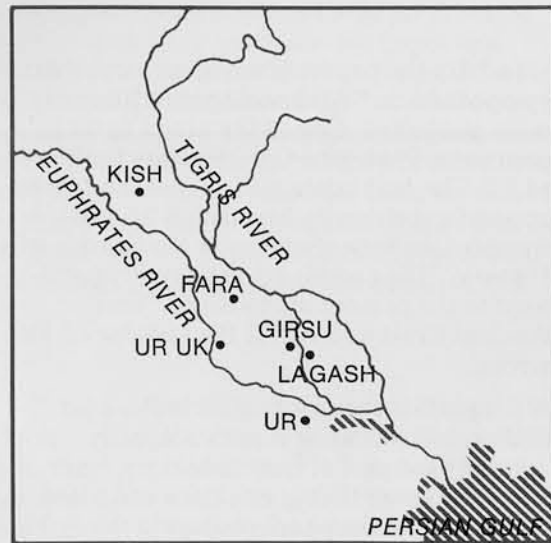


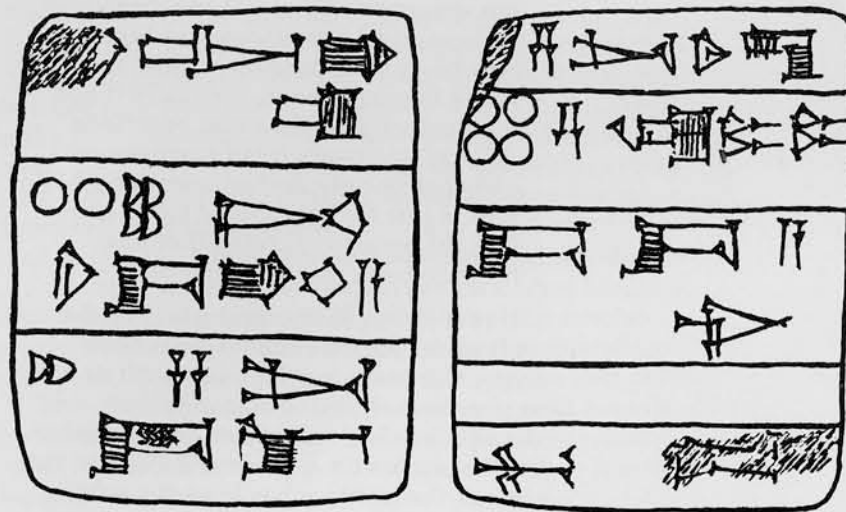
LAPIDARIES IN THE UR III PERIOD

Written Sources Concerning Stoneworkers (ca. 2000 B.C.)

DARLENE LODING



- 1 Mesopotamia: sites mentioned in the text.
- 2 Sargonic text recording delivery of stones from a lapidary (Nicolsky 1915 #87).

