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The archaic texts from Uruk

Hans J. Nissen

Since 1928 around 4000 clay tablets have been found, most of them very fragmentary, in the district of Eanna in the ancient city of Uruk. These tablets, from the southern part of what is today Iraq, are the oldest written documents from this part of the Ancient Near East, if not the oldest in the history of mankind. According to conventional (historical) reckoning the oldest originate around 3100 B.C. Already at the time when they started to appear it was recognized that the individual signs of this script were the ancestors of the signs of later cuneiform writing. Although with such an assumption it should have been easy to read these older texts, it became clear that substantial changes must have occurred in the interval between the appearance of these Archaic Texts and the first readable cuneiform documents, dating to the middle of the 3rd mill. B.C. With few exceptions, therefore, it was not possible to match the signs of the Archaic Texts with those of the later tablets. Nevertheless, a publication by Adam Falkenstein in 1936 of the first 620 tablets found during the first three seasons at Uruk succeeded in answering so many questions, short of identifying all signs and providing translations, that for a long while it was felt unrewarding to approach this problem anew.

When, in recent years, a new attempt was launched, the main aim was to publish all texts found since Falkenstein's publication without much hope for significant progress in understanding the texts. It turned out, however, that the corpus of new texts differed substantially from those published by Falkenstein. Two points are pertinent to the problem of achieving a better understanding of the material. The Falkenstein texts consisted mainly of tablets showing an early stage of the script, recognized as having signs which were the most remote in shape from those of later cuneiform. Many of the new texts, however, belonged to a younger stage of the script showing better connections to later sign forms and were, in many cases, considerably larger than the earlier texts. The other new aspect was that one group of texts, the so-called 'Lexical Lists', of which only three examples were known, or less than 0.5 per cent of all texts, appeared in much larger quantities: these 'Lexical Lists' now represent almost 15 per cent of the total corpus, or almost 450 pieces. This genre of text has proven immensely valuable because, as recognized already by Falkenstein, these lists were the word-for-word ancestors of the well known 'schooltexts' from Fara, dating to around 2500 B.C., which are on the verge of being fully comprehensible. Once it was recognized that all the entries in the Uruk and Fara texts corresponded in terms of position and signs employed, and given the much

larger amount of material now available, the procedure of comparing the respective sign forms became the key to decipherment, ultimately leading to the identification of more than 70 per cent of the Archaic signs with their later equivalents.

Although we are far from understanding all the texts, it nevertheless seems appropriate to give a survey of our present knowledge. The following discussion consists of three parts: (1) the date of the Archaic Texts; (2) the emergence of writing; and (3) the content of the Archaic Texts.

1. The date of the Archaic Texts from Uruk

Nearly all the tablets and fragments came from the Eanna district which from early times was one if not the central district of the city (Figure 1). Later this district is known to have housed the large cultic installations for Inanna, the city-goddess of Uruk. For some reason large parts of this once heavily built-up area were left open for almost 2000 years, until they were partly resettled in the first millennium B.C. This favorable circumstance allowed large scale excavations in levels which in other parts of the site are buried by many meters of later deposits. To be sure, other parts of Eanna seem to have been occupied continuously by large buildings – terraces and the Ziggurat – but it proved impossible to establish a coherent stratigraphic sequence connecting the early levels with the later installations. Thus everything below the remains of the IIIrd Dynasty of Ur, around 2000 B.C., was grouped into a period called ‘Archaic,’ subdivided according to building levels as Archaic I, II etc. Eventually it became necessary further to subdivide these into a, b, etc., as differentiations were made during the excavations.

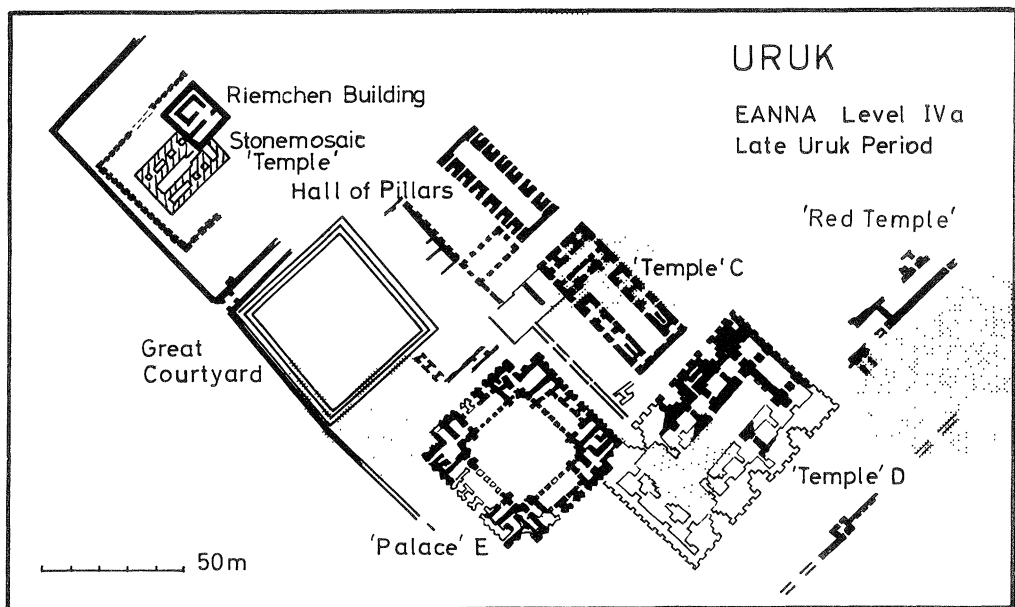


Figure 1 The district of Eanna in Uruk with the main public buildings of Archaic level IVa. Shading indicates the areas where most tablets of stages IV and III have been found.

