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They Wrote on Clay, Wax, and Stone: Some Thoughts on Early Mesopotamian Writing

Abstract: The ancient Mesopotamian cuneiform writing system was used for almost three and a half millennia until other scriptural traditions eclipsed it at some time in the first or second century CE. The ubiquitous use of clay as a medium of writing has defined Mesopotamian manuscript cultures, but here we focus selectively on other media, including various kinds of stone and perishable wax covered wooden boards, as well as other fragile media. Stone, however, was often reused or relocated by natives and by plundering armies and while clay is quite durable, because of vagaries of ancient archive preservation and modern looting we must work with documentation that is fragmentary and incomplete in its own idiosyncratic manner.

1 Introduction

The virtuoso musician Eric Dolphy famously mused 'when you hear music, after it's over, it's gone in the air. You can never capture it again'. For tens of thousands of years, perhaps as long as a million or more, this has been true of those most human of all abilities, language as well as making music. The first known attempts at capturing in some form the kind of communication associated with natural language were relatively recent, going back approximately 5,500 years ago. A more precise dating is not possible: humans expressed themselves symbolically for millennia, but at what point such articulations intersected with language and to what extent, it is impossible to say.

True writing, defined as a formalized autonomous sign system that seeks to represent natural language, was independently invented only four times, in Mesopotamia, Egypt, China, and Mesoamerica. Most such systems that have spread and developed throughout the globe had their roots in Egypt (the roots of most alphabetic systems) or China. Before the Chinese invention of paper some time before 179 BCE and its spread west, most writing was done on other plant-based materials such as papyrus, birch bark, silk, or palm leaves, on waxed surfaces, on pottery shards, stone, or on processed animal bones and skins (parchment). Many of these were awkward, heavy, or expensive to make, limiting their use. To make matters worse, nature, blind to history, is an efficient

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recycler so that organic materials have little chance of long-term survival under normal circumstances. As a result, manuscripts often persist by accident in dry caves or graves, in oxygen-deprived bogs or waterlogged deposits, and under other unusual circumstances.

Eschewing clumsy organic resources, the residents of southern Mesopotamia chose clay as their vehicle for material communication and here, as in other cases, we must be grateful for mud.[1] Building on various forms of pre-writing, by the last quarter of the fourth millennium BCE, they had developed a complex writing system exploiting two ubiquitous elements of their environment: clay for the writing surface and reeds as the inscribing tool: a stylus cut at an angle to create a point that was used to impress sequences of wedges,[2] as described in detail by Cécile Michel in her contribution to this volume. From today's vantage point, the choice of clay was felicitous, indeed: objects made from dried or fired clay can survive over the millennia in the earth and sands of Western Asia. The cuneiform writing system, first applied to write the isolate Sumerian and then the Semitic Akkadian (Babylonian and Assyrian) in Mesopotamia, was then adapted by neighbouring cultures to write other languages such as the Indo-European Hittite in Anatolia, the isolate Elamite in Iran, and the related but otherwise unconnected with any other known language Hurrian and Urartaen tongues. The beginnings of cuneiform can be dated to the middle if the fourth millennium and it is last documented in small numbers of tablets that may be as late as the second century CE.

In terms of sheer numbers of documents and a time span of roughly three and a half millennia, the durable clay medium has proven to be more lasting than anyone could have imagined; the only other ancient manuscript culture that one can compare with greater Mesopotamia in terms of longevity and volume of writings is early China. But numbers by themselves do not tell the whole story. As is the case in all manuscript cultures, the cuneiform record is uneven vertically and horizontally, both in time and in space.

For example, the century or so when the Third Dynasty of Ur (*c*. 2110–2003 BCE) ruled southern and central Babylonia is extremely well documented, with almost 100,000 published records documenting accounts from a select small number of archives, most dated by day, month, and year, covering six decades or so of economic activity. During its last years, while the Ur III polity was slowly

1 See Balke et al. 2015. Simon Franklin, writing on the preservation of letters on birch bark found in north-western Russian city of (Great) Novgorod, declared explicitly that 'we should be thankful for mud' (Franklin 2019, 1).

2 Cammarosano 2014.

collapsing, a new dynasty emerged further north in the city of Isin and eventually took over some degree of hegemony over central and southern Babylonia, but its beginnings are sparsely represented in the currently available documentation. Aside from a few literary compositions attested in later copies, the reign of its first king, Išbi-Erra (*c.* 2019–1987 BCE), and the first three, perhaps four years of his son's time on the throne are only known from remains of a craft archive, mainly involving leatherworking, currently consisting of nearly a thousand documents, illegally excavated, possibly in the city of Isin, and scattered over several modern collections, not all of yet published. After that, the documentation is even sparser, eventually picking up in the later years of the dynasty, but never remotely approaching the abundance of the Ur III accounts. Similar patterns are encountered throughout the three and a half millennia of cuneiform documentation: some periods of time are well-documented, others less so or not at all; some are known from large numbers of tablets from a few archives, others from fewer tablets from a broader spread of places of origin. Moreover, while clay tablets can persist for millennia, many examples in modern collections are broken and incomplete, having suffered in antiquity but also more often than is supposed at the hands of modern looters, excavators and transporters.

The availability of new cuneiform texts is very much dictated by the vagaries of contemporary geopolitics. Thus, the recent history of Iraq has resulted not only in the surfacing of large new archives from looting, but also in limited resumption of archaeological activity that has provided some epigraphic surprises.

It is impossible to estimate the full extent of what was written in different times and places in cuneiform to any degree of accuracy. What we do have is very much dependent on the manner in which archives were treated in antiquity and in the circumstances of their modern recovery. The vast majority of cuneiform tablets are accounts of various sorts and as such were not intended to be kept indefinitely but were periodically sorted and discarded. As such, they are often found in secondary contexts, in trash deposits, used as fill in walls, floors, and even in clay benches and other domestic furniture. Often, they have been discovered in destruction layers of houses, palaces, or temple complexes, scattered by the victors or systematically sorted and selectively removed.

2 Other writing media

The ubiquitous use of clay as a medium of writing has defined Mesopotamian manuscript cultures for us moderns, and in such contexts, it is customary to

exemplify this by citing the first half of the title of one of the best semi-popular books on the subject written by a scholar, Edward Chiera's *They Wrote on Clay*.[3] But as abundant as they were, we well know that clay tablets were not the sole medium for Mesopotamian writings. Materials such as papyrus, parchment, or potsherds (ostraca) were used for writing Aramaic and possibly other languages in the first millennium, but these are different habits that will not be of concern to us here. Rather, our focus will be on cuneiform writing media made of other materials, often limited to specific inscriptional types. Thus, for example, tablets made of precious materials such as various stones such as alabaster and lapis lazuli, copper, lead, silver, and gold were used in various periods in foundation deposits, mostly inscribed with short royal dedicatory inscriptions, although anepigraphic ones were utilized on occasion.[4] During the first millennium amulets with short incantations or excerpts from a poem about the god of plague were fashioned from stone or clay,[5] perforated to be worn around the neck or suspended at a gate to ward off evil, although there were occasional examples that are earlier.[6] Some amulets with incantations, however, were made of clay because this made it easier to make holes and slits in the sides to accommodate medicinal herbs.[7] Stone was also used for other amulets such as those that carried with incantations to ward of Lamaštu, a disease-causing demon, while inscribed clay cylinders were hung around children's necks to ward off fevers.[8]

2.1 Stelae, statues, and monuments in stone

Such special usage aside, the two main writing media used in the cuneiform tradition aside from clay were stone and wooden or ivory boards covered with wax mixed with yellow ochre (or possibly written in ink).[9] The fragmentary nature of the record that has come down to us is particularly acute in the matter of large, inscribed stone monuments. As noted by Moorey, southern Mesopotamia

3 Chiera 1956. On the problematical issue of defining Mesopotamia as a manuscript culture, see Cécile Michel's contribution to this volume.