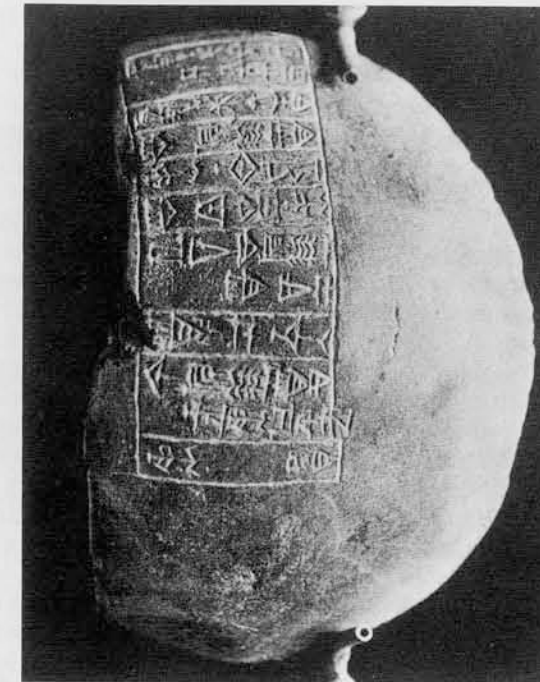


Evidence for the products manufactured by stoneworkers in Mesopotamia in ancient times is, of course, best displayed by those objects discovered and subsequently analyzed by archaeologists and, of late, by those individuals interested in certain technical aspects of the production of these artifacts. However, those of us primarily interested in philological problems of the ancient world would like to think that the written records of the ancient Mesopotamians, fortunately recorded on durable clay tablets, can also provide some insight into the relatively mundane side of a complex society as exemplified by the economic records. The tablets, besides recording great works of literature, also provide us with ample evidence of day-to-day records of agriculture, animal husbandry, textile manufacture, shipping and other trade, regulation of work forces, temple activities, irrigation and distribution of rations, as well as the production of highly specialized luxury goods described mostly in terms of inventories of finished products. Occasionally, as in the texts I shall discuss, tablets describe the organizations responsible for the actual making of the numerous objects later discovered by archaeologists: in this brief paper I shall present the evidence which can be obtained from the currently known textual evidence regarding the craft of stoneworking.

Lapidaries in the Ur III period economic texts (ca. 2000 B.C.) are designated exclusively by the cuneiform sign read *zadim*. The term *zadim* as a profession is attested from the earliest known understandable texts, those from the site of Fara (ca. 2700 B.C.). Little useful information may be gained from these early texts since they are mainly ration lists, except for the probability that the term indicates an occupational or professional group, because the phrase *ugula zadim* is known, where *ugula* means 'supervisor of . . .' (Deimel 1924,

#71). A slightly later text provides somewhat more useful information (Hackman 1958, #64): This text mentions *zadim-za*, literally 'stoneworker in stone.' Other texts from the same period indicate only that the *zadim* is classified with that group of workmen called *giš-kin-ti* 'artisans.' The best example of this is a list of rations of emmer wheat for the men who have the professions of smith, carpenter, leather worker, lapidary, reed worker and rope maker, ending with the summary that they are all craftsmen (Hussey 1912, #5).

Further establishment of the meaning of



- 3 Inscribed stone bowl from Girsu: "Lú-utu, the lapidary made this fine bowl" (de Genouillac 1936, pl. 85/2).

- 4 Seal of a lapidary from Ur (written *za-dim*) (Legrain 1951, pl. 16).



the term is provided by a text from the following Sargonic period (i.e. 2330-2200 B.C.), (Nicolsky 1915, #87). In this text amounts of steatite, carnelian, and other types of stone are described as a delivery from a man with the title of *zadim*.

When we finally come to the Ur III period, evidence for the *zadim* in sites other than that of Ur is extremely rare indeed. As far as we know, the only other site where *zadims* are mentioned in the cuneiform tablets is Lagash, from which

only three references exist. The first is singularly uninformative since it lists only four leather workers, five rope makers, seven carpenters, one lapidary and nine female Amorites for the rope makers, all supplied by a named individual (de Genouillac 1911, #962). The second is no better and lists only two lapidaries given sixty measures of flour each. However, here too they are grouped with carpenters and smiths (de Genouillac 1911, #4164). The third once again groups leather workers, carpenters and rope makers, but includes as their materials only leather and goat hair, materials mentioned usually with the leather worker and the rope maker (de Genouillac 1912, #6414). In addition, from approximately the same period, or slightly earlier, there are references to *zadims* on objects other than clay tablets. A Gudea period inscription on a dedicatory stand found in the sanctuary of Ningizzida and Geštinanna in Girsu reads "for Geštinanna, lady of the city of Sagub, for the life of Gudea, city ruler of Lagash, Zikalamma, the lapidary (*zadim*) dedicated" (Foster 1978, 63). The rather unusual composition of this piece will be discussed later. It is possible that the aforementioned lapidary made the object himself. An alabaster bowl from the same site of Girsu (dating perhaps a bit later) is inscribed: "Lú-utu the lapidary made (this) fine bowl" (de Genouillac 1936, pl. 85).

Before discussing the Ur texts, our major source of information for the actual work of lapidaries, mention should be made of other sources in addition to economic texts which refer to the *zadim*. In the composition known as Gudea Cylinder A (a text from slightly before the Ur III period) Gudea, the ruler of the city of Lagash, describes the building of a temple for his god, Ningirsu. The description of the temple building includes enumerations of materials brought to Lagash such as copper, precious types of wood, bitumen, gypsum, gold, silver, mountain stone, carnelian and alabaster for its building as well as mention of various craftsmen involved in its decoration. It is said of Gudea that during the building with silver, he sat with the silversmiths and during the building with precious stones, he sat with the lapidaries (Thureau-Dangin 1925, col. 16, 27). A literary text which in its present form dates to a period somewhat later than Ur III mentions the profession in a rather more fanciful context. This text describes the journey of the goddess Inanna to the netherworld. While on her journey, she

instructs her major-domo, Ninshubur, to plead before the god Enlil for her safety in the netherworld after her arrival and say "Father Enlil, don't let anyone subjugate your daughter in the netherworld, don't let your precious metal be alloyed there with the dirt of the netherworld, don't let your precious lapis lazuli be split there with the *zadim*'s stone, don't let your boxwood be chopped up there with the carpenter's lumber, don't let young lady Inanna be subjugated in the netherworld" (Sladek 1974, 156ff.).