It was within the wider contexts of levels Archaic III and IV that the tablets were found. From the remarks in Falkenstein's publication it was clear that none had been found in primary, undisturbed context, but either in unmistakable layers of rubbish or in deposits of which the dating was uncertain. Falkenstein and the excavators had dated these tablets by attributing them to (building-) levels III and IV. From both Falkenstein's publication and the various preliminary excavation reports, however, these attributions proved difficult to check against the original site records, and thus uneasy feelings arose as to the validity of such ascriptions. Discrepancies in fact were due to a basic misconception, as it had been assumed *a priori* that rubbish layers were closely connected to the building underneath and thus contemporary with it. As the discussion below will show, however, despite such invalid arguments the essence of the original temporal attributions remain intact; only the arguments are different, as are some details.

The recent collection of all pertinent data on all the tablets has confirmed the impression that all were found in layers or heaps of old rubbish; only 7 tablets were found on a floor and can thus be more closely connected with a building. In addition to this general observation an evaluation of the find spots has revealed that in all cases where we have enough information the rubbish of these layers had been brought to the spot intentionally. The purpose invariably was for filling depressions or areas between old wall stumps in order to create a new surface for building. Thus, the rubbish did not accumulate at the spot where it was found but somewhere else, presumably in the vicinity of ware-houses or storage areas, as the rubbish also contained large masses of potsherds and broken jar- and door-sealings.

Since no firm connections to building levels can be established, we have had to try to approach the problem of context from those cases where buildings erected on such rubbish layers can be attributed to specific levels. In these cases the deposition of the rubbish must have occurred before the erection of the building, and thus the date of the building can serve as a *terminus ante quem*. There are at least two uncertainties connected with such dating: it is impossible to delimit the span of time between the deposition of the rubbish and the construction of the building; moreover, it is impossible to estimate the time between the use of the tablets and the deposition of the rubbish which contained them.

Though far from satisfactory, this is in most cases as close a stratigraphic dating as we can achieve. All other dating attempts must come from secondary evidence, or be introduced as working hypotheses.

After gathering and grouping all tablets of which the contexts provide a *terminus ante quem*, a sequence was established according to the relative sequence of the t.a.q.-dates. In this way groups were formed of tablets written before Archaic level IIIc, before Archaic level IIIa and before an early stage within the Early Dynastic period, on the assumption – for which there is no evidence whatsoever – that the periods between the writing of the tablets and the t.a.q. would be roughly equal, and relatively short. Only one piece of evidence allows a slightly closer dating. Seven tablets were found on the floor of Temple C (level IVa) close to a doorway. From the excavation notes it is clear that they must have been there when the roof collapsed and ashy layers covered that part of the building. Though this certainly was not their place of original storage, these tablets

cannot be later than the destruction of the building at the end of IVa, and it is highly likely that they are contemporary with the building.

For a closer dating of the rest of the tablets, however, we must rely on other observations. From the beginning it was recognized that two distinct stages in the development of the script could be identified. On the one hand, many tablets bore only a few signs, less complex in their design and in some cases mere naturalistic drawings. On the other hand, a separate, coherent group consisted of more complexly designed texts displaying more signs which were generally of a more abstract nature (Plate 1). In some cases, signs occurring on both groups of tablets could be related to show that signs of the one group were abstractions from the naturalistic shapes of signs of the other, thus pointing to a temporal sequence. Another observation pertained to the method of writing. The difference between the naturalistic and the abstract signs was matched by a difference in technique, the naturalistic ones having been incised with a pointed implement while the latter consisted of sequences of short, straight impressions made with an oblique stylus. Formerly curved lines would be abstracted into sequences of such straight impressions. On the basis of this observation, tablets could be grouped according to writing technique (Figure 2). It is this technique of imprinting lines with an oblique stylus which gave the entire script its name 'cuneiform', since the 'heads' of these lines were impressed deeper and thus broader than the 'tails', leaving impressions of nails = *cunei* (Figure 3). These differences in palaeography also apply to the much larger corpus of texts now available. In fact, it can be shown that the groups identified by a common t.a.q. belong to the same palaeographic stage of development. At the same time the internal temporal sequence matches the one suggested by the relative sequence of the t.a.q.-dates. To a certain degree, the basic assumption is confirmed, that the relative sequence of t.a.q.-dates reflects the relative date of the tablets.

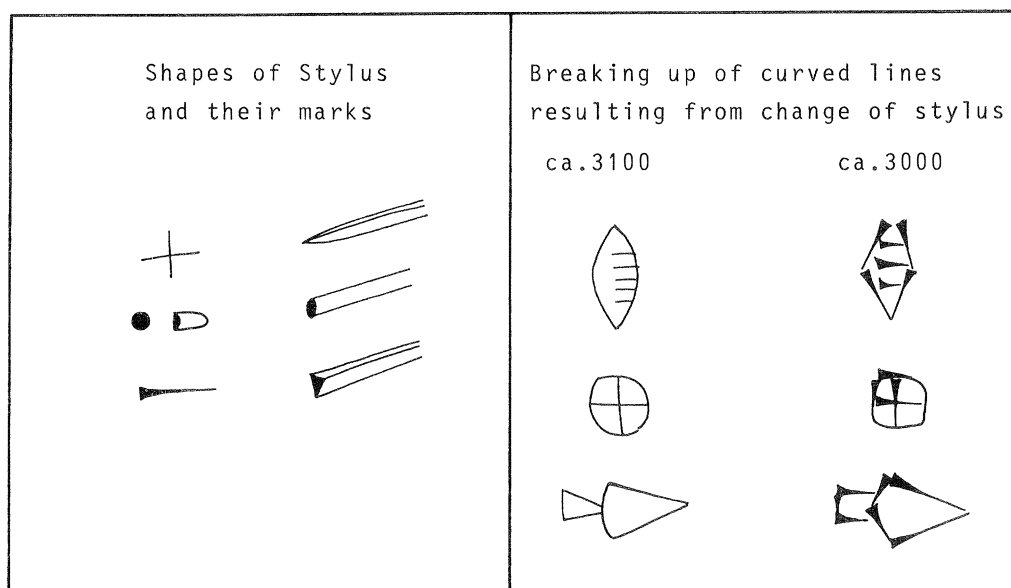


Figure 2 By writing stage III incising is replaced by imprinting the triangular-section stylus into the surface of the clay tablet.

