. M. 1995: *The Hellenistic Settlements in Europe, the Islands, and Asia Minor*, Berkeley.
- Cohen, G. M. 2006: *The Hellenistic Settlements in Syria, the Red Sea Basin, and North Africa*, Berkeley.

- Cohen, G. M. 2013: *The Hellenistic Settlements in the East from Armenia and Mesopotamia to Bactria and India*, Berkeley.
- Collon, D. 1990: *Near Eastern Seals*, London.
- Collon, D. 1996: 'A Hoard of Sealings from Ur', in M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, Paris, 65–84.
- Collon, D. 1997a: 'Ancient Near Eastern Seals', in D. Collon (ed.), *7000 Years of Seals*, London, 11–30.
- Collon, D. 1997b: 'Introduction', in D. Collon (ed.), *7000 Years of Seals*, London, 9–10.
- Collon, D. 2005: *First Impressions: Cylinder Seals in the Ancient Near East*, Revised., London.
- Connelly, J. B., and Plantzos, D. 2006: 'Stamp-seals from Geronisos and their Contexts', *Report of the Department of Antiquities, Cyprus*, 263–293.
- Coqueugniot, G. 2011: 'The Oriental Agora. The case of Seleucid Europos-Dura, Syria', in A. Giannikure (ed.), *The Agora in the Mediterranean from Homeric to Roman Times*, Athens, 295–309.
- Coqueugniot, G. 2013: *Archives et bibliothèques dans le monde grec: édifices et organisation, Ve siècle avant notre ère - IIe siècle de notre ère*. BAR international series 2536, Oxford.
- Corò Capitanio, P. 2012: 'By the Written Order of the rab ša rēš āli ša Uruk: towards an understanding of the bīt ritti system in Hellenistic Uruk', in G. B. Lanfranchi, D. Morandi Bonacossi, C. Pappi, and S. Ponchia (eds), *Leggo! Studies Presented to Frederick Mario Fales on the Occasion of His 65th Birthday*, Wiesbaden, 149–160.
- Corò, P. 2014: 'Identifying women in Hellenistic Uruk: A matter of perspective?', *Kaskal* 11, 183–192.
- Corsaro, M. 1985: 'Tassazione regia e tassazione cittadina dagli achemenidi ai re ellenistici: alcune osservazioni', *Revue des études anciennes* 87, 73–95.
- Cotton, H. M., and Wörrle, M. 2007: 'Seleukos IV to Heliodoros. A New Dossier of Royal Correspondence from Israel', *Zeitschrift für Papyrologie und Epigraphik* 159, 191–205.
- Criscuolo, L. 2013: 'Copie, malacopie, copie d'ufficio e il problema della titolarità di un archivio nell'Egitto tolemaico', in M. Faraguna (ed.), *Archives and archival documents in ancient societies*, Trieste, 245–257.
- Davies, J. K. 2001: 'Hellenistic Economies in the post-Finley era', in Z. Archibald, J. Davies, V. Gabrielson, and G. J. Oliver (eds), *Hellenistic Economies*, London, 11–62.
- Davies, J. K. 2003: 'Greek Archives: From Record to Monument', in M. Brosius (ed.), *Ancient Archives and Archival Traditions. Concepts of Record-Keeping in the Ancient World*, Oxford, 323–343.
- Davies, J. K. 2013: 'Mediterranean economies through the text of Polybius', in B. Gibson and T. Harrison (eds), *Polybius and His World. Essays in Memory of F. W. Walbank*, Oxford, 319–335.
- Davis, N., and Kraay, C. M. 1973: *The Hellenistic Kingdoms. Portrait Coins and History*, London.
- Daybell, J. 2012: *The Material Letter in Early Modern England: Manuscript Letters and the Culture and Practices of Letter-Writing, 1512-1635*, Houndmills, Basingstoke, Hampshire.

- Debevoise, N. C. 1934: *Parthian Pottery from Seleucia on the Tigris*, Ann Arbor.
- Delaporte, L. 1923: *Catalogue des cylindres, cachets et pierres gravées de style oriental. Musée du Louvre. Volume II: Acquisitions*, Paris.
- Depauw, M. 1997: *A Companion to Demotic Studies*. Papyrologica Bruxellensia 28, Bruxelles.
- Depauw, M. 2013: 'Reflections on reconstructing private and official archives', in M. Faraguna (ed.), *Archives and Archival Documents in Ancient Societies*, Trieste, 259–266.
- Dercksen, J. G. 2011: 'The Seal of Bēl: Sealing practices and Babylonian religious motifs in the Seleucid period', in G. Barjamovic, J. L. Dahl, U. S. Koch, W. Sommerfeld, and J. Goodnick Westenholz (eds), *Akkade Is King. A Collection of Papers by Friends and Colleagues Presented to Aage Westenholz on the Occasion of His 70th Birthday 15th of May 2009*, Leiden, 67–78.
- Descat, R. 2003: 'Qu'est-ce que l'économie royale?', in F. Prost (ed.), *L'Orient méditerranéen de la mort d'Alexandre aux campagnes de Pompée*, Rennes, 149–168.
- Doty, L. T. 1977: *Cuneiform Archives from Hellenistic Uruk*, Ann Arbor, Michigan.
- Doty, L. T. 1978: 'A cuneiform tablet from Tell 'Umar', *Mesopotamia, Rivista Di Archeologia* 13–14, 91–98.
- Doty, L. T. 1979: 'An Official Seal of the Seleucid Period', *Journal of Near Eastern Studies* 38, 195–197.
- Doty, L. T. 1988: 'Nikarchos and Kephalon', in E. Leichty, M. deJong Ellis, and P. Geradi (eds), *A Scientific Humanist: Studies in Memory of Abraham Sachs*, Philadelphia, 95–118.
- Doty, L. T. 2012: *Cuneiform Documents from Hellenistic Uruk*. Yale Oriental Series, Babylonian Texts XX, New Haven.
- Dougherty, R. P. 1932: 'The names of two Aramean scribes stamped upon clay bullae', *Seleucid Babylonia. Bullae and Seals of Clay with Greek Inscriptions*, New Haven, 94–97.
- Downey, S. B. 1988: *Mesopotamian Religious Architecture: Alexander through the Parthians*, Princeton.
- van Driel, G. 2002: *Elusive Silver: In Search of a Role for a Market in an Agrarian Environment: Aspects of Mesopotamia's Society*, Leiden.
- Driver, G. R. 1923: 'A new seal in the Ashmolean Museum', *Journal of Hellenic Studies* 43, 55–56.
- Driver, G. R. 1954: *Aramaic Documents of the Fifth Century B.C.*, Oxford.
- Dusinberre, E. R. M. 2005: *Gordion Seals and Sealings: Individuals and Society*. University Museum monograph 124, Philadelphia.
- Dyson, S. L. 1998: *Ancient Marbles to American Shores: Classical Archaeology in the United States*, Philadelphia.
- Dyson, S. L. 2006: *In Pursuit of Ancient Pasts: A History of Classical Archaeology in the Nineteenth and Twentieth Centuries*, New Haven.
- Edgar, M. C. C. 1907: 'Notes from the Delta: I. Clay Sealings from Thmouis', *Annales Du Service Des Antiquités de l'Égypte* 8, 154–157.

