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The Cuneiform Tablets at Syracuse University

Marcel Segrist

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Most of the cuneiform tablets at Syracuse University come from the city of Umma, underlined on this map of the ancient Near East region now known as Iraq. Map is from the *Handbuch der Orientalisk*, Volume II, Number 3, (Leiden, E.J. Brill, 1957).
Among its rare book collections, the George Arents Research Library at Syracuse University has 489 clay tablets written 4000 years ago. All of these cuneiform tablets, composed in the Sumerian language, are accounting records. Although how the library came to have them is not documented, they seem to have been in the collection for at least a half-century, awaiting their rediscovery by Professor David I. Owen, chairman of the Department of Near Eastern Studies at Cornell University. The tablets are being deciphered and copied by the present author, who will publish his work.

These tablets were made in the city of Umma in the heart of the Tigris and Euphrates Valley, called Mesopotamia (between rivers) by the Greeks.

**HISTORICAL BACKGROUND**

The word *Mesopotamia* was coined by historians at the time of Alexander the Great to designate the administrative district located between the Tigris and Euphrates rivers—present-day Iraq.¹ The plain is bounded on the east by a mountain range, which separates it from the Iranian plateau; on the west, it opens onto the vast Syrian desert. The ancient inhabitants of Mesopotamia had no name for this region. They spoke in general of the “land” or, because of the concept of the city-state on which Sumerian society was based, of the lands of Sumer, Akkad, Assur, and Babylon.²

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In a dry subtropical zone, where the temperature can reach 120° during a summer day, agriculture is completely dependent on irrigation—in this case, on the waters of the two rivers. The ancient Mesopotamians found it necessary to create a complex network of canals, locks, and reservoirs to control the flow of water to the fields. The construction of such an irrigation system not only presupposes a master-plan of locks, but also requires a considerable labor force for maintenance.

Because of the weak current, when the two rivers reached Babylon, the alluvia contained in the water were deposited at the bottoms of the canals, quickly leading to their obstruction. The canals thus had to be dredged constantly in order to maintain the flow of water. In addition, as protection against the floods caused by the overflow of the two rivers, dikes were constructed along their banks. Numerous cuneiform tablets allude to these tasks. Because of irrigation, the inhabitants of Mesopotamia obtained high-yield harvests of wheat, and later, of barley, millet, and sesame. However, the intensive irrigation of these lands led to increased salinity of the soil, necessitating the replacement of wheat as a crop by barley. The soil finally became impossible to cultivate.

Although the inhabitants of Mesopotamia remained tied to the soil, disinclined to venture beyond the plain, they nevertheless had dealings with the nomads of the Syrian desert and the inhabitants of the Zagros mountains, who were attracted by the wealth of the cities. As these raiders gradually settled, they brought complex strands of languages and peoples to the land.

Mesopotamia—today’s petroleum and coal notwithstanding—has few mineral resources and neither stone nor wood for construction. The importation of these products was made possible in ancient times by the agricultural wealth of the land. Eastward traffic to obtain lapis lazuli took place in proto-historic times. Later, established trade routes crossed Mesopotamia, conveying metals and precious objects between different parts of the Middle East, adding to the prosperity of the land.

Many books and journals whose titles contain the word "archaeology" can be found on library shelves, indicating the current interest which this discipline arouses. Centuries ago, the Greek scholar, Berossus, wrote the famous *Babyloniaca* for the instruction of Antiochus I; it was intended as a general introduction to Babylonian culture, wisdom, and history.4

Herodotus, in the 4th century B.C., saw Babylon, still a living city, but did not visit Nineveh, which had been destroyed 150 years earlier. Xenophon and his 10,000 Greek mercenaries passed the great Assyrian capital, already in ruins in 401 B.C., without even noticing it.5

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Four centuries later, the geographer, Strabo, spoke of a Babylon that was completely deserted. During a thousand-year period, the Occident had completely forgotten the Middle East, though the Muslim historians and geographers remembered the past glories of ancient Iraq. It was only through the travels of the merchant, Pietro della Valle, in the seventeenth century that Europe was reminded of the Mesopotamian past. In 1625, he reported the discovery of some bricks at Ur in Babylon, bearing unknown characters. From that time on, there was a growing interest on the part of the scholarly world in exploring Mesopotamia. Research was divided between the decipherment of the language and archaeological excavations.