Late Uruk Period ca. 3100	Jamdet Nasr Period ca. 3000	Early Dyn. III Period ca. 2400	Ur III Period ca. 2000	Meaning
				SAG 'Head'
				NINDA 'Bread'
				KU 'to eat'
				AB 'Cow'
				APIN 'Plow'
				KI 'Place'
				'10' resp '6'
				'1'

Figure 3 The development of the forms of some selected signs.

Considering both lines of evidence we can draw up the following series of statements as to the varying relative security of the association between groups of tablets and building levels:

(1) Externally as well as internally the evidence is strongest for the association of the oldest group of tablets with building level IVa.

(2) A second group can be shown to be internally younger than the IVa tablets, and externally older (t.a.q.) than building level IIIa. Whether this points to an association with level IIIb or IIIc cannot be determined.

(3) Externally younger than (2) is another group which, however, does not differ much internally from that group.

(4) Purely on internal reasoning one small group may be inserted between (1) and (2); on the whole its developmental stage is the same as (2), yet some signs resemble those of the group (1) tablets. If this argument is accepted, a level IIIc association for this group is indicated, thereby restricting the possible stratification of (2), above, to level IIIb.

(5) Another small group of tablets seems to show a more cursive style of writing than (2) and (3). Nothing excludes the possibility of their being contemporary with (2). Considering the overall tendency towards more abstract, cursive writing throughout the entire period, however, it is possible that these tablets are later than (2) and contemporary with (3).

The result of this approach is that we can be fairly sure of a gross association of tablets with building levels IV and III, while we have difficulty differentiating within III. The problem is that the numerical distribution of tablets attributed to III contradicts the archaeological situation. Whereas of all tablets attributable to a level III context about 90

per cent would fall in the middle range ('IIIb'), each of the ends ('IIIc' and 'IIIa') would account for only 5 per cent. The archaeological evidence, on the other hand, shows that almost no building activities can be attributed to IIIb, while IIIc is represented by an enormous terrace, originally at least 10,000 sq.m., topped by the building which follows the Red Temple, and IIIa shows the most substantial remains of all, including a monumental niched gateway leading into an area which had been cut into by the later 'pisé-building' of the Early Dynastic period, thereby destroying all traces of the IIIa building. The so-called 'Labyrinth' is also ascribed to this level.

This discrepancy was taken as a strong warning against continuing to equate certain stages of writing with particular building subphases, and it was decided to abandon the designation of tablets as 'level IIIb', etc. Instead, a system of designations has been introduced which, on the one hand, retains the gross association between groups of tablets and building levels IV and III, but at the same time disassociates them from the building subphases. Instead of 'level' the term '(writing-)stage' is used, and the differentiating letters are replaced by arabic numbers (Plate 1):

<i>Old Term</i>	<i>New Term</i>
level IVa	stage IV
level IIIc	stage III3
level IIIb	stage III2
level IIIa	stage III1

It should be made clear at this point that while we have not a single piece of stratigraphic evidence from Eanna for tablets earlier than IVa, there are some which on internal

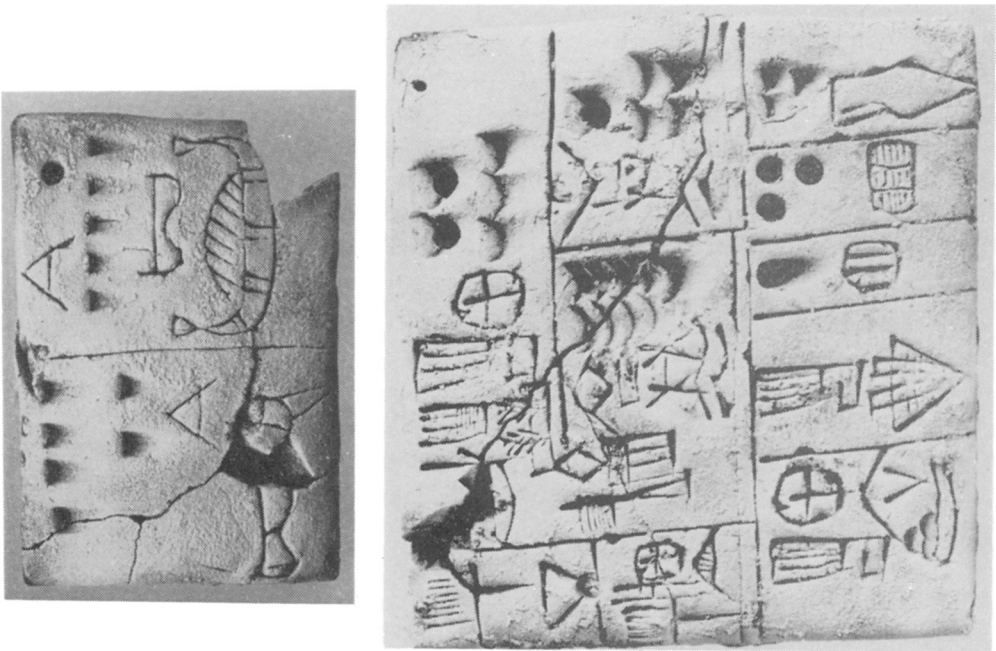


Plate 1 Two typical economic tablets from Uruk stages IV (left; W 20245) and III 2 (right; W 20274.1).