- Encina, S. 2014: 'Karaniš in the Kelsey Museum Archives', in T. G. Wilfong and A. W. S. Ferrara (eds), *Karaniš Revealed: Discovering the Past and Present of a Michigan Excavation in Egypt*, Ann Arbor, Michigan, 7–14.
- Engels, D. 2011: 'Middle Eastern "Feudalism" and Seleucid Dissolution', in K. Erickson and G. Ramsey (eds), *Seleucid Dissolution: The Sinking of the Anchor*, Wiesbaden, 19–36.
- Erickson, K. 2009: 'The early Seleucids, their gods and their coins', Unpublished PhD thesis, University of Exeter.
- Errington, R. M. 2008: *A History of the Hellenistic World 323-30 BC*, Oxford.
- Faraguna, M. 2013: 'Foreword', in M. Faraguna (ed.), *Archives and Archival Documents in Ancient Societies*, Trieste, 7–10.
- Finkbeiner, U. 1987: 'Uruk-Warka. The Late Periods', *Mesopotamia, Rivista Di Archeologia* 22, 233–250.
- Fisher, C. S. 1905: *Babylonian Expedition of the University of Pennsylvania. Part I. Excavations at Nippur. Plans, Details and Photographs of the Buildings, with Numerous Objects Found in Them during the Excavations of 1889, 1890, 1893-1896, 1899-1900*, Philadelphia.
- Fleischer, R. 1991: *Studien zur seleukidischen Kunst*, Mainz am Rhein.
- Fleischer, R. 1996: 'Portraits of Hellenistic Rulers on Bullae', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 321–326.
- Frahm, E. 2013: 'Keilschriftkundige, Königstöchter und belesene Bierbrauer. Drei Jahrtausende geistigen Lebens in Uruk', in N. Crüsemann, M. van Ess, M. Hilgert, and B. Salje (eds), *Uruk. 5000 Jahre Megacity*, Berlin, 311–317.
- French, D. H. 1997: 'Pre- and early- Roman roads of Asia Minor: A Hellenistic Stadion-stone from Ephesus', *Arkeoloji Dergisi* 5, 189–195.
- Garrison, M. B. 1991: 'Seals and the elite at Persepolis: Some observations on early Achaemenid Persian art', *Ars Orientalis* 21, 1–29.
- Garrison, M. B. 1996: 'A Persepolis Fortification seal on the tablet MDP 11 308 (Louvre Sb 13078)*', *Journal of Near Eastern Studies* 55, 15–35.
- Garrison, M. B. 2011: 'The seal of "Kuraš the Anzanite, Son of Šešpes" (Teispes), PFS 93*: Susa – Anšan – Persepolis', in J. Álvarez-Mon and M. B. Garrison (eds), *Elam and Persia*, Winona Lake, Indiana, 375–405.
- Garrison, M. B. 2014: 'The Royal-Name Seals of Darius I', in M. Kozuh, W. F. M. Henkelman, and C. E. Jones (eds), *Extraction and Control. Studies in Honor of Matthew W. Stolper*, Chicago, 67–104.
- Garrison, M. B., and Root, M. C. 1998: *Persepolis Seal Studies*, Leiden.
- Garrison, M. B., and Root, M. C. 2001: *Seals on the Persepolis Fortification Tablets*, Vol. I, Chicago.
- Gascou, J. 2009: 'The Papyrology of the Near East', in R. S. Bagnall (ed.), *The Oxford Handbook of Papyrology*, Oxford, 473–494.
- Gates, J. E. 2002: 'The Ethnicity Name-Game: What lies behind "Graeco-Persian"?', *Ars Orientalis* 32, 105–132.
- Gates, J. E. 2003: 'A Clay Sealing from Karaniš in the Kelsey Museum', *Bulletin, The University of Michigan Museums of Art and Archaeology* 15, 92–95.

- Gates-Foster, J. E. 2014: 'The Granary C123 Sealings from Karanis', in T. G. Wilfong and A. W. S. Ferrara (eds), *Karanis Revealed: Discovering the Past and Present of a Michigan Excavation in Egypt*, Ann Arbor, Michigan, 143–148.
- Geller, M. J., and Potts, D. T. 2015: 'The gymnasium at Babylon and Jerusalem', in M. J. Geller (ed.), *The Archaeology and Material Culture of the Babylonian Talmud*, Leiden, 387–395.
- George, A. R. 2010: 'Xerxes and the Tower of Babel', in J. Curtis and S. J. Simpson (eds), *The World of Achaemenid Persia*, London, 471–480.
- Ghirshman, R. 1954: *Village perse-achéménide*, Paris.
- Gibson, M. 1992: 'Patterns of Occupation at Nippur', in M. deJong Ellis (ed.), *Nippur at the Centennial*, Philadelphia, 33–54.
- Gibson, M. 1994: 'Parthian seal style: A contribution from Nippur', *Mesopotamia, Rivista Di Archeologia* 29, 89–105.
- Grainger, J. D. 1997: *A Seleukid Prosopography and Gazetteer*, Leiden.
- Grainger, J. D. 2014: *The Rise of the Seleukid Empire (323-223): Seleukos I to Seleukos III*, Barnsley, South Yorkshire.
- Greenfield, J. C. 1985: 'Aramaic in the Achaemenian Empire', in I. Gershevitch (ed.), *The Cambridge History of Iran. Volume 2. The Median and Achaemenian Periods*, Cambridge, 698–714.
- Groningen, B. A. 1933: *Aristote: Le second livre de l'économique*, Leiden.
- Gyselen, R. 2007: *Sasanian Seals and Sealings in the A. Saeedi Collection*. Acta Iranica 44, Leuven.
- Habicht, C. 2006a: 'Royal Documents in 2 Maccabees', *The Hellenistic Monarchies: Selected Papers*, Ann Arbor, 106–123.
- Habicht, C. 2006b: 'The Ruling Class in the Hellenistic Monarchies', *The Hellenistic Monarchies: Selected Papers*, Ann Arbor, 26–40.
- Habicht, C. 2006c: 'Athens and the Seleucids', *The Hellenistic Monarchies: Selected Papers*, Ann Arbor, 155–173.
- Hackl, J., and Pirngruber, R. 2015: 'Prices and related data from northern Babylonia in the Late Achaemenid and early Hellenistic periods, c. 480-300 BC', in R. J. van der Spek, B. van Leeuwen, and J. L. van Zanden (eds), *A History of Market Performance: From Ancient Babylonia to the Modern World*, London, 107–127.
- Hallock, R. T. 1969: *Persepolis Fortification Tablets*, Chicago.
- Hallock, R. T. 1977: 'The use of seals on the Persepolis Fortification Tablets', in R. D. Biggs and M. Gibson (eds), *Seals and Sealing in the Ancient Near East*, Malibu, Calif., 127–134.
- Hameeuw, H., and van Overmeire, S. 2014: 'The Seleucid Bullae from Uruk in the Royal Museums of Art and History, Brussels', *Mesopotamia, Rivista Di Archeologia* 49, 113–142, pls. 5–13.
- Hannestad, L. 2012: 'The Seleucid Kingdom', in D. T. Potts (ed.), *A Companion to the Archaeology of the Ancient Near East*, Vol. 2, 2 vols, Chichester, 2:984–1000.
- Henig, M. 1997: 'Roman Sealstones', in D. Collon (ed.), *7000 Years of Seals*, London, 88–106.
- Henkelman, W. F. M. 2008: *The Other Gods Who Are: Studies in Elamite-Iranian Acculturation Based on the Persepolis Fortification Texts*, Leiden.

- Henkelman, W. F. M. 2010: “Consumed before the King”: The Table of Darius, that of Irdabama and Irtaštuna, and that of his Satrap, Karkiš’, in B. Jacobs and R. Rollinger (eds), *Der Achämenidenhof: The Achaemenid court*, Wiesbaden, 667–775.
- Henkelman, W. F. M., Jones, C. E., and Stolper, M. W. 2004: ‘Clay tags with Achaemenid seal impressions in the Dutch Institute of the Near East (NINO) and elsewhere’, *Achaemenid Research on Texts and Archaeology* 1, 1–66.
- Herbert, S. C. 2003: ‘The Hellenistic Archives from Tel Kedesh (Israel) and Seleucia-on-the-Tigris (Iraq)’, *Bulletin, The University of Michigan Museums of Art and Archaeology* 15, 65–86.
- Herbert, S. C. 2008: ‘The Missing Pieces: Miniature Reflections of the Hellenistic Artistic Landscape in the East’, in Y. Z. Eliav, E. A. Friedland, and S. Herbert (eds), *The Sculptural Environment of the Roman Near East: Reflections on Culture, Ideology, and Power*, Leuven, 257–272.
- Herbert, S. C. 2013: ‘Bullae’, in W. Aylward (ed.), *Excavations at Zeugma, Conducted by Oxford University*, Vol. II, III vols, Los Altos, California, II:210–217.
- Herbert, S. C., and Berlin, A. M. 2000: ‘Tel Kedesh, 1997-1999’, *Israel Exploration Journal* 50, 118–123.
- Herbert, S. C., and Berlin, A. M. 2003: ‘A New Administrative Center for Persian and Hellenistic Galilee: Preliminary Report of the University of Michigan/University of Minnesota Excavations at Kedesh’, *Bulletin of the American Schools of Oriental Research* 329, 13–59.
- Herrmann, P., and Malay, H. M. 2007: *New Documents from Lydia*, Vienna.
- Hilprecht, H. V. 1904: *The Excavations in Assyria and Babylonia*, Philadelphia.
- Honigman, S. 2014: *Tales of High Priests and Taxes. The Books of the Maccabees and the Judean Rebellion against Antiochos IV*, Oakland, California.
- Hoogendijk, F. A. J. 2010: ‘The practice of taxation in three late Ptolemaic papyri’, in T. Gagos and A. P. Hyatt (eds), *Proceedings of the 25th International Congress of Papyrology*, Ann Arbor, Michigan, 313–321.
- Hopkins, C. 1937: ‘Michigan Excavations at Seleucia-on-the-Tigris, 1936-37’, *Michigan Alumnus Quarterly Review* 10, 28–32.
- Hopkins, C. 1939: ‘A Bird’s-eye View of Opis and Seleucia’, *Antiquity* 13, 440–448.
- Hopkins, C. 1972: *Topography and Architecture of Seleucia on the Tigris*, Ann Arbor, Michigan.
- Hopkins, S. M., Goldman, B., and Goldman, N. 2011: *My Dura-Europos: The Letters of Susan M. Hopkins, 1927-1935*, Detroit, Mich.
- Horry, R. A. 2013: ‘Transitions and Transformations in Assyriology, c. 1880-1913: Artefacts, Academics and Museums’, Unpublished PhD thesis, University of Cambridge.
- Houghton, A., and Lorber, C. C. 2002: *Seleucid Coins: A Comprehensive Catalogue. Part 1. Seleucus I through Antiochus III. Introduction, Maps, and Catalogue.*, Vol. 1, 2 vols, New York.
- Houghton, A., and Lorber, C. C. 2002: *Seleucid Coins: A Comprehensive Catalogue. Part 1. Seleucus I through Antiochus III. Appendices, Indices, and Plates.*, Vol. 2, 2 vols, New York.