4 Pearce 2010.

5 Reiner 1960.

6 Wasserman 1994, 55.

7 Panayotov 2018.

8 Finkel 2018; for more various types of amulets see Heeßel 2012.

9 On Akkadian *kalû* as yellow ochre see most recently Thavapalan 2019, 187 n. 43, with earlier literature.

was devoid of stone, save gypsum, limestone, and sandstone, although the annual flooding of the Tigris and Euphrates rivers bore with them boulders of other stones as well, while the north had ready access to limestone, sandstone, basalt, and marble.[10] The surrounding regions, however, provided an abundance of more durable and attractive materials and these were acquired through barter, trade, and plunder. Some materials were obtained through indirect contact from as far away as Afghanistan, as was the case with lapis lazuli, which could be transported in manageable portions, by land, although traffic by sea cannot be ruled out. The procurement of larger stone pieces that could be used for life-sized statuary and other big monuments was a more complicated matter. The hard lustrous black olivine gabbro stone, much prized for such purposes, could be found in south-western Iran and in Oman, and the transport of large blocks was a logistically complex issue. As such, it was best suited for royal concern, best exemplified by the example of the late third millennium king Maništusu (*c*. 2334–2154 BCE), who led an expedition to Oman where he procured large amounts of olivine gabbro, and ordered the fashioning of numerous statues of himself in standing and seated position as well as possibly other types of monuments that were set up in temples throughout his realm as well as elsewhere, thus playing out, to human as well as divine audiences, the heralding of his imperial reach.[11]

Other kings erected inscribed and illustrated stelae, statues of goddesses and gods as well as of their own likenesses, and yet few such large monuments survive from the earlier period of Mesopotamia history, because the scarcity of the required materials made them much sought after for reworking by later generations, although clay tablets with copies of such inscriptions provide ample evidence of their existence. The ones that were not smashed by conquerors, broken down for reuse in later times, or stolen by latter-day robbers, survived either by chance, in places that were abandoned and not built upon in antiquity, or in the collections of ancient plunders. Here, I refer only to three emblematic examples.

Gudea, a twenty second BCE king of the southern Babylonian Lagaš polity in southern Babylonia, undertook many building and rebuilding activities during his reign, most prominently the complete renewal of the temple complex of Ningirsu, the titulary deity of Gudea's capitol city of Girsu.[12] In the process, he also installed his own stone life-size representations, standing and seated, in

10 Moorey 1994, 21–22.

11 Eppihimer 2010.

12 Winter 1992.

the major shrines of the city. Soon after his death, the city lost its independence and was incorporated into the larger territory ruled by the kings of the Third Dynasty of Ur; its further fates are largely unknown at present, but eventually during the eighteenth century BCE, at the latest, it was abandoned until the third century BCE when a Seleucid governor by the name of Adad-nadin-ahhe built a palace on the site, had his people dig up ancient Sumerian antiquities and came across Gudea's statues. These were brought out of their original locations and set up together with glazed bricks of the new master of the site, who had them inscribed in Greek and Aramaic, albeit in a manner imitating Gudea's original captions.[13] We know nothing of Adad-nadin-ahhe and even less of his motivations: was his native language Aramaic or Greek; was he well enough educated to read cuneiform and to be able to appreciate the two-thousand-year-old Sumerian texts or was his interest purely antiquarian and/or aesthetic? Sébastien Rey (2020), has argued, on the basis of new information gleaned from recent excavations at Girsu that this was an element of an ancestral cult honoring ancient Sumerian rulers. Whatever impulses led him to seek out, preserve but also appropriate these ancient statues, he gave them new life in an arrangement that can be seen reproduced in the Louvre Museum today. Here the combination of lack of rebuilding on the site that may have led to the destruction, removal, or simple reuse of the statuary, combined with some form of much later antiquarianism and appropriation resulted in the survival of a unique set of Mesopotamian statuary.

The second case briefly invoked here concerns a hoard of Mesopotamia stone monuments discovered during the French excavations in the city of Susa, the seat of power of a series of Iranian polities that had a complex, often contentious relationship with Sumer, Babylonia, and Assyria.[14] The collection included royal and elite monuments, but no divine statues. It has often been anachronistically described as a museum, but that misses the mark, as Potts has observed.[15] Several major pieces in the display had new Elamite labels inscribed, making them as plunder from Babylonia, asserting Elamite royal power and dedicating the objects to the main god of the city. Such markers of hegemony and might can be superficially viewed as a semantic link with the European colonial concept of the museum, but that is not enough to define it in such an anachronistic manner. There is no ancient narrative describing the motivation or the process of acquisition of these artefacts. Moreover, the manner in which

13 Parrot 1948, 152–156.

14 Harper, Aruz and Tallon 1993.

15 Potts 2018, 620.

they were excavated and documented would never meet current standards and therefore one cannot establish with any precision how they were arranged, if indeed they were all accumulated under orders of the same monarch, and if they were in fact all on exhibit in the same place.

The Susa collection was created at the command of the Elamite monarch Šutruk-Nahhunte (1184–1155 BCE)[16] although some of his successors may have added artifacts as well, and in addition to objects of Mesopotamian origin it numbered Elamite monuments among the holdings.[17] We know that this ruler invaded Mesopotamia and put his own son briefly on the throne of Babylon, and that it was this military expedition that resulted in the plunder of Babylonian monuments from several cities and their removal to Susa.[18] Although Elamites had invaded Mesopotamia before, the preceding decades show no hostility between the two polities, as noted by Potts;[19] indeed, the royal houses of both were linked by a steady pattern of intermarriage over more than a century, culminating with the marriage of the oldest daughter of the Babylonian monarch Melišihu (1186–1172 BCE)[20] to Šutruk-Nahhunte sometime around 1190 BCE.[21] The details of this series of royal marriages became apparent to historians with the publication in 1986 of a much later copy of a letter, found in Babylon and written in Babylonian, in which a king of Elam describes the history of these marriages and his claim to the throne of Babylon.[22] The name of the sender is not preserved, but it is now generally accepted that it was none other than Šutruk-Nahhunte.[23] The authenticity of the letter is open to doubt, but that is of no concern to us here, as the general pattern of the relationships between the two royal houses only serve as the background to the events that led to the Elamite invasion. Apparently, the royal line in Babylon that was allied with the kings of Susa was interrupted by the one-year reign of one Zababa-šuma-iddina (*c.* 1158 BCE), who was not of the same lineage. As stated succinctly by Potts, 'Shutruk-Nahhunte's resentment at not sitting on the Babylonian throne himself [...], coupled with Zababa-shuma-iddina's arrival on the scene and his own (i.e., Shutruk-Nahhunte's) father-in-law's overthrow (by whatever means) would

16 Henkelman 2012.

17 See the list in Potts 1999, 235.

18 Potts 1999, 233–236; Devecchi and Lippolis 2020.

19 Potts 2006, 117–118.

20 Harper, Aruz and Tallon 1993, 178–179.

21 A black limestone monument inscribed with a land grant to Melišihu's son was also included in the Susa plunder; Harper, Aruz and Tallon 179–180.

