

# The Clay Tablet Book in Sumer, Assyria, and Babylonia

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## **Abstract**

After a brief survey of the mechanics, media, and cultural context of cuneiform writing, I take three case studies to try to determine whether – and, if so, when, where, and how – we can talk of books in the first three millennia of recorded human history in the Middle East. Writings from a school house from the 18<sup>th</sup> century BC city of Nippur show that Sumerian literary culture was primarily oral, with surviving tablets the ephemeral byproducts of the memorization process. In 7<sup>th</sup>-century Nineveh, Assyrian king Ashurbanipal acquired his famous library through copying, inheritance and wartime plunder as an assertion of imperial control. Five centuries later in Hellenistic Babylonia, chief-priest-to-be Shamash-êtir belonged to a tiny community of cuneiform-literate men who made celestial observations, calculations and rituals in a last-ditch attempt to preserve traditional temple culture.

## **Keywords**

cuneiform, school, Ashurbanipal, library, temple, Mesopotamia, Iraq, Nippur, Nineveh, Uruk

If a book is a collection of pages bound together and sold on the open market, then there were no books in the ancient Middle East. If, on the other hand, a book is a means of recording and transmitting in writing a culture's intellectual traditions, then there were very many, and there is a rich and extraordinary history of the ancient Middle Eastern book to be explored and told. After a brief survey of the mechanics, media, and cultural context of cuneiform writing, I take three case studies to try to determine whether – and, if so, when, where, and how – we can talk of books in the first three millennia of recorded human history in the Middle East (figure 5.1).

## **Books of Clay? Cuneiform Culture**

Writing emerged in the context of temple bureaucracy in the cities of the southern Iraqi marshes some time in the late fourth millennium BC (Nissen et al. 1993). A tiny number of accountants used word signs (usually pictograms) and number signs to account for institutional assets – land, labor, animals – and their secondary products. They wrote on refined clay tablets, about the size of a credit card but around 1 cm thick, incising the signs for the objects they were recording with a pointed stylus and impressing the numbers with a cylindrical one. The front surface of the tablet was marked out into boxes, each one containing a single unit of accounting, logically ordered, with the results of calculations (total wages, predicted harvests, and so on) shown on the back. This writing was barely language-specific – it represented concrete nouns, numbers, and little else, with only occasional clues to pronunciation and none at all to word order – and was known only to a handful of expert users. It was designed only to keep accounts, or to practice writing the words, numbers, and calculations needed for accountancy.

In the course of the third millennium BC, scribes and accountants expanded writing's capabilities to record legal transactions and agreements, dedicatory inscriptions to gods, and, finally, narrative texts of many kinds, including letters, accounts of political events, hymns to deities, and incantations (Van De Mieroop 1997). Several innovations were needed to bring this about. Most important was that writing became representations of the sounds of words rather than representations of objects. Punning on the names of those objects—analagous to exploiting the fact that “eye” sounds like “i”—allowed verbs and adverbs, adjectives and abstract nouns, and above all grammatical particles to be written down for the first time. It thus became essential to write signs in a linear order, both to show which stem particles were attached to and to indicate the order of the words in the sentence. At this point, the Sumerian language becomes visible in the written record.

Paradoxically, the tailoring of early writing to the grammatical particularities of Sumerian also freed it from the necessity of writing Sumerian alone. If signs represented sounds, they could represent the sounds of any language, with some adaptations if necessary. Sumerian's closest geographical neighbor was the Semitic language Akkadian, an indirect ancestor of Hebrew and Arabic, which today we subdivide into Assyrian, the dialect of ancient northern Iraq, and Babylonian, the dialect of the south.

Not so essentially, but perhaps inevitably, as writing grew to be representational of sounds rather than objects, it became more abstract in appearance too. The scribes developed a new technique of sign formation which entailed pressing a length of reed stylus obliquely into the clay to create linear strokes or wedges; hence our name

“cuneiform” from Latin *cuneus*, “wedge.” The size and shape of the tablets themselves also became much more varied, with shape and layout becoming closely associated with function. Indeed, it is often possible to identify the genre of the text on a tablet simply by looking without reading, as, for instance, the five different types of school tablets from House F discussed below.