- Houghton, A., Lorber, C. C., and Hoover, O. D. 2002: *Seleucid Coins: A Comprehensive Catalogue. Part 2. Seleucus IV through Antiochus XIII. Introduction, Maps, and Catalogue.*, Vol. 1, 2 vols, New York.
- Houghton, A., Lorber, C. C., and Hoover, O. D. 2002: *Seleucid Coins: A Comprehensive Catalogue. Part 2. Seleucus IV through Antiochus XIII. Appendices, Indices, and Plates*, Vol. 2, 2 vols, New York.
- Houston, G. W. 2014: *Inside Roman Libraries: Book Collections and Their Management in Antiquity*, Chapel Hill.
- Huijs, J., Pirngruber, R., and van Leeuwen, B. 2015: 'Climate, war and economic development: the case of second-century Babylon', in R. J. van der Spek, B. van Leeuwen, and J. L. van Zanden (eds), *A History of Market Performance: From Ancient Babylonia to the Modern World*, London, 128–148.
- Invernizzi, A. 1968a: 'Bullae from Seleucia', *Mesopotamia, Rivista Di Archeologia* III–IV, 69–124.
- Invernizzi, A. 1968b: 'Excavations in Squares CVI 69/70/79/80 (The Archives Building)', *Mesopotamia, Rivista Di Archeologia* III–IV, 29–38.
- Invernizzi, A. 1970: 'The Excavations at the Archive Building', *Mesopotamia, Rivista Di Archeologia* V–VI, 21–29.
- Invernizzi, A. 1972: 'The Excavations at the Archive Building', *Mesopotamia, Rivista Di Archeologia* VII, 13–16.
- Invernizzi, A. 1976: 'Ten Years Research in the al-Mada'in Area. Seleucia and Ctesiphon', *Sumer* 32, 167–175.
- Invernizzi, A. 1984: 'Note on the art of Seleucid Mesopotamia', in R. Boucharlat and J.-F. Salles (eds), *Arabie orientale, Mésopotamie et Iran méridional: de l'âge du fer au début de la période islamique: réunion de travail, Lyon, 1982, Maison de l'Orient. Histoire du Golfe* 37, Paris, 27–31.
- Invernizzi, A. 1990: 'Arte seleucide in Mesopotamia', *Akten des XIII. Internationalen Kongresses für Klassische Archäologie, Berlin 1988, Mainz am Rhein*, 19–23.
- Invernizzi, A. 1991: 'Séleucie du Tigre, Métropole grecque d'Asie', *Ho Hellenismos Sten Anatole*, Athens.
- Invernizzi, A. 1994a: 'Babylonian motifs on sealings from Seleucia-Tigris', in H. Sancisi-Weerdenburg, A. Kuhrt, and M. C. Root (eds), *Continuity and Change. Achaemenid History* VIII, Leiden, 353–364.
- Invernizzi, A. 1994b: 'Hellenism in Mesopotamia. A view from Seleucia on the Tigris', *al-Rafidan* 15, 1–24.
- Invernizzi, A. 1995: 'Seleucia and Uruk: Cities of Seleucid Babylonia', in U. Finkbeiner, R. Dittmann, and H. Hauptmann (eds), *Beiträge zur Kulturgeschichte Vorderasiens: Festschrift für Rainer Michael Boehmer*, Mainz am Rhein, 273–280.
- Invernizzi, A. 1996: 'Gli archivi pubblici di Seleucia sul Tigri', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 131–143.
- Invernizzi, A. 1998: 'Portraits of Seleucid Kings on the Sealings from Seleucia-on-the-Tigris', *Bulletin of the Asia Institute* 12, 105–112.

- Invernizzi, A. 2003: 'They did not write on clay: non-cuneiform documents and archives in Seleucid Babylonia', in M. Brosius (ed.), *Ancient Archives and Archival Traditions. Concepts of Record-Keeping in the Ancient World*, Oxford, 302–322.
- Invernizzi, A., Negro Ponzi Mancini, M., and Valtz, E. 1985: 'Seleucia on the Tigris', in E. Quarantelli (ed.), *The Land Between Two Rivers. Twenty Years of Italian Archaeology in the Middle East. Treasures of Mesopotamia*, Torino, 87–99.
- Invernizzi, A., and Papotti, C. M. 1991: 'Sealings and fingerprints at Seleucia-on-the-Tigris', in K. Schippmann, A. Herling, and J.-F. Salles (eds), *Golf-Archäologie: Mesopotamien, Iran, Kuwait, Bahrain, Vereinigte Arabische Emirate und Oman*, Buch am Erlbach, 33–43.
- Iossif, P. P. 2014: 'Seleucia on the Tigris under the Seleucids: "Monetary" Pantheon vs. "Glyptic" Pantheon', *Mythos* 8. n.s., 35–53.
- Jackson, H. 2004: 'Two engraved gems from Hellenistic Jebel Khalid', *Antike Kunst* 47, 34–46.
- Joannès, F. 2012: 'Les enjeux de l'enregistrement officiel des contrats à Uruk', in B. Legras (ed.), *Transferts culturels et droits dans le monde grec et hellénistique*, Paris, 241–254.
- Johansen, K. F. 1930: 'Tonbullen der Seleukidenzeit aus Warka', *Acta Archaeologica* 1, 41–54.
- Jordan, J. 1928: *Uruk-Warka. Nach den Ausgrabungen durch die Deutsche Orient-Gesellschaft*, Leipzig.
- Jursa, M. 2005: *Neo-Babylonian Legal and Administrative Documents: Typology, Contents and Archives*. Guides to the Mesopotamian Textual Record 1, Münster.
- Jursa, M. 2006: 'Neubabylonische Briefe', in B. Janowski and G. Wilhelm (eds), *Texte aus der Umwelt des Alten Testaments. Neue Folge. Band 3: Briefe*, Gütersloh, 158–172.
- Jursa, M. 2008: 'Economic change and legal innovation. On aspects of commercial interaction and land tenure in Babylonia in the First Millennium BC', in M. Liverani and C. Mora (eds), *I diritti del mondo cuneiforme*, Pavia, 601–628.
- Jursa, M. 2010: *Aspects of the Economic History of Babylonia in the First Millennium BC: Economic Geography, Economic Mentalities, Agriculture, the Use of Money and the Problem of Economic Growth*, Münster.
- Jursa, M. 2011a: 'Taxation and Service Obligations in Babylonia from Nebuchadnezzar to Darius and the Evidence for Darius' tax reform', in R. Rollinger, B. Truschnegg, and R. Bichler (eds), *Herodot und das Persische Weltreich: Herodotus and the Persian Empire*, Wiesbaden, 431–448.
- Jursa, M. 2011b: 'Cuneiform writing in Neo-Babylonian temple communities', in K. Radner and E. Robson (eds), *The Oxford Handbook of Cuneiform Culture*, Oxford, 184–204.
- Jursa, M., and Waerzeggers, C. 2009: 'On aspects of taxation in Achaemenid Babylonia: new evidence from Borsippa', in P. Briant and M. Chauveau (eds), *Organisation des pouvoirs et contacts culturels dans les pays de l'empire achéménide*, Paris, 237–269.
- Kaptan, D. 1996: 'Some remarks about the hunting scenes on the seal impressions of Daskyleion', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 85–100.