22 Van Dijk 1986.

23 Henkelman 2012, 370, with references to earlier discussions.

certainly have given the Elamite king ample justification for launching an assault on Babylonia'.[24]

Judging by the inscriptions on the pillaged objects found in Susa, the Elamite army came into Mesopotamian down the Diyala valley and then down to the Tigris River, plundering the cities of Ešnunna, nearby Agade, then moving on south-west to Sippar and Babylon and possibly other towns as well. It is impossible to know if these targets were opportunistic, located on the march towards Babylon, or if Šutruk-Nahhunte and his officers had specific objectives in mind. Certainly, Agade and Ešnunna were of no strategic or military value. The former had been the capitol of a large territorial state a millennium earlier, one that had acquired legendary status by this time, but had since been of little importance and its precise location remains unknown to us today.[25] Ešnunna, modern Tell al-Asmar,[26] had a long history going back at least as far as the latter part of the fourth millennium BCE, both as an independent polity and as part of larger territorial states, but was conquered by the Babylonian king Hammurabi in 1763 BCE, after two and a half centuries of independence, never to rise again. Thus, in approaching Ešnunna, either on the way to Babylon or on the return journey, Šutruk-Nahhunte's agents encountered a long-abandoned city; the fact that they remained there rummaging in the ruins suggests a premeditation and agency behind the search for precious artefacts destined for removal to Susa. The major source for much of this plunder may have been the Ebabbar temple in the city of Sippar.[27]

Among the hundred or so objects exhibited in the temple complex of Inšushinak in Susa, three stand out for sheer size, authority, and unique status in modern views of ancient art and philology. The earliest is a grand four-sided block of black olivine gabro with a long inscription that details the acquisition of *c*. 3400 ha of lands by the Old Akkadian Crown – in this case in the name of the already mentioned king Maništusu – from elites that had come under the control of the central government in Agade.[28] While formulated as a purchase, the sellers likely had no say in this, and it provides vivid evidence of the consolidation of power by the Akkadian polity and the side-lining of old elites in favour of followers of the royal family during the time of Maništusu. There are

24 Potts 2006, 118.

25 Ziegler and Cancik-Kirchenbaum 2017, 147–228, including Paulus 2017 for the period under discussion here.

26 Reichel 2013.

27 Gelb, Steinkeller and Whiting 1991, 22.

28 Gelb, Steinkeller and Whiting 1991, 116–140.

other scraps of evidence for this policy, but nothing compares with the detailed information contained in this 'obelisk'. Other such monuments undoubtedly existed and provided vivid public demonstration of the scope and range of this centralization of power, but none of them have survived and we can only speculate about the full range of this policy and its long-term consequences.

Another monument that was part of this collection was a stone relief with a martial representation of the next king of Agade, Naram-Sin (*c.* 2253–2198 BCE),[29] wearing a horned crown that signalled his elevation to divine status, charging up a mountain leading his troops against his enemies, who are seen falling down from the slopes in battle. The Elamite king was justly proud of his acquisition and had his own inscription added, flowing sideways on the mountain, similar to what he had written on other procurements from his raid on Babylonia:

> I am Šutruk-Nahhunte, son of Hallutush-Inšushinak, beloved servant of the god Inšushinak, king of Anshan and Susa, who has enlarged the kingdom, who takes care of the lands of Elam, the lord of the land of Elam. When the god Inšushinak gave me the order, I defeated [the city of] Sippar. I took the stele of Naram-Sin and carried it off, bringing it to the land of Elam. For Inšushinak, my god, I set it as an offering.[30]

The compositional acuity and the vivid plasticity of the carving, especially of the dominating idealized figure of the young king, is generally considered as one of the great masterpieces of Mesopotamian art and has justly been the subject of numerous studies.[31] It is hard to question such appreciation, as anyone who has stood before the actual monument now standing against the wall in the Louvre can well attest. In the present context, however, there are certain questions that one cannot avoid raising: was the Naram-Sin stela unique, or was it just one of many, was it truly a chef d'oeuvre of Akkadian art as it seems to us today because of its uniqueness, or was it just ordinary by the standards of its time? These are necessary, if somewhat futile interrogations, for they will never be answered, unless some fortunate archaeologists stumble upon the hitherto unidentified city of Agade, capitol of the Akkadian polity, and unearth a plethora of preserved stone monuments that may provide a useful overview of the artistic production of the time of Naram-Sin.

The Akkadian monuments found in Susa are not the only ones that have acquired special status because of their uniqueness. Undoubtedly, the most famous among them is the stela with the so-called Laws of Hammurabi, a tall

29 Harper, Aruz and Tallon 1993, 166–168.

30 König 1977, 76; Van De Mieroop 2007, 188.

31 See for example Feldman 2009; Winter 1996 and 2002.

black olivine gabro stele with a long inscription in monumental script topped by a representation of the king standing before the seated sun god Šamaš, master of justice, that is one of the most famous of all Mesopotamian objects, celebrated, quite incorrectly, in popular and political lore as the oldest law code on the planet. This particular exemplar most likely stood in the temple of the Šamaš in the city of Sippar, and by default it is often treated as unique, but there are reasons to believe that Hammurabi's administration had similar stele erected in the major cities of his realm. While tablet versions of the text that was engraved on the stele circulated in Mesopotamia down to the latter part of the first millennium, used for schooling but also deposited in library collections,[32] no such other monument has been ever found in Mesopotamia.[33] And yet the excavators of Susa did recover stone fragments that must have belonged to two or perhaps more stone objects that were undoubtedly similar to the one reportedly plundered from Sippar,[34] suggesting that they had been taken from other cities as well. It is difficult to know exactly what they might have looked like because there is reason to believe that the one complete exemplar known to us, the famous stele standing today in the Louvre, had been partially altered by Elamite stoneworkers.[35]

One early ancient collection that is entirely missing was distributed around the courtyard of the Ekur, great temple complex of the god Enlil in the city of Nippur. There are good reasons to believe that over centuries Mesopotamian rulers with larger economic, territorial, and political ambitions would commission the erection of elaborate stone monuments in this abode of the god who controlled politics and hegemony in the universe, but they also left inscribed stone objects in other temples throughout their realm. These are known to us today because of eighteenth century BCE copies, mostly from the city of Nippur, although there are also similar copies made from objects dedicated in the central temple complex in Ur and elsewhere.[36] The inscriptions from some of these monuments were copied by a few literati and their students, but the circumstances of these labours are unrecoverable at the present time, although it is possible that they were created when Nippur and Ur took part in a rebellion against the Babylonian Crown. Perhaps this was part of a preservation project as

32 Maul 2012, Greco 2019.

33 A fragmentary document from the Nineveh libraries may record the acquisition on a version inscribed on a wooden writing board, although this is far from certain, see Lambert 1989, 96.