Cuneiform writing was fully functional by about 2400 BC but remained the preserve of the professionally literate and numerate who were employed by temples and palaces to uphold and manage institutional authority (Radner and Robson 2011; Finkel and Taylor 2015). Later in the millennium, prosperous families and individuals also began to use the services of scribes to record legal transfers of property on marriages, adoptions, and deaths, loans and sales, and the resolution of legal disputes. Cuneiform appears fearsomely complex, with around 1000 signs in its repertoire, many of which can take one of up to a dozen different syllabic or ideographic values depending on context. Yet most cuneiform literate people, most of the time, used perhaps 10% of its capabilities. Only the most educated scholars learned to exploit the script to its fullest extent.

When alphabetic Aramaic reached Assyria and Babylonia from the west at the turn of the first millennium BC, it was quickly adopted for an increasing range of everyday writings, almost always on perishable media like animal skins and papyrus. Whereas in early Mesopotamia cuneiform literacy had been primarily a tool for controlling the ownership and rights to assets and income (some 95 percent of extant tablets attest to this function), in the first millennium it increasingly became a prestige medium. With cuneiform, the scribes communicated with the gods, learned and created intellectual culture, and wrote certain sorts of legal documents. The last known datable cuneiform tablet is an astronomical almanac from AD 75 (Geller 1997).

For the most part, cuneiform scribes wrote on clay which had been prepared in much the same way as clay for fine pottery production. It had to be levigated, or sieved, to remove particles of stone and plant fiber, and puddled, or kneaded, to remove air bubbles and to increase its elasticity. Tablets could be as small as a postage stamp or (rarely) as large as a laptop computer, but infrequently contained more than about 500 lines of text. Tablets were typically written outdoors in the sunshine and left to dry in the sun. Tablets were rarely baked in antiquity, as firing is time-consuming, expensive and difficult to control. Tablets were stored in archive rooms on shelves, in pigeonholes, or in labeled baskets. Clay basket tags and shelf records occasionally survive, as do a few acquisition lists from Ashurbanipal’s palace (discussed below), but no complete inventories are known.

When the useful life of a tablet was over it was recycled by soaking in specialist basins. Whole archives and libraries *in situ* are thus found only in exceptional circumstances: the sudden abandonment of a building or city, or accidental conflagration (which, baking the tablets, paradoxically served to aid their preservation). Of the three case studies discussed below, the House F tablets were reused as building material; the tablets in Ashurbanipal’s palace baked in the fires set during the sack of Nineveh in 612 BC; and the Rêsh temple’s library was abandoned as the temple itself fell into disuse along with the entire cuneiform tradition.

Clay was not the only medium of cuneiform script. Monumental inscriptions were carved on stone, of course, but from the late third millennium onward there are also textual references to wooden boards with waxed writing surfaces. Almost all of those writing boards, and all of their surfaces, have long since perished along with other organic writing media, but clay tablets have survived in the archaeological record in

many hundreds of thousands. Most cuneiform tablets known today are the yield of pre- and proto-archaeological digging in the late nineteenth century, or illicit excavations in the twentieth and twenty-first. Their original contexts can to some extent be recovered from internal evidence from the tablets themselves, in conjunction with the acquisition records of the museums and collections that house them. But controlled and documented archaeological excavation of textual objects *in situ* inevitably reveals far more than the historical record alone about the practices of creating, using, storing, and destroying cuneiform tablets. It enables us too to situate tablets in socio-intellectual contexts of production, communication, and preservation that allow them to be considered within the world history of the book.

## School Books in Bronze Age Sumer?

When is it meaningful to talk of “clay tablet books,” as in the title of this chapter? Cuneiformists have traditionally divided tablets into two discrete genres. Much the largest consists of archival tablets: utilitarian documents with limited shelf-life that together comprised complex administrative and/or legal systems. Memoranda, letters, accounts, receipts, rosters, court records, legal documents: they all have their counterparts in more recent literate cultures, and intuitively we can say that these records and documents are not in themselves books. More interesting for our purposes are those tablets that Leo Oppenheim famously described as transmitting the “stream of tradition,” or the intellectual culture of ancient Mesopotamia. Their contents range from literature and poetry to magic and medicine, although on closer inspection these modern genre designations often prove inadequate to capture the intellectual content and social function of such texts. But what they have in common is the fact that they were memorized and/or copied from generation to generation, often over millennia, collected and edited and commented upon. Such tablets embody the production of knowledge in ancient Iraq and thus have first claim to being considered in the light of book history.