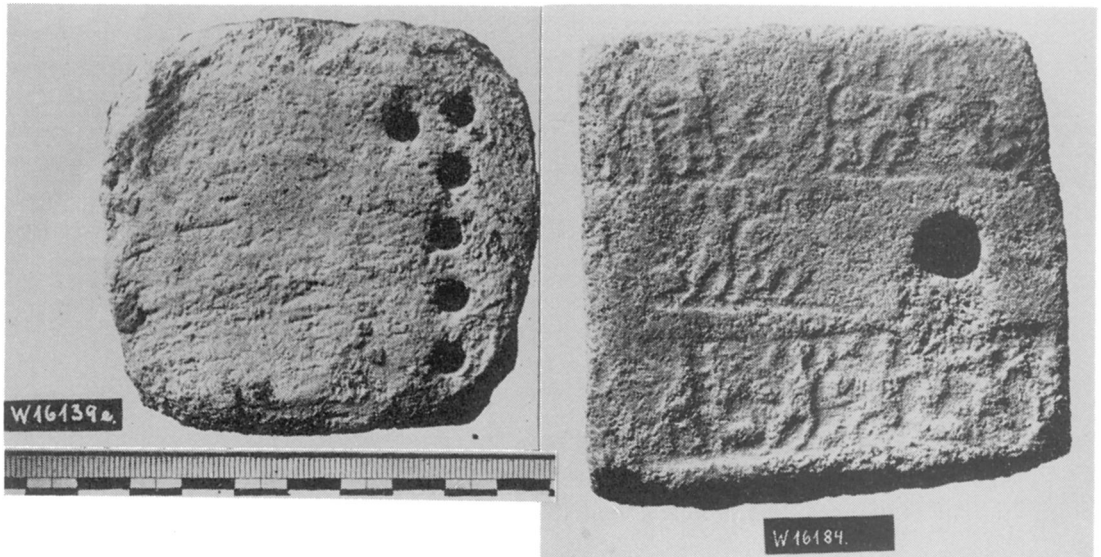


Plate 2 Two tablets made of gypsum, bearing numerical signs only; found in the area of the 'Anu-Ziggurat', in the western part of the ruins of Uruk. Traces of seal impressions are clearly visible.

grounds seem to be older. These include a number of tablets bearing numerical signs only, found primarily in two places: in the area of the so-called 'Mosaik court' immediately to the southeast of 'Temple D'; and in debris in the area of the 'Red Temple', both with a t.a.q. of building level IIIc and, in the latter case, in association with the usual stage IV tablets.

Equally unsatisfying is the situation of the so-called 'gypsum'-tablets (Plate 2) found in the area of the 'White Temple' of the Anu-Ziggurat. The description of the provenance of some of these tablets clearly indicates that they were found in the joints between bricks which had been used to fill the spaces between the walls of the building after it had been abandoned. Other, similar remarks leave open the question whether they were found on the floor or in the fill. However, the tablets form an internally coherent group, making it very unlikely that some belonged in the building while others had been brought in as part of the brick-filling. The question whether the older tablets from Uruk are in fact the 'oldest', or what still older tablets might have looked like, must remain open as far as the archaeological evidence from Uruk is concerned. Thus any attempt to put the emergence and early development of writing into a wider context must be based on other sources and consist only of hypotheses; at present any conclusion will be, at best, only plausible, and cannot be certain.

2 The emergence of writing

The basic questions can be reduced to why at all and when. As to why, we are helped by the fact that c. 85 per cent of all the Archaic Texts from Uruk are what we call 'economic texts', while c. 15 per cent may be classified as 'lexical lists'. Neither literary nor religious

nor historic inscriptions are present, and since, for the time being, we cannot attribute the lexical lists to any particular functional area, we have to conclude that because of their overwhelming majority and their character the economic texts should give us a better hint as to why the script was introduced. The expression 'economic' essentially categorizes the texts as parts of the book-keeping system: receipts, lists of expenses, of animals, of all kinds of goods, or of raw materials. The numbers employed may be quite high, testifying, together with the great variety of items and the number and diversifications of the ranks of people involved, to a high complexity of transactions on all levels. The fact that, with a few exceptions, all tablets have been found in the district of Eanna indicates that they probably all derive from a single large economic unit.

From these observations it is but a small step to the assumption that it was the need to control an (expanding) economic unit that prompted the introduction of controlling devices better suited for managing large quantities of information than the human memory. In fact, we do know of a number of other controlling devices such as the cylinder seal (Figure 4,a), which both from its purpose and shape primarily belongs in the context of a complex economy. Similarly, the method of using pebbles or clay bits ('tokens') accumulated in heaps or containers as a temporary record of numbers has to be seen in the context of economic control.

The latter system is of particular interest as a more or less direct precursor of writing, though the various intermediate stages cannot be established on primary stratigraphic evidence. One of those stages changed the insecure storage of such pebbles in open containers into a system in which the bits representing a certain number were enclosed in a lump of clay, the surface of which could be sealed to safeguard the contents from any manipulation (Figure 4,d). Occasionally, the number concealed inside would be repeated on the outside by means of round or elongated impressions with a stylus, another way of recording numbers.

Although the actual temporal sequence cannot yet be proven, the next logical step can be seen in the flat clay plaques ('tablets') with numerical signs, mentioned previously, which in addition have seal impressions over the entire surface. While most of these tablets bear marks which we assume to be the constituents of only one number, there are tablets on which the surface was subdivided into compartments, each of which would contain a number (Figure 4, b,c).

Looking at these devices a differentiation becomes possible according to the number of types of information which the device is able to conserve. The sealing allows an identification of the person involved, in addition to providing physical security for the item sealed; clay bits, or tokens, allow a number to be retained, perhaps in addition to further information provided by the place of storage; sealed clay bullae with tokens inside serve to identify a person plus a number in addition to whatever information may have been provided by the place of storage; sealed numerical tablets of the complex type provide information about the person involved and one or more transactions presumably of the same kind, again in addition to information that can be derived from the place of storage.