34 Nougayrol 1958, 150.

35 Ornan 2019.

36 Michalowski 2020, 694–696.

citizens in both cities awaited the armies of King Samsu-iluna (1749–1712 BCE), which did indeed retake both, exacting vengeance, as documented in the archaeological record.[37]

Just about the only clue as to the precise original location of such inscribed objects in Nippur is found on a fragmentary copy of an inscription in the name the Akkadian ruler Rimuš (*c.* 2276+ BCE) that ends with the annotation 'from the courtyard of Ekur', similar to another such tablet that ends with 'in Ekur, as many as there are',[38] although some may have stood in nearby areas of the complex. None of the originals have survived, undoubtedly cleared out in later times, some of them recycled in the service of other monarchs, because no such monuments were found during modern excavations of that Enlil's temple. Other than this and other Nippur copies of third millennium inscriptions that were likely of similar origin, the Ekur accumulation, which must have constituted a veritable chronicle of the power aspirations and self-representative strategies of late third and early second millennium polity leaders, is simply unrecoverable, erased from memory by latter-day Mesopotamians.[39]

2.2 Wooden writing boards

The other writing vehicle used in Mesopotamia, besides the ubiquitous clay, was the wooden board covered with wax that was mixed with yellow ochre, in the first millennium at least. While there is sporadic evidence that may possibly suggest their occasional use of such as early as 2200 BCE, the systematic exploitation of this medium is only documented during the middle of the second millennium.[40] The signs of early utilization are somewhat elusive. The Sumerian word most often used to designate such boards, *le-um* (most likely a copy from Akkadian *lē'ûm*) is rare before the middle of the second millennium. As far as one can determine, there is no direct evidence currently available about the topic before Ur III times at the very end of the third millennium. A poem that celebrated the rebuilding by King Gudea of the grand temple complex of Ningirsu, the main god of his capitol city Girsu, mentions the appearance of Nisaba, the goddess of writing, accounting, surveying, and agricultural plenty holding such a *le-um* that is qualified as *za-gin*$_3$, the Sumerian word for lapis-

37 Michalowski 2020, 695–696.

38 Michalowski 1980, 239.

39 On these monuments and for an attempt at a reconstruction of one of these, see Buccellati 1993.

40 Cammarosano et al. 2019, 129–131.

lazuli, but which could also be used in metaphorical adjectival use as 'shining, sparkling'. This is unique: in other contexts, she held a lapis starry tablet that figuratively designated the night-time sky with stars as cuneiform signs. References in the abundant Ur III administrative record are conspicuously meagre, as noted by Volk and Steinkeller, who provides a full documentation, while also calling attention that there is hardly any evidence for the use of wax during this period in Southern Babylonia,[41] and we learn from Volk's detailed study of beekeeping in Mesopotamia that it is unlikely that bees were kept in the south in early times;[42] further references from newer publications are provided by Derksen.[43]

An early specific literary reference comes to us from the Sumerian poem *The Curse of Agade (Saŋki Gida Enlilake),* in which it is reported that the goddess Inana strove to raise the city to hegemonic status so that '(even the Iranian land of) Marhaši be re-entered on the (tribute) rolls (*le-um-ma*)',[44] a line plagiarized in a later forgery of an inscription of an imaginary earlier ruler named Lugalanemundu.[45] The *Curse* was composed during the Ur III period or just before it, and this would suggest that at the time foreign tribute was registered on such materials, whatever they have been at the time. The matter is complicated by the fact that the Sumerian word *le-um* was also used in a technical sense for a part of a plow,[46] and it is not always easy to discern which meaning is in play in an account text.[47] In a somewhat later royal poem composed for didactic use, written in the name of King Lipit-Ištar (*c.* 1936–1926 BCE) the aforementioned goddess of writing and accounting Nisaba, confers upon him the cubit measure and writing board that 'provide discernment'.[48] This suggests that in these times writing boards were specifically used in the field as a portable writing device and this also explains the Gudea passage cited above, in which the goddess appears in a dream with a metaphorical surveying note taking board as she instructs the king to build a temple. The small number of references in such early texts in Babylonia throughout the first half of the second

41 Volk 1999, 284–285; Steinkeller 2004, 75–76.

42 Volk 1999.

43 Derksen 2017, 109–112.

44 Cooper 1983, 50–51, l. 20.

45 Güterbock 1934, 40, l. 5.

46 Civil 1994, 81.

47 A similar term ^{ĝeš}da, which in later times was used as a Sumerogram for Akkadian *lē'ûm* in Ur III times designated boards of various kinds, but was never, as far as I am able to discern, used with the meaning 'writing board'.

48 Vanstiphout 1978, 36 –37, l. 24, 24a.

millennium may be indicative of rare usage or it may simply indicate that they were most often utilized outside of the standard archival contexts. But there are some indications that they might have been more common further north in what would later become Assyria and the further easy in Anatolia.

Excavations at the ancient Kaneš in Anatolia, where merchants from the city of Assur lived and traded among the local population, have unearthed more than 22,700 tablets,[49] many of them letters that provide abundant testimony concerning their affairs and their dealings with family members back home who were associates in business during the late twentieth and nineteenth centuries BCE.[50] Two tablets found there mention an object designated in Akkadian as a *ṭuppum ša iskurim*, 'a wax tablet'.[51] These have now been discussed anew by Veenhof: one is in a letter written in Assur, while the second is an entry in an inventory of what appears to have been a private chapel, listed together with various cultic objects, including tools, so he suggests that these tablets 'were symbols of the god who would see to it that in his presence accounts were settled in a honest and fair way'.[52] The locals, however, were native speakers of the closely related Indo-European Luwian and Hittite languages, even if they occasionally used Akkadian inscribed on clay with cuneiform characters for written communication.