In the Bronze Age (c.3000–1200 BC in the Middle East) the production and transmission of literate knowledge was sited in urban school houses. No doubt temples, courts, and other places were also centers of intellectual and cultural exchange at this time, but they have not yet been identified and analyzed as such through the archaeological record. Second-millennium schools, on the other hand, have been carefully studied in recent years, enabling us to look at them in the light of book history. For instance, in the early 1950s over a thousand tablets, mostly in fragments, were excavated from “House F,” a small house in the ancient city of Nippur near modern Najaf (Robson 2001). According to the datable household documents found in it, House F was used as a scribal school in the 1740s BC, immediately after the reign of Hammurabi (1792–1750 BC), most famous of the early Babylonian kings.

About half of the tablets in House F are the by-products of an elementary scribal education. They take the trainee from learning how to use a stylus to make horizontal, vertical, and diagonal wedges on the tablet to writing whole sentences in literary Sumerian. The students doubtless learned to make their own tablets too, because in the corner of the tiny courtyard was a bitumen-lined basin filled with a mixture of fresh tablet clay and crumpled up tablets waiting to be recycled. Both the elementary

exercises and the tablets themselves were standardized, with format and content closely related to pedagogical function.

The tablets were made in just five shapes and sizes. Most interesting and useful for historians are those now called Type II tablets (figure 5.2), which are typically half the size of a hardback novel (Veldhuis 2014). They were designed to give the scribal student first exposure to a new exercise, through repeated viewing and copying of a 10–20-line extract on the obverse, and revision through recall and writing from memory of a longer section of an earlier exercise on the reverse, often explicitly joining the new onto the end of the old. No other tablet type is dual-function; but like the obverse of Type II tablets, Type III and Type IV tablets are witnesses to the early stages of students' learning a new piece of work. Type I tablets and Prisms (long four- or six-sided tablets), like the reverse of Type II tablets, were probably written as the student recalled and wrote out a whole piece of work, or a significant section of it, before moving on to acquire new knowledge.

The tablet format's functional dichotomy between memorization and recall is corroborated by the fact that the long extracts on Type I, reverse Type II, and Prism tablets are almost invariably from the first half or third of an elementary exercise, whereas the short extracts on Type II obverses and tablet Types III and IV are randomly distributed across the beginnings, middles, and ends of those exercises. Looking at the textual stability of the compositions, there is much more consensus between manuscripts attesting the start of a composition than those from the end. The situation is slightly complicated, however, by the fact that there is not an even preservation of tablet types in House F. Type II tablets account for fully two-thirds of the 366 elementary tablets with identifiable formats, perhaps because they were ideally suited to reuse as building materials (the circumstances in which they were found). Two-thirds of the 50 Type III tablets identified are multiplication tables, whereas half of the 70 Type Is and Prisms are either exercises in the more abstruse aspects of cuneiform or model legal contracts. There are only five Type IV tablets among the 500 elementary tablets in House F.

A further 500 tablets, the other half of the surviving school corpus from House F, contain works of Sumerian literature, or extracts from them (Black et al. 2004). About 80 different compositions are attested in the house, including epic stories of legendary heroes like Gilgamesh and Lugalbanda, myths about gods and their deeds, hymns to gods, kings, and temples, debates, dialogues, and humorous stories about scribal students. Yet what unites them all is a particular emphasis on the divine origins and social value of literacy and numeracy: goddesses bestow ceremonial writing and measuring equipment on kings, who commission the scribes to uphold justice and order on their behalf.

The physical typology of Sumerian literary tablets is still under-researched, but other kinds of evidence reveal how they were created and used. Extracts were not copied from a model on the same tablet as the elementary exercises were, and neither has direct copying from one tablet to another ever been proved. While there is often a lot of agreement between individual manuscripts, variation at the level of spelling, grammar, synonyms, line order, and even compositional length and structure are also well attested and point again to memorization within a fairly fluid oral tradition (Delnero 2012).

On the other hand, catalogues of incipits, or first lines, and large tablets containing several literary works demonstrate that compositions could be grouped into more or

less fixed curricular sequences or clusters. A group of ten literary works, now known as the Decad, is found at the start of several ancient catalogues from Nippur and other cities (Tinney 1999). House F produced around twenty copies of each Decad composition. Its widespread distribution across southern Mesopotamia also points to a shared pedagogical culture, with remarkable thematic stability across time and space.