The well-known Sumerian King List—a text recording the various dynasties of Mesopotamia from legendary times to the early Old Babylonian period (probably written in early Old Babylonian times) records among the rulers of Kish slightly prior to the Sargonic period a certain Nannia, a stoneworker, as reigning seven years—the last king of his dynasty (Jacobsen 1939, 109).

Another way of writing the term for stoneworker is found in a type of composition called the *Ershemma*, a type of cultic composition presumably recited on religious occasions. The one in which our writing occurs is referred to as *Ershemma* 106 and is a lament of the goddess Inanna for the city of Uruk which has been destroyed. The text reads: "My city which was built for me in a dream, my house which had been abundant like the cattle pen and the sheepfold, my (house) which had been abundant like the sheep, like the sheepfold, my (house whose) stonecutter (*bur-gul*) used to carve bowls, my (house whose) lapidary (*za-gin-dim-e*) (literally maker of lapis lazuli) used to make jewelry, my (house) at whose gate was a place of marvel."

In this example, distinction is made between two types of stoneworkers, the *bur-gul* and the *za-gin-dim* or *zadim*. Before continuing with our major evidence for *zadim* workers, brief mention should be made of the other terms used to designate stoneworkers. The profession of *bur-gul* is equated in lexical lists (that is, the ancient form of dictionaries) with the *za-dim-ma* and the *alamgu* (seal cutter) and is attested from the date of the Old Babylonian period (ca. 1900 B.C.) on. To my knowledge, no occurrences exist from earlier periods. It should be noted, however, that although seal cutter is the standard translation of this term, the initial element of the professional title, that is *bur*, is a vessel frequently made of stone, and is a term used as part of many different stone vessels. The

bur-gul probably was engaged in the manufacture of such vessels as well as making seals, and it is possible that in the earlier periods, the *zadims* may have done the same. A very late ritual text from Uruk of the Selucid Period (ca. 3rd century B.C.) (Thureau-Dangin 1921, 161ff.) records the receiving by the goddess Ishtar (Inanna) of various objects from the craftsmen who made them. The text reads: "From the smith (*simug*) the rings suitable for your hands and your feet, from the jeweler (*kù-dim*) the rings suitable for your ears, from the lapidary (*bur-gul*) the carnelian suitable for your neck, from the carpenter (*nagar*) the reel, the spindle and your breast-ornaments."

Another profession working with stone is that of the *kab-sar* 'jeweler or stonemason' attested from the Old Babylonian period on but whose functions are most identifiable from late periods (ca. 7th-6th centuries B.C. on). Economic texts of this late period show clearly that the *kab-sar* works with cut pieces of precious stones to fashion ornaments of various types. Further mention of the *kab-sar* is in a fragment of the well-known Epic of Gilgamesh where in a section following the lament of Gilgamesh for his friend Enkidu, "Gilgamesh sent forth a summons to the country: O! smith, O! lapidary (*za-dim*) O! jeweler (*kab-sar*), make my friend a (memorial?); (then) he fashioned a statue of his friend" (Gurney, 1954).

Now that we have established the relative lack of evidence for the other periods and sites of ancient Mesopotamia, I would like to discuss the information which exists in the texts from Ur in the last stages of the so-called Third Dynasty of Ur (ca. 2000 B.C.). A single text from the Ur excavations, which took place from 1922 to 1934 by the joint expedition of the University Museum of the University of Pennsylvania and the British Museum, provides the most concrete information about the place of the *zadim* within the framework of the economic structure of that time. This text is a twelve-column record of the activities of a single establishment within the Ur III bureaucracy for one year. This text, the single coherent record we have from this period of the activities of a group of craftsmen, describes the work performed within this small area of the economy in meticulous detail in terms which differentiate to us the incredible diversity of the work being performed in all areas of life at this point in time. While it is well known that we have many records of the agricultural and related