Some of their accounts were in the form of texts referred to in Akkadian as *iṣurtum*, literally 'drawing' that were apparently documents provided by the local palace or by local businessmen to Assyrian merchants, but as far as one can ascertain, not a single text of this type has been found. Waal has proposed that they were in fact wooden boards or tablets that were painted or inscribed with an early form of an indigenous writing system that is known today as the Anatolian hieroglyphic script, later used only for the Luwian language.[53] The earliest recovered examples of this writing system date from the thirteenth, possibly fourteenth century BCE (some would say earlier), but Waal has persuasively argued that its roots go back to the end of the third or beginning of the second millennium BCE.[54] Veenhof, while sympathetic to Waal's thesis, has raised some important questions that still need to be answered if we are to fully accept it.[55] Wooden boards, some covered with wax, were used in later times in

49 22,627 as of 2015, including those from early illicit digs, see Michel 2015, 525.
50 Larsen 2015; Michel 2020, 1–38.
51 Veenhof 2010, 100–101; Barjamovic and Larsen 2008, 153, 1. 2; Derksen 2017.
52 Veenhof 2020, 242–243; see also Derksen 2017 for two references from Kaneš to wax itself.
53 Waal 2012, 292–296.
54 Waal 2011 and 2012.
55 Veenhof 2020, 243.

the administration of the Hittite polity and in throughout the Levant, but this must remain of no concern to us here.[56]

The scarcity of references to wax in third and early second millennium Mesopotamia is puzzling, since we know that it was used in various forms of manufacturing, most prominently in casting metal objects with the lost wax technique and, of course, the scattered mentions of wax tablets suggest regular use. It is possible that this is a reflection of utilization outside of the purview of the accounting systems. Many questions about bees and their products remain unanswered: indeed, the Sumerian and Akkadian names for these wonderful insects remain unknown,[57] there is not a shred of evidence for beekeeping in southern Babylonia (although the matter is different further north), the ancient words for 'honey' are contested, with good reasons to question its use in early times,[58] and there are lexicographical uncertainties about words for 'wax'.[59] These are complex matters that require complex technical study that belongs elsewhere.

The earliest evidence for more systemic use of wooden boards comes from the middle of the second millennium from further north in Assyria where the climate was more conducive for beekeeping. As noted by Postgate in an essay on bureaucratic documentation, in reference to Middle Assyrian management,

> unfortunately one significant part of the record is missing, and that is what was written on wooden writing boards. We know, from references in the clay tablets, that these were used within the administration, probably only as unilateral documents, listing both people and commodities. It always raises the question in my mind, to what extent the clay tablets of the Mediterranean constitute the complete written record.[60]

This, and other circumstantial matters prompted another scholar to suggest that gaps in the written record somewhat earlier, in mid-second millennium Babylonia, may be explained by a switch from clay to perishable materials such as wooden boards or palm frond ribs, but such an explanation must remain hypothetical at best.[61]

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56 Symington 1991.

57 Volk 1999, 280.

58 Powell 1996, 107; see now in general Maiocchi 2012.

59 The Sumerian term *lal$_3$-hur*, used after Ur III only in literary texts, otherwise replaced by *tuh-lal$_3$*, was discussed by Civil 1964, 74–75, with some clarifications by Sallaberger 2012, 301; see also Maiocchi 2012, 12, n. 7.

60 Postgate 2001, 193.

61 Dalley 2020, 18–19.

Writing boards became more much more common in the first millennium, when they were apparently made of sissoo, walnut, tamarisk, or cypress, but also of ivory.[62] All but a few, mostly fragments, have perished in the Mesopotamian earth, but the occasional illustration of scribes at work and a few surviving pieces of walnut and luxury ivory boards from Assyrian palaces in Nimrud and Assur can be reconstructed to provide a general idea as to how these looked and functioned: usually, they seem to have had two, three, or four leaves, connected with hinges.[63] Textual references likewise document their extensive use in first millennium Babylonia and Assyria.

A full study of the use of writing boards is yet to be written, but there is much scattered information on their use in various libraries and archives; a few examples will suffice here. The libraries of Assurbanipal in Nineveh, already referenced above, offer the best example of the extensive use of such boards for writing scholarly and literary texts.[64] Moreover, it is evident that they were used widely beyond the library settings, as observed a quarter of a century ago by Parpola

> it is necessary to keep in mind that under the Sargonid kings a large part of all official documents and records were drawn up on materials other than clay: wax-covered writing boards, papyrus and leather. There is every probability that exactly the kind of documents that were liable to be stored in state archives (international treaties and correspondence, war diaries and sketches made during military campaigns, architectural and engineering plans and other documents relating to military, administrative and economic planning etc.) were largely written on such materials, which of course means that much if not most of the contents of these archives is now irretrievably lost.[65]

Writing boards continued to be used in the subsequent Neo-Babylonian period (626–539 BCE), perhaps best exemplified by Michael Jursa's detailed discussion of their use in accounting in the administrative records of the complex holdings of the Ebabbar temple estate in the city of Sippar.[66] Wooden boards, as well as parchment and papyrus that may have been painted or incised with Aramaic alphabetic script, were used for various types of accounts and were apparently kept for some time, so that not all of them contained ephemeral data that was eventually copied onto clay tablets or discarded, with the boards erased and

62 Frame and George 2005, 82, n. 5.
63 Jendritzki, Streckfuß and Cammarosano 2019.
64 Parpola 1983.
65 Parpola 1986, 225–226.
66 Jursa 2004, 170–178.

reused another day. Some daily ledgers and transactions were apparently only registered in this manner and will therefore never be recovered.

The almost exclusive use of boards for specific types of information extends beyond accounting. Illustrative is the example of a Late Babylonian clay tablet with mathematical problem texts from Uruk that was copied, according to its colophon, from a wooden writing board. As observed by its editors Friberg, Hunger and al-Rawi,

> since no mathematical texts inscribed on wax tablets have been preserved, it is welcome to have here firm evidence that mathematical texts were not exclusively confined to the medium of (cuneiform script on) clay tablets. The deplorable fact that relatively few mathematical cuneiform texts from the first millennium BC are preserved can perhaps be explained in this way. Cf. the mentioned observation that the organization of metrological tables suggests that scribes during the NB/LB period were used to write Aramaic, for which the medium was not clay tablets but wax-covered tablets, leather scrolls and papyri.[67]

Because Aramaic was invoked here, a brief follow-up may prove to be illustrative as well. From the eighteenth century BCE onwards, alphabetic writing in Aramaic become used more and more in Assyria and then in Babylonia alongside cuneiform writing in the Akkadian language. Eventually, Aramaic would be written on clay tablets, incised with a metal stylus, but much of it was brushed with paint on papyrus, leather scrolls, and on wooden tablets, none of which survive in the Assyrian ground, but also occasionally on pottery sherds, otherwise known as ostraca. The sole Neo-Assyrian letter in Aramaic was found in the city of Assur and is likely to be dated to the time of Assurbanipal in the seventh century. It was painted in red ink on an ostracon; Fales[68], who has presented the most complete interpretation to date, suggested that the letter was in fact a draft of a message that was intended to be copied out on a scroll, presumably made of leather or papyrus, that would have then been sent to the addressee, and this explains its unique status. To once again exemplify how lack of data leaves matters open to various interpretations, it is instructive that Radner[69] viewed these matters differently, suggesting that Neo-Assyrian Aramaic letters on ostraca might have easily been missed during archaeological excavations or erased by mistake during their cleaning in the field.