The archaeology of Iraq does not deal primarily with grandiose ruins of temples or palaces; it is much less spectacular. The visitor is led to a mound rising above the level of the plain. The technical term for such a tumulus is "tell." Sometimes this heap of dust and pottery sherds turns out to be a ziggurat, like the one at Ur, or a monumental gate, like that of Ishtar at Babylon. But more often, only the soil-marks of masonry remain.

The primary construction material in this stoneless land was clay, shaped raw into bricks for private houses or baked into bricks for royal buildings and temples. Such buildings had the advantage of being warm in the winter and cool in the summer, but they were so poorly resistant to winter rains that repairs were always necessary. Debris gradually accumulated in the streets and the cellars of houses. The level of the city rose because it was not economical to use labor to clear away the refuse.

Debris was also produced by such natural cataclysms as earthquakes and floods and by other disasters—war, epidemics, fire. After such a catastrophe, if the tell was not abandoned, those who remained did not remove the debris but used some of the remaining material as foundation for new buildings. This procedure led gradually to the present form of the tells: rounded hills rising on the plain.

This agglomeration of earth, clay, and bricks is the object of the archaeologist’s investigations. In clearing away layer after layer, as one peels an onion, he can rewrite the history of the city enclosed in the earth, rediscovering its houses, its temples, and its palaces; and often chancing upon cuneiform tablets. Because of the tablets, the archaeologist in Iraq has a great advantage over his colleagues who work, for example, in Palestine; for the cuneiform tablets are dated.

Mesopotamian archaeologists and epigraphists have a sure method of dating, based on the system used by the ancient inhabitants of the land. The Mesopotamians had no absolute point of reference, like the beginning of the Christian era or the Hegira in 622 A.D. They did not arrive at this principle until the Seleucid era (311 B.C.). Before that time, they simply referred to the period of each king’s reign. The first complete year
of a king’s reign was called, for example, “the year Hammurabi became king.” Each successive year was defined and named after some important event, such as a war or the building of a temple or canal, which had taken place in the preceding year. Finally, the year during which the king died would retain the name it had received at the beginning, even though a new king was already ruling.

The tablets are generally dated by month, day, and the name of the year. However, if historians had nothing but these tablets, they would never know the correct order of the years. Fortunately for us, the ancient scribes had the same problem. They therefore composed tablets which listed the names of the years of each reign in chronological order. In theory, then, if one were to gather all the tablets containing the names of the years of the Babylonian kings one would have an absolute and correct chronology.

Unfortunately, the reconstruction of the past is not always this easy. When kingdoms such as the dynasties of Ur III and Babylon collapsed, the administrative system naturally lost some of its effectiveness and precision. Thus the sequence of the names of the kings was broken. But the Seleucid era (311 B.C.) constitutes an absolute basis for a chronology. From that point, one can go back to 747 B.C., thanks to the canon of Claudius Ptolemy, who listed the Persian and Babylonian rulers from Nabopolassar to Alexander. The Egyptian astronomer also listed the regnal years of all the kings he mentioned, and for each reign, the eclipses observed in Babylon and Alexandria. It is therefore possible to check the accuracy of his report. We also possess a list of Assyrian eponyms, some of which mention astronomical phenomena. Thus, the solar eclipse which occurred in the year 10 of King Assur-Dan III, in the month of Sivan, would have been that of June 15, 763 B.C. From then on, as documentation becomes more fragmentary, traditions become confused, even contradictory; the researcher encounters numerous obstacles. Still, the margin of error in dating is probably less than 10 years back to the 15th century, B.C.

Another astronomical occurrence, the occultation of the planet Venus during the reign of Ammisaduqa, the tenth king of the first Babylonian dynasty, provides yet another point of reference, although it appears from recent study that this tablet cannot, in fact, provide the hoped-for chronological data. A majority of scholars now accept the dates 1792-1750 B.C. for Hammurabi, king of Babylonia. Of course, new tablets which are discovered by each archaeological expedition will add greater precision to Mesopotamian chronology.

6What has been said holds true for Akkad, Ur III, and Babylonia; in Assyria, each regnal year of a king was named after a high government official. These year-names are called “eponyms.”

PEOPLES OF MESOPOTAMIA

Mesopotamia was always a crossroads for different peoples, such as the Sumerians, the Babylonians, the Assyrians, the Hurrians, and the Arameans. We know these people only through the written traces that they left, so our information about their ethnic background is scanty. In fact, a written language does not necessarily reflect the language which was actually spoken in a given society.