In House F it is clear that the primary pedagogical tactics were copying and memorization in the form of piecemeal rote learning. There were no textbooks to copy from, but rather scribal teachers wrote out lessons from memory, according to the needs of the students, and often moved them on to new tasks before they had fully mastered and memorized their current exercises. Nor were the trainee scribes themselves creating books but writing in order to memorize an oral tradition of knowledge, which could be very fluid, at the same time as learning to be literate for more mundane purposes. Both elementary and literary tablets, despite their overwhelmingly non-utilitarian content, functioned to train future scribes for their administrative careers, and to inculcate a professional identity and ethics. There is no early Mesopotamian evidence of reading for pleasure, or even creating or using tablets as reference works: the intellectual tradition was almost entirely composed of knowledge internalized through repeated copying, recitation, and memorization.

## **Books as Cultural Capital in Iron Age Assyria**

The second case study comes from a much grander setting than a humble scribal school, over a thousand years after the demise of House F. In the early first millennium BC, the political heart of the Middle East was the city of Nineveh, on the opposite bank of the Tigris to modern-day Mosul in northern Iraq. The Assyrian kings had made their capital here in c.700 BC, on a settlement founded millennia earlier. It was strategically placed for easy riverine and overland access to a vast empire, stretching east into the Zagros Mountains of Iran, west to the Mediterranean coast and Egypt, and south to the Babylonian shores of the Gulf. The Assyrian empire depended on the annual extraction of tribute and taxation, as well as the regular influx of labor from the peripheries to the center, in order to develop and maintain a sophisticated complex of palaces and temples in which the daily ceremonial of empire was performed and its ideological support system upheld.

The magnificently monumental edifices of Nineveh were amongst the first Assyrian remains to be discovered by European scholars in the mid-nineteenth century, decades before the development of professional stratigraphic archaeology. Thus the 28,000-odd tablets found in the royal citadel of Nineveh, which are now housed in the British Museum, rarely have good archaeological context (although modern museum curators have gleaned much useful data from their Victorian predecessors' documentation and correspondence). Collectively, the Nineveh tablets are rather loosely known as Ashurbanipal's Library, after the monarch who ruled Nineveh in 668–c.630 BC and who had his mark of ownership inscribed on many of them (Lieberman 1990). However, it is now clear that they come from rooms in two different palaces and at least one temple on the citadel, and not all of them belonged to Ashurbanipal. Apart from letters, administrative documents, and legal records, the assemblage includes literary and historical works, religious rituals and prayers, medical collections, and long

compilations of terrestrial and celestial omens, with complex commentaries on them (Robson 2013).

The Assyrian kings surrounded themselves with large retinues of military, political, and scholarly advisers. The scholars' ultimate function was to guide the monarch's political decision-making according to divine will. An "inner circle" of about a dozen highly educated men posed strategic questions to the gods and interpreted their answers through divination, by close inspection of events in the skies and on the earth. They relayed their findings and advice in letters and reports to the king, often supporting their conclusions with citations from learned works of the types housed in the royal library. But the scholars probably had only restricted access to the tablets in the palace itself: they kept their collections at home, and in the temple of Nabu, god of wisdom.

The scholarly tablets of Nineveh have much greater claim to be considered as books than the schoolboys' writings of House F. They show unequivocal evidence for several levels of textual standardization, from spellings up to the categorization of texts into generic corpora associated with named scholarly disciplines (Rochberg-Halton 1984). For the Assyrian scholars, the textual stability of the literate tradition was enmeshed with the theological hermeneutics of cuneiform writing. Such works were considered to be the writings of gods or divinely inspired sages, with multiple layers of meanings embedded within the multiple possible interpretations of every sign and word. The scholars explicated this multivalency, and also collected textual and oral variants, in learned commentaries of various kinds (Frahm 2011). Because very long compositions – collections of omens, for instance, or ritual series and their incantations – could not fit on a single tablet, they were divided into standard tablet-sized chapters. Colophons on the tablets themselves recorded their place in the sequence and the first line of the next tablet, while separate indices of long works and their subdivisions were another means of managing multi-tablet compositions. Colophons explicitly state that tablets were "written, copied, and checked" from older originals, both tablets and writing boards (figure 5.3).