67 Friberg, Hunger and al-Rawi 1990, 546.
68 Fales 2010, 198.
69 Radner 2014, 85–86.

3 Final thoughts

All these selective cases were chosen to illustrate the use of materials other than clay for written communication in ancient Mesopotamia, with a focus on the concomitant loss of information that limits our reconstructions of the past as an important corollary to the ever-increasing masses of clay tablets available for study. This abundance is nevertheless fragmentary, but not unlike the poet and classicist Anne Carson we confront and embrace the fragment and adjust our narratives accordingly.

But not all written traces of the past are as fragmentary as others. Just recently Robson and Stevens have made a case that first millennium Babylonian scholarship was characterized by what they term the 'distributed library' that encompassed tablets and writing boards kept in various contemporary loci, often moving between them as needed.[70] In other words, seemingly incomplete tablet collections must be considered in aggregate, rather than as fragmentary assemblages, and as a result we have a much more complete picture of the scholarship and literature of the time than assumed until now.

In this sense, the Assurbanipal library was unique in that it was intended to be complete in itself, a summary of existing written knowledge. Ever prescient, Irving Finkel, writing in the same essay volume as Robson and Stevens, gave this an additional twist in concluding his essay on Assurbanipal's library with words that inspire the imagination. Commenting on the precision and all-encompassing labors of the king's scribes and scholars, he drew attention to the conservative, backward-looking nature of the results:

> [...] it is possible that there was a general reluctance to use cuneiform on clay for innovation or speculation or non-conformist writing. Perhaps, if such writings ever saw the light of day at Nineveh, it was in ink on parchment, or scratched in the wax among the uncounted thousands of wooden tablets that have perished forever. This we will probably never know.[71]

Eric Dolphy would have liked that.

70 Robson and Stevens 2019, 339, building on Maul 2010.

71 Finkel 2019, 386–387.

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References

Balke, Thomas E., Diamantis Panagiotopoulos, Antonia Sarri and Christina Tsouparopoulou (2015), 'Ton', in Thomas Meier, Michael R. Ott and Rebecca Sauer (eds), *Materiale Textkulturen. Konzepte – Materialien – Praktiken* (Materiale Textkulturen, 1), Berlin: De Gruyter, 277–292.

Barjamovic, Gojko and Mogens Trolle Larsen (2008), 'An Old Assyrian Incantation against the Evil Eye', *Altorientalische Forschungen*, 35/1: 144–155.

Buccellati, Giorgio (1993), 'Through a Glass Darkly: A Reconstruction of Old Babylonian Monuments Described in Old Babylonian Copies', in Mark E. Cohen, Daniel C. Snell and David B. Weisberg (eds), *The Tablet and the Scroll: Near Eastern Studies in Honor of William W. Hallo*, Bethesda, MD: CDL Press, 58–71.

Cammarosano, Michele (2014), 'The Cuneiform Stylus', *Mesopotamia*, 49: 53–90.

Cammarosano, Michele, Katja Weirauch, Feline Maruhn, Gert Jendritzki and Patrick Kohl (2019), 'They Wrote on Wax: Wax Boards in the Ancient Near East', *Mesopotamia*, 54: 121-180.

Chiera, Edward (1956), *They Wrote on Clay: The Babylonian Tablets Speak Today*, Chicago: University of Chicago Press.

Civil, Miguel (1964), 'A Hymn to the Beer Goddess and a Drinking Song', in Robert D. Biggs and John A. Brinkman (eds), *Studies Presented to A. Leo Oppenheim*, Chicago: Oriental Institute of the University of Chicago, 67–89.

Civil, Miguel (1994), *The Farmer's Instructions: A Sumerian Agricultural Manual* (Aula Orientalis / Supplementa, 5), Barcelona: Ed. Ausa.

Cooper, Jerrold S. (1983), *The Curse of Agade*, Baltimore: Johns Hopkins University Press.

Dalley, Stephanie (2020), 'The First Sealand Dynasty: Literacy Economy, and the Likely Location of Dur-Enlil(e) in Southern Mesopotamia at the End of the Old Babylonian Period', in Susanne Paulus and Tim Clayden (eds), *Babylonia under the Sealand and Kassite Dynasties* (Studies in Ancient Near Eastern Records, 24), Boston: De Gruyter, 9–27.

Derksen, Jan Gerrit (2017), 'New Evidence for Beeswax during the Old Assyrian Colony Period and the Ur III Period', in Fikri Kulakoğlu and Gojko Barjamovic (eds), *Movement, Resources, Interaction: Proceedings of the 2nd Kültepe International Meeting, Kültepe, 26–30 July 2015: Studies Dedicated to Klaas Veenhof* (Subartu, 39), Turnhout: Brepols, 105–116.

Devecchi, Elena and Carlo Lippolis (2020), 'Dalla Mesopotamia a Parigi, passando per Susa. Il bottino mesopotamico del re elamita Šutruk-Naḫḫunte', in Enrica Culasso Gastaldi (ed.), *La seconda vita delle iscrizioni. E molte altre ancora* (Studi e testi di epigrafia, 2), Alessandria: Edizioni dell'Orso, 161–172, 403–404.

Eppihimer, Melissa (2010), 'Assembling King and State: The Statues of Manishtushu and the Consolidation of Akkadian Kingship', *American Journal of Archaeology*, 114/3: 365–380.

Fales, Frederick Mario (2010), 'New Light on Assyro-Aramaic Interference: The Assur Ostracon', in Frederick Mario Fales (ed), *Camsemud 2007: Proceedings of the 13th Italian Meeting of Afro-Asiatic Linguistics Held in Udine, Italy, May 21th–24th, 2007*, Padua: S.A.R.G.O.N., 189–204.

Feldman, Marian (2009), 'Knowledge as Cultural Biography: Lives of Mesopotamian Monuments', in Elizabeth Cropper (ed.), *Dialogues in Art History, from Mesopotamian to Materiale Textkulturen. Konzepte – Materialien – Praktiken Modern: Readings for a New Century* (Studies in the History of Art, 74), New Haven: Yale University Press, 40–55.

Finkel, Irving L. (2018), 'Amulets against Fever', in Strahil V. Panayotov and Luděk Vacín (eds), *Mesopotamian Medicine and Magic: Studies in Honor of Markham J. Geller* (Ancient Magic and Divination, 14), Leiden: Brill, 232–271.

Finkel, Irving (2019), 'Assurbanipal's Library: An Overview', in Ryholt and Barjamovic (eds) 2019, 367–389.

Frame, Grant and A. R. George (2005), 'The Royal Libraries of Nineveh: New Evidence for King Ashurbanipal's Tablet Collecting', *Iraq,* 67: 265–284.

Franklin, Simon (2019), 'Review of Schaeken, Voices on Birchbark: Everyday Communication in Medieval Russia', *Journal of Historical Sociolinguistics*, 5/2: 1–4.

Friberg, Jöran, Hermann Hunger and Farouk N. H. al-Rawi (1990), '"Seed and Reeds", Another Metro-mathematical Topic Text from Late Babylonian Uruk', *Baghdader Mitteilungen*, 21: 483–557.