While it seems plausible that we can judge the relative date by the amount of information that can be recorded, assuming that the goal was to retain as many different strands of information as possible, we have to admit that we lack pertinent stratigraphic

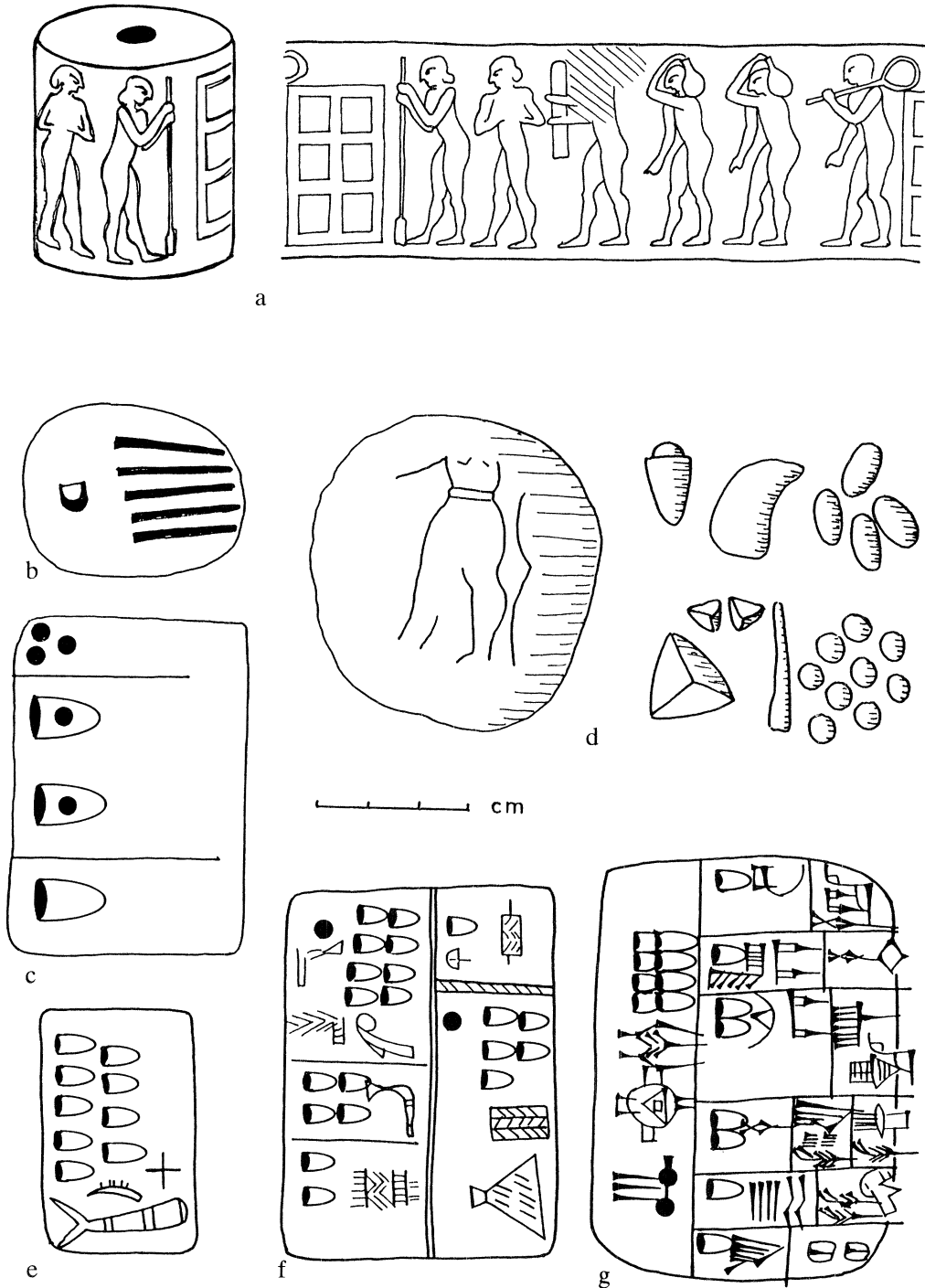


Figure 4 Early controlling devices: (a) Cylinder seal and sealing; (b) simple tablet containing numerical signs only; (c) complex numerical tablet divided into several compartments; (d) clay 'envelope' and clay tokens; (e) simple economic tablet of stage IV; (f) complex economic tablet of stage IV; (g) complex economic tablet of stage III 2.

evidence. Only in one case do we have such evidence from Uruk: tokens of particular shapes found in debris from level VI in Eanna onwards. Some of these shapes resemble signs of the oldest stage of writing known on the Uruk tablets, and the argument has been put forward that, in fact, these tokens represent the oldest stage of (three-dimensional) writing while the writing on tablets is a mere transformation into a two-dimensional modus. There are still too few of these tokens known, and there are a number which do not find any counterpart in writing. Moreover, there are other discrepancies: from the large number of occurrences of the sign for sheep in the texts one would expect the token of that shape to be more frequent than is the case.

While the actual course of development remains uncertain, the number and variety of attempts to find new solutions to the problems of an ever more complex economy show that by Late Uruk times the conscious recognition of such problems existed. It must have come as a revelation to all concerned when someone conceived the idea of a script; it does not matter, actually, whether that step consisted in the mere transformation of three dimensions into two, or whether it was accomplished independently. It must have been immediately obvious that this system provided the overall answer to all the problems for which solutions had previously been sought singly, and that it was capable of assisting with problems which could not previously have been attempted. It should not come as a surprise therefore to find the earliest stage of writing already in the form of a ready-to-use system: we find almost no traces of initial experimentation and with few exceptions the sign forms are already fixed. Those few exceptions, however, do reinforce the assumption that this earliest of our stages is, in fact, the oldest one.