Ashurbanipal was one of the few Assyrian kings to have been trained in the scribal arts – because he was plucked from his training for the priesthood to become crown prince. He systematically built up a personal library through a variety of means: writing copies for himself, in his youth; inheritance by indigenous scholars who were members of prestigious courtly families close to the king; and the forced transfer of both tablets and scholars from Babylonia. For instance, one set of manuscripts of the great twelve-tablet *Epic of Gilgamesh* found at Nineveh claim to be in Ashurbanipal's own hand (George 2003). The oldest set in the palace was probably written several hundred years earlier; another was perhaps written for Assurbanipal's grandfather Sennacherib and only later inscribed with the younger king's mark of ownership. A fourth had belonged to the famous scholar Nabû-zuqup-kena, the grandfather of Ashurbanipal's senior scribe. None of these four sets comprises the full sequence of twelve tablets that made up the *Epic*; it is unclear whether this is a consequence of partial preservation and recovery or reflects actual patterns of ownership.

Forced acquisition of cultural products had been an important part of the Assyrian strategy for the subjugation of Babylonia throughout the eighth and seventh centuries BC, but was particularly favored by Ashurbanipal (Frame and George 2005). Ashurbanipal's younger brother Shamash-shumu-ukin had been designated prince regent of Babylonia by their father Esarhaddon. In 652 BC he rebelled against Assyria,

claiming Babylonian independence. Ashurbanipal responded by declaring war, which ended four years later in Assyrian victory. Fragmentary library acquisition records from Nineveh, dated 647 BC, detail the contents of a large number of scholarly tablets and writing boards from various named towns and individuals in Babylonia, presumably booty or tribute (Parpola 1983). A contemporary letter reports on the writing activities of several captive Babylonian scribes: “Ninurta-gimilli, the son of the governor of Nippur, has completed the Series [of celestial omens] and been put in irons. He is assigned to Banunu in the Succession Palace and there is no work for him at present. Kudurru and Kunaya have completed the incantation series ‘Evil Demons.’ They are at the command of Sasí.”

There are about 3,700 surviving scholarly tablets from Ashurbanipal’s palace written in Babylonian script and dialect – about 13 percent of the whole (Fincke 2004). These are the survivors of an aborted postwar programme of editing and recopying into Assyrian, systematically erasing the geographical details of textual history. Ashurbanipal’s viewed Babylonian books as highly valuable cultural capital: their forced removal to Nineveh undermined Babylonian claims to the intellectual heritage of the region and thus pretensions to political hegemony, while reinforcing Ashurbanipal’s own self-image as guardian of cuneiform culture. For him, knowledge came from everywhere and nowhere (Figure 5.4).

## **Books and Professional Identity in Hellenistic Babylonia**

After the collapse of the Assyrian empire in 612 BC, Babylonia regained its independence for some seventy years, only to be conquered by the Persians (539 BC) and, much later, by Alexander the Great (330 BC) and his Seleucid successors. Despite losing political autonomy, Babylonia retained a large share of cultural, religious, and intellectual independence, particularly in the priestly and scholarly communities based around the urban temples. This last case study examines the scholarly tablets belonging to one Shamash-êtir of the Ekur-zâkir family, the chief priest of the great sky god Anu in the southern Babylonian city of Uruk in the 190s BC. The colophons of his tablets enable us to situate him in a kin-based professional context, within a five-generation continuous tradition of priesthood and book-learning (figure 5.5; Robson 2007).

Shamash-êtir is named on nine surviving tablets that he owned or wrote. At first sight, they are an eclectic mix. As might be expected, two contain instructions for the performance of rituals in Anu’s temple Rêsh: for the four daily meals of the gods; and for the night-time rituals of the autumnal equinox. Both are part of the copied tradition. The latter is explicitly stated to have been “written and checked from an old writing board,” while the colophon of the food ritual tells a narrative of its capture in the mid-eighth century, followed by rescue in c.290 BC by one of Shamash-êtir’s ancestors. But there are also six tablets of mathematical astronomy, containing complex instructions for the calculation of dates and positions of key events in the journeys of Mars, Jupiter, and the moon across the night sky, and tabulations of those data. None of the colophons suggest that they are copies of older works; the predictive tables certainly, and perhaps even the mathematical methods, are original compositions. Finally, Shamash-êtir was the scribe of at least one legal document, recording the purchase of shares in temple income by one Anu-bêlshunu, descendant of



Sîn-lêqi-unninni (the legendary editor of *Gilgamesh*) and a lamentation priest of Anu, which was witnessed by nine named members of four different families.