Gelb, Ignace J., Piotr Steinkeller and Robert Whiting Jr. (1991), *Earliest Land Tenure Systems in the Near East: Ancient Kudurrus*, [vol. 1:] *Text*, Chicago: Oriental Institute of the University of Chicago.

Greco, Angela (2019), 'The Code of Hammurabi in Later Tradition', *Oriens Antiquus* S.N., 1: 69–79.

Güterbock, Hans-Gustav (1934), 'Die historische Tradition und ihre literarische Gestaltung bei Babyloniern und Hethitern bis 1200. Erster Teil: Babylonier', *Zeitschrift für Assyriologie und Vorderasiatische Archäologie*, 42: 1–91.

Harper, Prudence O., Joan Aruz and Françoise Tallon (1993), *The Royal City of Susa: Ancient Near Eastern Treasures in the Louvre*, New York: The Metropolitan Museum of Art.

Henkelman, W.F.M. (2012), 'Šutruk-Nahhunte', in Michael P. Streck (ed.), *Reallexikon der Assyriologie und Vorderasiatischen Archäologie*, vol. 13, Berlin: De Gruyter, 369–372.

Heeßel, Nils P. (2012), 'Amulette und "Amulettform": Zum Zusammenhang von Form, Funktion und Text von Amuletten im Alten Mesopotamien, in Joachim Friedrich Quack and Daniela Christina Luft (eds), *Erscheinungsformen und Handhabungen Heiliger Schriften* (Materiale Textkulturen, 5), Berlin: De Gruyter, 53–78.

Jendritzki, Gert, Matthias Streckfuß and Michele Cammarosano (2019), 'Technische und materialgerechte Rekonstruktion einer Elfenbein-Klapptafel aus Aššur', *Mitteilungen der Deutschen Orient-Gesellschaft*, 151: 201–218.

Jursa, Michael (2004), 'Accounting in Neo-Babylonian Institutional Archives: Structure, Usage, and Implications', in Michael Hudson and Cornelia Wunsch (eds), *Creating Economic Order: Record-keeping, Standardization, and Development of Accounting in the Ancient Near*

East (International Scholars Conference on Ancient Near Eastern Economies, 4), Bethesda, MD: CDL Press, 45–98.
König, Friedrich Wilhelm (1977), *Die elamischen Königsinschriften* (Archiv für Orientforschung / Beiheft, 16), Osnabrück: Biblio.
Lambert, W. G. (1989), 'The Laws of Hammurabi in the First Millennium', in Marc Lebeau and Phillipe Talon (eds), *Reflets des deux fleuves: Volume de mélanges offerts à André Finet* (Akkadica / Supplementum, 6), Leuven: Peeters, 95–98.
Larsen, Mogens (2015), *Ancient Kanesh: A Merchant Colony in Bronze Age Anatolia*, Cambridge: Cambridge University Press.
Maiocchi, Massimo (2012), 'Il dolce sapore della morte: simbologia delle offerte rituali nella Mesopotamia protodinastica', in Lucio Milano (ed.), *Mangiare divinamente. Pratiche e simbologie alimentari nell'antico Oriente* (Eothen, 20), Vicchio: LoGisma, 11–32.
Maul, Stephan M. (2010), 'Die Tontafelbibliothek aus dem sogenannten "Haus des Beschwöringspriesters"', in Stephan M. Maul and Niels P. Heeßel (eds), *Assur-Forschungen: Arbeiten aus der Forschungsstelle 'Edition literarischer Keilschrifttexte aus Assur' der Heidelberger Akademie der Wissenschaften*, Wiesbaden: Harrassowitz, 189–227.
Maul, Stephan M. (2012), 'Tontafelabschriften des "Kodex Hammurapi" in altbabylonischer Monumentalschrift', *Zeitschrift für Assyriologie und Vorderasiatische Archäologie*, 102/1: 76–99.
Michalowski, Piotr (1980), 'New Sources Concerning Naram-Sin', *Journal of Cuneiform Studies*, 32/4: 233–246.
Michalowski, Piotr (2020), 'The Kingdom of Akkad in Contac with the World', in Karen Radner, Nadine Moellner and D.T. Potts (eds), *The Oxford History of the Ancient Near East*, vol. 1: *From the Beginnings to Old Kingdom Egypt and the Dynasty of Akkad*, Oxford: Oxford University Press, 686–764.
Michel, Cécile (2015), 'Old Assyrian Bibliography 3. May 2009–June 2015', *Archiv für Orientforschung*, 53: 525–559.
Michel, Cécile (2020), *Women of Assur and Kanesh: Texts from the Archives of Assyrian Merchants* (Writings from the Ancient World, 42), Atlanta: SBL Press.
Moorey, P.R.S. (1994), *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence*, Oxford: Clarendon Press.
Nougayrol, J. (1958), 'Les fragments en pierre du Code Hammourabien II', *Journal Asiatique,* 246: 143–155.
Ornan, Tallay (2019), 'Unfinished Business: The Relief on the Hammurabi Louvre Stele Revisited', *Journal of Cuneiform Studies*, 71: 85–109.
Panayotov, Strahil V. (2018), 'Magico-medical Plants and Incantations on Assyrian House Amulets', in Greta Van Buylaere, Mikko Luukko, Daniel Schwemerand and Avigail Mertens-Wagschal (eds), *Sources of Evil: Studies in Mesopotamian Exorcistic Lore* (Ancient Magic and Divination, 15), Leiden: Brill, 192–222.
Parpola, Simo (1983), 'Assyrian Library Records', *Journal of Near Eastern Studies*, 42: 1– 29.
Parpola, Simo (1986), 'The Royal Archives of Nineveh', in Veenhof (ed.) 1986, 223–236.
Parrot, André (1948), *Tello, Vingt campagnes de fouilles (1877-1933)*, Paris: Michel.
Paulus, Susanne (2017), 'Akkade in mittelbabylonischer Zeit (ca. 1500–1000 v. Chr.)', in Ziegler and Cancik-Kirschbaum (eds) 2017, 199–206.
Pearce, Laurie E. (2010), 'Materials of Writing and Materiality of Knowledge', in Jeffrey Stackert, Barbara Nevling Porter and David P. Wright (eds), *Gazing on the Deep: Near Eastern and Other Studies in Honor of Tzvi Abusch*, Bethesda, MD: CDL Press, 167–179.

Postgate, J. Nicholas (2001), 'System and Style in Three Near Eastern Bureaucracies', in John Tyrell Killen and Sofia Voutsaki (eds), *Economy and Politics in the Mycenaean Palace States: Proceedings of a Conference Held on 1–3 July 1999 in the Faculty of Classics, Cambridge*, Cambridge: Cambridge Philological Society, 181–194.

Potts, Daniel T. (1999), *The Archaeology of Elam: Formation and Transformation of an Ancient Iranian State*, Cambridge: Cambridge University Press.

Potts, Daniel T. (2006), 'Elamites and Kassites in the Gulf', *Journal of Near Eastern Studies*, 65/2: 111–119.

