

THE UNIVERSITY OF CHICAGO  
ORIENTAL INSTITUTE PUBLICATIONS  
VOLUME LXV

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PERSEPOLIS  
TREASURY TABLETS

THE UNIVERSITY OF CHICAGO PRESS • CHICAGO 37  
Cambridge University Press, London, N.W. 1, England  
W. J. Gage & Co., Limited, Toronto 2B, Canada

# PERSEPOLIS TREASURY TABLETS

*By*

GEORGE G. CAMERON



THE UNIVERSITY OF CHICAGO PRESS  
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## PREFACE

"In his Preface," wrote the engaging D. D. Luckenbill in the Introduction to *The Annals of Sennacherib* (*OIP*, II [1924]), "the author is, I believe, supposed to justify his infliction of another book upon a long-suffering world, and, having mollified the righteous wrath of his prospective reader, to pay some small tribute to those whose kindly aid and encouragement have lightened his labors and made possible the adequate publication of their results."

The inscriptions here published, I sincerely believe, have great significance for the economist, for the historian and archeologist of the ancient Near East, for the student of religion, and for the philologist; but the problems connected with their decipherment are of great complexity.

The language in which they are written, Elamite, has never been studied intensively by more than a half-dozen scholars, only two of whom are now living and none of whom, save the author, resided in America. Actually it is almost a *lingua incognita*: its syntax and morphology are imperfectly understood; the meanings of many of the words in its vocabulary are unknown; its phonetic sounds, and the values attributable to a number of the signs by which it is written, are subjects of sharp controversy.

To these already existing difficulties the inscriptions on our tablets contribute a number of others. We find added to the vocabulary a wealth of new and hitherto completely unknown Elamite words, the meanings of which must be derived solely from context. We discover that the orders here written were originally issued in the Old Persian tongue and hence embody a large number of not easily recognizable Old Persian words as written by Elamite scribes. Since the known vocabulary of the Old Persian language is itself quite small, we must constantly bear in mind the phonetic differences between it and Median on the one hand, and Avestan, Pahlavi, and modern Persian on the other, when we search our memory and the dictionaries of the latter languages for words which occur in our texts and which intuition alone advises us may

be Old Persian words as written by those same Elamite scribes.

Consequently, it becomes apparent that a translation of the inscriptions on our tablets partakes of the nature of the solution to a cryptogram or secret writing. It is literally a matter of decipherment; and Captain Parker Hitt, who wrote the first United States Army manual dealing with cryptography, expressed the truism that success in dealing with an unknown cipher is to be measured by these four things in the order named: perseverance, careful methods of analysis, intuition, luck.

Each of these properties has played its full part in the translations here offered, and vast help was indeed obtainable from card catalogue dictionaries of the available Elamite and Old Persian words prepared by the writer long since, which in the manner of the Oriental Institute's Assyrian Dictionary permit the examination of each word in the respective languages in full context. Unquestionably the number of unproductive paths pursued in the evolvment of the interpretations and translations here offered would have been reduced considerably if the texts concerned could have been discussed with another scholar familiar with the peculiarities of the Elamite language. Without doubt the resulting translations would have been improved if they could have received the attention of at least one more student of Elamite, for two minds are mutually invigorating and will usually secure an answer, if one can be found, to a problem that in itself and to one mind seems at times insolvable.

The advent of the war, however, precluded all such contacts and withdrew from scholastic work even those who had begun to familiarize themselves with the materials at hand. The task therefore was a lonely one. The one bright spot in the picture was derived from my colleagues, as will be noted more extensively in a moment. They gave unstintingly of their time, their encouragement, and their intellectual acumen; all too frequently they were asked to solve a syllo-

gism when I could offer them but the minor premise. Their nod of approval, or frown of disbelief, like those of others still to be named, often led to the solution of a problem when that solution seemed utterly unachievable. But their own labors could not be interrupted unceasingly; their interests lie essentially in other fields of endeavor, and they could no more be asked to approve every phase of the researches than they can be held accountable for errors and false judgments which may remain in the conclusions here drawn.

As will be detailed more fully in chapter i, more than 750 "tablets and fragments" were discovered in the Persepolis Treasury by the Oriental Institute's Persepolis Expedition. Forty-six of these, at the division of the finds, were given by the government of Iran to the Oriental Institute. All others are now in the government Museum in Teheran, where, after a brief stay at Persepolis, I examined them in July of 1939. Owing to various unforeseen circumstances, some of which were directly connected with the imminence of war, my scrutiny of these tablets had to be completed within the brief space of seven days. Every tablet and fragment was nevertheless carefully examined. Since facilities for photographing the inscriptions were not available, whole or significant pieces were copied in full; those which duplicated readings already obtained were not copied, save for the date, when preserved. For some time I was persuaded that copies made in such haste would necessarily contain a number of errors. Fortunately, shortly after the tablets had been discovered, the expedition staff had prepared a number of casts, which became available in 1941. Six of these were of inscriptions which I had copied in Teheran; examination of them corroborated my readings in every detail and thus gave assurance of their correctness in one or two passages where I had begun to doubt the accuracy of my eyes. Hasty copies, however, must not be made to serve for replicas of the originals; for the purpose of this volume a transliteration is adequate, and all Teheran tablet inscriptions are here presented in that form.

The forty-six tablets in Chicago, however, could be repeatedly examined, and for purposes

of publication they were photographed by a process developed when a previous discovery of tablets at Persepolis indicated a need for a more rapid and efficient means of publishing than the slow and laborious method of copying by hand. After considerable experimentation Dr. N. C. Debevoise and, later, Mr. Homer Thomas developed for this purpose a method which far outstrips previous efforts.

Past tablet photography was not successful chiefly for two reasons: because of the discoloration of the clay and because it was necessary to use a raking light to accentuate contrast, thereby losing detail in the deeper parts of the signs. Dr. Debevoise found that tablets may be photographed quite satisfactorily through the use of a chemical coating and a different type of lighting. Sal ammoniac (ammonium chloride) is placed at one end of a glass tube (which end has been slightly closed) and heated; as the powder vaporizes, it is blown upon the tablet. It creates a mat white coating as it condenses upon the cold clay, conceals the discoloration, and throws the inscription into sharp relief. Even for reading purposes the signs stand out much clearer; each wedge can be seen with greater ease and with less strain on the eyes. For photographing, the lighting of the tablet may be made very flat so that small indentations in or near deeply impressed wedges will not block out in the negative. Lights are placed equidistant from the tablet so that their rays strike the inscription at an angle of approximately 45° from the vertical. To reduce expense, 35-mm. film can be used, and as many negatives made as will insure the inclusion of every sign of each line in some of the final pictures. After photographing several hundred tablets it was discovered that the final cost (in 1938-40) only slightly exceeded one cent a picture. Since each tablet seldom needed more than five or six pictures, the final cost of photographing a complete tablet inscription was almost never in excess of ten cents. After reading or photographing, the powder coating may be allowed to evaporate or may be brushed off easily with a soft brush, and the tablet has not been affected in the least. Since the dimensions of tablets are always made known in the final publication (and, in any event, are of slight sig-



nificance), the size of the developed and published pictures can be made to depend on the ease with which the signs can be read.

This method has many advantages. Since the photographic work may be performed by either an expert or an amateur photographer, the time of the philologist and translator can be devoted exclusively to his proper tasks. Misreadings are all but eliminated, for signs which are difficult if not impossible to determine usually become clear and distinct once the coating has been applied. Eyestrain is reduced to the barest minimum. Despite his best efforts and repeated collation the hand copyist is never free of the possibility that a mental lapse has made him omit a wedge, a sign, or a whole line, and the probability that his eyes have misinterpreted a sign or completely failed to see a wedge or two which were once impressed and which may radically alter the value of a sign and hence the meaning which it bears. Finally, the method reproduces not a conventional system of representing cuneiform signs and clay tablets with pen and ink on paper—which does not do justice to the original—but the actual tablet with all its impressions exactly as it left the hand of the ancient scribe or as it appears today. So remarkable and accurate are the results secured that an experienced copyist, when shown a group of photographs prepared by this method, was moved to say, “In the light of these, my years of copying tablets in the . . . Museum were wasted.”

No claim is here made, of course, that this method solves all problems connected with the publication of tablet inscriptions. Certain groups of tablets (for example, those of the First Dynasty of Babylon) do not lend themselves easily to this or to any other method of photography, although a copyist will soon learn that the chemical coating will greatly facilitate his reading. Fortunately, the Persepolis tablets were admirably adapted to publication by means of the process.

The photographs of tablets 24, 42, 45, 67, and 84, however, are expedition photographs taken at Persepolis; although they were made by that incomparable archeological photographer, Boris Dubensky, the process described above had not been perfected at the time of their preparation.

Hence the pictures of these tablets are in striking contrast to those of the other tablets published in this volume. They are included, nevertheless, because they provide the evidence needed to establish the readings of the inscriptions upon them which were copied by the writer at Persepolis and at Teheran.

As noted above, the author was able to discuss with a number of colleagues some of the problems connected with the decipherment of these texts. Perhaps his greatest debt is to Professor Frederick W. Geers, who first approved my insistence that transliterations, translations, and copious notes should accompany the publication of texts written in the Elamite language in order that the materials in them should become immediately accessible to a larger number of scholars. In numberless conferences Professor Geers allowed his own work to be interrupted. He brought to bear upon numerous matters his vast store of learning and unparalleled resources for understanding the thinking processes of the authors of ancient oriental inscriptions. His approval of work in progress, or his objection to conclusions already formulated, was always sufficient inducement to continue the former or to redraft the latter. Such service cannot be acknowledged by words.

Similar contributions were received from Professor T. P. R. Jacobsen. By his serene confidence in the methods employed in the decipherment Dr. Jacobsen was of greater assistance than he realized, and his keen appreciation of difficulties, especially in matters involving the transliteration of Elamite texts, is herewith gratefully acknowledged.

In the past few years and by way of a voluminous correspondence, a master craftsman at the University of Pennsylvania, Professor Roland G. Kent, has been my father-confessor and confidant; ever and again he substituted enthusiasm for discouragement, tempered my zeal with caution. To him, above all others, I owe recognition of the principles which must underlie sound philological methods. His unequalled knowledge of the Old Persian language in particular was both inspiring and constantly at my disposal. This book owes much to him.

At all times I had the full assistance of Dr.

## PREFACE

Erich F. Schmidt, Director of the Persepolis Expedition of the Oriental Institute. Unsurpassed as an excavator who is fully aware of the breadth and depth of his task, his tireless attention to details was an inspiration. His archeological files were always open for my inspection; his conclusions on matters of archeological or historical interest were freely given even when tentative. His advice and criticism were of inestimable value.

Albert Ten Eyck Olmstead, late Oriental Institute Professor of Oriental History in the University of Chicago, was my initial preceptor in things oriental. It was he who in 1929 recognized the great need for a chronological outline to serve as a basic guide to the complicated labyrinth involving the history of the Elamites, Medes, and early Persians. He encouraged me to study among others the languages of the Elamites and the Old Persians and, with the help of these, to present that outline in my *History of Early Iran* (Chicago, 1936). With keen interest he followed the decipherment of these texts, for he was extremely patient with stubborn facts and yet was highly skilled in synthesis. With infinite care he endeavored to fit the information derived from these inscriptions into

his own *History of the Persian Empire (Achaemenid Period)*, which is now in publication by the University of Chicago Press.

Dr. Richard T. Hallock, research assistant in the Oriental Institute and now on leave for military service, prior to his entry into the army had copied a number of Persepolis Fortification texts; to him I owe my thanks for permission to use a list of personal names appearing in these inscriptions (throughout this volume cited as Hallock's "List of Names").

Many others read parts of the manuscript or gave advice at critical points. I single out for special mention only Professors George V. Bobrinskoy, John U. Nef, and Martin Sprengling of the University of Chicago, and William F. Albright of Johns Hopkins University. If, as seems to be true, man looks into the past in order that he may understand himself more fully in the present and in the future, then each may know that by his contribution to the decipherment of these inscriptions he has added something to man's knowledge about himself.

GEORGE G. CAMERON

THE ORIENTAL INSTITUTE  
THE UNIVERSITY OF CHICAGO  
May 27, 1946

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## LIST OF ABBREVIATIONS

- AfO* Archiv für Orientforschung. Band III— (Berlin, 1926—)
- AJSL* American Journal of Semitic Languages and Literatures (Chicago etc., Vols. XII-LVIII [1895-1941])
- Akk.* Akkadian
- AMI* ERNST HERZFELD (ed.), Archäologische Mitteilungen aus Iran (Berlin, 1929—)
- ApI* ERNST HERZFELD, Altpersische Inschriften (Berlin, 1938)
- A<sup>1</sup>P* Artaxerxes I, Persepolis inscriptions (*a, b, etc.*)
- A<sup>2</sup>S* Artaxerxes II, Susa inscriptions (*a, b, etc.*)
- ASGW* K. Sächsische Gesellschaft der Wissenschaften, *Leipzig*. Philol.-hist. Classe. Abhandlungen (Leipzig, 1850—)
- Av.* Avestan
- BA* Beiträge zur Assyriologie und semitischen Sprachwissenschaft (Leipzig, 1890—)
- BAiW* CHRISTIAN BARTHOLOMAE, Altiranisches Wörterbuch (Strassburg, 1904)
- BE* PENNSYLVANIA. UNIVERSITY. BABYLONIAN EXPEDITION. Series A: Cuneiform Texts, ed. by H. V. HILPRECHT (Philadelphia, 1893-1914)
- CT* BRITISH MUSEUM. Cuneiform Texts from Babylonian Tablets, etc., in the British Museum (London, 1896—)
- DB* Darius, Behistun inscription(s)
- DN* Darius, Naqsh-i-Rustam inscriptions (*a, b, c, etc.*)
- DP* Darius, Persepolis inscriptions (*a, b, c, etc.*)
- DS* Darius, Susa inscriptions (*a, b, etc.*)
- DSz* Darius, Suez inscriptions (*a, b, etc.*)
- El.* Elamite
- Fort.* (Persepolis) Fortification text
- GPN* A. H. M. STONECIPHER, Graeco-Persian Names (The Vanderbilt Oriental Series, ed. by HERBERT CUSHING TOLMAN and JAMES HENRY STEVENSON. New York etc., 1918)
- JAOS* AMERICAN ORIENTAL SOCIETY. Journal (Boston etc., 1849—)
- JNES* Journal of Near Eastern Studies (Chicago, 1942—)
- JRAS* Royal Asiatic Society of Great Britain and Ireland, *London*. Journal (London, 1834—)
- KA* F. H. WEISSBACH. Die Keilinschriften der Achämeniden (Leipzig, 1911)
- KAH* Keilschrifttexte aus Assur historischen Inhalts. 1. Heft hrsg. von L. MESSERSCHMIDT; 2. Heft hrsg. von O. SCHROEDER (*WVDOG*, XVI [1911] and XXXVII [1922])
- MAOG* Altorientalische Gesellschaft, *Berlin*. Mitteilungen (Leipzig, 1925—)
- Mém.* FRANCE. DÉLÉGATION EN PERSE. Mémoires. Tome I-XIII (Paris, 1900-1912)  
FRANCE. MISSION ARCHÉOLOGIQUE DE SUSIANE. Mémoires. Tome XIV (Paris, 1913)  
FRANCE. MISSION ARCHÉOLOGIQUE DE PERSE. Publications. Tome XV (Paris, 1914)  
FRANCE. MISSION ARCHÉOLOGIQUE DE PERSE. Mémoires. Tome XVI-XXVIII (Paris, 1921-39)
- MVAeG* Vorderasiatisch-ägyptische Gesellschaft, *Berlin*. Mitteilungen (Berlin, 1896-1908; Leipzig, 1909—)
- NB* FERDINAND JUSTI, Iranisches Namenbuch (Marburg, 1895)
- OIC* CHICAGO. UNIVERSITY. THE ORIENTAL INSTITUTE. Oriental Institute Communications (Chicago, 1922—)
- OIP* CHICAGO. UNIVERSITY. THE ORIENTAL INSTITUTE. Oriental Institute Publications (Chicago, 1924—)
- OLZ* Orientalistische Literaturzeitung (Berlin, 1898-1908; Leipzig, 1909—)
- OP* Old Persian
- R* RAWLINSON, SIR HENRY. The Cuneiform Inscriptions of Western Asia, I-V (London, 1861-84; Vol. IV, 2d ed., 1891)
- RA* Revue d'assyriologie et d'archéologie orientale (Paris, 1884—)
- RT* Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes (40 vols.; Paris, 1870-1923)
- SAOC* CHICAGO. UNIVERSITY. THE ORIENTAL INSTITUTE. Studies in Ancient Oriental Civilization (Chicago, 1931—)
- SPAW* Preussische Akademie der Wissenschaften. Philos.-hist. Klasse. Sitzungsberichte (Berlin, 1922—)

## LIST OF ABBREVIATIONS

Sum.	Sumerian	XP	Xerxes, Persepolis inscriptions ( <i>a, b, etc.</i> )
<i>ŠL</i>	ANTON DEIMEL, <i>Šumerisches Lexikon</i> (Rom, 1925-37)	XS	Xerxes, Susa inscriptions ( <i>a, b, etc.</i> )
<i>TCL</i>	PARIS. MUSÉE NATIONAL DU LOUVRE. Textes cunéiformes (Paris, 1910—)	XV	Xerxes, Van inscription
<i>VS</i>	BERLIN. STAATLICHE MUSEEN. Vorderasiatische Abteilung. Vorderasiatische Schriftdenkmäler (Leipzig, 1907—)	ZA	Zeitschrift für Assyriologie und verwandte Gebiete (Leipzig, 1886—)
<i>WVDOG</i>	Deutsche Orient-Gesellschaft, <i>Berlin</i> . Wissenschaftliche Veröffentlichungen (Leipzig, 1900—)	<i>ZDMG</i>	Deutsche morgenländische Gesellschaft. Zeitschrift (Leipzig, 1847—)
<i>WZKM</i>	Wiener Zeitschrift für die Kunde des Morgenlandes (Wien, 1887—)		

The following symbols are used in transliterations:

[ ]	wholly lost
[ ' ]	partially lost
< >	omitted by scribe
*	hypothetical form

## I

## THE SIGNIFICANCE OF THE PERSEPOLIS TREASURY TABLETS

The inscriptions on the tablets here published have deep and far-reaching significance in many branches of human endeavor. They bring before us revelations of hitherto unknown or but guessed-at facts in which historians of both material and spiritual culture are vitally interested. They present us with a body of information which engages the attention of the student of economic history. They add a new chapter to the story which the professional scholar of religious history is ever attempting to write. And they provide us with a startling amount of new materials for linguistic research in the fields of the Elamite and Old Persian languages. They are, in short, added keys by which we may unlock a few more of the innumerable mysteries of past ages.

These tablets were inscribed in the few years between 492 and 460 B.C., when the last of the great ancient oriental empires, Persia, was in its full prime. They were brought to light in our day at a capital of that empire, Persepolis, which had been erected to immortalize the glory of the Achaemenian dynasty. They were discovered in 1936-38 in the southeastern part of the Persepolis Terrace in a block of buildings identifiable by their contents as royal storehouses and armories—that is, in the royal Treasury.<sup>1</sup>

The language of the inscriptions written upon the tablets is with but one exception Elamite. Nearly every monumental inscription of the Achaemenid kings was presented in at least three languages: in their own tongue, Old Persian; in Akkadian or Babylonian; and in Elamite. Since to present-day scholars Elamite is a difficult and little-known language, single or unilingual inscriptions written in it offer a wide variety of lexicographical, grammatical, and phonetic problems.

For the interpretation of these texts the Elam-

<sup>1</sup> Erich F. Schmidt, *The Treasury of Persepolis and Other Discoveries in the Homeland of the Achaemenians* (OIC, No. 21 [1939]), pp. 16 ff. and 33 ff. Definitive publication of the results of the Persepolis Expedition is now in preparation.

ite inscriptions on another and larger group of tablets were of inestimable value. These, to the reputed number of "thirty thousand tablets and fragments," were discovered in 1933-34, not in the Treasury but in the Fortification walls of Persepolis.<sup>2</sup> They were composed in the reign of Darius between 510 and 494 B.C., and hence in point of time their composition precedes that of the Treasury documents. From the standpoint of the significance of their content, however, they yield considerably to the Treasury records.

## SIGNIFICANCE FOR ECONOMIC HISTORY

A significant contribution of the Treasury records lies in the realm of economic history, for they reveal the disturbance created in antiquity when a money economy suddenly and without previous warning was introduced to a community which hitherto had known only payments in kind. In other words, they give documentary evidence for administrative problems resulting from a sudden shift from that type of economy in which men are paid in goods for their services to that in which they are paid in cash.

In primitive societies everywhere men are paid in kind for the work they perform. In the Near East this standard practice is fully attested, and the economic documents of early Babylonia and Assyria display in abundance this type of payment. Through long centuries the laborer receives for his hire grain and wine for his nourishment, clothing for his body, bricks for his home. The inadequacy or inconvenience of this type of payment or in the means of reckoning it ultimately results, here as elsewhere, in the development of a basic standard or norm which can be used as the medium of payment. After many

<sup>2</sup> *JRAS*, 1934, p. 231; *AJSL*, L (1934), 272; cf. George G. Cameron, "Darius' Daughter and the Persepolis Inscriptions," *JNES*, I (1942), 214 ff.; hereafter these will be called "Fortification texts," "documents," or "inscriptions." Work upon them is now in progress, and although the number of effective pieces is not as large as at first seemed likely (see below, pp. 18 f.), the story they tell is by no means without interest.

false starts, including an attempt to keep books in which the unit was reckoned as a "measure" of grain, pieces of the precious metals, silver or gold, constituted the medium finally selected in the Near East in the first millennium B.C.