activities which formed the major economic basis for the society, the indications of other craft industries from this period are scarce. The tablet described is UET III, 1498 (Legrain 1937) which describes the activities of the *giš-kin-ti* (craftsmen) for a period of one year. The text enumerates raw materials, finished products and finished products which are occasionally broken down and used to produce other objects. The list of categories within this bureaucracy of craftsmen includes that of the workers in wood and metal (*dub-nagar*), metal workers (*kù-dim*), the lapidaries (*zadim*), the carpenters (*nagar*), smiths (*simug*), leather workers (*ašgab*), rope makers (*tùg-du*), and reed workers (*ad-kub*), all existing within a single establishment devoted apparently to the production of luxury goods during the late and far reduced period of the influence of the Ur III empire within the single remaining important city. Within the complex descriptions of the products manufactured by this section of the bureaucracy, the section describing the products of the house of the lapidaries takes up approximately one column of this tablet—that of column 4, line 27 to column 5 line 27. This section begins with a list of stones: topaz, an unknown object of topaz, long carnelian stones for pomegranate-shaped ornaments, strings and other amounts of carnelian, seals and blocks of lapis lazuli, all from a named individual who functions as a supplier of materials to various departments of the craft establishment. After this is a section describing other types of stone made into large beads, an amount of lead, and following a very much damaged section, mentions of alabaster and more lapis lazuli.

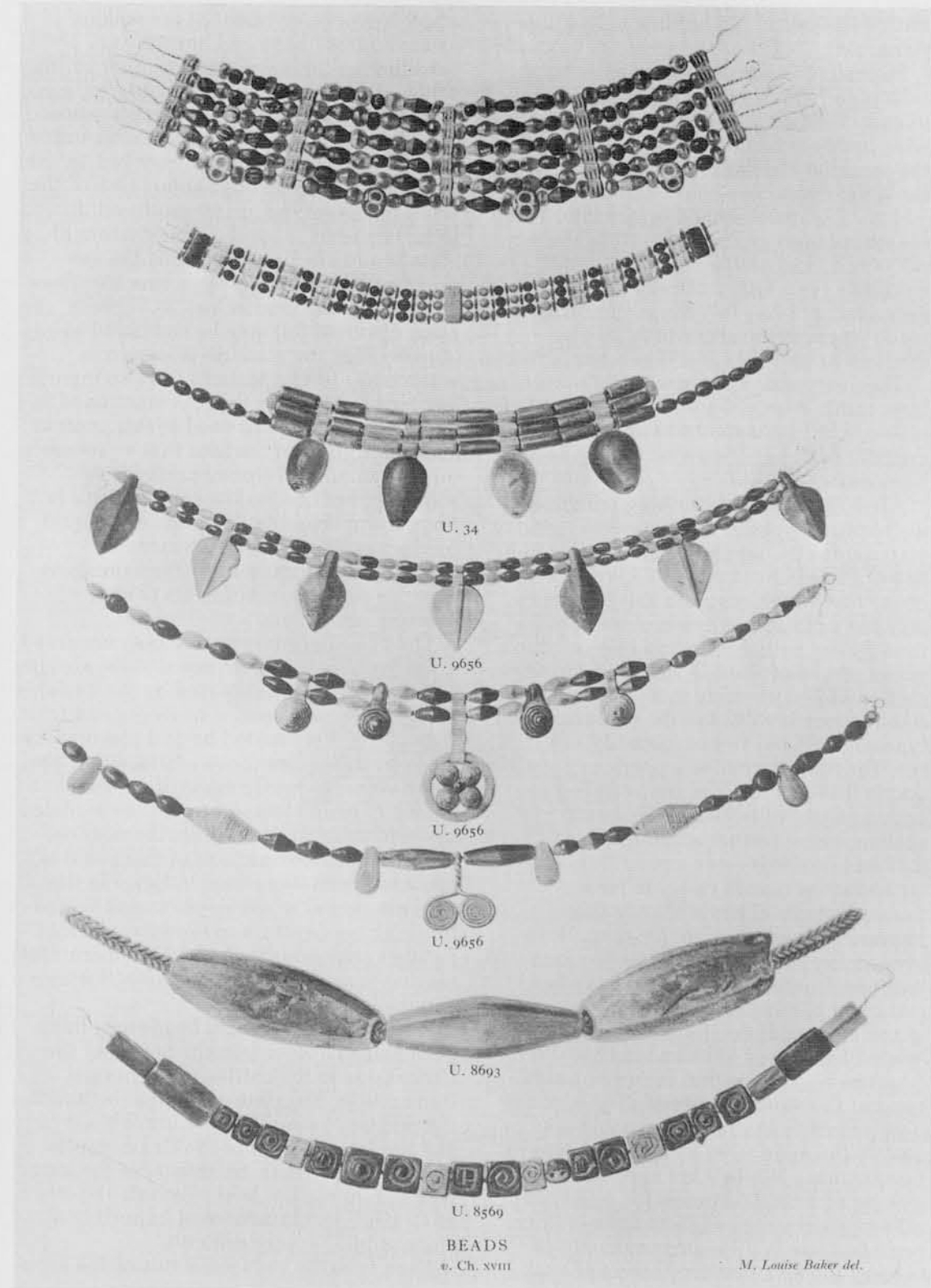
Before proceeding to other mentions of lapidaries in the Ur texts I would like to discuss the products of this department in greater detail. It should first be mentioned that objects made of stone are by no means limited to this particular branch of the craft establishment. Particularly in the metal-working department, objects are frequently described which are composed of metal (sometimes wood) and decorated with stones or vice versa. A discussion of these objects would take far too much space, however, so I shall devote the discussion exclusively to descriptions of the products of this particular division.