What can be said here of succeeding development derives mainly from observations of substantial changes in the script, both in the shape of the signs and in the technique of writing, within a rather short period of time: that equivalent to building levels IVa and III probably does not exceed 100 to 150 years. In fact, we can see that development continued at a comparable pace if we look at the Archaic Texts from Ur, which in turn show marked differences by comparison with the most recent tablets from Uruk, although the former should not be more than another 100 to 150 years younger (Figure 3). In short, writing appeared as the final solution to a number of economic problems which had probably been accumulating for a long time.

3 The contents of the Archaic Texts from Uruk

As mentioned above, the Archaic Texts from Uruk can be roughly divided into two categories: the economic tablets accounting for c. 85 per cent of all the texts, as against c. 15 per cent lexical lists, which played such an important role in our attempt to identify the signs. This importance derived from the fact that the majority of these lists turned out to be the exact ancestors of a series of such lists dating to c. 2500 B.C. found in Fara, some 50 km north of Uruk (Figure 5). Since the script of the latter group of texts is fairly well understood, the generic affiliation of these lists could be determined and with it, that of their counterparts among the Archaic Texts from Uruk. However, the principle which allows the recognition of similarities in the sign-forms is unfortunately also an obstacle to their comprehension. It is difficult to understand why these lists should have been re-

copied again and again for almost 600 years virtually without change, unless we assume that they had and retained some special significance which guarded against alteration not only of their content but of the character of the script itself. As a consequence of this archaism we find a considerable number of signs in the lists which do not appear in contemporary economic or literary texts, and it is even possible that these lists were not fully intelligible to the scribes themselves by the time of the Fara period. It is obvious that this hinders our understanding of these lists. In some cases the 'headings' are clear; for instance, when all entries in a list contain signs which according to later usage could be called determinatives. Thus we find lists containing the same sign GIŠ, 'wood' (Plate 3), in addition to other signs, or the sign KI, 'place', or lists in which the entries are combinations, with such signs as GU₄, AB₂, AMAR, 'bull, cow, calf,' KU₆ 'fish,' MUŠEN, 'bird,' or ŠAH, 'pig.' Obviously, these represent words of a semantic family and enumerate them in some order, which, however, we do not understand.

Both the Fara and Uruk lists illustrate the same basic principle of organization: for whatever reasons, each of the single entries written into a compartment, or a case, is

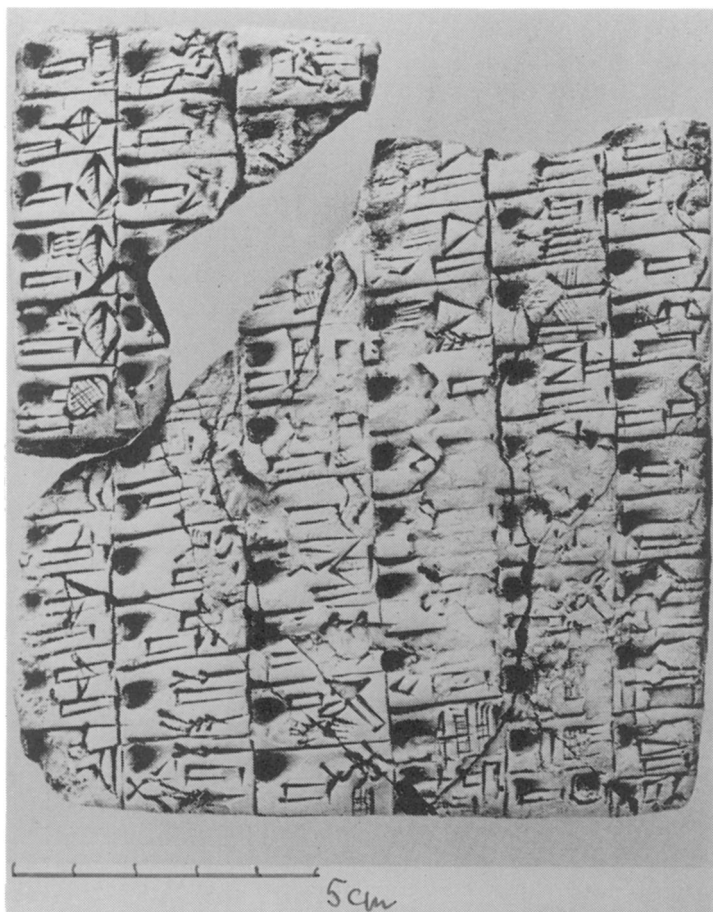


Plate 3 Tablet of stage III 2, containing list of tree-names (cases 1–39) and of wooden objects (cases 40–). The oblong sign found in each case stands for 'wood'.

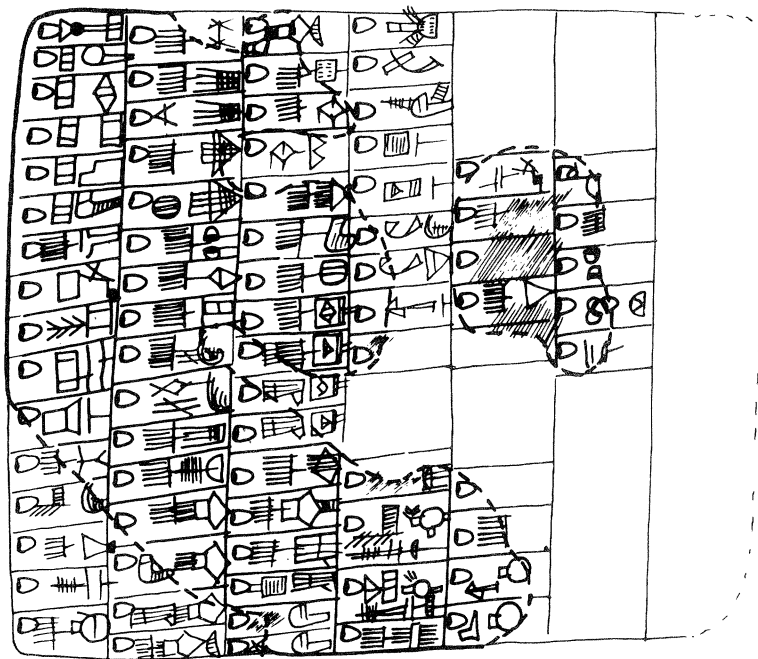


Figure 5 Tablets containing the 'Standard Professions List'; top: composite copy of fragments of stage III 2; bottom: tablet from Fara, dating to c. 2500 B.C.