The first intelligible Mesopotamian documents, from Uruk, Ur, and Djemdet-Nasr, are written in Sumerian. However, these texts contain a number of borrowed words. From this fact, it has been concluded that the Sumerians were invaders who borrowed certain words from the native population, particularly in those cultural areas where the native population was more advanced. Wherever the original home of the Sumerians might have been, their arrival created an extraordinary cultural dynamism.

Sumerian civilization, in the southern part of Mesopotamia, was essentially urban, although it included agricultural activity. The population center was the temple or ziggurat. Later, the temple and the palace of the governor (ensi) or king formed the two centers of cultural, economic, and administrative life in the city. The population—in as much as we can make this distinction—was divided into four classes: nobles, commoners, clients, and slaves. The term “clients” refers to those who were dependent on the nobility or on the temples for patronage and support.

There was slavery in this period, but it was not of the kind that appeared in the Roman period, for slavery on a grand scale was not yet economically feasible. However, it should be noted that a number of tablets mention prisoners of war. These prisoners were used in agricultural or irrigation work, while the women wove cloth or ground grain. If we examine the records of their rations, we realize that the number of slaves diminished rapidly, probably because the economy of the period could not integrate and sustain a supplementary labor force.

We do not know when the Sumerians arrived in Mesopotamia. For archaeological and historical reasons, 2900 B.C. constitutes a point of reference for what is called Early Dynastic I (2900-2700 B.C.); this is followed by ED II (2700-2500 B.C.) and ED III (2300-2000 B.C.). This 600-year span saw the successive hegemonies of different southern cities. This is considered to be the Sumerian Period, despite the presence of Semitic names in the king-lists of the period. Those names indicate, however, that the Amorites, whose name in Sumerian is equivalent to "deluge," invaded the fertile plain, devastating the cities or installing themselves as the ruling dynasty.

The pressure of these invaders was such that in about 2300 B.C. Sargon of Akkad succeeded in conquering the Sumerian cities and establishing a dynastic, imperial system. Sargon of Akkad, whose name means "the king is legitimate"—no doubt, because he was not—profited from the conflicts among various Sumerian cities to impose his own power. The ethnic origin of Sargon is not known, but his name shows that he was not Sumerian. The profound changes that he introduced in the political system confirm that his intellectual background was also completely different.

Two noteworthy changes were introduced: Akkadian took the place of Sumerian as the official language; and as part of his political plan, Sargon constructed a new capital towards the north, near present-day Baghdad or Babylon. This was to be the city of Akkad. Probably this part of the country was already occupied by Akkadian speakers, while the south remained more faithful to the traditional language.

After a series of brief reigns, Akkad was destroyed in 2100 B.C. This victory was sung in a Sumerian hymn to the glory of Inanna. The destruction of Akkad and the first non-Sumerian empire in Mesopotamia permitted a century-long return to power for the Sumerians (2100-2000 B.C.), a period known as Ur III.

This Sumerian renaissance saw a revival of language and the arts, especially during the 48-year reign of King Sulgi. Even so, one wonders if the Sumerian language, which was used in all written records, was, in fact, the language of the people. The personal names and other indications lead us to be cautious.

The Sumerian revival, which was marked by great achievements in literature, architecture, and administration, lasted only one century. At

the turn of the millennium, the Sumerians once more succumbed to invaders, the Amorites. Their successive attacks had disrupted the administration, the agricultural system, and finally the collection of taxes, so that the capital, Ur, had been stricken by famine and inflation.

The Amorites introduced their own language, Babylonian, in place of Sumerian. Nevertheless, Sumerian continued to be used in the scribal schools as the religious and literary language. To help the young students, bilingual dictionaries were composed. They have permitted us to recover Sumerian.

The destruction of Ur was not followed by the creation of a new empire or unified political entity. A number of small Amorite states were formed, of which the first was the city-state Isin. A century later, both Isin and its rival, Larsa, disappeared in succession, to the benefit of the city of Babylon and its new king, Hammurabi (1792-1750 B.C.). The kingdom of Babylonia lasted until 1600 B.C. when it collapsed under the combined effect of a Hittite raid and slow internal decay. A long Kassite domination followed a period of anarchy.

The Kassites ruled Mesopotamia for four centuries, longer than any other dynasty. Their language is, however, no longer known, since they adopted Akkadian. The centuries were marked neither by great activity nor by political interest.

The city of Assur had meanwhile been growing in the north, first according to a commercial plan and, subsequently, according to a military and political plan to settle the kingdom of Assyria. The Assyrians spoke and wrote a dialect of ancient Akkadian.