At first the metals were weighed; then pieces of silver and gold were stamped or minted, and although the units of this coinage bore names indicative of their origin as weighed pieces, coined money was now in existence. Whether it was invented by the Lydians and passed on by them to other peoples of the Near East and to the Greeks, who gave it to the Western world, or whether this so-called "Lydian" invention had not already been anticipated in the Semitic world, is irrelevant to our problem. The fact is that a money economy depends on subtle historical changes which, owing to periods of peace, a stable society, the observance of law, buoyant prices, a rising population, or other factors, lead men away from domestic self-sufficiency and direct them toward shops or market places. Normally a money economy does not appear suddenly and unexpectedly; nor is its development uniform, steady, and inexorable, for it is often interrupted by checks and retreats. When it is adopted, however, the life of the individual is considerably altered. No longer is he paid for his labor in goods; now his payment is chiefly in cash by which he may purchase those goods which seem to him most necessary and desirable.

By the time of Nebuchadnezzar in the sixth century, Babylonia was already on the silver standard. Darius the Persian, conqueror of Babylon and fabricator of a great empire, realized the possibilities inherent in this comparatively recent development and welcomed its introduction throughout the length and breadth of the lands he dominated. His "reform" could but accelerate the process in "civilized" areas already touched by or familiar with its evolution, but it can have had little effect on the great mass of the empire's inhabitants in backward communities. The new capital Persepolis, however, though located far from the beaten path of commerce, could not escape its impact. Our Treasury texts, inscribed in the later years of Darius and in the reign of his successor Xerxes, not only show that coinage is a recent innova-

tion at the site, but fully demonstrate some of the administrative problems raised by it. In that sense they appear to be unique.<sup>3</sup>

In all Treasury records the total payment is declared to be in units (karsha and shekels) of silver. Tablet No. 1, for example, is a record involving the payment of 3 karsha,  $2\frac{1}{2}$  shekels of silver to one man; throughout the document the computation of his monthly wages is based on the assumption that coined money exists. Actually, however, the phraseology as so used is but a concession to the newly introduced coinage, for in the body of the text appears this statement: "Sheep and wine serve for the equivalent (of the money): 1 sheep for 3 shekels, 1 jar (of wine) for 1 shekel." Here is adequate proof that the age-old manner of payment in kind is still in force; but since the enumeration of the total and the computation of the monthly payments are figured in cash for accounting purposes, simultaneously there is evidence that the old system is undergoing radical modification.

Numerous Fortification tablets dating a generation earlier, examined by the author but not here published, reveal that in that preceding generation only the old system was known; although they are otherwise very similar to the Treasury documents, none of them has anything except payment in goods (grain, flour, beer, wine, sheep, and the like). The evidence is not yet altogether complete, but inasmuch as the last Fortification tablet examined emanates from the twenty-eighth year of Darius whereas the earliest text here published is assignable to the thirtieth year of that ruler, it would seem that the introduction of the new method of payment based on coined money to supplement the old method based on payment in kind at Persepolis can tentatively be assigned to the intervening year or to 493 B.C.

A few side lights on the situation as it has so far developed are available. A number of our documents stipulate that the actual evaluation of the sheep and wine at the rate quoted is (if the phraseology is correctly interpreted) "ac-

<sup>3</sup> I am greatly indebted to John U. Nef, professor of economic history at the University of Chicago, who made several pertinent comments on the composition of this section and who called my attention to the excellent article of M. Postan, "The Rise of a Money Economy," *Economic History Review*, XIV (1944), 123 ff.

ording to edict."<sup>4</sup> This implies that the administrative offices have been compelled to define officially the rate of exchange: three shekels for one sheep, one shekel for a jar of wine. It is not without interest that this rate of exchange at Persepolis in the early years of the fifth century is approximately the same as that prevailing contemporaneously in Babylonia; there, in the early Persian period, the price of sheep rose slightly from that current in the Neo-Babylonian or Chaldean period when an ordinary sheep sold for two shekels.<sup>5</sup>

For our understanding of the size of the payments involved in these texts it is also well to realize the purchasing value of a silver shekel, which on the basis of weight alone would be merely the equivalent of twenty-five cents American money. Since the sum of three shekels was the equivalent cash value of an average sheep, which in 1939 could be bought in the Near East for about three dollars, the purchasing value of a shekel in our money would be approximately a dollar.

Our evidence is still more positive. Once the laborer perceived the possibility of receiving actual cash money for his services, the inconvenience of the old method of payment must have become clear to him and, perhaps through him, to the heads of the disbursing office. The next step, therefore, was that in which only part of the payment was in goods, the balance in cash. Several Treasury documents begin to show in detail this step, which is first evident in the seventh year of Xerxes, or in 479 B.C. Here two-thirds of the wage is to be paid in wine,<sup>6</sup> in sheep,<sup>7</sup> or in beer.<sup>8</sup>

Inevitably the size of the payment still made in goods was reduced. By the sixteenth year of Xerxes only one-half of the wages are said to be in sheep<sup>9</sup> or, three years later, in wine.<sup>10</sup> By far the greater number of documents dated in the nineteenth and twentieth years of this sovereign, or in 467-466 B.C., say merely that the

sum specified represents "one-half of the (total) wages";<sup>11</sup> since no other commodity is mentioned, the probability amounts to a certainty that payments in kind made elsewhere and by other methods are here supplemented by actual cash payments representing half the wages due. One document reduces the payment in kind (wine) to one-third the total amount due.<sup>12</sup>

Sometimes the scribes—who merely put down in writing what they were told by officials in charge—deliberately had to correct their written text lest the phraseology be misunderstood. After declaring that the totals enumerated constitute the "wages" of laborers, they must amend this declaration by the additional statement that they constitute only "half the wages."<sup>13</sup> Once the usual formula, which states that the payment represents "half the wages for the month so-and-so," rather thoughtlessly seems to say that it is "wages for half the month so-and-so," although we know very well from the way the date is given that the scribe intended us to secure the former meaning.<sup>14</sup> Thus the shift from the former practice of payment in goods to the comparatively "simple" method of payment in cash was disturbing to the peace of the scribal mind no less than it must have been to the Persepolis bookkeeper.

There is no evidence that the introduction of the new method was the effect of royal fiat except that it appears so suddenly. However, it is not followed consistently, and the process was clearly in transition. Many of our documents from the later years of Xerxes revert to the original statement that the "equivalent of the (total) payment" is sheep or wine.<sup>15</sup> Such a return to the previous state of affairs must have seemed desirable to many of the accountants and paymasters, for whom the "new-fangled" system, intermixed as it was with the old, could have had only nuisance value.

<sup>11</sup> Nos. 36-38, 41-42, 46-48 (all year 19); 49, 52-54, 56-59, 60-61, 63, 64, 66-67 (all year 20).

<sup>12</sup> No. 45 (year 19).

<sup>13</sup> E.g., Nos. 49, 52-53, 57, etc. (year 20).

<sup>14</sup> No. 67 (year 20); cf. with the otherwise similar text No. 66 and with No. 70, which describes payment for a part of a month only.

<sup>15</sup> Thus Nos. 28-29 (sheep, year 15), 44 (sheep and wine, year 19), 62, 69-70 (wine, year 20), and 78 (wine, Artaxerxes I, year 3).

<sup>4</sup> See the Notes to text No. 13.

<sup>5</sup> See the references cited by W. H. Dubberstein in "Comparative Prices in Later Babylonia," *AJSL*, LVI (1939), 20 ff., esp. pp. 31-32.

<sup>6</sup> No. 25; cf. also Nos. 34-35 and 43 (year 19); 68 and 75 (year 20).

<sup>7</sup> No. 33 (year 18).      <sup>8</sup> No. 51 (year 20).      <sup>9</sup> No. 31.

<sup>10</sup> No. 39; perhaps also No. 65 (year 20).

It was the new system which won the battle, however. Good precedent for complete payment in cash appeared even in Darius' time when by royal edict specific individuals were allotted specific grants of money. In Nos. 4-7 Darius himself awards rather large sums to a few persons who apparently have performed tasks delegated to them. Subsequently a limited number of our texts contain no hint whatsoever of any type of payment save cash,<sup>16</sup> and it would seem that the transition period was almost over and that the final step in the economic "revolution" at Persepolis had been achieved.

The clear picture thus obtained from our texts of this process as it suddenly unfolded is, it appears, unique. That it had received official approval, although it may have been without official edict, seems obvious from the fact that these are Treasury records. That it created difficulties for the bookkeepers as for the scribes who set down the payments in writing is apparent. Its success, however, was inevitable. At Persepolis it doubtless meant greater freedom on the part of the individual, who henceforth could select for himself those commodities which at the moment seemed to him most valuable; elsewhere it provided an opportunity for the evolution of the large-scale private banker, and enabled man to realize all the advantages inherent in a money economy. Hence the use of coinage, gradually developing in other areas and suddenly manifest at Persepolis, marked the budding of an achievement in the economic history of humanity which is only today in full bloom.

A word may here be said also regarding the economic significance of the inscription on tablet No. 85, the only one so far recovered from the Persepolis Treasury which is written in Akkadian cuneiform. As we shall see, there are good reasons for believing that this tablet did not originate at Persepolis and that the record upon it did not emanate from the Persepolis Treasury office. It is, however, a record of the revaluation of silver (monies) submitted as taxes by at least four individuals in the nineteenth and twentieth years of "Darius the King" (doubtless Darius the Great). The document itself appears to be dated the twenty-fifth day of the ninth month of

<sup>16</sup> Nos. 32 (year 16) and 74 (year 20).

the twentieth year of that sovereign, and thus, by an odd quirk of fate, was written on December 30 of 502 B.C., or coincident with the end of our own taxable year.

According to the inscription certain sums, for example 8 minas, are admitted to have been paid as taxes; the taxpayer in question is given credit, however, for only such an amount as remains after his 8 minas have been "scientifically" evaluated—money being either impure or underweight—and so may receive credit for only  $7\frac{1}{2}$  minas, 6 shekels, a loss of 24 shekels from the whole. Throughout, this evaluation is based on "refining" 10 shekels (about 84 grams), computing the amount of waste or "decrease" in them, and then calculating the waste or decrease in the whole amount submitted. First-, second-, and third-grade "silver" (money) is recognized, and not all monies of the same grade receive the same amount of depreciation. First-grade or "white" silver varies from a high of 5 per cent depreciation to the almost infinitesimal 0.416 per cent; second-grade from a high of 6.25 per cent to a low of 3.75 per cent; and third-grade from an extraordinary 10 per cent to 6.25 per cent. It should be noted that the ten-shekel piece, which serves as an index to the classification of each item, is in reality the Persian karsha; analysis of the money submitted as taxes, then, is based on the Persian unit, although the sums are given in terms of Babylonian (Akkadian) metrology.

The only valid explanation for the arbitrary classification into one or another grade *before* refining is that it has been done on the basis of weight: the individual ten-shekel pieces have been weighed and, to the degree to which they approximate the standard maintained by the financial office, are classified as "white," intermediate or second-rate, and low or third-rate silver. If this is the correct interpretation this document assumes increased importance: it becomes just the evidence we have been seeking to prove that even this early Darius was unwilling to accept coinage that was not full weight or was impure, and that he was endeavoring to call it in and replace it by the official standard of the realm. That this practice, when applied to governmental taxes, may have worked a hardship on the citizen, was not his affair, just as

there is no obligation on the part of a government today to restore genuine money for counterfeit.

#### RELIGIOUS SIGNIFICANCE

One of the most perplexing and controversial problems remaining in the history of ancient oriental religions is that dealing with the religion of the Achaemenian kings: Was it or was it not Zoroastrian in character? Despite the wealth of sound scholarship that has gone into this question, there is at present no solution that is unqualifiedly acceptable to all, and it may be said at once that our tablets do not answer it fully.<sup>17</sup>

There is in these tablets, however, direct evidence bearing upon the religion of the Achaemenians. The first matter here dealt with concerns the use of haoma in the cult service. Haoma, Indic soma, was an ancient Aryan religious intoxicant or narcotic. Sanskrit literature makes it almost omnipresent and invokes it as a god, a great warrior conquering all enemies of man, a cure for every ill. In the more recent Avesta the cult of the haoma is attested, for example, by three sections embodied in the Mithra Yasht,<sup>18</sup> one of which presumably is at least in part of Zoroastrian origin. Elsewhere<sup>19</sup> we find that among its assumed gifts was the procurement of eternal life in the world of the blessed. One prayed to it for bodily health, long life on earth, strength, power, and earthly goods, and victory over enemies on the earth as well as over the Lie which attacks the soul. The haoma was also believed to be the source of fruitfulness of the womb and the cause of easy labor pains during

<sup>17</sup> The proposition—so far as it concerns the reigns of Darius and Xerxes—has been answered in our day affirmatively by (among others) Eduard Meyer, Geldner, Clemen, Moulton, Hertel, Herzfeld, and Olmstead; negatively by Prášek, Jackson, Christensen, Meillet, Benveniste, and Nyberg. The most recent and exhaustive treatment of the subject is that by H. S. Nyberg, *Die Religionen des alten Iran* (Leipzig, 1938), pp. 343–74, of which more below.

In passing it should be noted that there remains in the best translation of Darius' tomb inscription (DNb; see R. G. Kent, "Old Persian Texts. VI," *JNES*, IV [1945], 39 ff.) not a scrap of evidence that its author was actually quoting the Gathas of Zoroaster, as was claimed by its first translator, Ernst Herzfeld, in *ApI*, pp. 13 and 186 f., and in his *Archaeological History of Iran* (London, 1935), p. 43.

<sup>18</sup> Yasht X:88–90; *The Zend-Avesta*, Part II ("Sacred Books of the East," XXIII [F. Max Müller, ed.; Oxford, 1883]), 141 f.

<sup>19</sup> Yasna IX; cf. *The Zend-Avesta*, Part III ("Sacred Books of the East," XXXI [Oxford, 1887]), pp. 230 ff.

childbirth. Zoroaster himself is made to break out into expressions of overwhelming praise for it. The haoma was prepared by crushing in a mortar the stalk of a plant which is not yet certainly identified<sup>20</sup> but which, when fermented, produced a drink strongly alcoholic in character. There is clear evidence that it was a feature of the belief of Iranian communities devoted to the *b'aga*, "god" par excellence, Mithra, in pre-Zoroastrian times.<sup>21</sup>

In his Gathas or "hymns" Zoroaster himself, however, protests forcefully against the use of the haoma. He impugns the cult indirectly in Yasna XXXII:14,<sup>22</sup> where he speaks unkindly of the ox-killer and the "death-avertter"—the usual epithet applied to the haoma in the later Avesta. It is the haoma cult—or at least one aspect of it—which he condemns directly in Yasna XLVIII:10:<sup>23</sup> "When wilt thou smite the filth of this drink, with which . . . the evil-rulers of the lands deceive?" To him, and presumably to his loyal followers, the cult of the haoma would seem to be part and parcel of that form of religion which indulged in the slaughtering and consuming of cow's flesh, and hence anathema. On the same basis the civil and priestly leaders of that community, who carried out their feasts and drunken revelries in the darkness over which Mithra, the god of the night sky, was master, would appear indeed to be nothing but "demons," *daēva*'s.<sup>24</sup>

It so happens that one of our Persepolis documents directly attests the existence of the haoma cult at the site. No. 11, dated in the second year of Xerxes, is the record of a payment made to a man whose occupation is described as being *ra-ti-ū-u-iš hu-ut-ti-ra* for services rendered from September 19, 484, through February 13, 483 B.C. The second word of the group which describes the man's occupation, *hu-ut-ti-ra*, is easily explainable as being an Elamite formation involving the root *hutti-*, "(to) make, do," to which has been added the third person singular formative *-ra*; it may be translated "he made"

<sup>20</sup> For a recent suggestion that it was bhang or Indian hemp, see A. H. Godbey, "Incense and Poison Ordeals in the Ancient Orient," *AJSL*, XLVI (1930), 221.

<sup>21</sup> See Nyberg, *op. cit.*, pp. 83–85 and 188–91.

<sup>22</sup> M. W. Smith, *Studies in the Syntax of the Gathas* (Philadelphia, 1929), p. 86.

<sup>23</sup> *Ibid.*, p. 136.

<sup>24</sup> Cf. Nyberg, *loc. cit.*

or "maker" and its equivalent in Old Persian would be the common formative *-kara*. The first word of the group, however, is not Elamite. Indubitably it represents an Elamite effort to render a word which appears in Avestan as *raēθwiš* and for which one Pahlavi form is *raθwiš*. The full title of the man's occupation in Old Persian would, then, be something like *raθwiš-kara*; in Avestan, *raēθwiš-kara*. This title is no less than the technical name in the Avesta for one of the seven priests concerned with the Zoroastrian ritual, and specifically for that one whose obligation it was to mix and divide the haoma, as the name implies.<sup>25</sup>

In more recent times the *raēθwiš-kara* has absorbed the duties and obligations of all other functionaries save those of the chief priest (Av. *zaotar*); his title among the Parsis is *Raspi*,<sup>26</sup> and his tasks are still intimately connected with the preparation of the haoma juice. There is absolutely no reason to believe that, although the title which the priest bears in our text is identical with that of the Avestan ritual, his function was different in Achaemenid times. Thus there is clear and adequate proof for the existence of the haoma cult during the earliest years of Xerxes.

This fact, which we have deduced from our Persepolis Treasury tablet, is overwhelmingly corroborated by archeological evidence, which evidence, however, was hitherto of indecisive and even of questionable value. Among the artifacts discovered in the rooms of the Persepolis Treasury were large numbers of mortars and pestles, all made of the same kind of green stone, usually patterned with gray veins.<sup>27</sup> Before the existence of the haoma cult at the site had been determined, the significance of these objects could only be inferred; with the realization that the preparation of haoma juice was an integral part of the local ritual, the purpose of these mortars and pestles immediately becomes apparent:

<sup>25</sup> *BAiW*, cols. 1483 f. Clear evidence for the function of the *raēθwiš-kara* is available in the "Ritual Code" Nirangistan, § 76; cf. also §§ 79 and 82; see *The Zend Avesta*, Part I ("Sacred Books of the East," III [American ed.; trans. by James Darmesteter; New York, 1898]), pp. 352-55: "The Raēθ-wishkara shall mix the Haoma and the milk, and shall divide the mixture."

<sup>26</sup> Cf. Martin Haug, *Essays on the Sacred Language, Writings, and Religion of the Parsis* (2d ed.; Boston, 1878), p. 193.

<sup>27</sup> Schmidt, *op. cit.*, pp. 61 f.

they were the very objects used—even as similar ones are employed today—to mash out the juice from the stalk of the haoma plant, as is described, for example, in the Mithra Yasht: "(Mithra,) who first lifted up Haomas, in a mortar inlaid with stars and made of a heavenly substance."<sup>28</sup>

Ink inscriptions in Aramaic occur on the bottoms of the mortars and on the discoid heads of the pestles. One of the phrases which occurs frequently in these inscriptions is *bd hwn znh*, "he made this *hwn*"; Professor R. A. Bowman, to whom my copies of these texts were given for publication, recognized in *hwn* the Avestan word for "mortar," *havana*, as it is used in the haoma ritual.<sup>29</sup>

Thus the linguistic evidence of our Persepolis tablet that the haoma ritual was employed at Persepolis in at least the early years of Xerxes is strikingly confirmed by the linguistic evidence of Aramaic inscriptions on archeological objects which themselves now become tangible proof.

Another problem connected with the religion of the Achaemenids involves the attitude of some of the kings (particularly Darius) toward the Magi priests, who, according to Herodotus (i. 101), constituted a Median tribe. Streams of ink have been poured over these Magians, and yet it cannot be said that we are any closer to a real solution of the question concerning them.<sup>30</sup>

Two of the tablets from the Persepolis Fortifications have such significant bearing on this problem, however, that the discussion may well be reopened by examining them in detail. One<sup>31</sup> deals with the payment into the hand of an individual bearing the Old Persian name Artaxrathu,<sup>32</sup> of twelve jars of wine which, at the

<sup>28</sup> Yasht X:90 ("Sacred Books of the East," XXIII, 142); cf. also Yasna X:2 (*ibid.*, XXXI, 240).

<sup>29</sup> *BAiW*, col. 1786; cf. the description of the *havana* in Nirangistan, §§ 107-8; "Sacred Books of the East" (American ed.), III, 366 f.

<sup>30</sup> Cf. Nyberg, *op. cit.*, pp. 335 ff.

<sup>31</sup> The text is Fort. 3159, transliterated in full and partly translated by A. Poebel in "The Names and the Order of the Old Persian and Elamite Months during the Achaemenian Period," *AJSL*, LV (1938), 133 f.