- Kaptan, D. 2002: *The Daskyleion Bullae: Seal Images from the Western Achaemenid Empire. Text*, Vol. I, II vols, Leiden.
- Kaptan, D. 2002: *The Daskyleion Bullae: Seal Images from the Western Achaemenid Empire. Catalogue and Plates*, Vol. II, II vols, Leiden.
- Kaptan, D. 2013: 'Déjà vu? Visual culture in Western Asia Minor at the Beginning of Hellenistic Rule', in E. Stavrianopoulou (ed.), *Shifting Social Imaginaries in the Hellenistic Period. Narrations, Practices, and Images*, Leiden, Boston, 25–50.
- Kaye, N. 2015: 'Defining the fiscal role of Hellenistic monarchy in shaping sale', in É. Jakab (ed.), *Sale and Community Documents from the Ancient World. Individuals' Autonomy and State Interference in the Ancient World*, Trieste, 81–98.
- Khachatrian, Z. 1996: 'The archives of sealings found at Artashat (Artaxata)', in M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, Paris, 365–370, NaN-76.
- Kosmin, P. 2014: *The Land of the Elephant Kings: Space, Territory, and Ideology in the Seleucid Empire*, Cambridge, Ma. & London, England.
- Kuhrt, A. 1996: 'The Seleucid Kings and Babylonia. New perspectives on the Seleucid Realm in the East', in P. Bilde, T. Engberg-Pedersen, L. Hannestad, and J. Zahle (eds), *Aspects of Hellenistic Kingship*, Aarhus, 41–54.
- Kuhrt, A. 1999: 'Review of: Ronald Wallenfels, Uruk. Hellenistic Seal Impressions in the Yale Babylonian Collection I. Cuneiform Tablets. (Mainz am Rhein: Verlag Philipp von Zabern, 1994)', *Bibliotheca Orientalis* 56, 449–454.
- Kuhrt, A. 2001: 'The Palace(s) of Babylon', in I. Nielsen (ed.), *The Royal Palace Institution in the First Millennium BC*, Aarhus, 77–93.
- Kuhrt, A. 2007: *The Persian Empire: A Corpus of Sources*, London.
- Kuhrt, A., and Sherwin-White, S. M. 1994a: 'General Observations by the authors of From Samarkhand to Sardis', *Topoi* 4, 449–454.
- Kuhrt, A., and Sherwin-White, S. M. 1994b: 'The Transition from Achaemenid to Seleucid rule in Babylonia: revolution or evolution?', in H. Sancisi-Weerdenburg, A. Kuhrt, and M. C. Root (eds), *Continuity and Change*. Achaemenid History VIII, Leiden, 311–327.
- Kurlansky, M. 2002: *Salt. A World History*, London.
- Landvatter, T. 2014: 'Karani Findspots and Stratigraphy', in T. G. Wilfong and A. W. S. Ferrara (eds), *Karani Revealed: Discovering the Past and Present of a Michigan Excavation in Egypt*, Ann Arbor, Michigan, 39–43.
- Langin-Hooper, S. 2007: 'Social Networks and Cross-Cultural Interaction: A New Interpretation of the Female Terracotta Figurines of Hellenistic Babylon', *Oxford Journal of Archaeology* 26, 145–165.
- Langin-Hooper, S. 2013a: 'Terracotta figurines and social identities in Hellenistic Babylonia', in M. H. Feldman and B. A. Brown (eds), *Critical Approaches to Ancient Near Eastern Art*, Boston, 451–479.
- Langin-Hooper, S. 2013b: 'Exhibition debuts tiny objects from Seleucia', *Kelsey Museum Newsletter*, 4–5.

- Langin-Hooper, S., and Pearce, L. 2014: 'Mammonymy, Maternal-Line Names, and Cultural Identification: Clues from the Onomasticon of Hellenistic Uruk', *Journal of the American Oriental Society* 134, 185–202.
- Le Rider, G. 1965: *Suse sous les Séleucides et les Parthes: les trouvailles monétaires et l'histoire de la ville*, Paris.
- Lecomte, O. 1987: 'Un problème d'interprétation: L'E.babbar de Larsa aux époques hellénistique et séleuco-parthe, approches archéologique, économique et culturelle', in J.-L. Huot (ed.), *Larsa (10e campagne, 1983) et í Oueili (4e campagne, 1983): rapport préliminaire*, Paris, 225–246.
- Leemans, C. 1843: *Papyri Graeci Musei Antiquarii Publici Lugduni-Batavi*, Vol. I, II vols, Lugduni Batavorum.
- Legrain, L. 1925: *The Culture of the Babylonians from Their Seals in the Collection of the Museum*, Philadelphia.
- Leichty, E., Finkelstein, J. J., and Walker, C. B. F. 1988: *Catalogue of the Babylonian Tablets in the British Museum. Volume VIII: Tablets from Sippar 3*, London.
- Leith, M. J. W. 1997: *Wadi Daliyeh I. The Wadi Daliyeh Seal Impressions*. Discoveries in the Judaeian Desert XXIV, Oxford.
- Lenger, M.-T. 1964: *Corpus des ordonnances des Ptolémées: C. Ord. Ptol*, Bruxelles.
- Lenzi, A. 2009: 'The Uruk List of Kings and Sages and Late Mesopotamian Scholarship', *Journal of Ancient Near Eastern Religions* 8, 137–169.
- Leriché, P. 1996: 'Le Chreophylakeion de Doura-Europos et la mise en place du plan hippodamien de la ville', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 158–169.
- Lesperance, P. 2010: 'Symbols and Objects on the Sealings from Kedesh', Unpublished PhD thesis, University of Minnesota.
- Lewis, D. M. 1978: 'The Seleucid Inscription', in D. Stronach (ed.), *Pasargadae: A Report on the Excavations Conducted by the British Institute of Persian Studies from 1961 to 1963*, Oxford, 160–161.
- Lindström, G. 2003: *Uruk. Siegelabdrücke auf hellenistischen Tonbullen und Tontafeln*, Mainz am Rhein.
- Ma, J. 2002: *Antiochos III and the Cities of Western Asia Minor*, Rev. ed., Oxford.
- Ma, J. 2012: 'Epigraphy and the display of authority', in J. K. Davies and J. Wilkes (eds), *Epigraphy and the Historical Sciences*, Oxford, 133–158.
- Ma, J. 2013: *Statues and Cities: Honorific Portraits and Civic Identity in the Hellenistic World*, 1st ed., Oxford.
- Maaskant-Kleibrink, M. 1971: 'Cachets de terre de Doliché (?)', *Bulletin Antieke Beschaving* 46, 23–63.
- MacGinnis, J. 2002: 'The use of writing boards in the Neo-Babylonian temple administration at Sippar', *Iraq* 64, 217–236.
- MacGinnis, J., Monroe, M. W., Wicke, D., and Matney, T. 2014: 'Artefacts of Cognition: the use of clay tokens in a Neo-Assyrian Provincial Administration', *Cambridge Archaeological Journal* 24, 289–306.
- Malay, H. M. 1983: 'A Royal Document from Aigai in Aiolis', *Greek, Roman and Byzantine Studies* 24, 349–353.

- Malay, H. M. 2004: 'A copy of the letter from Antiochos III to Zeuxis (209 B.C.)', in H. Heftner and K. Tomaschitz (eds), *Ad fontes! Festschrift für Gerhard Dobesch zum fünfundsechzigsten Geburtstag am 15. September 2004*, Wien, 407–417.
- Manasseh, N. E. 1931: 'Architectural Notes, Seasons 1927-1929', in L. Waterman (ed.), *Preliminary Report upon the Excavations at Tel Umar, Iraq*, Ann Arbor.
- Manasseh, N. E. 1933: 'Architectural Fragments of Block B (Seasons 1930-31 and 1931-32)', in L. Waterman (ed.), *Second Preliminary Report upon the Excavations at Tel Umar, Iraq: Conducted by the University of Michigan, the Toledo Museum of Art and the Cleveland Museum of Art*, Ann Arbor.
- Martinez-Sève, L. 2004: 'La fiscalité séleucide: bilan et perspectives de recherche', *Topoi Supplément 6: Le roi et l'économie*, 81–104.
- Matthews, J. F. 1984: 'The Tax Law of Palmyra: Evidence for Economic History in a City of the Roman East', *Journal of Roman Studies* 74, 157–180.
- McDowell, R. H. 1931: "'Bullae" stamped with Greek legends', in L. Waterman (ed.), *Preliminary Report upon the Excavations at Tel Umar, Iraq*, Ann Arbor.
- McDowell, R. H. 1932a: 'The bullae from Seleucia', in M. I. Rostovtzeff (ed.), *Seleucid Babylonia. Bullae and Seals of Clay with Greek Inscriptions*, New Haven, 98–111.
- McDowell, R. H. 1932b: 'The Excavations at Seleucia on the Tigris', *Papers of the Michigan Academy of Science, Arts and Letters* 18, 101–119.
- McDowell, R. H. 1935: *Stamped and Inscribed Objects from Seleucia on the Tigris*, Ann Arbor, Michigan.
- McEwan, G. J. P. 1982: 'An Official Seleucid Seal Reconsidered', *Journal of Near Eastern Studies* 41, 51–53.
- McEwan, G. J. P. 1984: 'A Greek legal instrument in Hellenistic Uruk', *Altorientalische Forschungen* 11, 237–241.
- McEwan, G. J. P. 1988: 'Babylonia in the Hellenistic period', *Klio* 70, 412–421.
- McGing, B. C. 2002: 'Illegal salt in the Lycopolite nome', *Archiv für Papyrusforschung* 48, 42–66.
- Menegazzi, R. 2012: 'Creating a new language: The terracotta figurines from Seleucia on the Tigris', in J. Curtis and R. Matthews (eds), *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East: 12 April - 16 April 2010, the British Museum and UCL, London. Mega-Cities & Mega-Sites; The Archaeology of Consumption & Disposal; Landscape, Transport & Communication*, Vol. 1, 3 vols, Wiesbaden, 1:157–167.
- Menegazzi, R. 2014: *Seleucia al Tigri: le terrecotte figurate: dagli scavi Italiani e Americani*, Firenze.
- Messina, V. 2002: 'Analisi statistica e distributiva delle sigillature dagli archivi cittadini di Seleucia al Tigri', Unpublished Specializzazione thesis, University of Torino.
- Messina, V. 2003: 'More Gentis Parthica. Ritratti barbuti di Demetrio II sulle impronte di sigillo da Seleucia al Tigri', *Parthica* 5, 21–36.
- Messina, V. 2005: 'Da Uruk a Seleucia. Pratiche amministrative e archivi della Babilonia seleucide', *Mesopotamia, Rivista di Archeologia* 40, 125–144.
- Messina, V. 2006a: 'Eros sulle impronte di sigillo dagli archivi di Seleucia al Tigri', *Studia Punica* 14, 163–179.