Although the south of the country, Babylon, was governed by the Kassites, Assyria emerged again as a political force about 1350 B.C., after a long period of political eclipse. This revival was marked in part by a tremendous wave of construction in the capital, Assur, and by renewed military campaigns. Soon there was a direct confrontation between the two great powers of Mesopotamia, Assyria and Babylonia, the first quickly subduing the second.

The Chaldeans, who were nomadic Aramean tribes from southern Mesopotamia came to power in Babylon in about 747 B.C. They began to stabilize the political situation of the country. Under fire from all sides, the enormous Assyrian empire collapsed, to disappear completely in 612 B.C. This change was assured by the Chaldeans, among the most famous of whom is the biblical Nebuchadnezzar. The Chaldeans wrote and spoke Aramaic. Finally, the Persians, led by Cyrus, seized Babylonia in 539 B.C., putting an end to the last independent Mesopotamian state.
CUNEIFORM WRITING

The most abundant material in the constantly irrigated land of Mesopotamia is clay which, when dried, retains the impressions made when it was wet. This clay, plentiful along all the canals, could easily serve as writing material.

As a writing implement, for making impressions in the clay, nature provided the reeds which grow profusely in the marshes of the south or along the canals. The stylus was a small rectangular plaque of reed whose four corners were cut very finely, so that by imprinting with the length of the reed, certain signs could be uniformly made. What appears to be a complicated form is, in fact, made by a single movement of the hand or by sliding the stylus lightly and pressing a bit at each pause. Thus a complex sign could be made quite quickly.

It is obvious that writing, that is, a system of communicating by signs, was not the invention of a single person, and was not produced in an instant. Several centuries were necessary for the transition from representational designs to abstract patterns. It is not even agreed whether writing originated with the Sumerians or the native Mesopotamians. But the invention of writing is usually placed at Uruk in about 3250 B.C.

Sumerian was the chief written language in the southern valleys of the Tigris and Euphrates, preceding Egyptian and Elamite by about a century. The term "cuneiform" writing means literally "wedge-form," from Latin cuneus, "wedge," and forma "form;" it refers to the wedge-like appearance of the strokes in Mesopotamian writing. 16

The modern rediscovery of cuneiform 17 writing began in 1625, when Pietro della Valle reported the finding of inscribed bricks at Babylon and Ur. Between 1761 and 1767 a Danish expedition copied the inscriptions at Persepolis. A trilingual text from Persepolis was published in 1778, but there was little progress in interpreting them. In 1789, the German scholar, Friedrich Munter, was able to prove that the first column contained an alphabetic script and that the two others, in different languages and writing systems, were syllabic writing and ideographs, respectively. After many fruitless attempts on the part of different scholars, a professor from a college in Gottingen, Georg Friedrich Grotefend, managed to decipher the first column of this text, which was in Old Persian.

In 1850, other scholars were able to show that Babylonian writing contained several hundred signs with a large number of homophones, that a single sign could have several phonetic values, and that the language was Semitic.

A French scholar, Oppert, made a decisive contribution to the decipherment of cuneiform and founded the science of Assyriology. All these steps led slowly to the understanding of Babylonian.

But while they were trying to decipher cuneiform, researchers realized that there was a second language that was also written in cuneiform signs. After having named it variously "Akkadian," "Scythian," or "Turamian," a general idea of the Sumerian language was formed.

In less than a century of research, scholars were able to recover a language that had been lost and to place in history a people whose name had been forgotten even by the Bible (at least if Shem does not refer to the Sumerians).

At various times, many other languages were written with the cuneiform system, including Elamite, Hittite, Hurrian, Aramaic, and even attempts at Greek.

The Sumerians began to write for economic and administrative reasons. With the growth of the Sumerian city-states, it was important to control the labor force in the fields and canals and to keep track of the goods that were exchanged between the cities or between the departments of a single city.

There are, for example, tablets that represent the head of a sheep, preceded by a number of points. This tablet indicates the number of sheep that were entrusted to a shepherd. It was necessary to keep track of the number of animals so that, when the shepherd returned from the pasture after several months, he could explain the increase or decrease in the size of the flock. Soon the technique evolved, and the scribe, instead of making marks for each sheep, distinguished between tens and units.

It has been proven from archaeological evidence that cuneiform writing developed from pictograms, as was also demonstrated by many tablets found in the excavations at Uruk (the biblical Erech). The precise dating of the level where the tablets were found determines the date of the beginning of writing at around 3250 B.C.

The signs used in the earliest Uruk writing are clearly word signs limited to the expression of numerals, objects, and personal nouns. This stage is called logography, to be sharply distinguished from ideography, in which pictures or symbols represent ideas.