The first material mentioned is that of *dusu* stone—a stone not specifically identified but thought to be yellow or orange in color. It has been variously identified as quartz or topaz. As a material, it is used to

5 Section of the 12-column inventory text of the craftsmen listing the working materials and products of the lapidaries (Legrain 1937, #1498).



6
 Examples of the work of lapidaries—necklace and head ornament of lapis lazuli, carnelian and gold beads (Woolley 1934, pl. 133).



7
 Various shapes of beads—made of lapis lazuli, carnelian and gold (Woolley 1934, pl. 134).

make representations of sun disks (which has led to the assumption about its color), beads, plaques, cylinder seals, various leaf-shaped ornaments and, in combination with lapis lazuli, as an inlay in jewelry made of gold. In addition, there are descriptions of the making of artificial *dusu* stone and of glazes with the color of this stone as well as descriptions of leather being dyed this color.

Following the *dusu* stones are the carnelians, of which numerous examples exist in ancient jewelry, frequently combined with lapis lazuli and gold. In this instance, the carnelians are described as 'long,' presumably of an oblong shape and are made into pomegranate-shaped ornaments. There is also another ornament described here, perhaps a plant-shaped one, but of an unknown type. Other carnelians are described as being in 'strings' and used to make pieces of jewelry which may be diadems or garlands, but this is not certain.

The next section deals with amounts of lapis lazuli in blocks and various measured amounts, in one instance used to make a cylinder seal, but otherwise for unspecified purposes.

After the section describing the three well-known types of stone used as working material for the lapidaries and delivered by one of the administrative officials, is a part of the text which suggests that the *zadims* may have performed types of work other than that of cutting, shaping and polishing actual pieces of stone. Evidence from this section of text strongly indicates that the *zadims* were involved in the manufacture of types of artificial stones, possibly a type of frit. The first entry in this portion of the text is that of a block of *bu-uz-hi-li* stone with a weight of two-thirds minas, 6 shekels, and a further amount of 5 and a half minas of this same stone. This type of stone occurs rarely in Neo-Sumerian texts (I know of only three references in addition to this one). However, in texts of approximately five hundred to fifteen hundred years later, there is a material called *busu*, defined as a type of 'glass,' or part of the material for making 'glass.' The reason such an identification might be possible is that the second element of the word is a descriptive term by itself meaning abundant and could just qualify the main term *bu-uz* which would then be *bušu*. While it is known that the making of artificial stones, frit or a type of rather primitive 'glass,' was done in later periods, there is little other evidence to support the idea that production of such