<sup>32</sup> The Elamite signs in the name are to be transliterated *Ir-da-kur-rad-du-iš*, for the *mÁ* in Poebel's transliteration is No. 31 in the sign list in this volume.

For the OP word *xraθum* (in DNB:3) cf. Herzfeld, *ApI*, pp. 235 ff.; Kent, "The Nakš-i Rostam Inscriptions of Darius," *Language*, XV (1939), 169.



rate of one jar per month, has been received by a Magian (*Ma-ku-iš*) for the twelve months of the nineteenth year of Darius, 503/2 B.C. Following the title "Magian" occurs a phrase which in transliteration appears thus:

DINGIR<sup>7</sup>la-an li-ri-ra da-u-šá-um DINGIR<sup>7</sup>la-an.na<sup>33</sup>

The second tablet<sup>34</sup> is quite similar; it too records a total of twelve jars of wine which has been received by a Magian for twelve months of an unknown year. Following the word "Magian" again appears the phrase

DINGIR<sup>7</sup>la-an li-ri-ra 𐎠mar-sa-iš-kaš  
da-u-šá-um DINGIR<sup>7</sup>la-an.na

in which 𐎠mar-sa-iš-kaš is recognizable as a place name.<sup>35</sup>

The pertinent passage of the first text cited may be translated freely as follows:

Twelve jars (of) wine (which) . . . the Magian (in) the divine ceremony(?), the libation-giver in the divine ceremony(?), has received by the hand of Artaxrathu.

The corresponding section of the second text may be translated:

Twelve jars (of) wine (which) Kurka<sup>36</sup> the Magian (in) the divine ceremony(?), the libation-giver in the divine ceremony(?) in (the place) Marsashka, has received by the hand of Parnizza.<sup>37</sup>

For the word *da-u-šá-um* obviously represents an Elamite attempt to write an Old Persian word \**dauša*, the Avestan counterpart of which is just as obviously *zaoθra-*, "libation";<sup>38</sup> although it is not essential for our argument, *li-ri-ra da-u-šá-um* appears to combine the Old Persian word with the Elamite root *li-*, "(to) give," to form a compound similar to Avestan

<sup>33</sup> Poebel leaves this passage untranslated.

<sup>34</sup> Fort. 6663; cf. Poebel, *op. cit.*, p. 134, n. 13. The transliteration of this text is as follows (see chap. viii for discussion of the principles which underlie all transliterations in this volume): <sup>1</sup>1[2 mar-r]i-iš <sup>2</sup>GEŠTIN<sup>12</sup> kur-min 𐎠bar-<sup>3</sup>ni-iš-<sup>4</sup>ša<sup>1</sup>.na 𐎠kur-ka, <sup>5</sup>hi-še 𐎠ma-ku-iš <sup>6</sup>DINGIR<sup>7</sup>la-an li-ri-ra 𐎠mar-sa-iš-kaš <sup>7</sup>da-u-šá-um DINGIR<sup>7</sup>la-an.na du-<sup>8</sup>iš-da DINGIR<sup>7</sup>ITU<sup>12</sup> <sup>9</sup>DINGIR<sup>7</sup>ka-ir-ba-ši-<sup>11</sup>ia.ik-ki.mar <sup>12</sup>ku-iš DINGIR<sup>7</sup>ITU<sup>12</sup> <sup>13</sup>DINGIR<sup>7</sup>tur-na-ba-ši-<sup>14</sup>iš PAB <sup>12</sup>DINGIR<sup>7</sup>ITU<sup>12</sup>.na<sup>1</sup> be-<sup>16</sup>u[. . .].na.

<sup>35</sup> Cf. Nos. 5 and 81 of this volume.

<sup>36</sup> "The Carian"? Cf. the Carian goldsmiths in No. 37 below.

<sup>37</sup> The same name appears in text No. 4 below.

<sup>38</sup> *BAiW*, cols. 1654 f.; cf. also "priests who are in (the place) Kamarukka; let them make the libation(s) (*da-u-šá-um*) of the god who is of Kamaruka" in the text referred to in the Notes to No. 10a below.

*barat-zaoθrā-* or *barō-zaoθrā-*, "who brings libation."<sup>39</sup>

Here also, therefore, we find that by means of an Old Persian technical religious term in the Elamite texts from Persepolis the Magians are specifically connected with libation ceremonies at the court city in the nineteenth year of Darius. Although there is no proof that the Fortification texts are actually Treasury documents, and hence no evidence that the Magian libation priests were paid from Treasury funds, the fact remains that their existence at Persepolis in the middle years of Darius' reign is placed in the realm of absolute certainty.

In the two texts cited immediately above appears what seems to be an Elamite word translated "divine ceremony";<sup>40</sup> this translation is but a guess derived from context in these as in other Fortification documents, one of which also adds to our knowledge of the Old Persian cult, especially in respect to that centering around the divine fire. The extraordinary role played by Fire, *Ātar*, in Iranian (as in Indian) religion is well known and needs no elaboration here. It had its own custodian, *Ātar-vaxš*, "Fire-watcher," who is frequently alluded to in the Avestan literature. The text in question<sup>41</sup> reads:

Four (10-qa measures of) flour, by the hand of Upirda, (which) Iashudda, his name, in Uvādaicaya, a Fire-watcher, has received (as) grain of the divine ceremony. Year twenty-third, month of Varkazana.

<sup>39</sup> *BAiW*, cols. 943-45; see also *zaoθrā-bara-*, *ibid.*, col. 1655. To Dr. Richard T. Hallock I owe recognition of the fact that the first sign of this assumed compound is *li*, not *ba* (as it had been read by both Professor Poebel and myself).

<sup>40</sup> The word is DINGIR<sup>7</sup>la-an. In Fort. 8960, an accounting of grain in the storehouse, the first entry shows the disposition of six measures to "Sunki-baba (for) 2 priests of the divine ceremony" (𐎠sunki-ba-ba 𐎠šá-tin 2 DINGIR<sup>7</sup>la-an.n[a . . .]). In Fort. 11473, a similar document, ll. 3-4 read: <sup>2</sup>12 ka, gal-li DINGIR<sup>7</sup>la-an.na li-ka, 12 DINGIR<sup>7</sup>ITU<sup>12</sup> <sup>3</sup>ha-tu.ma DINGIR<sup>7</sup>ITU<sup>12</sup> <sup>4</sup>1-na 1 ka, du-iš-da, "12 qa: wages of (the man?) of the divine ceremony which have been given 'within 12 months. Each month he received 1 qa.'" With the *la-an* of DBa, or the *la-an(-si-ti-in-ni)* of "classical" Elamite texts (cf. F. W. König, "Drei altelamische Stelen," *MVAeG*, XXX, 1 [1925], p. 41, n. 116), this word would seem to have nothing in common save form.

<sup>41</sup> Fort. 3126; the transliteration follows: <sup>1</sup>4 zfd.DA<sup>12</sup> kur-min 𐎠<sup>2</sup>ú-pir-da.na 𐎠ia-<sup>3</sup>úš-ud-da hi-še 𐎠ma-<sup>4</sup>te-iš<sup>1</sup>-ši-iš DINGIR<sup>7</sup>ha-tur-ma<sup>1</sup>-ak-šá du-iš-<sup>6</sup>da pir-ši-ia-um <sup>7</sup>DINGIR<sup>7</sup>la-an.na 𐎠be-<sup>8</sup>ul 23-um-me.na <sup>9</sup>DINGIR<sup>7</sup>ITU<sup>12</sup> DINGIR<sup>7</sup>mar-<sup>10</sup>ka-ša-na-iš.na. The name *Ú-pir-da* (l. 2) may be OP \**U-frāta*, Greek *Εὐφράτας* (A. H. M. Stonecipher, *GPN*, p. 38). The name *Ia-úš-ud-da* (ll. 2-3) is doubtless related to Av. *Yazata-* (*BAiW*,

The exact use to which the flour was put is not vouchsafed to us, although we may assume that it was needed for the preparation of ceremonial wafer-bread which to this day is employed in the Yasna ceremony.<sup>42</sup> Our text does give us the proper technical Old Persian word for "Fire-watcher," *Ātar-vaxš*, as it is rendered by the Elamite scribe; also, apparently, it provides us with the Old Persian word for "grain" employed particularly in the ritual.

The determination of the relationship between the religion of the Achaemenid kings and Zoroastrianism is not altogether clarified by these discoveries; rather, they make that problem one still more difficult to solve. It will be recalled that although Herodotus (i. 132) specifically declares that the Persians used no libations in their sacrifices, he nevertheless records (vii. 43, 54) that Xerxes, on arriving at the Hellespont in 480 B.C., sacrificed a thousand cows to the "heroes" in a night ceremony, and that after Xerxes had reviewed his troops he again poured a libation to the sea and prayed to the rising sun. Further, the theophoric name Haomadata occurs as the name of a Persian in the Aramaic papyri of Elephantine at the date 460 B.C.,<sup>43</sup> and Ctesias preserves the notice that the Persian king used to get drunk on the one day of the year when he sacrificed to Mithra.<sup>44</sup>

Since Zoroaster himself, as noted above, inveighed against the cult of the haoma, proof of

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cols. 1279 f.). *Ma-te-iš-šī-iš* (ll. 3-4) appears in DB, § 43, as the name of a city in the province Parsa; the OP form of the name is *Uvādaicaya*.

I was at first inclined to see in *pīr-šī-ia-um* the OP equivalent (as seen through the Elamite) of Av. *x<sup>r</sup>arəθa-*, "nourishment, food," particularly food prepared from flour (*BAiW*, cols. 1868 f.). The treatment of the initial syllable would then be similar to that accorded Av. *x<sup>r</sup>arənah-*, which becomes *far-nah* in OP, doubtless through Median (i.e., Magian) influence. For the latter there is abundant evidence, even in modern Persian (cf. Meillet-Benveniste, *Grammaire du vieux-perse* [2d ed.; Paris, 1931], § 11); for the correspondence Av. *x<sup>r</sup>arəθa-* = OP *\*farθa* (which would be the form intended by our El. *pīr-šī-ia-*), however, there seems to be none. In view of this, Professor G. E. von Grunebaum suggests that the Elamite word is an attempt to reproduce the OP form of Av. *parša-*, "grain" (*BAiW*, col. 877), although the latter is itself not well documented.

<sup>42</sup> Haug, *op. cit.*, p. 396.

<sup>43</sup> A. E. Cowley, *Aramaic Papyri of the Fifth Century B.C.* (Oxford, 1923), Nos. 8:2 and 9:2.

<sup>44</sup> Ctesias Fr. 55 (Gilmore).

its existence at the capital city of the Achaemenids would seem to constitute some proof that they were not Zoroastrians. Such an argument is not altogether valid, however. Despite Zoroaster's protestations, it is a fact that the haoma cult continued to play a larger and larger part in the ritual of professed Zoroastrians. We have already quoted and referred to some evidences of the emphasis laid upon it in the later Avesta, and Nyberg has rather successfully denied an interpretation of these passages which would see in them merely an indication of a syncretistic tendency within the community after Zoroaster's death.<sup>45</sup> Rather we must at least grant the possibility that to the eminently practical Zoroaster the haoma ritual had two aspects: one was drunkenness and intoxication, which was to be condemned; the other, with which he had much in common, was ecstasy and the trance, the wandering of the soul in the spiritual world and its return with the secrets of heaven. As the founder of a religion Zoroaster could use the latter aspect to good purpose. Thus it is quite possible that he himself ultimately accepted the haoma ritual into his practices and fitted it with his religious views in such a way that its mysteries could be joined to the milk mysteries of the Gathic community to form an organic unity.

Few today would argue that the religion of the Achaemenid kings, even if it can be only sketchily drawn from the royal inscriptions or from other sources, is completely Zoroastrian in character. Few, however, could deny that Zoroastrian influences are apparent in it. Perhaps we may tentatively outline the picture somewhat as follows.<sup>46</sup>

Among the Medes, the Magi constituted a tribe or priestly caste side by side with oracle priests and perhaps others who can be said to have belonged to the ecstatic circle. About the time the Achaemenid kingdom was organized, Zoroastrianism found entrance among the Magi, who became the priests of the Achaemenids, with whom they possessed in common the same burial customs. Perhaps they were mistrusted during the early years of Darius, but their in-

<sup>45</sup> *Op. cit.*, pp. 286-91.

<sup>46</sup> With the basic outlines of this picture cf. Nyberg, *op. cit.*, pp. 333-74.

fluence increased sharply as his reign progressed and they came to the summit of their power when Xerxes ascended the throne. At that time, as the great syncretists of the Achaemenid kingdom, the Magi may have created under Zoroastrian influence a new religious calendar, the oldest datable record of Zoroastrianism in western Iran.<sup>47</sup> Xerxes was probably the particular patron of the Magi, an inference which would account for their presence at the Hellespont and elsewhere; at any rate the essentially non-Zoroastrian character of the real religion of the Achaemenids seems to be brought into sharper focus by their prominence and activities during his reign.

In short, the religion of the early Achaemenids would seem to have been basically untouched by Zoroaster's work and the particular beliefs of his community; the real foundation of that religion would appear to have been the old Aryan religion, reshaped to its own ends because it was a political religion proceeding from an old aristocratic and war religion, created by and for great kings. As a religion it had its mantic, its oracle, and its magic; it was robust and primitive, not profound and spiritually refined, but it was nevertheless real.

Thus the court religion of the Achaemenid kings would seem to have been a fourth Iranian religion existing at the side of Magism, Mithraism, and Zoroastrianism, independent of all yet sharer in all. And in the worship carried out at the court, the cult of the haoma, originally a feature of the Mithra community, together with the libation-pourers of the Magian priesthood and the sacred fire, played a full and prominent part.

#### HISTORICAL AND ARCHEOLOGICAL SIGNIFICANCE

Contrary to expectations, the documents from the Treasury of the royal city Persepolis here published are not of a political nature. There are no treaties, chronicles, annals, letters to or from satraps, or edicts to distant outposts of the

<sup>47</sup> Note that we have deliberately called it a *religious* calendar; the civil calendar of Darius (as we find it, for example, in DB) continues in our civil (economic) texts without visible sign of interruption throughout the entire reign of Xerxes into that of Artaxerxes I, and perhaps beyond; see below, chaps. iii and v.

realm.<sup>48</sup> Instead, they are specifically "Treasury" documents.

We hear of treasurers at the site: Shakka in the thirty-second year of Darius; Baradkama from Darius' thirty-second into the sixth year of Xerxes; Barishsha in the seventh; Vahush, perhaps from the tenth year, certainly from the twelfth, late into the nineteenth; and Ratininda in the twentieth year.<sup>49</sup> Usually the title "treasurer" is deemed adequate;<sup>50</sup> at other times the scribe gives the full title, "treasurer of Parsa."<sup>51</sup> After the fourth year of Xerxes the title is omitted only twice, but then the scribe carefully adds after the name "in the fortress";<sup>52</sup> apparently after that time it was unwise, if not actually unsafe, to fail to address the treasurer properly in writing.

We learn of silver from the Treasury,<sup>53</sup> from the Treasury of the king,<sup>54</sup> or from the Treasury of Parsa.<sup>55</sup> Sometimes we learn about workmen of the Parsa Treasury,<sup>56</sup> and sometimes the scribe leaves us in no doubt whatsoever: workmen of the Parsa Treasury receive silver from the Treasury of Parsa.<sup>57</sup>

<sup>48</sup> This statement holds also for the cuneiform documents found in the Persepolis Fortification walls. Although I have examined several thousand tablets and fragments discovered there by Herzfeld, I have found not a single inscription of exclusively political or religious content. On the other hand, they are not "business documents" in the usual sense of that term—that is, there are no contracts between individuals, no "court records" or lawsuits, or the like. The vast majority of the Fortification tablet inscriptions are orders for or memorandums regarding the payment at Persepolis of various classes of skilled and unskilled workmen; a limited number deal with quantities of grain and other materials deposited in storehouses at or near the site.

<sup>49</sup> For these officials see chap. iii below.

<sup>50</sup> Nos. 10a-b, 14-15, 21-22, 25, 27-29, 31, 33, 37-38, 41-42, 46-48a, 53-55, 58-59a, 63a, 68-68a, 75.

<sup>51</sup> Nos. 42a, 49-49a3, 52, 56-57, 59a2, 63.

Throughout the Treasury and Fortification texts the name of Persepolis is written *Ba-ir-šá*, on two tablets *Ba-ir-iš-šá*. Preceded by the horizontal wedge this writing may express the "locative" idea, "at Persepolis," although this more regularly appears to be written by means of the postposition *(i)š*. The genitive (following the words for "Treasury," "treasurer," and even the "ideogram" for "silver") is more frequently written *Ba-ir-šá.na*, although it may also appear as *Ba-ir-šá.an*. These writings are merely the Elamite method of reproducing what appears in OP as *Pārsa* (see below, p. 12). Henceforth, therefore, the name of the site will usually be written Parsa.

<sup>52</sup> Nos. 36 and 44. <sup>53</sup> Nos. 30, 32, 64-65. <sup>54</sup> No. 27.

<sup>55</sup> Nos. 34-35 and 39-40. <sup>56</sup> Nos. 28-29.

<sup>57</sup> Nos. 39, 45, 66; cf. also Nos. 65 and 67. In Nos. 40 and 64, workmen of the Treasury in "Kamaini" (Goyum?) receive silver from the Parsa Treasury.

The tasks which these specifically "Treasury workmen" perform are usually not specified,<sup>58</sup> though twice (in near-duplicate documents) they are called "artisans."<sup>59</sup> We may suspect that in some cases they were actually bookkeepers; particularly would this seem to be true of a dozen-odd workmen who are "rendering accounts in the Treasury" or "in the treasure storeroom of Parsa."<sup>60</sup> But such a task is by no means appropriate in all instances.<sup>61</sup>

We never hear of more than one treasurer at a time,<sup>62</sup> although a Fortification tablet may refer to a "chief treasurer,"<sup>63</sup> and we know from the Aramaic inscriptions on mortars and pestles that at the side of the treasurer there was a vice-treasurer whose title in Old Persian was \**uraga-zabara*.<sup>64</sup>

Of vital importance for our understanding of the texts here published is the answer to the questions: What was this "Treasury of the king" or "of Parsa" from which monies were distributed to various kinds of workmen? Was it the repository of royal income derived from the entire realm, similar to that at Susa of which Herodotus (v. 49) says: "Susa, where the great king holds his court and where the treasuries are in which his wealth is stored"? Was it the disbursing center of the empire, or even of its eastern satrapies, including Media, Parthia, Aria, Bactria, Sogdiana, Arachosia, Drangiana, Gandara, and India, as well as Persia proper?

Although we know very little about what went on in such treasuries, we do know from later sources what the Persians were supposed to have put in them. Strabo, for example, says:<sup>65</sup> "Although they adorned the palace at Susa more than any other, they esteemed no less

highly the palaces at Persepolis and Pasargadae; at any rate, the treasure (*γάζα*) and the riches (*θησαυροί*) and the tombs of the Persians were there, since they were on sites that were at the same time hereditary and more strongly fortified by nature." At the time of Alexander, adds Strabo,<sup>66</sup> "Persepolis, next to Susa, was the most beautifully constructed city, and the largest, having a palace that was remarkable particularly in respect to the high value of the things laid up in it (*τῆ πολυτελείᾳ τῶν κειμένων*)." Later he adds<sup>67</sup> that "Alexander carried off with him all the wealth (*χρήματα*) in Persis to Susa, which was also full of treasures and equipment (*θησαυρῶν καὶ κατασκευῆς*). . . . They say that, apart from the treasures in Babylon and in the camp . . . the value of those in Susis and Persis alone was reckoned at forty thousand talents." The Treasury at Susa he particularly notices:<sup>68</sup> "Polycritus (Polycleitus?) says that each one of the kings built for himself on the [Susa] acropolis a separate habitation, treasure houses (*θησαυροὺς*), and storage places for what tributes they each exacted; . . . that most of the gold and silver is used in articles of equipment, but not much in money; and that they consider those metals as better adapted for presents and for depositing in storehouses; and that so much coined money as suffices their needs is enough."

Arrian<sup>69</sup> declares that the wealth (*χρήματα*) at Susa taken by Alexander amounted to about fifty thousand talents of silver, and then adds:<sup>70</sup> "He arrived [at Persepolis] before the garrison had plundered its wealth (*τὰ χρήματα*). He captured also the wealth which had been at Pasargadae in the treasuries (*θησαυροῖς*) of Cyrus the First." Somewhat later,<sup>71</sup> he describes also the wealth and treasures of Ecbatana.

Plutarch relates that Alexander came into possession in the palace at Susa of forty thousand talents "of coined money" (*νομίσματος*), and of other untold furniture and wealth. He adds that "they say that . . . as much coined money was found [at Persepolis] as at Susa, and that it took ten thousand pairs of mules and five thou-

<sup>58</sup> Nos. 39-40, 45, 64-66.

<sup>59</sup> Nos. 28 and 29.

<sup>60</sup> Nos. 16 and 19 (near-duplicates), 21, 56; see also No. 57.

<sup>61</sup> In Nos. 39 and 66, for example, upwards of a thousand men, women, boys, and girls are all said to be "Treasury workmen."

<sup>62</sup> In No. 30, "silver from the treasurers (or treasuries?) of Parsa" would seem to be merely a scribal error.