- Messina, V. 2006b: 'Nike on the clay sealings from Seleucia on the Tigris', *Parthica* 8, 17–24.
- Messina, V. 2006c: *Seleucia al Tigri: l'edificio degli archivi, lo scavo e le fasi architettoniche*, Firenze.
- Messina, V. 2007: 'A multi-level approach to the study of seal impressions', *Iran and the Caucasus* 11, 195–200.
- Messina, V. 2009: 'Witnesses and Sealers of Seleucid Mesopotamia. A comparison between the seal impressions from Uruk and those from Seleucia on the Tigris', in N. Bellotto and S. Ponchia (eds), *Witnessing in the Ancient Near East*, Padova, 175–190.
- Messina, V. 2011: 'Seleucia on the Tigris. The Babylonian polis of Antiochus I', *Mesopotamia, Rivista Di Archeologia* 46, 157–167.
- Messina, V. 2012: 'Apollonios at Seleucia on the Tigris?', *Mesopotamia, Rivista Di Archeologia* 47, 121–128.
- Messina, V. 2014: 'Further Bullae from Seleucia on the Tigris', *Iraq* 76, 123–140.
- Messina, V., and Mollo, P. 2004: *Seleucia al Tigri. Le impronte di sigillo dagli Archivi. Sigilli ufficiali, ritratti*, A. Invernizzi (ed.), Vol. I, III vols, Alessandria.
- Michaelidou-Nicolaou, I. 1979: 'Inscribed clay sealings from the Archeion of Paphos', in D. M. Pippidi (ed.), *Actes de VIIe congrés international d'épigraphie grecque et latine*, Paris, 413–416.
- Milne, J. G. 1906: 'Clay sealings from the Fayum', *Journal of Hellenic Studies* 26, 32–45.
- Milne, J. G. 1916: 'Ptolemaic Seal Impressions', *Journal of Hellenic Studies* 36, 87–101.
- Minns, E. H. 1915: 'Parchments of the Parthian Period from Avroman in Kurdistan', *Journal of Hellenic Studies* 35, 98–141.
- Mitchell, T. C., and Searight, A. 2008: *Catalogue of the Western Asiatic Seals in the British Museum. Stamp Seals III. Impressions of Stamp Seals on Cuneiform Tablets, Clay Bullae, and Jar Handles*, Leiden.
- Mittag, P. F. 2002: 'Beim Barte des Demetrios. Überlegungen zur parthischen Gefanenschaft Demetrios' II', *Klio* 84, 373–399.
- Møller, E. 1992: *Ancient Near Eastern Seals in a Danish Collection*, Copenhagen.
- Mollo, P. 1996: 'Il problema dell'ἀλυκή seleucide alla luce dei materiali degli archivi di Seleucia Tigri', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 145–156.
- Mollo, P. 1997: 'Sigilli e timbri ufficiali nella Mesopotamia seleucide', *Sceaux d'Orient et leur emploi*. Res Orientalis 10, 89–107.
- Monerie, J. 2012: 'Notabilité urbaine et administration locale en Babylonie du sud aux époques séleucide et parthe', in C. Feyel (ed.), *Communautés locales et pouvoir central dans l'Orient hellénistique et romain*, Nancy, 327–352.
- Monroe, M. W. 2011: 'Selected small finds from operation G/R', *Anatolica* 37, 86–88.
- Monson, A. 2015: 'Hellenistic empires', in A. Monson and W. Scheidel (eds), *Fiscal Regimes and the Political Economy of Premodern States*, Cambridge, 169–207.
- Muhs, B. P. 2005: *Tax Receipts, Taxpayers and Taxes in Early Ptolemaic Thebes (O. Taxes)*, Chicago.

- Muhs, B. P. 2010: 'A late Ptolemaic Grapheion Archive in Berkeley', in T. Gagos and A. P. Hyatt (eds), *Proceedings of the 25th International Congress of Papyrology*, Ann Arbor, Michigan, 581–588.
- Muhs, B. P. 2011: *Receipts, Scribes, and Collectors in Early Ptolemaic Thebes (O. Taxes 2)*, Leuven.
- Murray, A. M. 1907: 'Ptolemaic Clay Sealings', *Zeitschrift für Ägyptische Sprache und Altertumskunde* 44, 62–70.
- Mylonas, G. E. 1937: 'Review of Stamped and Inscribed Objects from Seleucia on the Tigris by Robert Harbold McDowell', *Classical Philology* 32, 384–385.
- Naster, P. 1979: 'Empreintes de sceaux hellénistiques de Warka et monnaies séleucides', in O. Mørkholm and N. Waggoner (eds), *Greek numismatics and archaeology: essays in honor of Margaret Thompson*, Wetteren, 215–219.
- Naveh, J., and Shaked, S. 2012: *Aramaic Documents from Ancient Bactria (Fourth Century BCE) from the Khalili Collections*, London.
- Oelsner, J. 1982: 'Nochmals "Hipparenum (Plinius nat. hist. VI 123) = Nippur?"', *Altorientalische Forschungen* 9, 259–262.
- Oelsner, J. 1986: *Materialien zur babylonischen Gesellschaft und Kultur in hellenistischer Zeit*, Budapest.
- Oelsner, J. 1996: 'Siegelung und Archivierung von Dokumenten im hellenistischen Babylonien', in M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, Paris, 101–112.
- Oelsner, J. 2003: 'Cuneiform Archives in Hellenistic Babylonia: Aspects of content and form', in M. Brosius (ed.), *Ancient Archives and Archival Traditions. Concepts of Record-Keeping in the Ancient World*, Oxford, 284–301.
- Ossendrijver, M. 2012: *Babylonian Mathematical Astronomy: Procedure Texts*, New York; London.
- Pantos, P. A. 1984: 'Ta sphragismata tēs aitōlikēs Kallipoleōs', Athens.
- Pedersén, O. 1998: *Archives and Libraries in the Ancient Near East, 1500-300 B.C.*, Bethesda, MD.
- Pestman, P. W. 1993: *The Archive of the Theban Choachytes (Second Century BC)*, Leuven.
- Petrie, C. A. 2002: 'Seleucid Uruk: An Analysis of Ceramic Distribution', *Iraq* 64, 85–123.
- Pirngruber, R. 2013: 'The Historical Sections of the Astronomical Diaries in Context: Developments in a Late Babylonian Scientific Text Corpus', *Iraq* 75, 197–210.
- Pirngruber, R. 2014: 'Plagues and Prices: Locusts', in H. D. Baker and M. Jursa (eds), *Documentary Sources in Ancient Near Eastern and Greco-Roman Economic History: Methodology and Practice*, Oxford, 163–186.
- Plantzos, D. 1996: 'Female portrait types from the Edfu hoard of clay seal impressions', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 307–313.
- Plantzos, D. 1999: *Hellenistic Engraved Gems*, Oxford.
- Posner, E. 1972: *Archives in the Ancient World*, Cambridge, Ma.