Potts, Daniel T. (2018), 'Archaeology and the Art of the Ancient Near East', in Ann C. Gunter (ed.), *A Companion to Ancient Near Eastern Art*, Hoboken: Wiley Blackwell, 615–635.

Powell, Marvin A. (1996), 'Wine and the Vine in Ancient Mesopotamia: The Cuneiform Evidence', in Patrick E. McGovern, Stuart J. Fleming and Solomon H. Katz (eds), *The Origins and Ancient History of Wine* (Food and Nutrition in History and Anthropology, 11), Amsterdam: Gordon and Breach, 95–124.

Radner, Karen (2014), 'An Imperial Communication Network: The State Correspondence of the Neo-Assyrian Empire,' in Karen Radner (ed.), *State Correspondence in the Ancient World from New Kingdom Egypt to the Roman Empire* (Oxford Studies in Early Empires), Oxford: Oxford University Press, 64–93.

Reichel, Clemens (2013), 'Eshnunna', in Roger S. Bagnall, Kai Brodersen, Craige B. Champion, Andrew Erskine and Sabine R. Huebner (eds), *The Encyclopedia of Ancient History*, Malden: Blackwell, 2500.

Reiner, Erica (1960), 'Plague Amulets and House Blessings', *Journal of Near Eastern Studies*, 1960/2: 148–155.

Rey, Sébastien (2020), 'A Seleucid Cult of Royal Ancestors in Girsu', in I. L. Finkel and St J. Simpson (eds), *In Context: The Reade Festschrift*, Oxford: Archaeopress Publishing Ltd, 56–81.

Robson, Eleanor and Kathryn Stevens (2019), 'Scholarly Tablet Collections in First-Millennium Assyria and Babylonia c.700–200 BCE', in Ryholt and Barjamovic (eds) 2019, 319–366.

Ryholt, Kim and Gojko Barjamovic (eds) (2019), *Libraries Before Alexandria: Ancient Near Eastern Traditions*, Oxford: Oxford University Press.

Sallaberger, Walther (2012), 'Bierbrauen in Versen: Eine neue Edition und Interpretation der Ninkasi-Hymne', in Catherine Mittermayer and Sabine Ecklin (eds), *Altorientalische Studien zu Ehren von Pascal Attinger: mu-ni u_4 ul-li_2-a-aš ĝa$_2$-ĝa$_2$-de$_3$* (Orbis biblicus et orientalis, 256), Fribourg: Academic Press / Göttingen: Vandenhoeck & Ruprecht, 291–328.

Steinkeller, Piotr (2004), 'The Function of Written Documentation in the Administrative Praxis of Early Babylonia,' in Michael Hudson and Cornelia Wunsch (eds), *Creating Economic Order, Record-Keeping, Standardization, and the Development of Accounting in the Ancient Near East*, vol. 5, Bethesda, MD: CDL, 65–88.

Symington, Dorit (1991), 'Late Bronze Age Writing-Boards and Their Uses: Textual Evidence from Anatolia and Syria', *Anatolian Studies*, 41: 111–123.

Thavapalan, Shiyanthi (2019), 'Stones from the Mountain, Stones from the Kiln: Colour in the Glass Texts from Ancient Mesopotamia', in Shiyanthi Thavapalan and David A. Warburton (eds), *The Value of Colour: Material and Economic Aspects in the Ancient World*, Berlin: Edition Topoi / Exzellenzcluster Topoi der Freien Universität Berlin und der Humboldt-Universität zu Berlin, 177–195.

Van De Mieroop, Marc (2007), *A History of the Ancient Near East ca. 3000–323 BC* (Blackwell History of the Ancient World), 2nd edn, Malden: Blackwell.

van Dijk, Jan (1986), 'Die dynastischen Heiraten zwischen Kassiten und Elamern: Eine verhängnisvolle Politik', *Orientalia, Nova Series*, 55/2: 159–170.

Vanstiphout, Herman L. J. (1978), 'Lipit-Eštar's Praise in the Edubba', *Journal of Cuneiform Studies*, 30/1: 33–61.

Veenhof, Klaas R. (ed.) (1986), *Cuneiform Archives and Libraries: Papers Read at the 30e Rencontre Assyriologique Internationale Leiden, 4–5 July 1983*, Leiden: Nederlands Historisch-Archaeologisch Instituut te Istanbul.

Veenhof, Klaas R. (2010), *Ankara Kültepe Tabletleri V: The Archive of Kuliya, son of Ali-abum (Kt. 92/k 188-263)*, Ankara: Türk Tarih Kurumu Basımevi.

Veenhof, Klaas R. (2020), 'Old Assyrian Iṣurtum, Akkadian Eṣērum and Hittite GIŠ.ḪUR', in N.J.C. Kouwenberg (ed.), *Law and Trade in Ancient Mesopotamia and Anatolia: Selected Papers by K.R.Veenhof*, Leiden: Sidestone Press, 225–243.

Volk, Konrad (1999), 'Imkerei im alten Mesopotamien?', in Horst Klengel and Johannes Renger (eds), *Landwirtschaft im Alten Orient. Ausgewählte Vorträge der XLI. Rencontre Assyriologique Internationale, Berlin, 4.–8.7.1994* (Berliner Beiträge zum Vorderen Orient, 18), Berlin: Reimer, 279–290.

Waal, Willemijn (2011), 'They Wrote on Wood. The Case for a Hieroglyphic Scribal Tradition on Wooden Writing Boards in Hittite Anatolia', *Anatolian Studies*, 61: 21–34.

Waal, Willemijn (2012), 'Writing in Anatolia. The Origins of the Anatolian Hieroglyphs and the Introduction of the Cuneiform Script', *Altorientalische Forschungen*, 39/2: 287–315.

Wasserman, Nathan (1994), 'BM 78613. A Neo-Babylonian Imposture of An Old-Babylonian Amulet?', *Revue d'Assyriologie et d'archéologie orientale*, 88/1: 49–57.

Winter, Irene J. (1992), '"Idols of the King": Royal Images as Recipients of Ritual Action in Ancient Mesopotamia', *Journal of Ritual Studies*, 6/1: 13–42.

Winter, Irene J. (1996), 'Sex, Rhetoric and the Public Monument: The Alluring Body of Naram-Sîn of Agade', in Natalie Boymel Kampen and Betina Ann Bergmann (eds), *Sexuality in Ancient Art: Near East, Egypt, Greece, and Italy*, Cambridge: Cambridge University Press, 11–26.

Winter, Irene J. (2002), 'Defining Aesthetics for Non-Western Studies: The Case of Ancient Mesopotamia', in Michael Ann Holly and Keith P. F. Moxey (eds), *Art History, Aesthetics, Visual Studies* (Clark Studies in the Visual Arts), New Haven: Yale University Press, 3–28.

Ziegler, Nele and Eva Cancik-Kirschbaum (eds) (2017), *Entre les fleuves – II. D'Aššur à Mari et au-delà* (Berliner Beiträge zum Vorderen Orient, 24), Gladbeck: PeWe-Verlag.