<sup>63</sup> Fort. 10192:25 f. reads: \**mi-rák-ka-ma hi-še \*ka-ap-nu-iš-ki GAL \*kar-ki-iš šá-ra-ra*; cf. also *Mém.*, IX, No. 161:5 ff.

<sup>64</sup> I owe to Dr. W. Eilers, at that time in Isfahan, recognition of the fact that the Aramaic 𐤎𐤏𐤍𐤏𐤍 is OP \**uraga-zabara*.

<sup>65</sup> *Geography* xv. 3.3 (Loeb).

<sup>66</sup> *Ibid.* xv. 3.6.

<sup>67</sup> *Ibid.* xv. 3.9.

<sup>68</sup> *Ibid.* xv. 3.21.

<sup>69</sup> *Anabasis* iii. 16.7 (Loeb).

<sup>70</sup> *Ibid.* iii. 18.10.

<sup>71</sup> *Ibid.* iii. 19.5-8.

sand camels to carry away the other furniture and wealth."<sup>72</sup>

Diodorus Siculus insists that the sum found in the Susa treasuries consisted of over forty thousand talents of uncoined silver (which the kings had preserved for a long time so that they might have it available for some sudden and unexpected turn of fortune) together with gold darics amounting to the value of nine thousand talents.<sup>73</sup> Of Persepolis, he says that it was the wealthiest city under the sun, where for many ages every private house was full of all sorts of riches. "In this place was dispersed here and there much silver and no less gold and great numbers of rich garments. . . . Then Alexander went into the citadel and seized upon its treasures (*θησαυρούς*); these were full of silver and gold of the revenues which had been collected and laid up from the time of Cyrus, the first ruler of the Persians, to that day, and there was found there a hundred and twenty thousand talents, reckoning the gold after the rate of silver. Part of this treasure he took for the use of the war, and ordered another part of it to be stored up at Susa. To this purpose he ordered that plenty of mules . . . should be brought out of Babylonia, Mesopotamia, and Susa."<sup>74</sup>

Quintus Curtius<sup>75</sup> thinks that the booty of Susa (heaped up by many Persian kings so that their children and successors could enjoy it) was to be valued at fifty thousand talents, though he insists that none of it was "coined" money. Of Persepolis he relates:<sup>76</sup> "In this place the barbarians had assembled the wealth of all Persis: gold and silver was heaped up together with a vast amount of clothing, and furniture, not for use but for display. . . . The amount of wealth taken is said to have been so colossal that it surpasses credulity, and we must either doubt the testimony of others or else believe that in the treasury (*gaza*) of this city there were one hundred and twenty thousand talents. . . . To be added to this sum of wealth are six thousand talents after the capture of Persagada (*sic*)."<sup>77</sup>

The archeological discoveries at Persepolis

have given us no reason to believe that the preceding descriptions of the wealth of the city were unduly exaggerated. Our tablets bear witness to the presence at the site of skilled workmen from many parts of the realm, workmen who may have helped to amass this wealth and who certainly assisted in the construction of buildings in which it could be stored. We hear of an Egyptian woodworker as centurion;<sup>78</sup> of Egyptian woodworkers and stone-relief and inscription makers who came from Egypt to Parsa;<sup>79</sup> of Syrian, Egyptian, and Ionian wage earners;<sup>80</sup> of Syrian "up-carriers";<sup>81</sup> of Carian goldsmiths;<sup>82</sup> and of a foreman ornament maker who came from Susa to Parsa.<sup>83</sup> Thus far, we are reminded of the many foreign workmen employed by Darius for the erection of his palace at Susa,<sup>84</sup> for which Babylonians molded the bricks, Assyrians brought cedar timber to Babylon, and Carians and Ionians conveyed it to Susa, Ionians and Sardians wrought the stone, Medes and Egyptians wrought the gold and adorned the walls, and Sardians and Egyptians applied the inlays.<sup>85</sup> We are reminded also that, according to Diodorus,<sup>86</sup> artisans were taken by Cambyses from Egypt to Asia, where they constructed the palaces at Persepolis and Susa in part from silver, gold, and costly works of ivory and rare stone which also were transported there. Finally, as Schmidt will show in detail in his definitive publication of the materials at Persepolis, there is even evidence available to demonstrate that at least some of the plundering activities related above are fact, not fancy.

Careful scrutiny of our documents, however, reveals that the "Treasury" which confronts us in them is scarcely the Treasury either of the empire as a whole or of its eastern satrapies. Whatever may have been the significance of Persepolis to the Persians themselves, and however vast the amount of empire treasure once stored at this site, the "Treasury" which appears in our tablets seems in reality to have been that of Persia proper, the Old Persian "land"

<sup>72</sup> *Alexander* 36-37 (Loeb).

<sup>73</sup> Diodorus Siculus xvii. 66.

<sup>74</sup> *Ibid.* xvii. 70.

<sup>75</sup> *Expeditions of Alexander* v. 2.11.

<sup>76</sup> *Ibid.* v. 6.3 ff.

<sup>77</sup> Cf. also Ezra 6:1.

<sup>78</sup> No. 1.

<sup>79</sup> No. 9.

<sup>80</sup> No. 15.

<sup>81</sup> No. 12 (cf. Nos. 15 and 22).

<sup>82</sup> See *is-ma-lu* in the Notes to No. 27.

<sup>83</sup> Diodorus Siculus i. 46.4.

<sup>84</sup> No. 37.

<sup>85</sup> No. 78.

<sup>86</sup> DSf.

Parsa, the homeland of the Achaemenids, and of nothing else.

We knew already that this Parsa was above and beyond the satrapal organization, for it is omitted from the lists of satrapies.<sup>87</sup> Furthermore, even though the Persian kings frequently resided far from home, they never forgot where the roots of their strength lay: "The lance of the Persian man has gone forth afar, . . . the Persian man has smitten down the foe far from Parsa," says Darius in the inscription engraved above his tomb (DNa, § 4). Even the Greeks were aware of the unique position held by "Persis" within the framework of the empire; Herodotus says explicitly (iii. 97): "Persis alone has not been reckoned among the tributaries, and for this reason, because the country of the Persians is altogether exempt from tax."

The evidence for our conclusion regarding the nature of the "Treasury" in these documents is not abundant, but it is rather convincing. First of all we note that there are no records of taxes secured from the many satrapies, no attestations of "gifts" which could be construed as taxes, no accounts of the disbursement of funds to generals, officers, or commanders in the field, and no "balance sheets" in which expenses are weighed against income.

Next, we discover that our documents, which deal with "silver of the Parsa Treasury" or "of the king" at the disposal of the "treasurer of Parsa," are records of expenditures made primarily at Persepolis itself. The majority of them are memorandums concerning or orders directing payment for work performed at the capital city Parsa, which bore the same name as the "land" Parsa.<sup>88</sup> We have innumerable references (see Table 1, pp. 14 f.) to "artisans at Parsa," to wood- and stoneworkers making reliefs, inscriptions, and gateways or iron doors, to orna-

<sup>87</sup> Only in DB, § 6, does Parsa appear to be placed on the same footing as the rest of the countries named, and properly speaking this is not a listing of the satrapies at all but of the "lands" which "came" to Darius; as such, of course, Parsa is appropriately the first to be named. Elsewhere in the satrapal lists (cf. conveniently Kent in "Old Persian Texts. IV," *JNES*, II [1943], 302 ff.) Parsa is mentioned only in phrases which precede the lists of satrapies.

<sup>88</sup> On the inner wall of the great "Gateway of All Lands" leading to the Terrace, Xerxes says (XPa, § 3): "Much else which was beautiful was done in this Parsa which I did and which my father did."

menters and workers on inlays, to beer tenders, tax handlers, and accountants. In a few instances, as we shall see, we may even identify a particular building, as it has been laid bare by Herzfeld and Schmidt, on which our workmen were laboring or in which they were employed.

To be sure, funds from even the chief Treasury of the empire could well be used for purposes of this sort. Certainly there can have been no sharp line of demarcation in the royal mind between monies spent for purposes of maintaining the empire and funds required for the erection of palaces and audience halls. Nevertheless there are a few significant indications that the expenditures here detailed are made from funds available only to the treasurer of the "land" Parsa. For example, monies are requested from the treasurer of Parsa for the payment of armorers for whom Otanes is responsible in Nīrīz province, more than a hundred miles southeast of Persepolis and the site of iron mines down into Arab times;<sup>89</sup> for the payment of workmen in (probably) Khafr and (surely?) Fasā, south of Lake Nīrīz;<sup>90</sup> for the remuneration of workers for whom a centurion in Shiraz is responsible;<sup>91</sup> for the payment of individuals at a site which appears to be modern Goyum northeast of Shiraz;<sup>92</sup> and for the payment of "tax handlers" in Harkadushi, which may be identical with the "mountain" Arakadrish, from which Gaumata once revolted from Cambyses.<sup>93</sup> Whether or not all the places named have been identified correctly,<sup>94</sup> none appears to be located outside of the actual province Parsa.

Although the matters they describe are restricted to the Parsa province, our inscriptions reveal to an extent never before possible the close attention paid by the sovereign to minutiae, and hence are invaluable for an understanding of ancient administration. For example, the comparatively small sum given by

<sup>89</sup> No. 52; see also No. 36.

<sup>90</sup> No. 53.

<sup>91</sup> Nos. 42-42a and 60.

<sup>92</sup> Nos. 40 and 64.

<sup>93</sup> No. 41; cf. DB, § 11. In No. 83, the place name *Ma-še-ši-iš* (elsewhere written *Ma-te-iš-ši-iš*; see above, n. 41) is OP *Uvādaicaya*, a city "in Parsa" according to DB, § 43.

<sup>94</sup> For other place names not positively or even probably identified, compare Kindarizza (No. 48; see also p. 62); Makalak (No. 61); Marsashka(sh) (Nos. 5 and 81); Parmizza (No. 5); Raudamati (No. 72); Hiamasika (No. 10a).

the king to "wage earners" for whom the "admiral" of the fleet Megabates was responsible, in No. 8, contrasts markedly with the not inconsiderable amounts personally awarded by Darius in Nos. 4-7. Two Fortification tablets are likewise pertinent in this connection: one<sup>95</sup> quotes the very words used by Darius in ordering that a hundred sheep be given to his daughter Artystone; the other<sup>96</sup> records the gift of six jugs of wine to *Hu-iš-ba-nu-iš* and his "helpers"<sup>97</sup> by royal command.<sup>98</sup> All this is in line with information we may derive from other sources. Thus the complaints of the Apollo priests against Gadatas, the keeper of the royal paradise near Magnesia, were directed to the king and were judged by him.<sup>99</sup> Thus, too, the governor of the province "Across the River," Tattenai, in his controversy with the Jewish rebuilders of the temple walls at Jerusalem, appealed directly to Darius I,<sup>100</sup> and Darius II curtly intervened in the religious affairs of an obscure settlement of Jews in Egypt.<sup>101</sup>

No less important is the light which our tablets throw on the erection of royal edifices at Persepolis, a problem in which both historians and archeologists are interested. Since only ten of the tablets are certainly or even probably assignable to Darius, there is little evidence to show what buildings were in course of construction or how intense were the building activities during the latter part of his reign, although in at least two of the tablets dated provisionally to him a "columned hall"<sup>102</sup> seems to be in process of erection, and it is safe to say that a building which could function as the Treasury existed by his thirtieth year.<sup>103</sup> For Xerxes, however, we

have more abundant material, and here the conclusions we may draw have greater validity.

At first sight, nevertheless, it may appear remarkable that so few of the tablets found are dated in the years 5-14 inclusive of Xerxes' reign, when the monarch was preparing for, undergoing, and recovering from the war with Greece on the western outposts of the realm. It is scarcely possible that this is merely the accident of recovery: that other undiscovered tablets, or ones which have since been totally destroyed, chronicled phases of building activity which were no less important than those which are still extant and legible; but the protest against an argument from silence is still valid.

It may, however, be of dubious value. For we note that, even in those tablets which do come from these years so momentous in the history of western Asia and of Greece, the numbers of workmen involved are comparatively few. As may be observed in Table 1, between the first half of the fourth year (when 239 workmen were employed) and the ninth and tenth months of the fifteenth year (when the total of 238 laborers is enumerated by each of two texts), there is no dated tablet which shows more than a fraction of such a large number of workmen. This is scarcely without significance. One explanation could be that the funds available for the construction of buildings had been depleted by the wars of the period—an explanation which must be discounted in view of the fact that the Persian Empire did not, as the Greeks hoped it would, disintegrate as rapidly as it had been formed. Another explanation could be that the interest of Xerxes in Persepolis had waned—that he had in these years transferred elsewhere, perhaps to Susa, his main building activity. We do know that, after the disaster at Salamis, Xerxes remained for more than a year at Sardis, and that when he left that city he made for Susa, his reputed residence for at least three months of the year.<sup>104</sup> Nevertheless, since we do not know exactly when the palaces and other

<sup>95</sup> Published in *JNES*, I (1942), 214 ff.

<sup>96</sup> Fort. 3562.

<sup>97</sup> *Ak-ka-ia-še*; see Notes to No. 3.

<sup>98</sup> *Sunki.ik.mar še-ra-ka*.

<sup>99</sup> W. Dittenberger, *Sylloge Inscriptionum Graecarum* (3d ed.; Lipsiae, 1915-24), No. 22; cf. A. T. Olmstead, *History of Palestine and Syria* (New York, 1931), pp. 571 f.

<sup>100</sup> Ezra, chaps. 5 f.; Olmstead, *op. cit.*, pp. 569 f.; "Tattenai, Governor of 'Across the River,'" *JNES*, III (1944), 46; see also Eduard Meyer, *Geschichte des Altertums*, IV (3d ed.; Stuttgart, 1939), 42 f.

<sup>101</sup> Elephantine Papyrus No. 21; cf. Cowley, *op. cit.*, pp. xxiv f. and 60 ff.

<sup>102</sup> This translation for *hi-ia-an (i-ia-an)* is only tentative, however; see the Notes to No. 3a.

<sup>103</sup> See Notes to text No. 1a.

<sup>104</sup> Herodotus ix. 107 f.; contrast Aeschylus *Persae* 16 and 119. Xenophon (*Cyropaedia* viii. 6.22 [Loeb]; cf. Arrian *op. cit.* iii. 13.7) was the first to relate that the Persian kings divided the year between Babylon, Susa, and Ecbatana, but the statement (with variations) was repeated from him by many later writers; cf. G. Rawlinson, *The History of Herodotus*, III (New York, 1863), 203 n.

## PERSEPOLIS TREASURY TABLETS

TABLE 1  
 WORK PERIOD, NUMBER, AND OCCUPATION OF WORKMEN  
 DEALT WITH IN THE TABLETS

Year	Calendar Month(s) of Work Period	No. of Workmen Involved	Occupation	Tablet No.
Darius				
32	8-12	1	Woodworker (Egyptian) at Parsa	1
	7-12	?	?	2
?	?	?	Artisans at Parsa	3
?	?	160+	Artisans on the columned hall at Parsa	3a
?	?	13	?	4
?	?	113	Cattle herdsmen	5
?	?	?	?	6
?	?	?	"Workmen earning wages"	7
?	?	?	"Workmen earning wages"	8
?	4	55	Stoneworkers, making inscriptions on the columned hall, who came from Egypt to Parsa	9
?	?	?	?	9a
?	?	?	?	9b
Xerxes				
2	6a-b	?	?	10
?	?	?	"Men of the god" (?)	10a
?	?	?	?	10b
2	6b-12	1	Haoma priest	11
	7-12	313	Syrian "up-carriers" on the columned hall at Parsa	12
2	7-12	?	?	12b
3	1	?	?	12a
	3-6	37	"Up-carriers" on the columned hall at Parsa	13
	7	470	"Cultivators"	14
	7-12	201	Syrian, Egyptian, and Ionian "up-carriers" on the columned hall at Parsa	15
4	2-3	13	Accountants in the Treasury at Parsa	16
	3-4	34	Woodworkers, making reliefs at Parsa	17
	3-6	239	Doormakers (iron doors), "up-carriers" on the columned hall at Parsa	18
	7-8	13	Accountants at Parsa in the treasure storeroom	19
	7-10	34	Woodworkers, making reliefs at Parsa	20
	9-12	10	Accountants in the storeroom	21
6	4-6	4	Syrian workmen(?) on the columned hall	22
	1-12	2	Workmen on iron doors at Parsa	23
7	1-2	28	Stone- and woodworkers, making reliefs at Parsa	24
	4-10	11	Woodworkers, making reliefs	25
10	7-9	18	Workers making reliefs of stone and wood at Parsa	26
12	11-12b	20	Gold inlay workmen, making reliefs	27
15	9	238	Treasury workmen, artisans	28
	10	238	Treasury workmen, artisans	29
16	3-4	6	Artisans, ornament makers at Parsa	30
	5-6	6	"Cultivators"	31
	?	?	?	31a
	9-11	23	Woodworkers at Parsa	32
18	12	7	Artisans	33
19	8	7	Artisans at Parsa	34
	9	7	Artisans at Parsa	35
	9	55	Wine makers in Ankurraka	36
	9	72	Carian goldworkers	37
	10	5	Beer tenders	38
	10	?	?	38a
	10-11	?	?	38a
	10	1,348	Treasury workmen at Parsa	39



## HISTORICAL AND ARCHEOLOGICAL SIGNIFICANCE

TABLE 1—Continued

Year	Calendar Month(s) of Work Period	No. of Workmen Involved	Occupation	Tablet No.
Xerxes— Continued				
	19	10-11	Treasury workmen at "Kamaini" (Goyum?)	40
		11	Tax handlers at Harkadushi	41
		11	"Workmen" (in Shiraz)	42
?	?	?	"Workmen" (in Shiraz)	42a
19	8-12	?	?	42b
		10-11	?	49b(1)
		10-12	Artisans at Parsa	43
		11-12	Foremen of woodworkers at Parsa	44
		?	?	44a
		11-12	Treasury workmen at Parsa	45
		12	Beer tenders at Parsa	46
		12	Boys, ass drivers	47
		12	Boys, accounted to(?) Partetash	48
		12	?	49b(2)
?	?	?	Accountants in the columned hall	48a
20	1	29	"Copperers" (?)	49
		1	?	49a
		1	Shepherders	50
		1-2	Artisans at Parsa	51
		2	Armorers at Hankurraka	52
		2	Workmen at Khafr(?) and Fasā	53
		2	"Copperers" (?) at Parsa	54
		2	"Copperers" (?)	55
		2	Accountants in the treasure storehouse at Parsa	56
		2	Accountant	57
		2	Boys, ass drivers at Parsa	58
		2	Boys, ass drivers(?)	59
		2	?	59a
		2(?)	"Workmen" (in Shiraz)	60
		2	Shepherders at Makalak	61
		1-3	Ornament makers at Parsa	62
		3	Boys, shepherds(?)	63
		?	?	63a
		3	Treasury workmen at "Kamaini" (Goyum?)	64
		3	Treasury workmen	65
		3	Treasury workmen at Parsa	66
		3	Treasury workmen at Parsa	67
		4	?	68
?	?	?	?	68a
20	4	924	Artisans at Parsa	69
		4	Artisans	70
		3-5	Artisans at Parsa	71
		4-6	Boys, shepherds(?)	72
		4-7	Stone-sculpture makers at Parsa	73
		5-7	Woodworkers, makers of iron doors at Parsa	74
		10-12	Woodworkers	75
?	1-3	226+	Artisans . . . . at Parsa	80
Artaxerxes I				
1	3	52	Workmen . . . . at Parsa	76
		1-4	Boys, stationed(?) at the columned hall at Parsa	77
3	7-12	1	Ornament maker who came from Susa to Parsa	78
5	7-12	1,149	Artisans at Parsa working on the gateway(?) to the columned hall	79

buildings were erected at Susa, this possibility can be neither proved nor disproved.

It is much more likely, however, that the real explanation for the few tablets from the fifth to the fourteenth years, and for the comparatively small number of workmen specified in those which we now have, lies in the possibility that the essential portions of the immediate phase of building operations at Persepolis had already been completed by Xerxes' fifth year, namely, that phase which had been initiated by Darius and which Xerxes carried on to completion under his own and his father's name. That there was such a phase is beyond question, and in the first instance Xerxes himself is responsible for our knowledge of it.<sup>105</sup> Most specific is a statement which appears in the inscription written on glazed tiles which once adorned the Apadana; there, among other things, Xerxes says:

By the will of Ahuramazda much that is beautiful Darius the king, my father, built and ordered (to be built). By the will indeed of Ahuramazda I added to that (which had been) built and I erected additional (constructions).<sup>106</sup>

Another inscription, found in the so-called "Harem," also reveals the continuity between the building activities of father and son; in it Xerxes says:

When Darius became king, he did much that was splendid. . . . Darius my father made me the greatest after himself. When my father Darius went from the throne, by the will of Ahuramazda I became king on my father's throne. When I became king, I did much that was splendid. What had been done by my father, that I protected, and I promoted other work. What I did, and what my father did, all that by the will of Ahuramazda we did. . . . Me may Ahuramazda protect . . . and what has been done by me; and what was done by my father, that also may Ahuramazda protect.<sup>107</sup>

Likewise, on the southern wall of Darius' palace, as well as on the antae of that building, there is a trilingual inscription not of the father but of the son. We may be sure that had Darius him-

self fully completed the building his own inscription would have appeared there, and not a text of Xerxes which, nevertheless, reads in part as follows:

King Darius who was my father built this palace. May Ahuramazda protect me and what has been built by me and by my father.<sup>108</sup>

A similar tone is taken in the inscription which was carved high up on the jambs of the magnificent "Gateway of All Lands."<sup>109</sup> Finally, to all this inscriptional evidence may be added that of the two large reliefs discovered in the Treasury, as well as the figures on the jambs of a portal of the Tripylon. These were planned and, no doubt, executed under Darius at a time when Xerxes was already heir apparent—that is, just before November of 486, the probable terminal date of Darius.<sup>110</sup> Since Xerxes so specifically states that he "conserved" what his father had built and "added" to it, there is a very strong presumption that Xerxes consummated much of this additional construction in the years immediately following the death of his father. For it is against all probability that the projects initiated by Darius would be permitted to lie long dormant. Walls and roofs must, at any rate, have been completed promptly, for the Persepolis climate, like that of other sections of the Near East, is such that an unfinished brick wall, or an unroofed dwelling, would all too quickly disintegrate into a mere pile of rubble. In accordance with data derivable from our tablets, the building phase begun by Darius must have been near completion by the fifth year of Xerxes.