- Potts, D. T. 1984: 'On salt and salt gathering in ancient Mesopotamia', *Journal of the Economic and Social History of the Orient* 27, 225–271.
- Potts, D. T. 1997: *Mesopotamian Civilization: The Material Foundations*, London.
- Préaux, C. 1939: *L'économie royale des Lagides*, Brussels.
- Preka-Alexandri, K. 1996: 'A Group of Inscribed Seal Impressions of Thesprotia, Greece', in M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, Paris, 195–198, Pls. 40.
- Radner, K. 1995: 'Format and content in Neo-Assyrian texts', in R. Mattila (ed.), *Nineveh 612 BC: The Glory and Fall of the Assyrian Empire*, Helsinki, 63–80.
- Radner, K. 2008: 'The delegation of power: Neo-Assyrian bureau seals', in P. Briant, W. F. M. Henkelman, and M. W. Stolper (eds), *L'archive des Fortifications de Persépolis. État des questions et perspectives de recherches*. Persika 12, Paris, 481–515.
- Ramsey, G. 2009: 'Ruling the Seleucid Empire: Seleucid Officials and the Official Experience', Unpublished PhD thesis, University of Exeter.
- Ramsey, G. 2011: 'Seleucid Administration - Effectiveness and Dysfunction among officials', in K. Erickson and G. Ramsey (eds), *Seleucid Dissolution: The Sinking of the Anchor*, Wiesbaden, 37–50.
- Rapin, C. 1996: 'Nouvelles observations sur le parchemin gréco-bactrien d'Asangôrna', *Topoi* 6, 458–469.
- Rapin, C. 1992: *Fouilles d'Aï Khanoum. 8, La trésorerie du palais hellénistique d'Aï Khanoum: l'apogée et la chute du royaume grec de Bactriane*. Mémoires de la Délégation Archéologique Française en Afghanistan 33, Paris.
- Rathbone, D. 1993: 'Egypt, Augustus and Roman taxation', *Cahiers du Centre G. Glotz* 4, 81–112.
- Razmjou, S. 2008: 'Find spots and find circumstances of documents excavated at Persepolis', in P. Briant, W. F. M. Henkelman, and M. W. Stolper (eds), *L'archive des Fortifications de Persépolis. État des questions et perspectives de recherches*. Persika 12, Paris, 51–58.
- Rea, J. R., Senior, R. C., and Hollis, A. S. 1994: 'A tax receipt from Hellenistic Bactria', *Zeitschrift für Papyrologie und Epigraphik* 104, 261–280.
- Reade, J. E. 1986a: 'Rassam's Excavations at Borsippa and Kutha, 1879-82', *Iraq* 48, 105–116.
- Reade, J. E. 1986b: 'Archaeology and the Kuyunjik Archives', in K. R. Veenhof (ed.), *Cuneiform Archives and Libraries*, Leiden, 213–222.
- Reade, J. E. 1993: 'Hormuzd Rassam and his Discoveries', *Iraq* 55, 39–62.
- Reade, J. E. 1998: 'Greco-Parthian Nineveh', *Iraq* 60, 65–83.
- von Reden, S. 2007: *Money in Ptolemaic Egypt from the Macedonian Conquest to the End of the Third Century*, Cambridge.
- Renger, J. 1977: 'Legal Aspects of Sealing in Ancient Mesopotamia', in R. D. Biggs and M. Gibson (eds), *Seals and Sealing in the Ancient Near East*, Malibu, Calif., 75–88.
- Reuther, O. 1929: 'The German Excavations at Ctesiphon', *Antiquity* 3, 434–451.
- Rezakhani, K. 2013: 'Arsacid, Elymaean, and Persid coinage', in D. T. Potts (ed.), *The Oxford Handbook of Ancient Iran*, Oxford, 766–778.

- Richter, G. M. A. 1968: *The Engraved Gems of the Greeks, Etruscans and Romans. Part One: Engraved Gems of the Greeks and the Etruscans*, London.
- Robert, L. 1964: *Nouvelles Inscriptions de Sardes*, Paris.
- Robson, E. In press: 'The socio-economics of cuneiform scholarship after the "end of archives": views from Borsippa and Uruk', *Festschrift Postgate*.
- Robson, E. 2007: 'The clay tablet book in Sumer, Assyria and Babylonia', in S. Hornblower and J. Rose (eds), *A Companion to the History of the Book*, Oxford, 67–83.
- Robson, E. 2013: 'Reading the libraries of Assyria and Babylonia', in J. König, K. Oikonomopoulou, and G. Woolf (eds), *Ancient Libraries*, Cambridge, 38–56.
- Rochberg, F. 2004: *The Heavenly Writing: Divination, Horoscopy, and Astronomy in Mesopotamian Culture*, Cambridge.
- Root, M. C. 1991: 'From the Heart: Powerful Persianisms in the Art of the Western Empire', in H. Sancisi-Weerdenburg and A. Kuhrt (eds), *Asia Minor and Egypt: Old Cultures in a New Empire. Achaemenid History VI*, Leiden, 1–29.
- Root, M. C. 1996: 'The Persepolis Fortification Tablets. Archival issues and the problem of stamps versus cylinder seals', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 3–27.
- Root, M. C. 2008: 'The legible image: how did seals and sealing matter in Persepolis?', in P. Briant, W. F. M. Henkelman, and M. W. Stolper (eds), *L'archive des Fortifications de Persépolis. État des questions et perspectives de recherches*. Persika 12, Paris, 87–148.
- Rostovtzeff, M. I. 1932: *Seleucid Babylonia: Bullae and Seals of Clay with Greek Inscriptions*, New Haven.
- Rostovtzeff, M. I. 1941: *The Social and Economic History of the Hellenistic World*, 3 vols, Oxford.
- Rostovtzeff, M. I. (ed.) 1934: *The Excavations at Dura-Europos: Preliminary Report of the Fifth Season of Work October 1931-March 1932*, New Haven.
- Rostovtzeff, M. I. (ed.) 1944: *The Excavations at Dura-Europos: Preliminary Report of the Ninth Season of Work 1933-1936*, New Haven.
- Rougemont, G. 2012: *Corpus inscriptionum Iranicarum*, London.
- Ruffini, G. 2008: *Social Networks in Byzantine Egypt*, Cambridge.
- Saatsoglou-Paliadeli, C. 1993: 'Aspects of Ancient Macedonian Costume', *Journal of Hellenic Studies* 113, 122–147.
- Sachs, A., and Hunger, H. 1988: *Astronomical Diaries and Related Texts from Babylonia. Diaries from 652 B.C. to 262 B.C.*, Vol. 1, 5 vols, Vienna.
- Sachs, A., and Hunger, H. 1989: *Astronomical Diaries and Related Texts from Babylonia. Diaries from 261 B.C. to 165 B.C.*, Vol. 2, 5 vols, Vienna.
- Sachs, A., and Hunger, H. 1996: *Astronomical Diaries and Related Texts from Babylonia. Diaries from 164 B.C. to 61 B.C.*, Vol. 3, 5 vols, Vienna.
- Sarkisian, G. K. 1974: 'New Cuneiform Texts from Uruk of the Seleucid Period in the Staatliche Museen zu Berlin', *Forschungen und Berichte* 16, 15–76.
- Savage, E. 1977: *Seleucia-on-the-Tigris: An Exhibition of the Excavations at Seleucia, Iraq, by the University of Michigan, 1927-32, 1936-37*, Ann Arbor, Michigan.

- Savalli-Lestrade, I. 1998: *Les philoi royaux dans l'Asie hellénistique*. Hautes études du monde gréco-romain 25, Genève.
- Schmidt, E. 1941: 'Die Griechen in Babylon und das Weiterleben ihrer Kultur', *Archäologischer Anzeiger* 56, 786–844.
- Schmidt, E. F. 1939: *The Treasury of Persepolis and Other Discoveries in the Homeland of the Achaemenians*, Chicago.
- Schmidt, E. F. 1957: *Persepolis. Vol. II. Contents of the Treasury and Other Discoveries*, Chicago.
- Scholl, R. 2014: 'Slaves and slavery in the Ptolemaic period', in J. G. Keenan, J. Manning, and U. Yiftach-Firanko (eds), *Law and Legal Practice in Egypt from Alexander to the Arab Conquest. A Selection of Papyrological Sources in Translation, with Introductions and Commentary*, Cambridge, 446–452.
- Schuler, C. 2007: 'Tribute und Steuern im hellenistischen Kleinasien', in H. Klinkott, S. Kubisch, and R. Müller-Wollermann (eds), *Geschenke und Steuern, Zölle und Tribute: antike Abgabenformen in Anspruch und Wirklichkeit*, Leiden, 371–405.
- Schwartz, M., and Hollander, D. 2000: 'Annealing, distilling, reheating and recycling: bitumen processing in the ancient Near East', *Paléorient* 26, 83–91.
- Sekunda, N. 1994: *Seleucid and Ptolemaic Reformed Armies 168-145 BC. Vol.1: The Seleucid Army under Antiochus IV Epiphanes*, Stockport.
- Seri, A. 2007: 'The Mesopotamian Collection in the Kalamazoo Valley Museum', *Cuneiform Digital Library Journal* 1. Available from <http://cdli.ucla.edu/pubs/cdlj/2007/cdlj2007_001.html>. . Accessed 23-05-2016.
- Sherwin-White, S. M. 1982: 'A Greek Ostrakon from Babylon of the early third century B.C.', *Zeitschrift für Papyrologie und Epigraphik* 47, 51–70.
- Sherwin-White, S. M. 1983: 'Aristeas Ardibelteios: Some Aspects of the Use of Double Names in Seleucid Babylonia', *Zeitschrift für Papyrologie und Epigraphik* 50, 209–221.
- Sherwin-White, S. M. 1987: 'Seleucid Babylonia: a case study for the installation and development of Greek rule', in A. Kuhrt and S. M. Sherwin-White (eds), *Hellenism in the East: The Interactions of Greek and Non-Greek Civilization from Syria to Central Asia after Alexander*, London, 1–31.
- Sherwin-White, S. M., and Kuhrt, A. 1993: *From Samarkhand to Sardis. A New Approach to the Seleucid Empire.*, London.
- Smith, R. R. R. 1988: *Hellenistic Royal Portraits*, Oxford.
- van der Spek, R. J. 1987: 'The Babylonian City', in A. Kuhrt and S. M. Sherwin-White (eds), *Hellenism in the East: The Interactions of Greek and Non-Greek Civilization from Syria to Central Asia after Alexander*, London, 57–74.
- van der Spek, R. J. 1992: 'Nippur, Sippar and Larsa in the Hellenistic Period', in M. deJong Ellis (ed.), *Nippur at the Centennial*, Philadelphia, 235–260.
- van der Spek, R. J. 1993: 'New Evidence on Seleucid Land Policy', in H. Sancisi-Weerdenburg (ed.), *De Agricultura. In Memoriam Pieter Willem de Neeve (1945-1990)*, Amsterdam, 61–77.