Logography is limited to the expression of concrete realities. But because of the associations of words such as male or mountain, it is possible to express the idea of slave,—a man coming from the mountains and captured during a war. This possibility created new elements by combining simpler elements or by a transfer from the meaning of an object to its properties. (For instance, the sign of "sun" may also express brilliance, clarity, light).
The increase of signs to express reality does not, however, compensate for the absence of grammatical elements expressing the verbal structure or the modalities of the language.

The phoneticization of a writing system solves the problem of expressing words and sounds which cannot be adequately indicated by images or combinations of images. The principle is the association of words that are hard to express in signs, with other signs, which are easy to write and whose sounds are close to the original word.

According to Falkenstein, who worked on the tablets of Uruk, the principle of phoneticization developed very quickly. To arrive at a complete and rigorous system, forms and principles had to be set. Characters had to be reproduced in approximately the same way by everyone. Thus, writing passed from pictograms, designs more or less resembling reality, to a more stylized representation which used only the two basic signs in some combination. The signs soon were rotated 90° toward the right; thus we know that they were read from left to right.

The constraints which this writing system imposed on the scribes were considerable, although they seem slight in a culture such as ours, where everyone knows how to read.

The conventionalization of the writing system required not only the fixing of rules, but also the learning of the forms and principles of writing. The few school tablets found at Uruk, with their lists of signs, are witnesses to the educational and scientific activities of the Sumerians.

The Sumerian syllabary and the systems that were derived from it consist of signs that represent a monosyllable ending in a vowel or consonant, rarely a disyllable. As the student who uses Rene Labat’s Manual of Epigraphy learns quickly, the writing system does not distinguish between voiced and unvoiced consonant: thus, \(ag, ak, aq\) are all written by a single sign; so are \(as, as, az\), and \(bad, bat, bat\), and so on. Because of the difficulties and inadequacies of the writing system for representing the spoken language, the scribe would often have to choose between expressing the vowel correctly, while ignoring the consonant, or expressing the consonant to the detriment of the vowel.

If there is writing, there are also scribes and schools to train them. We know that there are schools from the rhetorical discussion between students, by the word e-dub-ba, "house of the tablet," by the students' reports on their school day, and by their homework. Excavations have turned up a number of round tablets. The flat surface of the tablet generally contains a few signs elegantly traced by the schoolmaster while the convex surface contains the same signs, traced maladroitly by the student as his exercise.20

The goal of the school was to teach writing, but above all, to teach the scribe written and spoken Sumerian; for beginning in the Babylonian period, perhaps even earlier, Sumerian was no longer a living language, and the young student of the Edubba had to learn it. The teaching method consisted of copying out long bilingual vocabulary lists, so that the scribe learned both the language and the writing system. The bilingual tablets usually have two or three columns: one giving the Sumerian sign and another with the Akkadian translation; or else the first column will give the Sumerian sign, the second will list the different possible readings, and the third will have the translation.

In addition to the signs that the student had to learn as the basis of his education, the school exercises also involved practice in the legal and administrative phraseology that the scribe would have to use throughout his life. To this end, the students copied model contracts and law codes, in order to familiarize themselves with legal terminology and procedures.

The art of correspondence must also be mentioned in connection with the studies of the Edubba, as well as the mathematics necessary for land-surveying, music, and belles lettres.

This last-mentioned is of particular importance, for in Mesopotamia, there were several stages in the development of literature. First, certain literary works came to be regarded as the classical school-texts. These works, which formed the basic part of the curriculum, determined the literary tastes and forms for a given period. The students copied and recopied the same texts; we thus have more chance of reconstructing a number of epics and myths from the fragmentary texts that remain.

The schools were attached to the temples and the palace. Part of their function was the copying of cultic and royal hymns. Sometimes, the two genres were blended into one—the hymn or prayer to a god sought intercession on behalf of the king.

The students of the Edubba were generally the sons of the ruling class, because of the cost of such an education. History mentions several women scribes, such as Enheduanna, the daughter of Sargon. She was a great poet who wrote several hymns, of which the Enmesarra is the most famous.

The head of the school was called Ummia (expert, professor) and "School-father," while the student was called "School-son;" the alumni were called "School-Sons of Days-Past." The Ummia had an assistant, the "Big Brother," who wrote new tablets for the students, examined their homework, and made them recite from memory. Other monitors were in charge of discipline, maintained with blows of a reed cane.