Quite decisive in this connection is the nature of the work being performed by the laborers who appear in the tablets. In the second and third years of Xerxes we have large groups of men who seem to be described by an Old Persian word which is perhaps best literally translated as "up-carriers";<sup>111</sup> the exact nature of the work performed by them is not more specifically delineated, but it may well have been somewhat like our "hodcarriers," if indeed we should not compare it to that ordered by Darius for the

<sup>105</sup> Perhaps not "in the first instance," for note the prominence given to Xerxes in the Treasury relief; see below.

<sup>106</sup> Herzfeld, *ApI*, pp. 38 ff.; Kent, "Another Inscription of Xerxes," *Language*, IX (1933), 229 ff.

<sup>107</sup> Herzfeld, *ApI*, pp. 35 ff.; Kent, "A New Inscription of Xerxes," *Language*, IX (1933), 35 ff.

<sup>108</sup> XPc, § 3.

<sup>109</sup> XPa; see above, n. 88.

<sup>110</sup> Schmidt, *op. cit.*, pp. 21-33; for the date, cf. Richard A. Parker and Waldo H. Dubberstein, *Babylonian Chronology, 626 B.C.—A.D. 45* (SAOC, No. 24 [1942]), p. 14.

<sup>111</sup> See the Notes to No. 12.

foundations of his palace at Susa.<sup>112</sup> Not before the fourth year do we have mention of "woodworkers, making reliefs," or "doormakers (and makers of) iron doors." Thereafter similar occupations almost exclusively are attributed to workmen in the sixth year ("workmen on iron doors"), the seventh and tenth years ("stone- and woodworkers, making reliefs"), and the twelfth year ("gold inlay workmen, making reliefs(?)"). Obviously this type of work would not be performed during the initial steps of a building program; it constitutes not the first but the finishing touches which, in Xerxes' own word, make "splendid" the buildings already erected.

A similar phase of building activity appears to be discernible in the latter part of Xerxes' reign. Perhaps it was initiated in the fifteenth year, when more than 200 "Treasury workmen, artisans," are recorded (see Table 1). More likely, however, it began in the tenth month of the nineteenth year, when we learn that upward of 1,300 "Treasury workmen" were employed at Parsa. Throughout the early months of the twentieth year large numbers of individuals are reported to be active at the site: 117 workmen, called "artisans," 205 and 1,013 "Treasury workmen," 924 and 262 "artisans." The numerals alone would tend to imply that a large project was afoot.

From the fourth month of the twentieth year onward, however, and into the fifth year of Artaxerxes I, the nature of the work being performed appears to have undergone a radical change: although large numbers of laborers are still employed, they are "stone-relief makers," "woodworkers (working on) iron doors" in the twentieth year of Xerxes, "ornament maker" in the third year of Artaxerxes. In the latter's fifth year we seem to have reference to a gateway to a columned hall; again we note that this type of work would seem to correspond not with the beginning but with the concluding stages of a building program.

<sup>112</sup> DSf: 23 ff.: "The earth was dug down until the 'stone of the earth' I reached. When the excavation was completed then gravel was packed down, one part forty cubits in depth, the other twenty cubits in depth. On that rubble a palace I erected. And that the earth was dug down, and that the rubble was packed down, and that the brick was molded, the Babylonian people, it did that."

Such facts imply, therefore, that a new period of building activity at Persepolis began in the last years of Xerxes' reign and was near completion in the first part of the reign of Artaxerxes. For this implication there is, as before, inscriptional evidence. On an inscribed slab laid in the foundation deposit of the "Hall of One Hundred Columns," Artaxerxes himself declares:

This house, (of which) Xerxes the King, my father, laid its foundation, . . . I built and completed.<sup>113</sup>

Here indeed would seem to be adequate proof that the conclusions we may draw from the tablets to the advantage of archeologists and historians alike are not without sufficient basis in fact.

#### LINGUISTIC SIGNIFICANCE

The inscriptions on all tablets found in the Persepolis Treasury are with but one exception written in Elamite cuneiform. A sign-by-sign transliteration of Elamite cuneiform texts from any period is not overly difficult, once the marked peculiarities of the script have been noted and mastered. Our troubles have just begun, however, when we have secured an accurate transliteration.

For Elamite is not a language with which it can be said that we are familiar; indeed, for many years it has been the neglected stepsister of other Near Eastern tongues. Few scholars have ever delved deeply into its intricacies; fewer still have ever published the results of their researches.<sup>114</sup> About ten years ago this

<sup>113</sup> Herzfeld, *ApI*, pp. 45 f.; cf. Cameron in Kent, "Old Persian Texts. VII," *JNES*, IV (1945), 228.

<sup>114</sup> The following list includes the names of those scholars who at one time or another after the initial period of decipherment by the publication of materials have attempted to lead the slowly moving progress in the interpretation of Elamite texts dated to the pre-Achaemenian period: the rapid publisher of texts Père J. V. Scheil (1858-1940) and his student Maurice Pézard (1876-1923); the brilliant, erratic Georg Hüsing (1869-1930), who, basing his work on that of Heinrich Winkler (1848-1930), built up a "school" comprising the gifted Ferdinand Bork (1871—) and the industrious F. W. König (1897—); the able and thorough F. H. Weissbach (1865-1944); and, to a very limited extent, A. H. Sayce (1845-1933) and P. Jensen (1861-1936).

For the texts of Achaemenian times the names of Weissbach, Bork, and König are pre-eminent, and Willy Foy (1873-1929) and (recently) Wilhelm Brandenstein have showed some ability. The researches in Elamite of the Russian Nikolaï

neglect appeared in part at least to be justifiable; for, excluding the Elamite translations of the Achaemenid period, the Elamite inscriptions available for study scarcely exceeded two thousand lines of legible texts, and there seemed to be no reason to believe that the volume of material would expand to any great extent. Further, although Arab sources have preserved notice that Elamite continued to be a spoken language as late as the tenth century after Christ,<sup>115</sup> it has never been satisfactorily proved—and may well never be proved—that Elamite had any certain ancient relatives or any sure modern descendants.<sup>116</sup> Finally, for the perhaps two thousand lines of early Elamite texts extant there exist to this day less than forty lines of Akkadian texts which bear even the pretense of being translations of the Elamite; for the remaining 1,960 lines we are left strictly to our own devices—our only monitors, in addition to scientific procedure, being our conscience, the courage of our convictions, and the fear of over-extending ourselves in fantastic hypotheses.

Marr (1864–1934) are known to me chiefly as they are applied in the writings of Robert Bleichsteiner (1891—) and do not inspire confidence.

<sup>115</sup> References in Paul Schwarz, *Iran im Mittelalter nach den arabischen Geographen* (Leipzig, 1896–1929), p. 406. Ištakhri (fl. A.D. 950) says: "The common people [of Khūzistān] speak Persian and Arabic, except that they have also another tongue, Khūzī, which is neither Hebrew nor Syriac nor Persian." Muqaddasī illustrates his affirmation that the inhabitants of Khūzistān were held in low esteem by the Iraqis by citing a statement attributed to Mohammed that "Khūzī is the tongue of the devil"; he adds that the Khūzīs speak barbarically in a language that no one understands. However, it is uncertain whether Muqaddasī was aware of a specifically "Khūziyan" tongue.

<sup>116</sup> Frequent statements to the contrary, there is no real evidence for relegating to a single "Caucasian" substratum in the Near East the languages of the Elamites, Subarians, Kassites, Hurrians, Hattians, Urartians, *et al.* (contrast my *History of Early Iran* [1936], pp. 13 ff.). Fuller acquaintance with the available forms in Hurrian and its relative Urartian ("Vannic" or "Haldian"), for example, has taught us that in morphology as in syntax neither language appears to be intimately related to Elamite. Nevertheless, it is my belief that the basic concept of the Elamite verb is passival just as it is in Hurrian, Urartian, and in some of the "Caucasic" tongues.

Slightly different may be our conclusion regarding a connection between Elamite and Kassite. Here, however, the oft-reported relationship rests chiefly on the apparent identity of a plural suffix and on one or two words in the known vocabularies of the two languages. We simply do not know enough about Kassite to say anything about its connection with Elamite; relationship is a possibility, not a proven fact.

True enough, for the period of the Persian kings beginning with Cyrus, nearly every royal Old Persian inscription has its corresponding translation into Elamite as well as Akkadian and perhaps Aramaic. Surely some of the words and grammatical forms which appear in the Elamite texts of this period have their counterparts in the earlier documents. But the Achaemenian inscriptions are over five hundred years away from the unilingual documents of Shilhak-Inshushinak and other rulers of "classical" Elam, and materials available from the intervening centuries are insufficient to enable us to detect important phonetic changes such as today make possible the reading with comprehension of the Lays of Beowulf or the Odes of Chaucer. Further, as we shall see, the Elamite translations of the Achaemenian period do not represent true Elamite; he who attempts to write a grammar of the earlier language on the basis of these translations not only does so at his peril but may at the same time be misleading or misled.

To 1934 this was our predicament. Then, in that year, Dr. Ernst Herzfeld, at that time director of the Iranian Expedition of the Oriental Institute, discovered in the Fortification walls at Persepolis a huge horde of small clay tablets inscribed in the Elamite language. Advance reports of the number spoke of "thirty thousand tablets and fragments."<sup>117</sup> Too little attention was paid to the last two words of this phrase, for almost every fragment, no matter how infinitesimal, received a "field number," and the total was thereby swollen far beyond its true proportions.<sup>118</sup> Subsequently, as noted above, Dr. Erich Schmidt discovered in the Treasury 753 "cuneiform tablets and fragments of

<sup>117</sup> *AJSL*, L (1934), 272; Herzfeld's own account, as reported in *JRAS*, 1934, p. 231, speaks of "10,000 intact pieces, 10,000 more or less complete ones, and probably more than 10,000 fragments."

<sup>118</sup> No accurate count has been made (cf. Poebel, *op. cit.*, p. 132, n. 6) but the total number of complete or worth-while documents from the Fortifications probably does not exceed five to seven thousand. Thousands of incomplete pieces, or "fragments," are not inscribed at all, are crushed or completely illegible, or bear but one or at the most two signs. Others bear only parts of formulas found complete and in full context in many other tablets. In size, the vast majority of the tablets average  $1\frac{1}{4} \times 1\frac{1}{2}$  inches and contain about seven brief lines of cuneiform text (cf. Pl. XLVI, D-G).

such."<sup>119</sup> Again the number of legible pieces was far exceeded by those without any value whatsoever or by others which bear only a few signs of an all too familiar formula. All of the 753 pieces, for example, were examined in the preparation of this volume, which contains the transliteration and translation of 77 whole or nearly whole, 22 partly damaged, and 15 seriously damaged texts—a total of 114; little more is to be gained from a re-examination of the remaining 639 fragments.<sup>120</sup>

Nevertheless, although the first announcements of the finds exaggerated unduly the quantity and, to some extent, the character of the contents,<sup>121</sup> the wealth of new material thus provided for an investigation of the Elamite language was as enormous as it appeared to be unexpected.

There is still great need for caution, however. The assumption that all keys for the unlocking of the secrets of the language—its phonetics, morphology, syntax, and vocabulary—will automatically be found in the inscriptions written on these documents is largely unfounded. Hitherto unknown words in the vocabulary, of course, are here in abundance.<sup>122</sup> But an important fact, hitherto overlooked, is that the language as it appears in our texts is by no means the language spoken and written by Elamites away from the Persian court; instead, it is "translation Elamite," translated from Old Persian just as were the royal inscriptions (see chap. ii).

There is really no question regarding the language of the original prototype of the monumental trilingual inscriptions. It has long been

<sup>119</sup> Schmidt, *op. cit.*, p. 33, mentions a total of 730; the rest were found in the same area in 1938.

<sup>120</sup> For a possible explanation of the large number of fragments in comparison to the small number of intact pieces, see below, p. 27.

<sup>121</sup> See above, p. 1, n. 2. In *ApI*, p. 11 n., Herzfeld remarks: "Als ich in Persepolis etwa 30 000 tontafeln in elamischer sprache entdeckte, glaubte ich, sie würden für das elamische die bedeutung von WINCKLERS Boghazkoi-tafeln für die Hettitologie erlangen, ausser dem unerschöpflichen stoff für die innere geschichte des Achaemenidenreiches, den sie enthalten müssen."

<sup>122</sup> In tablet No. 1, for example, excluding personal and geographic names, postpositions, and Akkadian (Sumerian) "ideograms," 12 of the 21 "common" words first appear in inscriptions written on Persepolis tablets.

known that the Akkadian versions do not render good Akkadian, and that in word order they follow in almost servile fashion that existing in the Old Persian copies. Further, there are a few Old Persian words in the Akkadian copies but only a single Akkadian word in the Old Persian versions. Thus, while there may still be some doubt whether an Aramaic translation of the Old Persian was not an intermediate ancestor of the Akkadian,<sup>123</sup> it is certain that neither the Akkadian nor its possible Aramaic prototype can have been the original version of the Achaemenid inscriptions.<sup>124</sup>

Nor was Elamite that prototype. By contrast with the few Old Persian loan words in Akkadian, the number in the Elamite versions is enormous (see chap. v). This is true in the times of Darius and Xerxes, and not only in the late Achaemenid period, as is generally assumed from a comparison of the two versions of the Artaxerxes II inscription found at Susa.<sup>125</sup> Surely the only justifiable conclusion to be drawn from the presence of so many Old Persian loan words in the Elamite versions is that Old Persian itself is the language in which the original texts were composed.

Similarly, the presence of a truly remarkable number of Old Persian words in the Treasury documents is sufficient in itself to permit the

<sup>123</sup> See Otto Rössler, *Untersuchungen über die akkadische Fassung der Achämenideninschriften* (Inaugural-Dissertation, Berlin, 1938), pp. 9–11.

<sup>124</sup> In his otherwise admirable monograph Rössler (*ibid.*, pp. 11 f.) makes the untenable assertion that the Akkadian version is a literal translation from the Elamite version and that its authors were Elamites. That the Aramaic and Akkadian versions are related is indicated by, among other things, little "asides," chiefly specific figures of the slain. These "asides" do not appear in the Elamite version, however. There are, indeed, a very few Akkadian words which appear in the Elamite version (e.g., *ša-ul-me*, Akk. *šalmu*; *tup-pi-me*, Akk. *tuppu*; *man-na-ul-me*, perhaps Akk. *mandattu*; and perhaps *a-kur*-. . .), Akk. *agurru*). But these, like the many "ideograms" which appear in the texts below, could be old Elamite borrowings which were at this period common "Sprachgut." The one Akkadian word which appears in Old Persian is *mašku*, "skin"; see Table 3, n. 23.

<sup>125</sup> A<sup>3</sup>Sa; only six words in the table of OP loan words in Elamite published on pp. 42 f. first appear in inscriptions of the time of Artaxerxes II.

Even rapid scrutiny of the words already known denies validity to the assertion of Herzfeld (*ApI*, p. 194) that the Elamites borrowed a word only if it were a *terminus technicus*. Such words as *θikā*, "rubble," *hacā*, "from," *çiça*, "seed," and *yanaiy*, "whereon," are not "technical" terms.

assertion that the original orders which preceded the formulation and writing of our Elamite language texts were in the Old Persian tongue.

There is, however, other evidence also. Text No. 4 of this volume is a royal command that thirteen men be paid cash from the Parsa Treasury. Almost every name can be satisfactorily explained as Persian, and presumably the bearers of these names were not Elamites but Persians. Darius himself commanded the payment. The document was sealed by the same seal as Nos. 6-8 and was unquestionably written by the same scribe, whose name may also be explained as of Old Persian origin. Yet all these texts are written in Elamite, and the majority of the other tablets were inscribed by men whose names at least are of Elamitic origin. If a phrase of a few other documents is interpreted correctly,<sup>126</sup> it reads: "N (usually an Elamite name) wrote (the document) after it had been interpreted (or translated) by NN (usually an Old Persian name)." Here we seem to have conclusive proof that the language in which the orders were transmitted was Old Persian and that these same orders were translated into Elamite merely for accounting purposes.

Thus there would seem to be every reason to believe that Old Persian was the language of the court, its chief officials, and its priests; that it was the language in which the royal texts were originally written as well as that in which were issued the orders of those officials; and that the Elamite and Akkadian versions of the royal texts, as well as the Elamite inscriptions found in the Treasury, were but translations from Old Persian.

So far we have been speaking about the *language* of these versions. Nothing has been said about the *script* in which they were written. As we shall see in chapter ii, there is adequate evidence to show that, although our tablets are Elamite translations of Old Persian orders, they had first been translated into what was to become the official *written* language, namely Aramaic. They were written, then, not by means of cuneiform characters on clay tablets but by means of Aramaic characters in ink on parchment or papyrus. It is now possible, therefore, to review the question of the original versions of the Old Persian

<sup>126</sup> See the Notes to text No. 9.

royal inscriptions and to ask whether for them also a copy in Aramaic script (and language) did not precede the writing of the cuneiform edition.

The Old Persian cuneiform editions of the monumental inscriptions present a number of syntactical problems which are not easy to solve. There is about many of the phrases a lack of flexibility which frequently has recourse to monotonous, if compact, eccentricities and involved methods of statement. One notes, for example, what has been called the "absolute nominative," a *casus pendens*, as in *vištāspa manā pitā haw [parθavaīy] āha*, "Hystaspes, my father, he was in Parthia." For a time such features were explained by saying that the authors had not yet mastered the ability to write the current language, that they were but in the process of learning how to write.<sup>127</sup> It has been noted, however, that some of these same features are observable also in Aramaic inscriptions,<sup>128</sup> and the thought lies near that a limited number of the Old Persian syntactical problems may have arisen because of Aramaic influence in the process of writing. This possibility is in accord with the evidence of our tablets that Old Persian orders were first translated into Aramaic and written on parchment by means of Aramaic characters before the Elamite translations themselves were made.<sup>129</sup>

The reason for the translation of royal documents into other languages is easily understandable; it was but an effort to disseminate the information contained in them more widely than would otherwise have been possible. More valid is the query why Elamite should be the language chosen to secure permanency for orders drawn on the Treasury, orders which were already written down on parchments and in the Aramaic tongue. It cannot be argued satisfactorily that Old Persian cuneiform could not have been employed for this purpose because it was uneconomical in the amount of space that would have been required, whereas Elamite cuneiform is

<sup>127</sup> A. Meillet, *Grammaire du vieux perse* (Paris, 1915), § 29, p. 10, expressed it as follows: "Les inscriptions perses . . . donnent l'impression d'un parler courant dont on essaie péniblement de se rendre maître et qu'on écrit pour la première fois."

<sup>128</sup> Cf. E. Benveniste, "Sur la syntaxe du vieux-perse," *Mémoires de la société de linguistique de Paris*, XXIII (1935), 179-83. His position is denied, however, by H. H. Schaeder, "Über die Inschrift des Ariaramnes," *SPAW*, 1931, p. 639, n. near bottom of page.

<sup>129</sup> See in chap. ii.

economical; contrary to the general opinion, this is an incorrect assumption. The first column of the Old Persian version of the Behistun inscription requires only about 3 square feet more space (73 sq. ft.) to say the same as the Elamite version (about 70 sq. ft.). By contrast with both of these the Akkadian version requires but approximately 45 square feet for the same material. Thus, if economy of space were the sole object of a translation of our documents from Old Persian, we would expect them to be translated into Akkadian, not into Elamite.