- van der Spek, R. J. 1995: 'Landownership in Babylonian Cuneiform Documents', in M. J. Geller and H. Maehler (eds), *Legal Documents of the Hellenistic World*, London, 173–245.
- van der Spek, R. J. 1997: 'New Evidence from the Babylonian Astronomical Diaries Concerning Seleucid and Arsacid History', *Archiv für Orientforschung* 44/45, 167–175.
- van der Spek, R. J. 2003: 'Darius III, Alexander the Great and Babylonian Scholarship', in W. F. M. Henkelman and A. Kuhrt (eds), *A Persian Perspective: Essays in Memory of Heleen Sancisi Weerdenburg*. Achaemenid History XIII, Leiden, 289–346.
- van der Spek, R. J. 2006: 'The size and significance of the Babylonian temples under the Successors', in P. Briant and F. Joannès (eds), *La transition entre l'empire achéménide et les royaumes hellénistiques*, Paris, 261–307.
- van der Spek, R. J. 2008: 'Feeding Hellenistic Seleucia on the Tigris and Babylon', in R. Alston and O. Van Nijf (eds), *Feeding the Ancient Greek City*, Leuven, 33–45.
- Spier, J. 1989: 'A group of Ptolemaic engraved garnets', *Journal of the Walters Art Gallery* 47, 21–38.
- Steele, J. 2011: 'Astronomy and culture in Late Babylonian Uruk', in C. L. N. Ruggles (ed.), *Oxford IX International Symposium on Archaeoastronomy. Proceedings of the International Astronomical Union Symposium No. 278*, Cambridge, 331–341.
- Stevens, K. 2014: 'The Antiochus Cylinder, Babylonian Scholarship and Seleucid Imperial Ideology', *Journal of Hellenic Studies* 134, 66–88.
- Stolper, M. W. 1985: *Entrepreneurs and Empire: The Murašu Archive, the Murašu Firm, and Persian Rule in Babylonia*, Istanbul.
- Stolper, M. W. 1989: 'Registration and Taxation of Slave Sales in Late Achaemenid Babylonia', *Zeitschrift für Assyriologie* 79, 80–101.
- Stolper, M. W. 1994: 'On some aspects of continuity between Achaemenid and Hellenistic Babylonian Legal texts', in H. Sancisi-Weerdenburg, A. Kuhrt, and M. C. Root (eds), *Continuity and Change*. Achaemenid History VIII, Leiden, 329–351.
- Stronach, D. 1978: *Pasargadae: A Report on the Excavations Conducted by the British Institute of Persian Studies from 1961 to 1963*, Oxford.
- Tarn, W. W. 1938a: *The Greeks in Bactria & India*, Cambridge.
- Tarn, W. W. 1938b: *The Treasure of the Isle of Mist. A Tale of the Isle of Skye*, London.
- Taylor, J. E. 1983: *Seleucid Rule in Palestine*, Ann Arbor, Michigan.
- Taylor, J. H. 2011: 'Tablets as Artefacts, Scribes as Artisans', in K. Radner and E. Robson (eds), *The Oxford Handbook of Cuneiform Culture*, Oxford, 5–31.
- Thompson, D. J. 1992: 'Literacy and the administration in early Ptolemaic Egypt', in J. Johnson (ed.), *Life in a Multi-Cultural Society. Egypt from Cambyses to Constantine and beyond*, Chicago, 323–326.
- Thompson, D. J. 1994: 'Literacy and Power in Ptolemaic Egypt', in A. K. Bowman and G. Woolf (eds), *Literacy and Power in the Ancient World*, Cambridge, 67–83.
- Thompson, D. J. 1999: 'Irrigation and Drainage in the Early Ptolemaic Fayyum', in A. K. Bowman and E. Rogan (eds), *Agriculture in Egypt from Pharaonic to Modern Times*, Oxford, 107–122.

- Thompson, D. J. 2008: 'Economic Reforms in the Mid-Reign of Ptolemy Philadelphus', in P. McKechnie and P. Guillaume (eds), *Ptolemy II Philadelphus and His World*, Leiden, 27–38.
- Thonemann, P. 2003: 'Hellenistic Inscriptions from Lydia', *Epigraphica Anatolica* 36, 95–108.
- Thonemann, P. 2011a: 'Eumenes II and Apollonioucharax', *Gephyra* 8, 19–30.
- Thonemann, P. 2011b: *The Maeander Valley. A Historical Geography from Antiquity to Byzantium*, Cambridge.
- Thonemann, P. 2013: 'The Attalid State, 188-133 BC', in P. Thonemann (ed.), *Attalid Asia Minor. Money, International Relations, and the State*, Oxford, 1–48.
- Tsigarida, I. 2015: 'Salt in Asia Minor: An outline of Roman authority interest in the resource', in P. Erdkamp, K. Verboven, and A. Zuiderhoek (eds), *Ownership and Exploitation of Land and Natural Resources in the Roman World*, Oxford, 277–288.
- Valtz, E. 1990: 'Trench on the East Side of the Archives Square. Seleucia, 14th Season', *Mesopotamia, Rivista Di Archeologia* 25, 13–25.
- Vandorpe, K. 1995: 'Sagalassos' City Seal', in M. Waelkens and J. Poblome (eds), *Sagalassos III: Report on the Fourth Excavation Campaign of 1993*, Leiden, 299–305.
- Vandorpe, K. 1996: 'Seals in and on the papyri of Greco-Roman and Byzantine Egypt', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 231–291.
- Vandorpe, K. 2004: 'A Greek Register from Pathyris' Notarial Office. Loans and sales from the Pathyrite and Latopolite Nomes', *Zeitschrift für Papyrologie und Epigraphik* 150, 161–186.
- Vandorpe, K. 2005: 'Appendix. Sealing containers in Greco-Roman Egypt. The inscriptional and papyrological evidence.', *Oggetti in argilla dall'area templare di Bakchias (El-Fayyum, Egitto): catalogo dei rinvenimenti delle campagne di scavo 1996- 2002*. Biblioteca degli 'Studi di egiptologia e di papirologia' 3, Pisa, 163–175.
- Vandorpe, K. 2008: 'Archives and letters in Greco-Roman Egypt', in L. Pantalacci (ed.), *La lettre d'archive: communication administrative et personnelle dans l'Antiquité proche-orientale et égyptienne*. Topoi Supplément 9, Le Caire, 155–177.
- Vandorpe, K. 2013: 'Greek and Demotic Loan Agreements in Epistolary Style. Formalisation and Registration in the Later Ptolemaic Period', in U. Yiftach-Firanko (ed.), *The Letter. Law, State, Society and the Epistolary Format in the Ancient World*, Wiesbaden, 171–185.
- Vandorpe, K. 2014: 'Seals and stamps as identifiers in daily life in Greco-Roman Egypt', in M. Depauw and S. Coussement (eds), *Identifiers and Identification Methods in the Ancient World*. Legal documents in ancient societies III, Leuven, 141–151.
- Vandorpe, K. 2015a: 'List of seals in and on papyri'. Available from <http://www.trismegistos.org/seals/ov_lists/sealslist_1.pdf>. . Accessed 10-07-2016.
- Vandorpe, K. 2015b: 'Selling private real estate in a new monarchical setting. Sale and community in Hellenistic Egypt', in É. Jakab (ed.), *Sale and Community Documents from the Ancient World. Individuals' Autonomy and State Interference in the Ancient World*, Trieste, 99–115.