Shamash-êtir copied the equinoctial ritual for an older man named Anu-uballit of the Hunzû family, while four of the astronomical tables were written for him by Anu-aba-utêr of the Sîn-lêqi-unninni family. Both men wrote other surviving scholarly tablets too. The dates of the tablets, where known, suggest that younger men wrote tablets for older established scholars as part of the apprenticeship process. As far as we can tell, this was the only circumstance in which scholarly tablets were produced or reproduced in Hellenistic Uruk. Anu-uballit Hunzû was educated by two different men in the 210s BC. From his father he learned lots of alternative rules of thumb for the short-term prediction of ominously significant phenomena, such as the timing of lunar eclipses or the length of the following lunar month; from Nidinti-Anu Ekur-zâkir (and thus an older relative of Shamash-êtir) he learned the 70-chapter celestial omen series *Enûma Anu Ellil* (“When the gods Anu and Ellil”) and the equally long standard sacrificial omen series *Bârûtu* (“Extispicy,” divination from the configuration of sacrificed animals’ entrails). The form and content of both series had been standardized by at least the seventh century BC, and are well known from Ashurbanipal’s Library. Apart from the four astronomical tablets, Shamash-êtir’s pupil Anu-aba-utêr Sîn-lêqi-unninni wrote seven surviving tablets for his father in the late 190s BC, just after he was writing for Shamash-êtir; five were written for him shortly afterwards by Anu-uballit Ekur-zâkir (presumably a young relative of Shamash-êtir’s). He also owned or wrote five others, including two copied by a nephew in the 180s and 170s. Over two-thirds of his tablets contain computational astronomy; the remainder is made up of incantations, zodiacal calendars, and a collection of mathematical problems (figure 5.6).

The colophons thus enable us to situate Shamash-êtir within five generations of scholars over a forty-year period, c.215–175 BC. While it is perhaps dangerous to make too many inferences from such a small dataset (and it is but a subset of the known scholarly corpus from Hellenistic Uruk), some intriguingly suggestive patterns can be seen. First, there appears to be a striking shift in the type of astronomy transmitted (Rochberg 2004). While the second generation apparently learned only short-term prediction methods based on simple periodicities, the fifth generation was exclusively trained in sophisticated computational methods. The middle generations were involved in both approaches as well as horoscopy. And while traditional omen collections were copied only by the older men, there was a consistent preservation of the temple rituals and cult songs across the generations. The younger members of the Sîn-lêqi-unninni family added injunctions to the colophons of their astronomical tablets, such as “Whoever fears Anu and Antu shall not deliberately take it away.” This suggests that the restricted circle of scholars that we infer from the colophons was strictly enforced in practice: a tiny number of men from a tiny social group were allowed access to this material.

In fact, just three families were involved in this intellectual network. Indeed, taking the entire Hellenistic scholarly corpus into account would at least double the number of individuals involved, but add only one further family: the descendants of Ahi’ûtu. Shamash-êtir’s intellectual world was also embedded within his social circle. In the legal document he wrote, the buyer of the prebend was no other than the father of his apprentice Anu-aba-utêr, while seven of the nine witnesses were from the Ahi’ûtu and Hunzû families. The seller and remaining witnesses are from just two further families: the descendants of Kurî and Lushtammar-Adad. We also know of several

intermarriages, between the Hunzûs and Ekur-zâkirs, and between the Lushtammar-Adads and Ahi'ûtus.

The colophons of their tablets reveal that all of Shamash-êtir's scholarly associates were priests of one kind or another: after their apprenticeships, the Hunzûs and Ekur-zâkirs all carried the title "incantation priest of Anu and Antu," while the Sîn-lêqi-unninnis were "lamentation priests of Anu and Antu". The Rêsh temple was uncovered during the course of long-running German archaeological excavations at Uruk. It may date back to the seventh century BC, but the excavated building is all attributable to work in 202 BC. It was a truly monumental construction of baked and mud brick, towering over the city. Anu and his divine spouse Antu's shrines, which backed on to an enormous mud-brick ziggurat some 100 m square, were the focus of the complex, but the Rêsh also housed at least twenty further chapels and installments for divine statues. In one storeroom, which had already been subject to clandestine excavations, were found nearly 140 cuneiform tablets dated to 322–162 BC: hymns and rituals, as one might expect, but also horoscopes, collections of omens, and astronomical works, as well as a significant number of legal documents. Several of the scholarly tablets belonged to Shamash-êtir's apprentice Anu-aba-utêr, and it is widely agreed that many of the other tablets discussed in this section were illicitly dug from this area too.