If the environs of Persepolis were inhabited by speakers of the Elamite language, then, of course, the keeping of ordinary business records in their language would be easily understandable. Up to the present, however, there are no indications of a pre-Persian Elamite settlement anywhere in the neighborhood. Persepolis itself was a new foundation, constructed by the Persians. No Elamite strata have been recovered from the excavated portions of Istakhr, and none in the vicinity of Naqsh-e Rostam. There are at the latter site, to be sure, vestiges of a relief which has been said to be "Elamite" and over which has been cut another of the Sasanian Bahram II, but that relief, like its mate at Fahliun about ninety miles west-northwest of Persepolis, is ascribable to the third millennium B.C.,<sup>130</sup> at which time we can be sure neither of the ethnic nor of the linguistic character of the local inhabitants. There is evidence for the Elamite occupation of the Fahliun area itself in the twelfth century, for bricks of Shilhak-Inshushinak, king of Anzan and Susa, have been discovered there.<sup>131</sup> There is, however, little basis for the view that the Elamite territory Anzan corresponded in fact with the modern province of Fars.<sup>132</sup> Thus, while the absence of Elamites from the Persepolis area cannot be demonstrated, neither can their presence, and in all likelihood the predominating element there in the Achaemenid period was the body of Persians who followed the ancestors of Cyrus into the region. Even if Elamite were the local language

<sup>130</sup> References in N. C. Debevoise, "The Rock Reliefs of Ancient Iran," *JNES*, I (1942), 78-80.

<sup>131</sup> Cameron, *op. cit.*, p. 120.

<sup>132</sup> *Ibid.*, pp. 31 f., n. 28; for a recent criticism of this view see Sidney Smith, *Isaiah Chapters XL-LV* (London, 1944), p. 121, n. 27.

there would still be no real explanation for the fact that orders issued by the king or by Persian officials, orders concerned with the distribution of funds from the Treasury and already written in Aramaic on parchments, were translated into another tongue before they were entered on the account books of the Parsa treasurer.

The answer to our query must lie in a deduction from the already well-known fact that Darius and Xerxes, in their building efforts both at Persepolis and at Susa, imported large numbers of "foreign" skilled workmen. While the villages of the vicinity could be counted on to provide the enormous numbers of day laborers required, more complicated processes demanded that type of knowledge which comes only from training and familiarity with the tasks at hand. Thus, for the palace which some years later was erected at Susa, Median and Egyptian goldsmiths wrought the gold and adorned the walls, Sardians and Ionians applied the gold inlays and wrought the stone. Our Treasury documents, as we have noted, refer to Egyptian woodworkers, Syrian ("Hattian") workmen, and Syrian, Egyptian, and Ionian wage earners who labored on columned halls. More to the point, there is payment of money to a "foreman" who came "from Susa to Parsa" for purposes of ornament fabrication, and a large number of Fortification tablets refer to workmen who likewise proceeded from Susa. Similarly, a modern excavator usually recruits his "wagonmen," "basket boys," "shovelmen," and the like from near-by villages, but carries with him to a new site his foreman and most experienced pickmen.

We are therefore entitled to assume that the personnel of the accounting department also had been drawn from elsewhere—in the first instance, by Darius. The fact that the texts are written in Elamite implies that the accountants came from an Elamite community, in this case doubtless from Susa, where public and private records had been kept for centuries. There they were familiar with the technological facilities necessary for the keeping of systematized records, with the "know-how" in both system and scribal ability. When transported to another community, to a new site founded by Darius among Persians, they would naturally retain their own methods and language for the records

they were required to keep.<sup>133</sup> The officials of the Persian Empire, which had been built up so rapidly, had not yet had time to acquaint themselves fully with the technical knowledge of the Elamite accountants.

Much the same situation prevailed elsewhere. In Babylonia the records were kept not in Persian but in Akkadian cuneiform or in Aramaic, with the latter (or Pahlavi!) perhaps predominating in Media<sup>134</sup> and elsewhere. An astonishing parallel for what is here described exists in a later period, however, and in it the Persians, who in Darius' time were compelled to seek outside assistance for the keeping of their record books, secured a just revenge.

As is well known, during the first centuries of the Arab expansion their manufactured "empire" went from penury to more than plenty in a few short years, but it had no truly applicable rules, laws, or precedents by which to distinguish between individual booty and income to be managed by the state. The central authority of the state took in hand the distribution of at least the steady income from what we would call taxes and established in written form a pay roll for the Moslem soldiery which was the backbone of this state. The conception of the idea, however, as well as the staff of trained officials and clerks employed to execute it, was of Persian origin. The procedure has thus been defined: "Whatever the Arabs may have learned in this as in other matters from Greeks, Aramaeans, or Copts, this was in origin and in large part a Persian contribution to the state and civilization which they were producing."<sup>135</sup> Thus, it would seem, did time bring retribution to the Persians: in the Arab period they played the same part which, in the early Achaemenid era, they had been unable to play and for which they themselves had once called in the Elamite specialists in bookkeeping.

<sup>133</sup> In all likelihood the official title of such individuals in OP was *hamarakara*, "paymaster." At least, this is the term applied to similar individuals in Elephantine Papyrus No. 26:4, 23; cf. Cowley, *op. cit.*, pp. 89 f.; Schaefer, *Iranische Beiträge*, I (Halle [Saale], 1930), 264.

<sup>134</sup> Cf. the "house of the archives where the treasures were stored" at Babylon and the finding of a (parchment) roll at Ecbatana in Media in Ezra 6:1-2.

<sup>135</sup> M. Sprengling, "From Persian to Arabic," *AJSL*, LVI (1939), 180.

For pure linguistic research the Persepolis tablets are of inestimable value. Numerous Old Persian proper names inevitably add words and elements which were presumed but which heretofore were not present in the inscriptions written in that language. The many Old Persian borrowings provide welcome additions to our scant store of words in the Old Persian vocabulary. Thus the addition of such words as *dauça*, "libation," the technical names *raθuwiš-kara* (a haoma priest) and *Ātar-vaxš*, "Fire-watcher," is in itself an advance. Such words, together perhaps with *sata*, "hundred," and *dasa*, "ten," might have been expected, and it is not surprising that in the Treasury texts the month names are all of Old Persian origin.<sup>136</sup> We were scarcely prepared to discover also that the Elamites were employing Old Persian fractions for "one-third," "one-fourth," "one-eighth," and "one-ninth," although they may have retained their own word for "half." These and other Old Persian words will be discussed more fully in chapter v; it remains here merely to express our satisfaction that so many new words and forms have thus come to light.

The gain for the study of the Elamite language is even more marked. Our tablets have added several new signs and increased the syllabic values attributable to those already known to a not inconsiderable degree. They show that the Elamites possessed a good working knowledge of the more common Akkadian (Sumerian) "ideograms" such as UD.NITÁ, "sheep," GEŠTIN, "wine," and ZÍD.DA, "flour," although they assuredly gave to these their corresponding Elamite values or translations.<sup>137</sup> They had this knowledge, although there is no evidence to indicate that they themselves read, wrote, or understood Akkadian. The single tablet from the Treasury written in Akkadian cuneiform (No. 85) cannot be cited to the contrary, for it has the familiar "pillow" form of Persian and Seleucid tablets from Babylonia; it was probably not written at Persepolis, and its author was almost certainly a good Akkadian scribe. Further, not a

<sup>136</sup> In Fortification texts a very few Elamite month names have been retained; see below, chap. v.

<sup>137</sup> Thus KÙ.GI (GUŠKIN) was certainly pronounced close to the way in which it is rendered in Elamite: *la-áš-du*; see the Notes to text No. 37.



single Akkadian word has been recognized in the materials available from either the Treasury or the Fortifications.

Somewhat more surprising is the absence of all save one or, at the most, two Aramaic words.<sup>138</sup> That there were at the site some people at least who spoke Aramaic is apparent from the inscriptions on a few seal impressions and on the mortars and pestles described above, as well as on a number of clay tablets found in the Fortifications.<sup>139</sup> It is all but certain that the parchments or papyri which once accompanied our tablets bore texts written in Aramaic, which outside of Parsa and perhaps Media may have been the "official" language of the realm. Except for the tablets, however, all these were destroyed in the catastrophe which overtook Persepolis or have decayed in the centuries which lie between us and their composition. At any rate, the Aramaic scribes had little or no influence

<sup>138</sup> For *pir-ra-tam-ma* as Aramaic בִּירְחָא, see the Notes to text No. 36. For *hal-mi* as a possible loan word from חָלֶמֶס, see below, pp. 53 f.

<sup>139</sup> Diligent search has so far failed to produce in Chicago more than a small fraction of the "500 small pieces with Aramaic writing in ink" first reported in *JRAS*, 1934, p. 232.

upon the Elamites who compiled the documents from the Parsa Treasury here published.

The noteworthy expansion of our vocabulary of Elamite words is a matter of record. If in almost every case the meanings applicable to these words must be derived from context, and even if the meanings here chosen may subsequently be refined and clarified, the fact remains that the vestiges of this language once spoken in southwestern Iran are thus increased and the daily life of the common man and of the court thus comes into sharper focus.

Necessarily the texts add to our understanding of Elamite grammar, although the caution expressed above needs emphatically to be underlined. No sound grammar of Elamite, even of Achaemenian Elamite, exists, but it would be folly indeed to formulate one at this stage and before the majority of the Fortification tablets have been examined more minutely. From the available materials, trilingual and unilingual, we can be familiar only with its main outlines (see chap. vi), and truly welcome is every supplementary source which can expedite its interpretation in the matter of details.

## II

## TYPES OF TEXTS AND DESCRIPTION OF TABLETS

In effect our documents are drafts on the Parsa Treasury for funds paid to workmen performing specific tasks. Somewhat similar records have been found in temple archives in Babylonia, where the temple continued to serve as the chief administrative center under the Persians as in the past.<sup>1</sup> A number of Elamite documents found at Susa and dating to the latter part of

<sup>1</sup> Cf., e.g., the daily payments specified in *VS*, VI (1908), Nos. 93 (reign of Nabunaid?) and 164 (Darius, year 35), noted in M. San Nicolò and A. Ungnad, *Neubabylonische Rechts- und Verwaltungsurkunden* (Leipzig, 1929–37), Nos. 795 and 871. For ordinary business documents in letter form see J. N. Strassmaier, *Inschriften von Darius, König von Babylon* (Leipzig, 1897), No. 101; Albert T. Clay, *Babylonian Business Transactions of the First Millennium B.C.* ("Babylonian Records in the Library of J. Pierpont Morgan," Part I [New York, 1912]), No. 101. Numerous examples occur in the time of Darius II (see Clay, *Business Documents of Murashu Sons of Nippur* (Pennsylvania. University. The Museum, Publications of the Babylonian Section, Vol. II, No. 1 [1912])).

<sup>2</sup> The problem involved in dating the tablets published in *Mém.*, IX (Nos. 1–298) and *Mém.*, XI, 89 ff. (Nos. 299–309) is not easy to solve from the published data. According to Scheil (*Mém.*, IX, i, and *Mém.*, XI, 89), Nos. 301–7 were discovered beneath the ruins of the Apadana; Nos. 1–298 and 309 were found "à la profondeur de cinq mètres, dans l'angle de deux murs d'une construction adossée aux remparts du grand Tell [i.e., in the Citadel or Acropolis]. On trouvera le point exact de leur gisement, sous le dallage 1 flanquant le mur, dit achéménide, de la figure 66 du VIII<sup>e</sup> volume des présents Mémoires." In *Mém.*, VIII, 34 ff., J. de Morgan describes this southeastern part of the Acropolis: "Cette portion des ruines se trouvait dans le plus grand désordre. Çà et là, des puits, beaucoup plus récents, traversaient les couches achéménides et élamites, et les débris parthes, sassanides et arabes se trouvaient côte à côte avec les vestiges antérieurs." He believed, however, that he could safely identify a large baked-brick wall (the "mur, dit achéménide" of Scheil) as being of Achaemenid origin; its foundations were of not more than "trois mètres de profondeur" and passed above "chambres élamites renfermant une grande quantité de tablettes en terre crue"—apparently our tablets. "En ce point du tell le niveau achéménide s'arrêtait donc à trois mètres de la surface." Since the tablets were found at a depth of five meters, the implication would be that they actually belong to the pre-Achaemenid strata (assuming, of course, that the strata involved were absolutely level!). Roland de Mecquenem (in *A Survey of Persian Art* [A. U. Pope, ed.], I [London and New York, 1938], 326) adds, "The tell of the Acropolis seems not to have been inhabited in the Achaemenid period." If, again, we assume that the tablets belong to an occupational level and were not a

the Neo-Elamite kingdom (or, more probably, to the early years of the Achaemenids) have also been published; frequently they too mention a "treasurer," and one of them resembles our Persepolis texts in form, in method of dating, and in seal impression.<sup>2</sup> One or two Aramaic papyri found in Egypt may also be adduced as

cache, the evidence would seem to indicate that they were pre-Achaemenid in date.

This material really tells us nothing, however. The expressed disorder of this part of the mound (see also the evidence of Fig. 66 in *Mém.*, VIII!) means that the dating of the tablets must depend chiefly on internal content. Unfortunately, Scheil does not indicate the provenience of tablet No. 308, which in shape, method of dating, and (described) seal impression is a duplicate of our Persepolis texts and may assuredly be ascribed to the twenty-second year of Darius or of Artaxerxes I. If Nos. 1–298 and 309 were found with this tablet, they too must be of Achaemenid date.

For dating purposes the contents of the inscriptions on the tablets are not wholly decisive. We note that the month names are exclusively, and the personal names predominantly, of Babylonian or Elamitic origin. The only seal impressions described (excluding No. 308 mentioned above) are of Babylonian origin. A "king of Egypt" is perhaps referred to in No. 158. "Assyrians" and "Babylonians" occur frequently (e.g., Nos. 112:2, 256:2). The word "treasurer" (*kap-nu-iš-ki-ra* (e.g., Nos. 281:5, 285:3 f.; see below in Notes to No. 10b) gives no clue to the dating problem.

On the other hand, the personal names *Ma-ak-iš-tur-ri* ("Cyaxares"?; No. 132:7), *Mi-iš-bar-ra* ("Vayaspara"?), *Mi-iš-ka-<sub>4</sub>-ma*, *Ak-ši-mar-ti* (the "Lydian"?), *Ha-ri-na*, *Bar-ri-man*, *Ir-da-ad-da*, and those compounded with *ba-ag-* are surely of Median or Persian origin; the name *Kur-ráš* ("Cyrus"?), occurs in No. 98. "Persians" and "Medes" are often designated, sometimes in the same text (e.g., No. 94). The words *sa-<sub>4</sub>-<sub>2</sub>-pi* (*sa-ar-pi*) and *šu-kur-ru-um* (cf. the notes to *Mém.*, IX, Nos. 14 and 66, respectively) have been thought to be Elamite transcriptions of *σάραπης* (a white Persian robe with purple stripes) and *σάγαπης* (a weapon used by Scythian tribes). The Persian loan word *\*armatam* (see below, p. 42) occurs in No. 109:13.

It is barely possible that these tablets were written in the last years of the Neo-Elamite kingdom, say between 650 and 630, or during the Neo-Babylonian occupation of Susa (roughly 600–560) when Persian influence was entering into the area (cf. Cameron, *History of Early Iran*, pp. 211 and 220 f.) but when a "Treasury" could have functioned at the site. It is just as possible, and perhaps more probable, however, that they were inscribed at a time when Medes or Cyrus the Great and Cambyses were in control there—that is, in the early years of the Achaemenids.

parallels, and these are almost contemporary in date.<sup>3</sup>

There are, in the main, but two types of Persepolis texts. One, in the form of a letter, seems to request the treasurer to pay the sum stipulated.<sup>4</sup> The other, here called a memorandum, appears to indicate that the workmen have already been paid by one individual who issues this type of document in order that he himself may be reimbursed. In Fortification texts the letter-type document is a rarity, with the majority having the form of memorandums. In our Treasury tablets the letter-type predominates in the ratio of three to two.

The letter-type document always begins, "To N speak, NN says." Then follow designations of the amount of money involved,<sup>5</sup> the people to whom it is to be paid and the individual "responsible" for them, the task on which they have been engaged, the period during which the work was performed, and a detailed accounting of the size of the payments made to various groups. Sometimes there is added the name of the scribe and of the individual from whom he received the original "sealed order" (of which our text is but a copy); sometimes, just before the date, there is mention of the fact that the actual payment was in whole or in part not in silver but in some other commodity. Finally, on the left end of the tablet there is a seal impression, frequently one which a few years ago would have been declared to be a "royal" seal because it bears the name of a king.

Each phrase, save the date, has its own problems, and our translation has often been arrived at in context only by comparison, subjective interpretation, and guesswork. Thus the phrase just translated "individual responsible for" (the workmen) (*N šá-ra-man-na*) has no parallel outside of our texts and may subsequently be interpreted in a slightly different fashion, but such phrases will be examined more minutely in chapter vi.

The memorandum type of document, as found

<sup>3</sup> Nos. 2 (Xerxes, year 2) and 24 (probably Darius II, year 4) in Cowley, *Aramaic Papyri*, pp. 3 ff. and 78 ff.

<sup>4</sup> The doubt here expressed hinges on the exact translation of the verb (*šl.sì-du*) involved, on which see p. 48.

<sup>5</sup> In Fortification texts, always grain, wine, flour, or some other commodity.

in the Treasury, always opens with a declaration of the sum of money involved;<sup>6</sup> then follow statements concerning the name of the individual by whom the money was paid ("by the hand of N" [*kur-mín »N.na*]), the task on which the workmen had been engaged and the individual "responsible" for them, the period during which their service was rendered, and a detailed accounting of the size of payments made to particular groups. Just before the date there usually appears notice of the fact that payment was in whole or in part not in silver but in some other commodity. The scribe is never named,<sup>7</sup> nor is there ever a phrase regarding the receipt of an order from any individual. Nevertheless the flat end of every memorandum document bears a seal impression. Sometimes it is of the type which was formerly called "royal,"<sup>8</sup> but it is worthy of note that with but one exception a seal employed for letter-type documents is never used on memorandums.<sup>9</sup>

Into these patterns fall all but four of the inscriptions on tablets found in the Treasury. Of these four, the interpretation of one (No. 81) is so dubious that no conclusive statements may be made about it. Another (No. 82) appears to be a record of silver withdrawn (from the Treasury?). The third (No. 84), in fragmentary condition, is apparently a list of individuals and their professions. The fourth (No. 85), written in Akkadian, involves the revaluation of monies submitted as taxes. Neither the first nor the last of these bears a seal impression, and those on the other two are both unique specimens.

The photographs show the peculiar form of the tablets. Looked at from obverse or reverse, they are cut off square on the left end to accommodate a seal impression, rounded and slightly swollen on the right; if we were to put the flat ends of two tablets together, we should have a miniature flattened dumbbell. The distinguishing feature of nearly all tablets from Persepolis, however, is not so much their odd shape as the fact that almost without exception they were

<sup>6</sup> In Fortification texts, always grain, oil, flour, or some other commodity.

<sup>7</sup> Except in Nos. 6-8, which are somewhat abnormal in that the money is paid at the specific order of the king.

<sup>8</sup> See below, chap. vii.

<sup>9</sup> Type 4 is used on letter No. 1, and on memos 17 and 23-24.

molded around a string which protruded on either side of the flat end, that is, on the "edges" of the tablet close to the flat end (see Pl. XLVI, A-B).<sup>10</sup>

For a long time the purpose served by this cord appeared to be problematical. The most obvious interpretation seemed to be that a tablet was tied by means of it to a jar, sack, or other commodity somewhat like the many clay "bullae"—or, more properly, labels or sealings—found all over the Near East from earliest times.<sup>11</sup> It is true that payments stipulated by tablets found in the Fortifications are usually in terms of grain, flour, wine, oil, or the like, and it was therefore possible to think that the tablets of this group at least were tied to and accompanied the containers of such materials. Owing to their contents, however, this possibility is excluded for the Treasury texts. They deal with

<sup>10</sup> The only Treasury texts without string holes are Nos. 81 (which in shape is unlike the others) and 85 (the single text written in Akkadian cuneiform).

Quite possibly our tablets were made in the following manner: the fabricator molded his clay in the form of a small "dumbbell," inserting a knotted cord in the interior of each outer end and bringing two strings out of the top center edge and two out of the bottom center edge of the flattened mass. By separating the cords belonging to the left part of his "dumbbell" from those belonging to the right, he could cut the clay neatly into two well-formed tablets ready for inscribing. The straight or flat surface "end" thus secured was deliberately prepared in this fashion for the seal impression.

<sup>11</sup> See the references cited by M. Rostovtzeff in "Seleucid Babylonia. Bullae and Seals of Clay with Greek Inscriptions," *Yale Classical Studies*, III (1932), p. 10, n. 4.

For "heart-shaped" tablets formed around a string or thong and inscribed in Assyrian, cf. C. H. W. Johns, *Assyrian Deeds and Documents*, Vol. II (Cambridge and London, 1901), §§ 39 and 41. M. Lidzbarski (*Altaramäische Urkunden aus Assur* [Leipzig, 1921], pp. 15 ff. and Pl. II) does not indicate whether the Aramaic records having a shape similar to those described by Johns were also accompanied by strings or cords.

A number of "tags," chiefly from the Old Babylonian period, are similar to our texts both in shape and in the placing of the string holes; see, e.g., Clarence E. Keiser, *Cuneiform Bullae of the Third Millennium B.C.* ("Babylonian Records in the Library of J. Pierpont Morgan," Part III [New York, 1914]), pp. 10 f., Pls. IV-VI, and 8, Nos. 18a, 18b. The contents of these texts have nothing in common with our documents, however, for they are worktags ("Arbeitsmarken") which the workmen carried and on the basis of which they obtained compensation for employment over a very limited period. Cf. P. Koschaker and A. Ungnad, *Hammurabi's Gesetz*, VI (Leipzig, 1923), 160, n.\* to No. 1787. Professors A. Goetze and F. J. Stephens showed me a number of these texts in the Yale Babylonian Collection and recalled my attention to a discussion of them in J. G. Lautner, *Altbabylonische Personennamen und Erntearbeiterverträge* (Leiden, 1936), pp. 198 ff.

payments in silver—in karsha (ten-shekel pieces) or in smaller amounts. Although some of them stipulate that the actual payments were made in sheep or wine, others bear no such provision.