preceded by the sign which normally represents the number '1'. This is useful in distinguishing the economic from the lexical texts, because economic texts invariably have different combinations of numerical signs at the beginning of each entry. Thus texts can be identified as lists which otherwise would not have been recognized, for example when the entries are not related by a common denominator. Such lists, which are named after a sign found frequently in them, include the so-called DUG-List (which enumerates vessels with different contents in the first part of the list), or the 'list of metals', so named because of a long section dealing with metals and metal implements.

Among the most important examples is a list, very well known from later sources, which enumerates close to 100 titles and names of professions, known as the 'Standard Professions List,' or 'Early Dynastic Lu A' (Figure 5). Because of the difficulties mentioned above we barely understand more than half of the entries, in spite of the fact that this was the most copied list not only in early Babylonia but also in places as distant as Ebla. This list is one of the very few in which we think we can recognize the principle of internal ordering, since we have evidence for ordering according to the ranks of the titles enumerated. The initial entries all contain the sign NAM₂, which may loosely be defined as 'leader.' Thus we find the leaders of the city (line 5), of law (line 3), of the troops (line 6), of the plow (line 8) or of barley (line 9), probably each time to be understood as the leader of the unit of -. The list begins with another sign combination featuring NAM₂, unfortunately without later counterpart, whose meaning we can derive only from the fact that in a much later vocabulary it is translated by *šarru*, 'king.' This supports our assumption that in the first line of the list we find the expression for the highest official. This comes rather as a surprise since judging from later sources, we would have expected the titles LUGAL or EN for the highest official. At the same time, this warns us against uncritically inserting later meanings into the early texts. In fact, LUGAL and EN do appear in economic texts but in a context which does not suggest any special status (Plate 4). Despite these warnings, we still have no alternative but to propose the later equivalents for some further entries in the list. Following the initial sequence we find other high ranks, e.g. the 'chairman of the assembly' (line 16), the 'courtier' (line 17), the 'ambassador' (line 18). The remainder of the list contains several kinds of priests, gardeners, cooks, etc., probably ending with professions like baker, copper-smith, jeweller and potter, although this part is preserved only in the later texts. This list gives us some insight into the strictly hierarchical structure of society at Uruk. More detailed information will be forthcoming only after we have found these titles in the economic texts, and have thus determined their true status; this work has not been completed.

The problems of the economic texts are manifold, the main one being the extreme economy of writing by which they are characterized. This means that for a long time writing was not used to its full capacity, but rather only as a means of producing catchwords for someone who was more or less familiar with the context but needed to be reminded of particular details. Not only do we find no traces of a verbal system, but there are no hints as to syntactic relations. Thus for instance, the tablet in Fig. 6 containing in its preserved part one unit of information, may read 'Two sheep delivered to the temple (or house) of the goddess Inanna,' or '. . . of the gods An and Inanna,' or 'Two sheep (received from) the temple/house of the goddess Inanna/ the gods An and Inanna.'

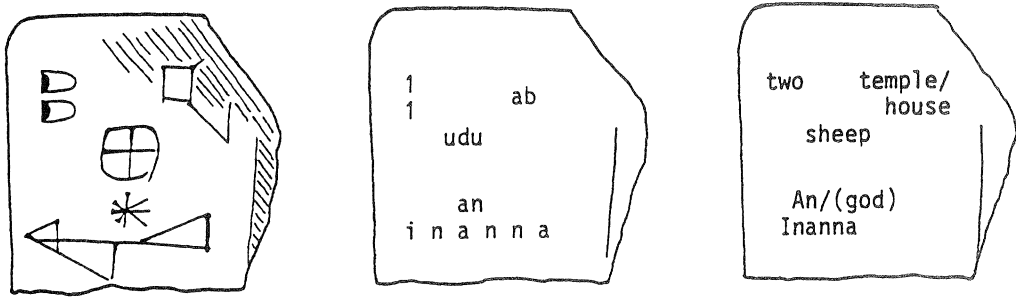
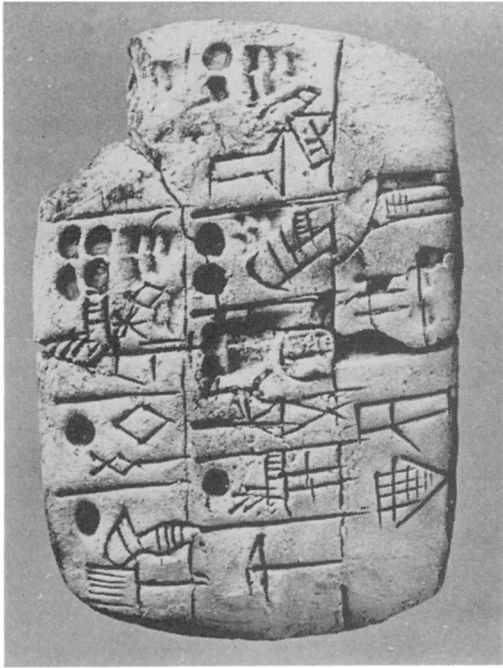


Figure 6 Fragment of an economic text of stage III 2, illustrating the difficulties of relating the signs to each other.