CUNEIFORM LITERATURE

The production and the writing of the tablets led necessarily to the problem of conservation and the formation of archives. Tablets have been found which were labels attached to a basket, each one inscribed with the nature of the tablets contained in the basket. These clay labels always retain traces of the reed that held them to the baskets. A basket might contain, for instance, all the tablets recording the expenses of barley for administrative service during a particular period or perhaps even literary tablets (the famous literary catalogues). In many cases, once the information contained in these tablets was out-of-date, the tablets were discarded to make room for new ones. That is why, paradoxically, we often have only a few tablets from long periods of peace. When buildings were suddenly destroyed in wartime, information dating from the period of the destruction is likely to be found.

Among other means of storage is the pigeonhole system, in which prisms or tablets were contained in niches. There was also a system of shelves made of brick, often covered in asphalt for better insulation. Depending on the system, the scribe wrote a summary of the contents of the tablet on the side of the tablet visible on the shelf.

These tablets were stored in rooms entered from the roof, probably for the sake of security, and humidified by flowing water, so that unbaked tablets did not dry out.

When the contents of a particular tablet were deemed important enough (usually legal tablets, such as wills or sale contracts), the tablet itself was placed in a clay envelope on which the scribe wrote the terms of the contract a second time. This procedure was intended to prevent any

modification or falsification of the contract after the fact. Finally, the contracting parties would impress their seals on the tablet, both identifying it and preventing its falsification in another way. Rolling a seal over a tablet has the effect of flattening out what has been written. Any new inscription would not pass unnoticed.

Archival texts constitute some 90% of the corpus of cuneiform literature. They are primarily economic texts (purchases, sales, salaries) or legal texts (inheritance, marriage, various kinds of contracts). The tablets were kept in archives, according to the period of time considered necessary. (One or two generations was usual for sale contracts.) These archives are found from the early period of writing. From 2000 B.C. onward, the archives became more numerous and more widely dispersed, beyond the narrow boundaries of Mesopotamia. Thus, we find archives at Kultepe (Anatolia), Alalakh (Syria), and other sites. There are undoubtedly many archives which have not yet been excavated in the tells covering Mesopotamia.

When the scribe intended to produce texts which were supposed to last forever, he had recourse to two means—either to produce a great number or to abandon the traditional clay and write in stone.

In the first category, we find royal inscriptions on clay nails and clay bricks; the latter were often produced in large numbers by using seals. In the second category can be classified seals, inscriptions on pivot-stones, foundation-deposits, votive inscriptions on precious objects, and inscriptions on objects of all kinds, from simple stone plaques to statues. There were also monumental inscriptions on rocks, like the Behistun inscription, which served as the point of departure for the decipherment of cuneiform. Royal inscriptions on monuments were clearly intended for those who might later rebuild the edifice; this is why the inscriptions were often hidden in the masonry and were not discovered until the buildings were taken apart with their reconstruction in mind. To this category must be added the promulgation of legal reforms such as the codes of Ur-Nammu, Lipit-Istar, as well as the kudurrus (boundary stones) which commemorated gifts of land or tax-exemptions granted by the king.

The canonical texts were those repeatedly recopied in the schools, that eventually became classics. The texts can be grouped by priority: grammatical and lexical texts were most important, but Sumerian and Akkadian literary texts and hymns to the kings or gods were also included. The authors and copyists of literary works in this period were typically anonymous. The personality of the scribe cannot be determined from these works, and the names appear only infrequently.
The literary genres of canonical and monumental texts include royal inscriptions, legal documents, literary historical letters, myths and epics, religious works, devination, and scientific literature.

Royal and private correspondence might also be mentioned here. Two categories of letters deserve special mention: the “letters to a god” and literary letters. The letters to a god were written as ordinary letters addressed to the gods, a written testimony to the custom of placing messages at the feet of the statues of the gods in the temples.

Literary letters were historical letters from the royal courts of Ur III and Larsa which were kept in the scribal schools and became part of the classical material for the education of the scribe. Their literary character is due to their entry into the body of classical texts, not to the fact that they were exceptionally well-composed.

Thanks to the pioneering studies of Samuel N. Kramer, the great myths and epics of the Sumerians were recovered from fragments and tablets dispersed throughout the museums of the world. Among the myths dedicated to the goddess Inanna and her consort Dumuzi is the “Descent of Inanna into the Netherworld,” a text which is found in abridged form in Akkadian.