This interpretation having been ruled out, a suggestion that the cord might have facilitated handling the damp clay tablet so that the carrier would not deface the newly inscribed surface appeared to hold some promise, especially since there were among all the Persepolis materials no signs that any of the tablets had ever been covered by an envelope or tablet case. But it had to be admitted, of course, that the practice of carrying the fresh tablet not in the hand but by the cord would be an entirely new technique which had apparently not been needed in other sections of the Near East where inscriptions had been written on tablets for nearly three thousand years.

For some time I had thought that the cord might have been placed there for filing purposes: that a large number of tablets could be hung by their cords from a single horizontal rod, with the seal impressions (which are always on the flat end and rarely elsewhere also) thus serving to identify those written during the term of office of a particular treasurer. In this connection it could be pointed out that there was no evidence in any of the rooms where the documents were discovered that they had been stored in pots or jars.

Every explanation must, of course, assume that the tablets were never intended to be oven-baked, for baking would obviously have destroyed the cords. Almost none of the Fortification texts appear to have been baked; every Treasury tablet gives evidence of having at one time been either in direct flames or in intense heat, but few who have seen the originals will hazard an opinion whether the baking was deliberate or not. It is the writer's firm conviction, shared by the excavator Dr. Schmidt, that such "baking" as occurred was accidental in the holocaust that consumed so much at Persepolis. Black streaks, as though from burning embers, have cut across the clay color of most specimens,<sup>12</sup> melted iron has poured across and ob-

<sup>12</sup> Thus the entire right portion of the obverse, and much of the reverse, of No. 27; ll. 11-15 of No. 26; etc.

scured or damaged many lines of others.<sup>13</sup> It may well be that many tablets which were intact when Alexander arrived at the site exploded in the fire; this would at least account for the existence of so few whole specimens among so many "fragments."

The problem posed by the presence of cords dangling outside the tablets actually seems to have but a single solution. That about to be proposed is based in part on guesswork, but it fully takes into account all the known factors both in the external form of the documents and in certain aspects of the internal subject matter of the inscriptions. Simultaneously, it possesses certain analogies with a practice current in Babylonia under the Seleucids and, if it is the correct solution, its employment at Persepolis would perhaps be close to the origin of that practice. Finally, if it is correct in matters of detail, it provides us with a somewhat startling amount of information on the early use of Aramaic writing at Persepolis.

Renewed attention has recently been drawn to peculiar objects of clay or bitumen, many of which were found in Seleucid occupation levels of the Babylonian city of Uruk.<sup>14</sup> They have the shape of spheroid lumps with a hole of oval or rectangular section through the lump from one end to the other. Inside this tube are found impressions of one or more strings, and in the core of the lump there are holes left in the clay by decayed strings. Within the tube itself one sometimes finds remains of carbonized or decayed stuff in larger or smaller quantities. The surface of the lump is covered with impressions of seals.

Generally, though inappropriately, these objects are designated as "bullae"; actually they were a kind of envelope (not unlike those of case tablets of earlier times) which provided for the safekeeping—and assurance against wilful alteration—of documents written not in cuneiform but in Greek or Aramaic, not on clay tablets but on parchment or papyrus. The writing surface, when written upon, was rolled up tightly or folded over in close folds and bound round and round

with string. A narrow ring, usually of clay, was then molded around the strings and pressed into them so that the strings penetrated into the clay; the amount of clay used for the purpose depended chiefly on the volume of the document. On this lump of clay, which may be compared to a napkin ring and be called a "sealing," seals were impressed by a number of witnesses, and the document within its ring could be deposited in the official or temple archives.

At the time this explanation for the so-called Seleucid "bullae" was made, the Persepolis archives had not yet been discovered. Also, it was apparently not observed that not only do marks of the strings which once encircled a document show on the inside of its sealing, but also that the impressions left by two strings which protruded from the sealing, one at either side, are clearly visible. In almost every instance two indentations may be seen on the outside of the sealing close to its outer edges (cf. Pl. XLVI C), indentations left by two strings which came out of it; sometimes the impress of these strings may also be observed on the inside of the sealing, where they are at right angles to those strings which once encircled the document and around which the clay was molded. It had been suggested that a description of the contents of a Seleucid document when sealed may have been written on one of the protruding ends of the parchment or papyrus or on a label attached to it. It is, of course, possible that such a label may have been tied to the strings dangling from the sealing; if so, it too must have been made of parchment, papyrus, or wood, for few objects identifiable as labels serving this particular purpose have come down to us. However, it is much more likely that the strings leaving the sealed roll were themselves tied around another but unsealed roll of parchment or papyrus, on which was written a text duplicating that within the sealing. As an unsealed document, this roll could be opened, examined, and closed at will; if any question of its accuracy or validity ever arose, the sealing could be broken and the document sealed by it could be opened for inspection. Thus the sealed and unsealed roll attached to each other by strings resembled, respectively, the "scripta interior" and the "scripta exterior" of papyrus documents from Ptolemaic Egypt and

<sup>13</sup> For example, No. 10b (entire); No. 22, ll. 12–20; No. 17, ll. 7–18; No. 54, right end.

<sup>14</sup> Rostovtzeff, *op. cit.*; the writer has carefully re-examined all the Oriental Institute specimens, some of which are described and illustrated by Rostovtzeff.

of Parthian parchments from Avroman in Iran,<sup>15</sup> and with a little imagination we may compare them to the "letters close" and the "letters patent" of English law. Sometimes, of course, a text written on a sealed parchment may have served as a duplicate of that on a cuneiform tablet, for it happens frequently that sealings have been discovered in close association with tablets.<sup>16</sup>

With this material in mind we may now return to our Persepolis objects. The Treasury halls presented us with a number of sealings very similar to those from Uruk already described. In one room, for example, fifteen sealings lay in the floor refuse together with four tablets and forty fragments of such; another particularly wealthy room yielded sixty-seven sealings as well as "653 tablets and fragments."<sup>17</sup> Full description of these sealings and of the seals impressed upon them will be found in the definitive publication on Persepolis.<sup>18</sup> For our purpose the important factors are these:

The same elevated storage room for tablets

<sup>15</sup> Cf. Rostovtzeff, *op. cit.*, pp. 14 f. In Egypt "the text was written twice on the same sheet of papyrus. One half of the sheet with the upper version of the document, after being collated with the copy, was folded over or rolled up, bound by means of narrow strips of papyrus, and sealed or closed by means of lumps of clay on which seals of the contracting parties and of the witnesses were impressed. . . . The other text . . . was left open, although it too was rolled up or folded over." An almost identical practice was followed in the case of the Avroman parchments; cf. E. H. Minns, *Journal of Hellenic Studies*, XXXV (1915), 22 ff., quoted in Rostovtzeff, *loc. cit.*

At least two of the Elephantine papyri (Cowley, *op. cit.*, Nos. 5 and 10) at the time of discovery were still rolled, tied, and sealed (for photograph of No. 5 see the title-page to A. H. Sayce and A. E. Cowley, *Aramaic Papyri Discovered at Assuan* [London, 1906]). It is not inconceivable that the reason for the occurrence of "duplicate" documents at the site (e.g., Nos. 2 and 3, 30 and 31) was that a "closed" text was accompanied by an "open" one.

<sup>16</sup> J. Jordan remarks, "An einer Stelle waren die Tontafeln mit vielen Tonbullen bedeckt" (*Uruk-Warka, nach den Ausgrabungen durch die Deutsche Orient-Gesellschaft* [WVDOG, 1928, Vol. 51], p. 25).

<sup>17</sup> Schmidt, *Treasury*, pp. 33 ff.

<sup>18</sup> Subsequent to the publication cited in the preceding note, Schmidt was able to determine the original location of most tablets and sealings; many were stored not only on the ground level of the Treasury halls but also on a higher level or attic above the archive "Room 33." This fact accounts for the dispersal of both tablets and sealings over a considerable area; with the burning of Persepolis, walls, floors, and roofs or ceilings gave way in various directions, of course, and objects stored on upper levels were widely scattered.

once housed many of the sealings. Visible on the interior of most examples is the impress of strings or cords which once encircled the parchment or papyrus document; within the tube itself there sometimes remains carbonaceous stuff which is all that is left of the original document. In most specimens holes are extant through which once protruded cords for attaching the sealing and its roll to some other object; in a few examples remnants of such cords protruding through the clay of the sealing are still visible. For the most part the seal impressions on sealings are different from those on tablets, although two seal types (Nos. 5 and 8) appear on both objects. The total number of sealings discovered in the Treasury was 199. It is the writer's opinion that the number of clay tablets once kept in the Treasury and of which the 753 tablets and fragments actually recovered represent the remains, did not greatly exceed 200 specimens<sup>19</sup> and therefore that there was once an approximately equal number of sealings and tablets.

The conclusion which we may draw from all this information is obvious, once it is recalled that every clay tablet was equipped with strings for attaching it to some other object: each tablet was tied by means of its strings to a sealing which encircled a parchment or papyrus roll. Inscriptions on tablet and roll were doubtless identical in content but not identical in script. The text on the tablet was written in the Elamite language, that on the roll was surely inscribed with Aramaic characters.

It does not necessarily follow that the inscription on the roll was written in the Aramaic language, but we shall see in a moment that no other explanation is truly valid. To be sure, it might be questioned whether the Persian treasurer and his chief assistant, both of whom regularly bear Old Persian names, would be able to understand (much less read) texts written in any language other than their own Old Persian. It is susceptible of proof that in the last analysis the Treasury texts are translations of Old Persian orders; the fact that they are written in Elamite would seem to indicate only that the supernumeraries and bookkeepers who kept accounts for and in the

<sup>19</sup> See pp. 18 f.; also p. 27. However, Schmidt is of the opinion that only a limited number of the sealings recovered may have inclosed parchment or papyrus rolls.

name of the treasurer had been brought from Elam to do this specific task and consequently needed in their own tongue a translation of an order or request for Treasury funds which had originally been issued in Old Persian. Further, the effort of keeping books, already sufficiently complicated because of the shift in the medium of payment for services from commodities to cash must have been unduly complicated if the accountants were compelled to understand and perhaps to read and write Aramaic and possibly Akkadian as well as Old Persian and Elamite.

Nevertheless there is no sound basis for assuming that the texts on the parchment rolls which once accompanied the tablets were written in Aramaic characters but in the Persian language—in other words, that “Pahlavi” writing was already in existence in the years of Darius. It has indeed been argued that there is evidence for this kind of writing at that time in an inscription upon the tomb of Darius at Naqsh-i-Rustam. There, beneath an Elamite version of one of his texts, is to be found a sadly damaged inscription in Aramaic characters;<sup>20</sup> although no adequate copy has been or perhaps can be made, the only words which to this writer are fully legible compose the Aramaic transcription of the Old Persian words for “Great King.”<sup>21</sup> Nevertheless it must be noted that although all other Old Persian, Elamite, and Akkadian inscriptions on the tomb unquestionably belong to Darius, ascription of this text to him or to his reign is only presumed; it must, in fact, be considered quite dubious, for the same line of the text which yields the above reading shows almost surely the Aramaic characters which spell out the name of an Artaxerxes!<sup>22</sup>

It might also be argued that Darius had in mind this kind of writing (Old Persian in Aramaic characters) when, in one of the last columns of his Behistun inscription, he seems to say:

By the will of Ahuramazda, in other ways I fashioned inscriptions *in Aryan*, (ways) which formerly

<sup>20</sup> Herzfeld, *ApI*, p. 12; the text is beneath the Elamite version of DNb; cf. Herzfeld, “Reisebericht,” *ZDMG*, LXXX (1926), 244; *AMI*, VIII (1937), 12.

<sup>21</sup> חֲשִׁירָהּ וְרֹדֶךְ (= *xšāyathiya vazraka*), l. 20.

<sup>22</sup> Line 20 also shows . . . אִרְתַּחְשֶׁס . . .

did not exist: both on baked bricks and upon leather (parchments).<sup>23</sup>

If we understand Darius to mean that he was the first to inscribe *bricks* “in Aryan”—that is, in the Old Persian language written by means of Old Persian characters—archeology would seem to bear out his claim, for no inscribed bricks were found in the palace at Pasargadae erected by his predecessor Cyrus. His phrase “inscriptions in Aryan . . . upon leather” might be taken to mean the writing of Old Persian language texts in Aramaic characters on parchments, but it might also be understood to have reference to parchments upon which the Old Persian characters were drawn in ink just as they were scratched upon the surface of gold and silver tablets.<sup>24</sup>

In true “Pahlavi” writing some of the written words look superficially as though they were to be read and pronounced as Aramaic words;<sup>25</sup> sooner or later, however, many such words are accompanied by endings which do not belong to the Aramaic forms but which were essential to

<sup>23</sup> DB, § 70. I cannot accept the interpretation of Elamite *har-ri-ia.ma* proposed by König, *Der falsche Bardija* (“Klotho,” IV [Wien, 1938]), p. 48. As he intimates on pp. 47–49, however, the emphasis in the phrase “inscriptions on bricks” (*ha-la-at.uk-ku*) may be on colored glazed bricks; cf. the trilingual inscriptions of Xerxes on such bricks found by Herzfeld at Persepolis (*ApI*, pp. 38 ff.; *Illustrated London News*, April 8, 1933, p. 488). A few other similar bricks, apparently of the Elamite version of this inscription but from which no coherent text could be made, were discovered by Schmidt on the south front of the Apadana in 1939.

<sup>24</sup> Just as Aramaic language texts were written with Aramaic characters on clay, which was not suited for them, and just as Aramaic language texts were written on clay by means of Akkadian signs (cf. C. H. Gordon, “The Aramaic Incantation in Cuneiform,” *AfO*, XII [1937–39], 105 ff.; B. Landsberger, “Zu den aramäischen Beschwörungen in Keilschrift,” *ibid.*, pp. 247 ff.), so there is no reason for believing that Akkadian inscriptions in Akkadian characters, or OP inscriptions in OP characters, might not be written on parchment or papyrus. Cf. B. Meissner, *Babylonien und Assyrien*, II (Heidelberg, 1925), 344; R. P. Dougherty, “Writing upon Parchment and Papyrus among the Babylonians and the Assyrians,” *JAOS*, LVIII (1928), 133 f. This can scarcely have been a common occurrence, however, and the quantity of Persepolis materials can hardly have been so accompanied.

In any event the usual view that Darius’ statement about “inscriptions . . . upon leather” refers to an Aramaic translation of DB such as was found at Elephantine on papyrus is surely incorrect; the inscriptions referred to by Darius were “in Aryan.”

<sup>25</sup> E.g., יום, “day”; שנת, “year.”

their proper pronunciation in Persian.<sup>26</sup> In all cases, as we now know, the texts were to be read not in Aramaic but in the Persian language: the Aramaic words were pseudo-“logograms” which, when the text was read, were to be replaced by the corresponding Persian words.<sup>27</sup>

The development of such a method of writing presupposes a period when Persian texts were first translated into Aramaic and written down in Aramaic. Later, when need arose for translation into Persian by bilingual scribes, it would quickly be seen that the Aramaic writing of specific words could continue, especially if now and then one added certain endings which could suggest to the writer and reader alike what Persian words were intended. It would be difficult indeed to believe that such a method of writing could have arisen at all if from the beginning all Persian words had been transliterated by means of Aramaic characters, for in that case there would never have been any occasion for the entry of Aramaic logograms into the written text.<sup>28</sup>

Naturally, when an Aramean scribe endeavored to translate a Persian order or text into his own tongue, he would frequently be confronted by technical or official words or titles for which Aramaic equivalents were unknown, did not exist, or could not appropriately be used. In such cases he would have no recourse but to transliterate the words in question. That is why the truly official Aramaic documents of the later fifth century which have come down to us—for example, the letters comprising the correspondence of the satrap Arsames—are saturated with Old Persian loan words.<sup>29</sup> The same situation is apparent in the Aramaic records from Persepolis.

As has been noted above, “500 small pieces with Aramaic writing in ink” dating to the reign

<sup>26</sup> E.g., שנתך, *sālak*, “year”; תלכתיך, *bāxtan*, “(to) distribute.”

<sup>27</sup> Cf. Nyberg, *Hilfsbuch des Pehlevi*, II (Uppsala, 1928), xii f.

<sup>28</sup> To Professor W. F. Albright I owe recognition of this principle.

<sup>29</sup> The first information obtainable on the Borchardt-Mittwoch archive of leather rolls from Egypt (cf. J. Kutscher and J. Polotsky, *Kedem*, II [1945], 66–74) demonstrates that these letters of Arsames to the Egyptian officials of about 410 B.C. are written in Aramaic but are saturated with Old Persian loan words similar to the “shipbuilding” papyrus from Elephantine (cf. Cowley, *Aramaic Papyri*, No. 26, pp. 88 ff.).

of Darius are said to have been found by Herzfeld in the Fortifications;<sup>30</sup> and written in ink upon the bases of mortars, plates, and on the handles of pestles which may have been presented to the Treasury in or shortly after the reign of Artaxerxes are more than a hundred Aramaic texts. Preliminary examination of a number of the Fortification pieces by both Dr. Bowman and the writer, and intensive study of the mortars, pestles, and plates, have established the fact that the inscriptions upon all these objects are written in good Aramaic with, however, a comparatively large number of Old Persian loan words chiefly technical or professional (titular) in character. There is nothing in any of these discoveries, therefore, to alter drastically the general understanding that over a large part of the empire Aramaic was the language of the government offices (the chancellery) and of communication between masters and subjects.<sup>31</sup>

The normal procedure followed in the procurement of Treasury funds in payment for services rendered at or near Persepolis may well have been somewhat as follows. A verbal statement was dictated by the officer in charge of the workmen, translated into Aramaic, and written in Aramaic on parchment or papyrus. This document was probably rolled up, sealed, and forwarded to the Treasury office. There the seal would be broken and the text read. The accountants, however, were Elamites who needed a translation of the approved text into their own tongue in order to keep straight their records. This translation, therefore, was prepared by one of the Treasury officials, who frequently cast it in the form of a letter from himself to the treasurer and who always affixed his personal (official) seal to the tablet proper. Payment of the order could now be authorized by the treasurer or his assistant, but after the monies had been paid it was necessary to retain both versions. As the original, more important copy, the parchment was again rolled up or folded over, encircled with a clay ring, and sealed to authenticate it. Strings dangling from the sealing were then tied to strings protruding from the tablet,

<sup>30</sup> See above, p. 23, n. 139.

<sup>31</sup> Cf. Meyer, *Geschichte des Altertums*, IV<sup>3</sup>, 43 f.; Schaefer, *Iranische Beiträge*, Vol. I.



and both original and (translated) copy were filed away together for later examination or reference. The transaction was at an end.

Within our tablets there is a phrase which seems to confirm one detail in this process—a detail regarding the receipt of a sealed parchment roll at the Treasury office. We have said above that the inscriptions on roll and clay tablet were identical in content; this is true only up to a point.<sup>32</sup> After giving the substance of the original, the scribe of a letter-type clay document frequently adds his name and the phrase here under discussion. For some time this phrase had been taken to mean "This sealed order was given; it was received from N."<sup>33</sup> At first it was understood to have reference to the clay tablet inscription and seal impression, but the first part of it occurs also on a number of Fortification texts where that interpretation cannot be valid. In some of these, which were certainly written at Persepolis or in near-by sites, we find such expressions as the following:

A sealed order of the king (*or of N*) he brought.<sup>34</sup>

A sealed order of the king he brought from Susa to Parsa.<sup>35</sup>

A sealed order of N he brought; from Parsa he goes to (the land of) the Elamites.<sup>36</sup>

<sup>32</sup> In the preceding paragraph we have assumed that the salutations or headings of the letter-type texts did not appear in the original documents but that they were added by officials within the Treasury complex whose task it was to prepare the Elamite translations. This assumption appears to be necessary from the following considerations: The seal impressed on a tablet bearing a letter-type inscription is always the seal of the addressor. Some of the orders deal with payments to workmen at sites other than Persepolis and must have originated at those sites. It is improbable that the clay tablet which bore the Elamite translation of such an order would in each case have been sent to the author of the original text in order that he might affix his personal seal. The heading of each letter-type text, therefore, must be a sort of preface to the original text by which a Treasury official brought the matter to the attention of the treasurer and his staff.

<sup>33</sup> See below on pp. 53 f. (*ḫal-mi*).

<sup>34</sup> Thus *ḫal-mi ḫ-sunki.na ku-is* (concluding the text): Fort. 5205 and 7859; (followed by date): Fort. 6766 and 7107.

<sup>35</sup> Thus *ḫal-mi ḫ-sunki.na ku-ti-iš ḫ-šu-šá-an.mar ḫ-ba-ir-šá.ma* (followed by date): Fort. box 226, No. 3.