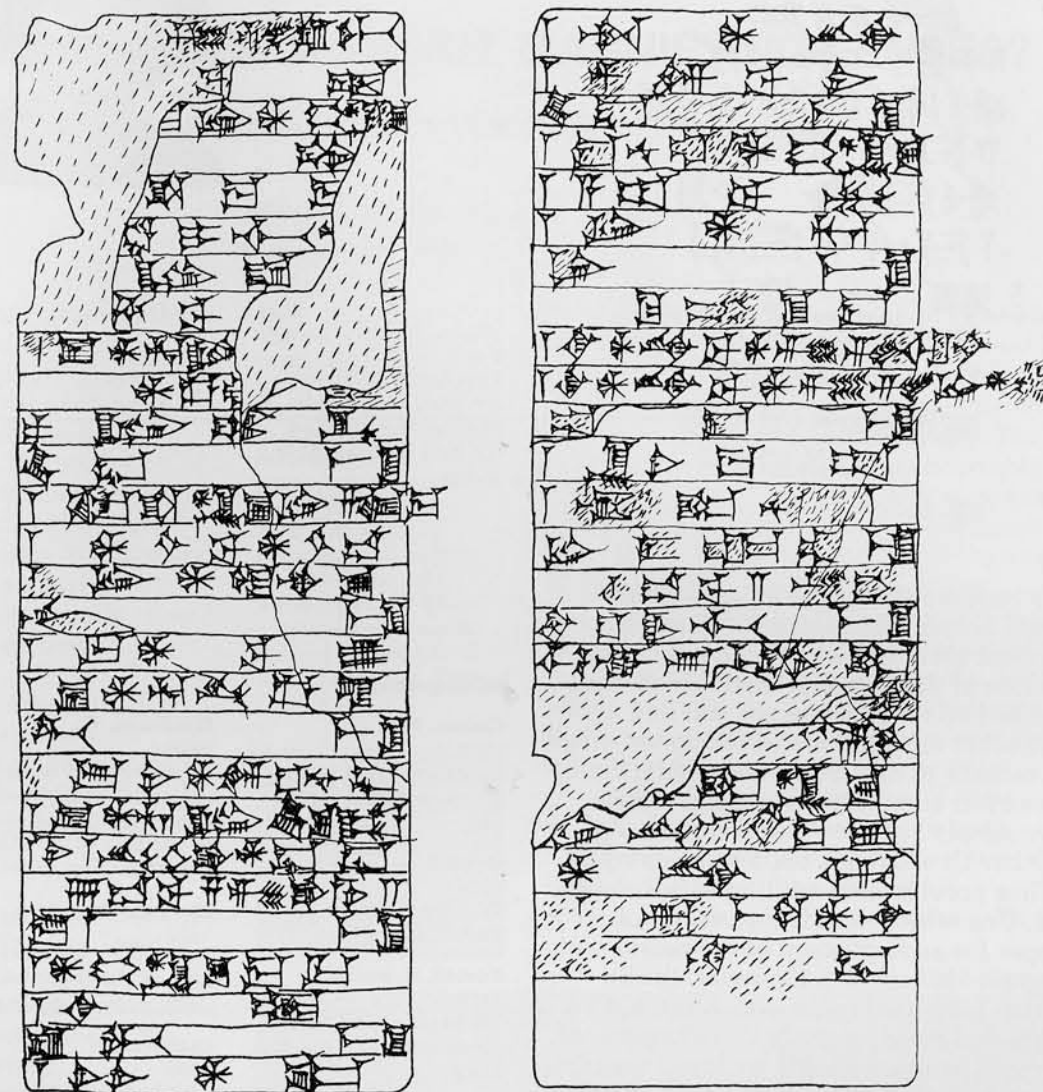
materials began at this early period. Two Ur III period texts mention a material called *anzahhu* either as a raw material or made into a bowl: this material is defined as 'an imperfectly fused, crude frit-like glass' (Oppenheim et al. 1968:151). In the so-called 'glass texts,' that is texts from about the 7th century B.C. (Oppenheim 1970) which are prescriptions for the making of colored 'glass,' *bušu* and *anzahhu* are both described as 'primary glasses' (*ibid.* 19, 36, 47). Furthermore, in a literary reference (discussed *ibid.* p. 16) *bušu* glass is associated with the *saggilmud* stone which also occurs in our text in line 16 'worked' in the same fashion as the *bušu* stone. One of the primary uses of the 'glass' produced in these late texts is for the manufacture of glass beads (*ibid.* p. 7) which is the use described in the Ur text (e.g. line 15). The substance described in line 20 (literally plant of carnelian) may be compared to an ingredient of the glass texts known as white plant (*ibid.* 75). Lead, also an ingredient used in the glass texts, is mentioned in line 21. The verb (*sur*) used in this context also could support the idea that a process other than normal stoneworking is described here. The basic meaning of *sur* is 'to perform an action from which a liquid product results.' It can also mean 'to cleanse, free, release, or to sprinkle'; however, no attested meaning fits that of working with stone.