This text illustrates another difficulty. The sign AN, 'god,' which could precede names to mark them as divine (e.g. 'goddess Inanna'), i.e. could be used as a determinative, is at the same time the name of the god An. It should be possible to solve the problem of ambiguity by looking at the context in which the sign AN occurs, but in most cases we do not understand the context. It will take much more work to arrive at plausible proposals, and only after having studied all the texts will we be able to exclude some possibilities. Thus far, we are restricted to suggesting rough categories based on the most prominent signs on the tablets. For example, quite a large group involves textiles, and seems to encompass receipts recording the distribution of textiles to individuals, storage of textiles, and perhaps information pertaining to their manufacture (Plate 4). Other such groups center around metals, or food-stuffs; still others are totally incomprehensible. So far, only one group has been studied intensively, the one dealing with the herding of animals. Though too few in number to provide a complete picture of that activity, some interesting points can be made. As far as we can tell, the administrative processes seem to be quite similar to those known from later periods, when shepherds would be entrusted with herds of cattle, sheep or goats to be grazed and would be held responsible for accounting to the administration for all births, deaths or changes in the composition of the herd. A remarkable number of officials of various ranks seem to have been concerned with this activity, some of whom we meet again in the professions list mentioned above.

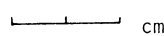
On a more general level we face similar problems. The archaeological evidence points to far-reaching contacts between Babylonia and areas in modern Syria, Turkey and Iran. As it was hoped that these contacts would be reflected in the economic texts, a survey was undertaken of the occurrence of place names. Since the determinative KI, used later to designate place names, normally seems not to have been employed, place names are recognizable only when they occur in their later form. Realizing that, for these reasons, an unknown number of place names may have been missed, we can make only the following observations: recognizable place names are found in 191 texts, 9 of which mention two places outside Babylonia: Dilmun and Aratta; all others are located in Babylonia.

Dilmun, most probably a place in the Gulf area, perhaps the ancient name of Bahrein, is mentioned in 8 texts, most of which are very fragmentary. Three of them deal with



Obverse

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en dug		buzur ₅	
an kur		5	nim
inanna		musen sig ₂ bar	
10	dug	nu ₁₁	ga
bu		10 en pa	
10	gal lu ₂	ba	

(sig ₂)		
120	50	4(+1)
x		
e ₂		
nunuzx3		

Plate 4 Economic tablet of stage III 2. Distribution (ba) of wool (sig) from the house (e) to various individuals in varying quantities. Note that the large number on the reverse is the total of all numbers on the obverse, when the first case is restored to have contained the number 45. Of particular interest is the occurrence of the "en" (-priest) of the goddess Inanna' in case 2 of the 1st column, and of 'lugal' in case 4, since both designate political leaders in later periods, when 'Lugal' is normally translated 'king'. In addition to the fact that neither title is found in the 'Standard Professions List' (Fig. 5), their occurrence here in unspectacular context may underline the probability that at the time of the Archaic Texts neither term had yet acquired its later meaning.

textiles, another mentions a title containing the sign for DILMUN. Aratta, probably to be located in South Central Iran, is written in such a way that only one sign differentiates it from the writing for Šuruppak, the ancient name of Fara, not very far north of Uruk. Thus we cannot be absolutely certain of the correct identification of the group of signs as Aratta. If Aratta is the correct reading, however, it would be of interest that this is a herding text. The other place names are well known: while Kiš (7x) and Ešnunna (1x) are located in Northern Babylonia, Adab (16x), Larsa (3x), Šuruppak (31x), Umma (8x), Ur (17x) and Zabala (31x) are in the immediate neighbourhood of Uruk. Uruk itself is mentioned in 67 texts.

Of course, one should not place too much emphasis on the absence of certain names, but it came as a surprise that, on the one hand, none of the well known place names in Iran like Susa, Anšan, Barahše, or Elam have appeared, and, on the other hand, that not only are places such as Nippur and Sippar absent, but there is not a single name belonging to the area of Lagaš which is even closer to Uruk than Ur. It seems inconceivable that the strong ties with neighbouring areas of Babylonia should not have found their way into the written record. Are we then entitled to conclude that we have to look for systematic reasons? Records concerned with 'foreign relations' could have been kept in other areas, the dumps of which have not been recovered. Or should we assume that the necessity of keeping records of all transactions was restricted to the massive daily interactions with the immediate neighbourhood? Probably the safest assumption is that, despite the large number of documents, we still do not have all parts of the administration represented in the texts.

Finally, as a last example of what has been accomplished so far, the work on the numerical systems must be mentioned. Though the economic texts may be extremely brief in their non-numerical information, the numerical information is always given in full. Recent studies have shown that the traditional view of the existence of a sexagesimal system which is freely applicable to all kinds of information, and a decimal system tied to the measure of fields, cannot be maintained. Instead it would appear that there is no 'free' system, but a number of systems tied to one or more categories, such as grain, fields, animals, etc., differentiated from one another sometimes by the use of different numerical values for the same signs, or by the introduction of different signs. Most important is the observation that at this stage we do not find the notion of abstract numbers; numbers never appear separate from the items counted.

It is hoped that with a list of signs, a comprehensive catalogue, an edition of the lexical lists and copies of all the texts, the basic tools will be provided before too long for further studies. Only then will intensified investigations be able to reveal the full potential of the Archaic Texts from Uruk.

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Abstract

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The archaic texts from Uruk

Around 4000 clay tablets have been found in the excavations at Uruk in Lower Iraq; these date to the end of the 4th and the beginning of the 3rd millennium B.C. The first part of the article is devoted to the problem of their exact date and their assignment to building levels, since all the tablets were found in rubbish deposits. The second part deals with the emergence of writing, since the documents from Uruk are thought to be the oldest known. Finally, a summary is provided of our present understanding of the contents of the texts, with examples from the two largest groups, the Lexical Lists and the economic texts.