Of greater value and interest for us are the epics that glorify the kings of a long bygone era—above all, the great text of Gilgamesh, which is made of up four episodes that were later rearranged in Akkadian in a twelve-part epic. Among the important Akkadian epics, two include texts about the creation of man and the story about the Flood.

In religion and theology the literature is vast, ranging from lists of gods and priests to many Sumerian or Akkadian (or bilingual) hymns addressed to all the gods in the pantheon, and to hymns mentioning gods and kings, temples, and cities.

Royal inscriptions are those on seals, clay nails, and temples which bear the name of a Mesopotamian king. Their interest lies in the historical information which may be retrieved from them, information about the activities of the kings and the extent of their kingdoms. These inscriptions were known from the very beginning of writing until the time of Xerxes and some of the Seleucid governors.

The Assyrian and Babylonian chronicles which report the main facts, wars, and constructions of the kings are also always linked to the figure of the king. These facts are mentioned in the names of the years of the kings. And the scribes compiled lists of the kings which now allow historians to determine the chronology; they served the kings themselves as a means of propaganda, affirming their legitimacy and that of the dynastic line.
The law codes, compilations of laws which were supposed to direct the actions of the judges, are preserved on the tablets. Side by side with these, the kings sometimes issued proclamations abolishing debts and redistributing property, in order to reshape the economy. Other proclamations granted gifts to individuals, to members of the royal family, or to the temples. Legal documents include private sale and purchase contracts and family contracts, such as those dealing with adoption or marriage.

Another important type of tablet is that concerned with the prediction and control of events. The number of tablets devoted to this subject is an important percentage of the entire corpus of cuneiform. Divination played a central role in Mesopotamian life. A number of techniques, each with its own textbook, were elaborated to control the future and eventually to thwart unfavorable predictions. The Mesopotamians had a symptomatic association between events unlike our view of causation. Thus, if a symptom was once linked with a good or bad event, it was believed that the same symptom would always produce the same effect; if, in fact, the same event did not occur, it was believed to be due to some slight change.

The techniques used for divination were the interpretation of dreams and the examination of the entrails of sheep. This latter technique was the one favored by kings, who never made any important decision without such a preliminary consultation. The method of extispicy, as this kind of divination is known, is expensive, since an animal must be sacrificed each time. Therefore, the humbler classes used less costly means of divination: the configuration of the fumes of incense or the configuration of flour or oil on the surface of water. All these omens were phrased in sentences with the same structure:

If the moon is red, the king will die.

If the moon has a halo, there will be famine in the land.

When the apodosis or conclusion was unfavorable, other techniques to avert the menace were employed. A number of incantations and rituals still exist.

Although it is impossible to know the real impact of these techniques on the population of the country, it would seem that a strict observance of all these prescriptions would have made life completely impossible.

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Perhaps some of these rituals were designed by the schools to guide the life of the simple people. Under the same heading must be mentioned the medical literature with its prescriptions in the same form: if the sick man has red eyes, he will....

Scientific writing has also been preserved. Mathematics and meteorology were known to the scribes who had to write tablets about agricultural production or convert measurements. Astronomy, chemistry, ordinances, hippology, geography, topography, plans, itineraries, musical texts, are all represented in cuneiform literature. This list by no means exhausts the areas of Mesopotamians studied and cultivated.

THE SYRACUSE TABLETS

The Syracuse tablets all fall into the archival category; that is, they are administrative tablets dealing with economic material. This collection is quite homogeneous, since almost all the tablets date to the second half of the Ur III period, from 2050-2000 B.C. Moreover, because of the calendar used, it is quite simple to determine the origin of the tablets (since the order and the names of the months vary from one city to another). The majority of the Syracuse tablets come from the city of Umma, a smaller number from Drehem, the cattle center founded by Šulgi for animals brought from the different Sumerian cities. A very few tablets are from Lagash.

The Umma tablets deal mainly with the workers (guruš) needed to excavate and clean the canals, to work in the fields, and to harvest barley. Another group deals with the treatment of hides to make leather objects. Several, of which the longest forecasts the date harvest, come from various date farmers. After the projections about production, the scribe made the necessary corrections after the harvest.

The recovery of the ancient past through the study of these written records presents an immense and stimulating puzzle for scholars in all fields. As more cuneiform tablets are deciphered, each bit of information adds to the picture of these ancient civilizations, and the rewards of painstaking research become tangible.

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ANCIENT Scribes' Notes in Clay Restored

Four thousand years ago in Sumeria, now known as Iraq, you couldn’t just pull out a pencil and pad to jot down how many figs or dates had been produced by a certain tree in a given season. Nor did you have neatly-lined bookkeeping ledgers to record wages paid, crop yields, or land sale receipts.