The idea that *zadims* were not concerned exclusively with conventional stoneworking techniques is also supported by the example of the aforementioned inscribed stand from Girsu—a gift presented by and presumably made by a lapidary (Foster 1978, 62). This stand was apparently made of gypsum heated to a high temperature, then modeled by hand and inscribed while the material was still soft. Comparison of this stand is made to a technique used in Egypt in the Amarna period where gypsum was heated to a high temperature to produce a harder product analogous to the high temperatures needed to produce faience from silicates and sodium carbonates.

Production of artificial beads may have been made necessary in the period of the Ur text due to the cutting off of normal trade routes. The date of the text is that of the middle of the reign of King Ibbi-sin and predates the fall of the Ur III empire by only a few years. By this point the king was able to control basically only the city of Ur itself and thus normal importing of stone would be very difficult.

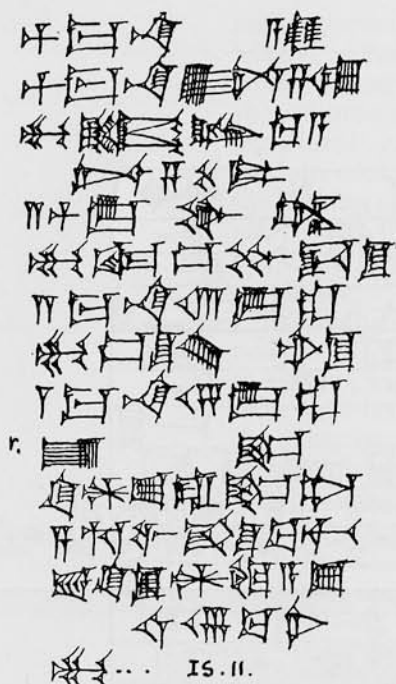
Even with the reduced status of the econ-

8
Tablet from Ur:
attendance list of
craftsmen. The lapi-
daries are listed in 11.
13-16 (Loding 1976,
#568 U 7281).



omy, the complexity of the bureaucratic system apparently continued. This may be seen in texts which are related to that of the large craft inventory. Approximately sixty texts have been found of a type similar to U 7281, although many more must have existed. They are lists of workers in the same eight categories as those of the inventories, and list the individuals who work in these departments as present, absent or sick on a daily basis. In addition, records are kept if workmen are sent to work at different locations, e.g. the palace. During the period of two years for which we have scattered records, the same three names appear consistently as *zadims*. It is

unfortunate that even though we have the names of three individuals as *zadims* in these texts, it is impossible to discover anything further about their social status and possible other activities from occurrences of their names in other texts, since they appear in such contexts as ration lists and as witnesses to various transactions. Further information concerning the complexity of the bureaucracy is provided by a third category of texts related to the craft establishment. These are individual receipts, of which hundreds exist, recording each individual transaction of the large summary craft text on small tablets about one and one half inches square. One can



9
Text from Ur listing copper for an implement of the lapidary (11. 6-7) (Legrain 1937, #494).



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only imagine the staggering amount of record keeping necessary for this one establishment since we have found only a small fraction of these receipt texts which can be matched up to the summary text and we have other receipt texts which do not match the records of this text. Presumably, there were other summary inventories which have simply not been discovered.

Other Ur economic texts mentioning *zadims* provide little additional information. One tablet records the receipt of copper for an implement of the *zadim* (Legrain 1937, #494). However, the Sumerian term used is one which can not be translated more precisely than 'implement.' It would be interesting if we knew the tools with which they worked, but only one other reference exists to a tool and this is simply a copper dagger of the *zadim* mentioned in a lexical list (Gurney 1969, 5). Another Ur text lists working materials (unfortunately a broken type of stone [Legrain 1937, #362]). Another mentions an 'emblem' of the *zadims* and metal workers (*ibid.* #336) and a third an 'offering' for *zadims* and metal workers in a list of offerings to gods (*ibid.* 264).

Subsequent to the Ur III period, the term *zadim* meaning 'lapidary' ceases to exist. Workers in stone are referred to by the term *purkullu*, *kabsarru* and in lexical lists *alamgû*, *urra* or *esiru*. The cuneiform sign *zadim* is, for unknown reasons, used after the Ur III period to denote a completely different profession, that of the *sasinnu* 'bow maker.'

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