Finally, there is the conundrum of the scholars' astronomical activity to solve. It is clear to see why, as priests, they would need to possess and understand the complex temple rituals (Linszen 2003). But as the primary object of their worship was Anu, the sky god, many of those rituals had to be performed at celestially significant times. Some of those were a regular part of the calendar, such as the equinoctial rituals. Others, such as the propitiatory rituals for placating the gods during the disruptive repair of their temples, had to be performed "on a propitious day, in a propitious month," when the sun, moon, and planets were in auspicious configurations in the sky. And, finally, on the occasion of particularly inauspicious celestial events, such as lunar eclipses, the priests were charged with soothing the angered gods through ritual public lamentation. All of these rituals were elaborate and costly, requiring much preparation and expenditure, such as in the ritual manufacture of kettle-drums. Shamash-êtir and his colleagues, while upholding the age-old ritual traditions, were still improving their astronomical methods, generation by generation, so that they could be confident of fulfilling their priestly duties on time, every time without embarrassment to their professional and familial heritage or their temple. In the end, though, new beliefs won out and the Rêsh – and cuneiform scholarship itself – went into terminal decline.

## **Conclusions: Re-reading Tablets in the Light of Book History**

I have attempted to avoid generalizing about the three thousand years of cuneiform culture by taking three very different case studies to shed light on the variety, individuality, and fluidity of scholarly literacy and numeracy in the ancient Middle East. The early intellectual tradition was predominantly one of oral transmission, with repeated copying for memorization, in which tablets functioned essentially as ephemera. By the beginning of the Iron Age in the later second millennium BC – unfortunately, a period badly understood archaeologically – cuneiform tablets (and presumably also perishable writing media) begin to reflect concerns with textual stability, genre, and editing, which might lead us to think about them as "books." In the

first millennium BC, acquisition of such “books” is attested by inheritance, conquest, and copying. Costs of production were minimal: the easily available raw materials were presumably procured and prepared by junior apprentices, while the writing itself was carried out by captives (in the exceptional Assyrian case) or by apprentices as part of their training (as in Hellenistic Uruk). There was no sale market as far as we know, although sales of movable objects were not subject to written contracts, so it is equally fair to say that we have no evidence for the sale of food. Cuneiform literacy was by and large restricted to tiny handfuls of professionals – supported through royal patronage or by inherited positions in the independently wealthy temples – who were both consumers and producers of books. Yet the knowledge contained in books could have political power as well as professional import.

Modern text editions of the ancient scholarly literature have tended to aim for the (re)construction of “complete” works by drawing equally on Assyrian and Babylonian manuscript sources from the eighth to the second centuries BC. This approach unavoidably emphasizes continuity, conservatism, and authorial anonymity over novelty, variation, and individuality. But there was nothing inherently conservative in the medium of the clay tablet itself. While continuity of tradition was valued and upheld through preservation of ancient texts, innovation and intellectual development through new composition remained a vital part of that tradition, right up until the very end. But although cuneiform culture died out nearly two millennia ago, its academic study is less than two centuries old: we are only just beginning to understand it.

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*Figure 5.1* Map of ancient Iraq showing major cities.

*Figure 5.2* A Type II tablet from House F, showing the teacher's and student's copies of a school exercise on the obverse and the student's recall of a longer passage on the reverse (3N-T 393 = UM 55-21-318). Reproduced by kind permission of the University of Pennsylvania Museum of Archaeology and Anthropology.

*Figure 5.3* Scribes using writing boards and parchment depicted on a bas-relief from the royal palace of Nineveh. Reproduced by kind permission of the Trustees of the British Museum.

*Figure 5.4* A tablet from Nineveh recording the myth of the goddess Ishtar's descent to the Underworld. The colophon at the bottom reads: "Palace of Ashurbanipal, great king, king of the land of Ashur." Reproduced by kind permission of the Trustees of the British Museum.

*Figure 5.5* Shamash-êtir's intellectual network.

*Figure 5.6* A tablet from Hellenistic Uruk, written by Shamash-êtir's apprentice Anu-aba-utêr in 192 BC, depicting constellations including Hydra and Virgo.