Instead, using a sharp reed stylus, you had to carve notations, called cuneiform (pronounced kew-Nay-ah-Form), into soft clay tablets you formed in your hand and then set in the sun to harden.

SU’s George Arents Research Library has one of the largest collections of cuneiform tablets in the state. Arents’ 489 tablets range in size from three-quarters of an inch square and one-half inch thick to six inches long, three inches wide, and one inch thick. The tablets are unusually well-preserved thanks to a recent, delicate restoration made possible by a $500 gift from the SU Library Associates, a nonprofit organization that supports special library collections.

The SU tablets are in such good condition that one can even see the fingerprints of the original writers—probably either priests or scribes—who were among the less than 10 percent of the Sumerian population able to read and write, according to James G. Williams, associate professor of ancient and Near Eastern religions at SU. Cuneiform, in which characters are syllables or sounds, is a step in the evolution of writing midway between picture symbols and an alphabet, Williams says.

Also evident in the SU tablets are ancient seals, or designs depicting gods or goddesses, which were imprinted to make the tablets official, just as documents are notarized today, according to Mark F. Weimer, rare books bibliographer. The seals helped in dating and localizing the tablets, now believed to date from the Third Dynasty of Ur, about 2,000 B.C., from the southern portion of what was Sumeria.

Although their markings had remained clear, the tablets’ surfaces were beginning to crumble because salt crystals in the clay were breaking through the surface. In addition, the tablets were fragile because they had been sunbaked, rather than fired in a kiln.
"Out in the desert for thousands of years, they were fine," Weimer says, "but here the humidity was drawing out the salt."

However, before the salt could be soaked from the tablets, they had to be baked in a kiln under the supervision of David R. MacDonald, associate professor of ceramics in the School of Art. Otherwise, the tablets would have dissolved into mud if they had been immersed. MacDonald kept the temperature in the kiln at 1,200 degrees Farenheit, which is low for firing, and the baking time slow, a day and a half, so the tablets would not crack or explode.

Because the inked-on numbers designating each tablet would be burned off during firing, the tablets were carefully positioned in the kiln in numerical order so they could be relabeled easily.

Then each batch was soaked in distilled water for six weeks. As the water was changed each week, the saline content decreased, Weimer says, until it was clear the tablets contained no more salt. The soaking process was completed early in this semester. Now that all the tablets have been dried, wrapped in cotton, and boxed, they are kept at a constant temperature and humidity in the special climate-controlled environment on Bird Library's sixth floor.

Even before they were restored, SU's cuneiform tablets attracted attention among scholars. The first specialist to examine the tablets for their content was David I. Owen, the chairman of the department of Near Eastern studies at Cornell University. He contacted Marcel Sigrist, a French scholar in Near Eastern studies at Ecole Biblique in Jerusalem, who spent two and a half months in Syracuse last summer at his own expense, painstakingly transcribing the cuneiform symbols to paper.

Translating the cuneiform while he worked, Sigrist discovered that the tablets are agricultural and economic records—such as the yield of individual fruit trees and wages paid to farm workers. By next year, Sigrist expects to publish a catalog, including an index of the tablets and seals, his transcriptions of the cuneiform symbols, and diagrams of the tablets.

To transcribe the carved characters, which are about three-eighths of an inch high, Sigrist used a variety of magnifying lenses and light sources, Weimer explains.

Sigrist's catalog could encourage further research of the collection, which would interest Weimer because the University's own records on the cuneiform tablets are limited. He only knows that they were obtained about 1910 by Ismar J. Peritz, a professor of Biblical literature. Some day Weimer hopes to learn whether the tablets came to SU directly from an archeological dig, a museum, or a private collection. He might also learn more about who owned the tablets 4,000 years ago.

Laurel Saiz
8 gi ma-sá-ab 15 sîla
8 gi ma-sá-ab 5 sîla
3 gi-gur 60 sîla
ki-dEN.ZU-še
si Șes-Kal-la-ta
Ur-dNisaba
su-ba-ti
iti min-ès
mu An-ša-anκiba-hul

8 masab baskets containing 15 sîla each
8 masab baskets containing 5 sîla each
3 gigur baskets of 60 sîla each
for the place of the god Sin from Șeskalla
Ur-Nisaba received
month the min-ès (7th month)
year (the city of) Anšan was destroyed

(The tablet on the preceding pages (34, UMMA) is shown here copied and translated by Marcel Sigrist.)