- Vandorpe, K., and Waebens, S. 2009: 'Why tax receipts on wood? On wooden tablet archives from Ptolemaic Egypt (Pathyris)', in P. van Nuffelen (ed.), *Faces of Hellenism. Studies in the History of the Eastern Mediterranean (4th Century B.C. - 5th Century A.D.)*. Studia Hellenistica 48, Leuven.
- Vargyas, P. 2000: 'Silver and Money in Achaemenid and Hellenistic Babylonia', in J. Marzahn and H. Neumann (eds), *Assyriologica et Semitica. Festschrift Für Joachim Oelsner*, Münster, 513–522.
- Vierros, M. 2012: *Bilingual Notaries in Hellenistic Egypt. A Study of Greek as a Second Language*, Brussels.
- Völcker-Janssen, W. 1993: *Kunst und Gesellschaft an den Höfen Alexanders d. Gr. und seiner Nachfolger*. Quellen und Forschungen zur antiken Welt Bd. 15, München.
- Waerzeggers, C. 2003: 'The Babylonian Revolts Against Xerxes and the "End of Archives"', *Archiv für Orientforschung* 50, 150–173.
- Waerzeggers, C. 2011: 'The Babylonian Priesthood in the Long Sixth Century BC', *Bulletin of the Institute of Classical Studies* 54, 59–70.
- Waerzeggers, C. 2012: 'The Babylonian Chronicles: Classification and Provenance', *Journal of Near Eastern Studies* 71, 285–298.
- Waerzeggers, C. 2014: 'Social Network Analysis of Cuneiform Archives: A New Approach', in H. D. Baker and M. Jursa (eds), *Documentary Sources in Ancient Near Eastern and Greco-Roman Economic History: Methodology and Practice*, Oxford, 207–233.
- Waerzeggers, C., and Jursa, M. 2008: 'On the initiation of Babylonian priests', *Zeitschrift für Altorientalische und Biblische Rechtsgeschichte* 14, 1–38.
- Walbank, F. W. 1986: *The Hellenistic World*, 2nd edition., London.
- Walker, C. B. F. 1988: 'Introduction', in E. Leichty, J. J. Finkelstein, and C. B. F. Walker (eds), *Catalogue of the Babylonian Tablets in the British Museum. Volume VIII: Tablets from Sippar 3*, London.
- Wallenfels, R. 1993a: 'Zodiacal Signs among the seal impressions from Hellenistic Uruk', in M. E. Cohen, D. C. Snell, and D. B. Weisberg (eds), *The Tablet and the Scroll. Near Eastern Studies in Honor of William W. Hallo*, Bethesda, Maryland, 281–289.
- Wallenfels, R. 1993b: 'Apkallu-Sealings from Hellenistic Uruk', *Baghdader Mitteilungen* 24, 309–324.
- Wallenfels, R. 1994: *Uruk. Hellenistic Seal Impressions in the Yale Babylonian Collection. Volume I. Cuneiform Tablets*, Mainz am Rhein.
- Wallenfels, R. 1996: 'Private seals and sealing practices at Hellenistic Uruk', M.-F. Boussac and A. Invernizzi (eds), *Archives et sceaux du monde hellénistique. Archivi e sigilli nel mondo ellenistico*. Bulletin de correspondance hellénistique Suppl. 29, 113–129.
- Wallenfels, R. 1998: *Seleucid Archival Texts in the Harvard Semitic Museum*, Groningen.
- Wallenfels, R. 1999: 'Review of Mark Garrison and Margaret Cool Root, Persepolis Seal Studies. Achaemenid History IX. Nederlands Instituut voor het Nabije Oosten, Leiden, 1996/98', *Bibliotheca Orientalis* 56, 454–460.
- Wallenfels, R. 2000: 'Sealing practices on legal documents from Hellenistic Babylonia', in M. Perna (ed.), *Administrative Documents in the Aegean and Their Near Eastern Counterparts*, Torino, 333–351.

- Wallenfels, R. 2015: 'Seleucid Babylonian "official" and "private" seals reconsidered: A Seleucid archival tablet in the collection of the Mackenzie Art Gallery, Regina', *Journal of Ancient Near Eastern History* 2, 55–89.
- Wallenfels, R. 2016: *Hellenistic Seal Impressions in the Yale Babylonian Collection. Ring-bullae and other clay sealings*. Yale Babylonian Collection 5, Bethesda, Maryland.
- Wallenfels, R., and van der Spek, R. J. 2014: 'Late Babylonian Archival and Administrative Texts', in I. Spar and M. Jursa (eds), *Cuneiform Texts in the Metropolitan Museum of Art. Volume IV. The Ebabbar Temple Archive and Other Texts from the Fourth to the First Millennium B.C.*, New York, 201–234.
- Waterman, L. 1931: 'Introduction', in L. Waterman (ed.), *Preliminary Report upon the Excavations at Tel Umar, Iraq*, Ann Arbor.
- Waterman, L. 1933: 'Notes on the Excavation of Tel Umar', in L. Waterman (ed.), *Second Preliminary Report upon the Excavations at Tel Umar, Iraq: Conducted by the University of Michigan, the Toledo Museum of Art and the Cleveland Museum of Art*, Ann Arbor.
- Welles, C. B. 1934: *Royal Correspondence in the Hellenistic Period: A Study in Greek Epigraphy*, New Haven.
- Welles, C. B. 1935: 'Review of Stamped and Inscribed Objects from Seleucia on the Tigris by Robert Harbold McDowell', *The American Historical Review* 41, 119–121.
- Welles, C. B. 1959: *The Excavations at Dura-Europos. Final Report V, Part 1. The Parchments and Papyri*, New Haven.
- Westenholz, A. 1992: 'The Early Excavators of Nippur', in M. deJong Ellis (ed.), *Nippur at the Centennial*, Philadelphia, 291–295.
- Westh-Hansen, S. M. 2011: 'Cultural interaction and the emergence of hybrids in the material culture of Hellenistic Mesopotamia: An interpretation of terracotta figurines, ceramic ware and seal impressions', in A. Kouremenos, S. Chandrasekaran, and R. Rossi (eds), *From Pella to Gandhara: Hybridisation and Identity in the Art and Architecture of the Hellenistic East*. British Archaeological Reports International Series 2221, Oxford, 103–116.
- Wetzel, F., Schmidt, E., and Mallwitz, A. 1957: *Das Babylon der Spätzeit*. Ausgrabungen der Deutschen Orient-Gesellschaft in Babylon 8, Berlin.
- Wilfong, T. G. 2014: 'Three Archival Sources for the Michigan Karanis Excavations', in T. G. Wilfong and A. W. S. Ferrara (eds), *Karanis Revealed: Discovering the Past and Present of a Michigan Excavation in Egypt*, Ann Arbor, Michigan, 15–24.
- Wilfong, T. G., and Ferrara, A. W. S. (eds) 2014: *Karanis Revealed: Discovering the Past and Present of a Michigan Excavation in Egypt*, Ann Arbor, Michigan.
- Woods, C. 2006: 'The conservation of parchment', in M. Kite and R. Thomson (eds), *Conservation of Leather and Related Materials*, Oxford, 200–224.
- Woods, C. 2012: 'Early writing and administrative practice in the ancient Near East. New technology and the study of clay envelopes from Choga Mish', *The Oriental Institute. Notes and News* 215, 3–8.
- Wright, N. L. 2011: 'The Last Days of a Seleucid City: Jebel Khalid on the Euphrates and its Temple', in K. Erickson and G. Ramsey (eds), *Seleucid Dissolution: The Sinking of the Anchor*, Wiesbaden, 117–132.

- Yeivin, S. 1931: 'Architectural Notes, Season 1929-1930', in L. Waterman (ed.), *Preliminary Report upon the Excavations at Tel Umar, Iraq*, Ann Arbor.
- Yiftach-Firanko, U. 2008: 'Who killed the double document in Egypt?', *Archiv für Papyrusforschung* 54, 203–218.
- Yiftach-Firanko, U. 2014a: 'State registration of sales: the katagraphê', in J. G. Keenan, J. Manning, and U. Yiftach-Firanko (eds), *Law and Legal Practice in Egypt from Alexander to the Arab Conquest. A Selection of Papyrological Sources in Translation, with Introductions and Commentary*, Cambridge, 314–325.
- Yiftach-Firanko, U. 2014b: 'Evolution of forms of Greek documents of the Ptolemaic, Roman, and Byzantine periods', in J. G. Keenan, J. Manning, and U. Yiftach-Firanko (eds), *Law and Legal Practice in Egypt from Alexander to the Arab Conquest. A Selection of Papyrological Sources in Translation, with Introductions and Commentary*, Cambridge, 35–53.
- Yiftach-Firanko, U. 2014c: 'Did BGU XIV 2367 work?', in M. Depauw and S. Coussement (eds), *Identifiers and Identification Methods in the Ancient World. Legal documents in ancient societies III*, Leuven, 103–118.
- Zettler, R. L. 1992: 'Excavations at Nippur, The University of Pennsylvania, and the University's Museum', in M. deJong Ellis (ed.), *Nippur at the Centennial*, Philadelphia, 325–336.
- Zimansky, P. 1993: 'Review of: Before Writing. Volume I: From Counting to Cuneiform and Before Writing. Volume II: A Catalogue of Near Eastern Tokens, by Denise Schmandt-Besserat (Austin, TX: University of Texas Press, 1992)', *Journal of Field Archaeology* 20, 513–517.