<sup>36</sup> Thus *ḫal-mi ḫ-ši-iš-šá-u-iš.na ku-is ḫ-ba-ir-šá.mar ḫ-ḫa-lám-tup pa-ráš* (followed by date): Fort. 1637.

Obviously, these expressions refer to some kind of a draft which was in existence prior to the writing of the clay tablet inscription. If both here and in our Treasury tablets we understand the "sealed order" to be a parchment or papyrus roll, then the phrase in question may be interpreted to mean "The sealed parchment roll attached to this tablet has been given to validate payment at the Treasury and was submitted by N."

There is no real explanation apparent for the fact that our Treasury records cease quite suddenly with the last months of the fifth year of Artaxerxes I, in 459 B.C. Although the Persian kings may themselves have resided elsewhere than in Persepolis after that date, they continued to construct palaces and tombs at the site, and Treasury documents would perforce be needed. Yet none has been found.

Can it be that their documents were stored elsewhere, in buildings which for centuries have been exposed to the elements (in which case they would, of course, have disappeared), or in a building which has not yet been excavated? Neither explanation seems probable. Such buildings as were later erected were almost exclusively palaces or audience halls, constructions which would be inappropriate for storage purposes. Further, although portions of the Fortification walls close to the "Mount of Mercy" have not been excavated, it must be admitted that, once a Treasury housing the records of Xerxes was in existence, subsequent documents of similar nature would surely have been deposited there also.

The answer to our questions may lie in a suspicion—and it can be no more than that—that by 459 scribes of Persian or Aramaic, not Elamite, extraction had been placed in complete charge of bookkeeping at the capital. If that were so, accounts would no longer continue to be kept on clay tablets or written in the Elamite language, for these scribes would be proficient in the art of writing on parchments, which have long since disappeared, leaving no trace of their existence.

## III

THE CHRONOLOGY: OF TABLETS, OF TREASURERS,  
AND OF RELATED MATTERS

When the Fortification tablets first became available for study, it was observed that, although nearly every text contained a notation of the month and year during which the service designated had been performed, the year date itself never (in tablets examined up to that time) bore reference to any particular king. Since the years mentioned on the tablets ranged from the eleventh to the twenty-eighth, it seemed that they could be assigned to any one of three Persian kings whose reigns exceeded twenty-eight years—that is, to Darius I (36 years), Artaxerxes I (41 years), or Artaxerxes II (46 years).

Preliminary study on a small body of materials at first led Professor Poebel to the conclusion that the tablets had been written in the reign of Artaxerxes I.<sup>1</sup> Subsequently both Dr. Richard T. Hallock and the writer discovered information leading to the assignation of all Fortification tablets examined at that time to the reign of Darius I. The writer has already published in transliteration and translation the text on one Fortification tablet in which are quoted the words of Darius I as he orders a hundred sheep to be given to his daughter Artystone.<sup>2</sup> Even before this discovery Dr. Hallock had adduced evidence for the dating of the Fortification tablets to Darius. In part, his deduction was based on the names of a few officials who appear in both Fortification and Treasury documents.

It was observed that the earliest Treasury document was dated in the thirty-second year of an unnamed king<sup>3</sup> but that the name of one individual, who is the addressor of a tablet in that year, reappears as the name of the addressee in a tablet which is dated in the second

and subsequent years. Thus it became evident that the Treasury dates ran across the reigns of at least two kings, the first of whom held the throne over thirty-two years.

Provided with this information Dr. Hallock discovered the names of two other addressors: of a scribe and of an individual who delivers a receipt in both groups of tablets. In addition to finding the name of Darius on another Fortification text, he noted that a number of the tablets from that part of the Persepolis Terrace bear the impression of a cylinder seal in which the name of Darius is inscribed in Old Persian, Elamite, and Akkadian. On this basis Dr. Hallock concluded that the king under whom the Fortification texts were compiled was none other than Darius I,<sup>4</sup> and this ascription has since been amply confirmed.

Two tablets of the Treasury group (Nos. 4-5) specifically designate Darius as the source for the order which is entered in them; three others (Nos. 6-8), sealed with the same seal and surely written by the same scribe, indicate him as the source although his name is omitted and merely his title ("the king") is given. Although several tablets bear seal impressions in which a trilingual inscription begins "I (am) Darius," it would be incorrect to assume that such a seal was used exclusively during the reign of Darius; we shall see that "Darius" seals were in use not only in his reign but also in that of Xerxes, and that in the same manner a seal ostensibly belonging to Xerxes continued to be used in the reign of Artaxerxes I.

There is now sufficient basis, therefore, for the statement that the Fortification tablets are assignable to the reign of Darius, and that the tablets in that group dated from the eleventh to the twenty-eighth years were followed by Treasury tablets dated in the thirtieth, thirty-second, and

<sup>1</sup> "The King of the Persepolis Tablets. The Nineteenth Year of Artaxerxes I," *AJSL*, LVI (1939), 301-4.

<sup>2</sup> "Darius' Daughter and the Persepolis Inscriptions," *JNES*, I (1942), 214-18.

<sup>3</sup> Nos. 1-2; actually the earliest tablet is dated in the thirtieth year; see No. 1a.

<sup>4</sup> "Darius I, the King of the Persepolis Tablets," *JNES*, I (1942), 230-32.

## THE CHRONOLOGY

perhaps in subsequent years, of the same king. Other Treasury tablets mention each year of Xerxes (although the king himself is never named) except years 1, 5, 8-9, 11, 13-14, 17, and 21.

Finally, we note that the tablets here numbered 76-79, dated in the first, third, and fifth years of an unnamed king, are all impressed with a seal which was first used on Treasury tablets in the nineteenth year of a king whom we have identified as Xerxes. We note further that a period of intense activity on the part of an individual "responsible for" workmen begins only in the nineteenth year of Xerxes but carries on in two of our texts dating from the first and third years of the unnamed king. Thus we are justified in concluding that the first-, third-, and fifth-year tablets come from the reign of Artaxerxes I,<sup>5</sup> and this conclusion is corroborated by some historical-archeological evidence in the body of the texts themselves which has already been cited in chapter i. Such Treasury tablets as are preserved, therefore, were written within the last seven years of Darius, the reign of Xerxes, and the first five years of Artaxerxes I.

In complete accord with this dating is the list of treasurers which may be compiled (Table 2). Although the treasurer is not always designated as such, there is ample evidence to prove that the person addressed in the letter-type documents is the treasurer, OP *ga<sup>2</sup>zabara*. From the table it can be observed that the apparent treasurer in the twelfth month of the thirty-second year of Darius, Shakka, was replaced in the next (intercalated) month of that year by Baradkama, who served as treasurer for over ten years, into the seventh year of Xerxes. His successor, Barishsha, is documented by only one text, which computed payment for services rendered in the fourth to tenth months of Xerxes' seventh year. At least by the ninth month of the tenth year the treasurer was Vahush; his term of office lasted for almost ten years also, through the last month of Xerxes' nineteenth year. The treasurer throughout Xerxes' twentieth year was Ratininda; perhaps he too remained in office for some time, but our tablet sources become silent as to the name of the treasurer after that year.

The cuneiform sources on this matter may be

<sup>5</sup> See already Hallock, *op. cit.*, p. 232, n. 9.

TABLE 2  
THE TREASURERS AT PERSEPOLIS AS COMPILED  
FROM NAMES OF THE ADDRESSEES

Addressee	Title	Sovereign	Year	Month(s)	Tablet No.
Shakka	None	Darius	32	8-12	1
Baradkama	"			7-12 <sup>b</sup>	2
"	"	Xerxes	2	6a-b	10
"	Treasurer			7-12 <sup>1</sup>	12
"	"		3	1	12a
"	None			3-6	13
"	Treasurer			7	14
"	None			7-12	15
"	"		4	2-3	16
"	"			3-6	18
"	"			7-8	19
"	Treasurer			9-12	21
"	"		6	4-6 <sup>2</sup>	22
Barishsha	"		7	4-10 <sup>3</sup>	25
Vahush	"		12	11-12 <sup>b4</sup>	27
"	"		15	9	28
"	"			10	29
"	"		16	5-6 <sup>5</sup>	31
"	"		18	12	33
"	"In the fortress"		19	9	36
"	Treasurer			9	37
"	"			10	38-38a
"	"			11	41-42
"	"			8-12	42b
"	"In the fortress"			11-12	44
"	Treasurer			12	46-48
Ratininda	"		20	1 <sup>6</sup>	49-49a
"	"			2	52-59
"	"			3	63
"	"			4	68
"	"			10-12	75

## NOTES TO TABLE 2

<sup>1</sup> Date of tablet inscription: year 3, month 4.

<sup>2</sup> Date of tablet inscription: year 6, month 9.

<sup>3</sup> Tablet No. 24, which computes payment for services rendered in the first and second months of year 7, names Baradkama as the individual responsible for the workmen. Hence he was presumably still treasurer in these months of the seventh year; apparently by the fourth (or tenth?) month of this year he had been replaced by Barishsha.

<sup>4</sup> Date of tablet inscription: year 13, month 6. Tablet No. 26, which computes payment for services rendered in the seventh to ninth months of the *tenth* year, names Vahush as the individual responsible for the workmen. Hence Barishsha, treasurer in the seventh year, had apparently already been replaced by Vahush by the latter half of the tenth year, if not before.

<sup>5</sup> Date of tablet inscription: year 16, month 7.

<sup>6</sup> Two tablets (see No. 49b) compute payment for services rendered in the last months of the nineteenth year when Vahush was treasurer: one is for the tenth and eleventh months, one is for the twelfth month only. Since the order directing payment was not written until some time in the twentieth year, however, the treasurer addressed was not Vahush but Ratininda.

supplemented by the inscriptions in ink and in the Aramaic language on the mortars, pestles, and plates described in chapter i. Both a treasurer, *garzabara* (גנזבר), and a vice-treasurer, *upagarzabara* (אפגנזבר), are there named, but none of the names even faintly resembles that of any treasurer found in our tablets. Bagapat (בגפא), for example, is named as treasurer from at least the third year into the twenty-fourth year of an unnamed king. By the seventh year of another king the treasurer was Dat-Mithra (דתמיתר), who continues into the nineteenth year of the same ruler. All these materials, as noted above, will subsequently be published by Professor R. A. Bowman, whose results cannot be anticipated here. Preliminary examination at Persepolis of these Aramaic inscriptions, however, convinced the writer that since the treasurers named in them do not tally with those named in the Treasury tablets it is probable that the inscriptions (and hence the objects) date from the reigns of Artaxerxes I (464–424) and his successor Darius II (423–405) or, less probably, from the reigns of Artaxerxes II (404–359) and his successor Artaxerxes III (358–338).

For the chronological picture of the reigns of the early Achaemenid sovereigns the dating materials found in our tablets are important and supplement the materials derivable from the Behistun inscription of Darius. In Behistun, the name of an Old Persian month as it appeared in both the Old Persian and Elamite versions was merely replaced, in the Akkadian version, by the name of the corresponding Babylonian month; the twenty-seventh day of Anamaka, for example, was equated with the twenty-seventh day of Tebetu. It follows that the calendar in use by the Old Persians at that time was none other than the official civil calendar of Babylonia; the Babylonian months had merely been given Old Persian names. Our tablets demonstrate that this civil calendar as employed by Darius in his Behistun inscription suffered no change during the last years of his reign or during the years of Xerxes and through at least the first five years of Artaxerxes I who succeeded.<sup>6</sup>

<sup>6</sup> See above, p. 9, n. 47; since the names of the months in Treasury texts are without exception borrowed from OP, they will be treated in the section on OP loan words (chap. v).

It also follows, therefore, that the calendaric system of the early Old Persian rulers at Persepolis and in the province Parsa was likewise borrowed in full from Babylonia.

Four of our tablets give evidence for the practice of intercalating an extra month at Parsa as follows:

Sovereign	Year B.C.	Month Intercalated	Tablet Nos.
Darius, year 32	489	Second Viyaxna (Addaru)	2
Xerxes, year 2	484	Second Karbashiya (Ululu)	10, 11
Xerxes, year 12	473	Second Viyaxna (Addaru)	27
Artaxerxes I, year 5	459	Second Viyaxna (Addaru)	79

This evidence is in complete agreement with that derivable from Babylonian tablets. An intercalated Addaru in the thirty-second year of Darius has long been known,<sup>7</sup> and our evidence for it is but supplementary. Although proof for the other intercalated months which appear in our tablets has not yet come to light in texts from Babylonia, the information they give fits in every respect with the system known to be in force in Babylonia shortly after 500 B.C.<sup>8</sup>

It will frequently be noted in this volume that the date which appears in the tablet inscription is not necessarily the date when the inscription itself was written. Rather, the date given is that of the period of time during which the laborers carried on their work. The usual work period was one month or more (the over-all average is a little more than four months); only two texts

<sup>7</sup> Ungnad, *VS*, IV (1907), No. 179:9–11, cited in F. X. Kugler, *Sternkunde und Sterndienst in Babel*, II (Münster in Westfalen, 1909/10), 413; M. D. Sidersky, *Etude sur la chronologie assyro-babylonienne* (Paris, 1916), p. 30; F. H. Weissbach in *Hilprecht Anniversary Volume* (Leipzig, 1909), p. 285.

<sup>8</sup> Cf. Pl. I opp. p. 4 of Parker and Dubberstein, *Babylonian Chronology*. The above evidence has all been incorporated in that volume (see esp. p. 7). However, at the time the first edition of their book was prepared, PT 4-996 there cited (here published as No. 79) was considered to be dated in the fifth year of Xerxes, in which case it seemed to attest a hitherto undocumented second Addaru in 480 B.C. (cf. *ibid.*, p. 29). Since this tablet must be ascribed to the fifth year of Artaxerxes I, it now attests a second Addaru presumed by Parker and Dubberstein but not heretofore proven for 459 B.C. As such it has been entered in the second (1946) edition of their volume.

Tablet No. 33 here published computes payment for services performed in the twelfth month (Viyaxna = Addaru) of Xerxes' eighteenth year. According to the system proved by Parker and Dubberstein, there was an intercalated Addaru (presumed but unattested) in this year. Our tablet does not specify which Viyaxna was intended, but we must assume that it was the first.

## THE CHRONOLOGY

indicate a period of less than a month, and these (Nos. 69 and 70), which compute payment for services performed during ten days of the fourth month of Xerxes' twentieth year, bear considerable resemblance to each other. Seven letter-type documents from the reign of Xerxes, however, bear two dates: one specifies the work period, the second names the month and year in which the tablet inscription was written, thus:

WORK PERIOD		TABLET DATE		TABLET NO.
Year	Months	Year	Month	
2	7-12	3	4	12
3	1	3	4	12 <sup>a</sup>
6	4-6	6	9	22
12	11-12 <sup>b</sup>	13	6	27
16	5-6	16	7	31
19	9	19	11	37
19	11	19	11	41

It is interesting to observe that with typical bureaucratic or oriental promptness the order for payment of the workmen (dated in the month when the tablet was written—no day is ever indicated) is with but one exception delayed anywhere from one to six months after the work had been performed. It is also worthy of note that no draft on the Treasury ever specifies that the work period included parts of two consecutive years.

For the Treasury paymasters the significant date was evidently the work period, since this is always given. The chronological organization of the tablets in this volume, consequently, follows their lead, and the last month specified in the dating of the work period provides the key to our arrangement.

There are a surprising number of near-duplicate documents in the materials here published. Thus in the letter-type texts there is close resemblance between the pairs of texts numbered 16 and 19, 28 and 29, 42 and 60, and 47 and 58. Memorandums numbered 17 and 20 are very similar to each other, as are Nos. 34 and 35. In each pair, however, there is adequate reason for their differences, and that reason always involves chronology.

In Nos. 16 and 19 we have the same addressor, addressee, and scribe, the same totals and number of workmen employed at identical tasks. In No. 16, however, the payment is for the second and third months of Xerxes' fourth year; in No.

19 it is for the seventh and eighth months of that year. Exactly the same reason underlies the resemblances and the differences in Nos. 28 and 29: No. 28 calls for payment for the ninth month of the fifteenth year, No. 29 for the tenth month. Similarly, in memorandums numbered 34 and 35 the payment is for different months but to the same individuals. In memorandums numbered 17 and 20, which stipulate payment to the same number of men at the same jobs and wage scale, No. 17 pays for only two months, No. 20 for four months; in the latter text, of course, the totals are doubled.<sup>9</sup>

A slightly different chronological reason underlies the differences—in spite of the resemblances—between Nos. 42 and 60 and Nos. 47 and 58. In the first two texts the totals are identical and payment is made to the same workmen at the same wage scales; in No. 42, however, the payment is for work performed in the eleventh month of the nineteenth year, in No. 60 for work in apparently the second month of the twentieth year. In the interval a new treasurer had assumed office; No. 60, therefore, written by the same addressor as No. 42, had to be addressed to a different treasurer, and the name of the new official has been restored in the damaged text. Proof for this restoration is found in the other pair of near-duplicates, Nos. 47 and 58. Here also we find the same number of workmen doing identical tasks for the same period of time, but because the wage scale is slightly different the total payments are not the same. Number 47, however, is for the twelfth month of the nineteenth year, No. 58 for the second month of the twentieth year; therefore the new treasurer, who took office at the beginning of the year, is addressed by the same author.<sup>10</sup>

It is interesting to follow the fluctuations in wage scales and the number of workmen employed on the same kind of task down through the years—for example, the wages secured and the number of men employed in the preparation

<sup>9</sup> The total payment stated in No. 68<sup>a</sup> is just double that in No. 68, although in both tablets the addressee is the same. Unfortunately the date of No. 68<sup>a</sup> is missing; were it intact we would doubtless find that payment was for twice the period of time specified in No. 68.

<sup>10</sup> The same phenomenon is apparent in Nos. 49 and 49<sup>a</sup> as contrasted with No. 49<sup>b</sup>.

of sculpture. In two documents dating from the fourth year of Xerxes,<sup>11</sup> the following figures are given:

10 men @  $1\frac{1}{2}$  shekels  
 10 " @  $\frac{3}{4}$  shekel  
 14 " @  $\frac{1}{2}$  "

In the seventh year the wage scale is unchanged, but different numbers of workmen are given:<sup>12</sup>

11 men @  $1\frac{1}{2}$  shekels  
 7 " @  $\frac{3}{4}$  shekel  
 10 " @  $\frac{1}{2}$  "

Similarly, in the tenth year the scale remains unchanged, but a smaller number of workmen is employed:<sup>13</sup>

7 men @  $1\frac{1}{2}$  shekels  
 5 " @  $\frac{3}{4}$  shekel  
 6 " @  $\frac{1}{2}$  "

By the twelfth year the number of workmen has increased but the increase is in the lower income bracket:<sup>14</sup>

1 man @  $1\frac{1}{2}$  shekels  
 5 men @  $\frac{3}{4}$  shekel  
 14 " @  $\frac{1}{2}$  "

By the sixteenth year there seems to be a considerable reduction in the wage scale specified:<sup>15</sup>

10 men @  $\frac{2}{3}$  shekel  
 6 " @  $\frac{1}{2}$  "  
 7 " @  $\frac{1}{3}$  "

But this is probably only a superficial reduction, for the wage scale indicated doubtless represents only one-third of the total payment with the balance having already been paid in sheep or wine. This is suggested by a document from the seventh year in which payments are as follows:<sup>16</sup>

5 men @  $\frac{2}{3}$  shekel  
 3 " @  $\frac{1}{2}$  "  
 3 " @  $\frac{1}{3}$  "

Here it is specifically stated that the equivalent of two-thirds of the payment has been made in wine—that is, this cash payment is only for the balance due.

<sup>11</sup> Nos. 17 (months 3–4) and 20 (months 7–10).

<sup>12</sup> No. 24 (months 1–2).

<sup>13</sup> No. 26 (months 7–9).

<sup>14</sup> No. 27 (months 11–12b).

<sup>15</sup> No. 32 (months 9–11).

<sup>16</sup> No. 25 (months 4–10).

Somewhat startling is the disparity in the wages of accountants. In two texts dating from the fourth year of Xerxes we find each of 13 men receiving  $\frac{1}{2}$  shekel per month through 4 months of the year,<sup>17</sup> and in another text only 10 men secure the same amount for the last 4 months of the same year.<sup>18</sup> By the twentieth year, however, each of 9 men obtains  $5\frac{5}{8}$  shekels<sup>19</sup> and another individual secures  $7\frac{1}{2}$  shekels,<sup>20</sup> and both of these sums represent but one-half of the total wages paid. At this distance we are at a loss to understand why the individuals in the two latter texts received such large amounts unless we assume that they were more highly skilled in their profession.

Women<sup>21</sup> do not appear in Treasury tablets until the fifteenth year of Xerxes, boys<sup>22</sup> and girls<sup>23</sup> not until the nineteenth year. This may be accidental, for all sexes and ages are mentioned in Fortification documents.<sup>24</sup> When women are mentioned it is as "Treasury workmen and artisans,"<sup>25</sup> "workmen,"<sup>26</sup> "armorers,"<sup>27</sup> "goldworkers,"<sup>28</sup> "coppers,"<sup>29</sup> "tax handlers,"<sup>30</sup> "shepherders,"<sup>31</sup> "wine makers,"<sup>32</sup> and "beer tenders."<sup>33</sup> Boys and girls perform much the same tasks as women, but with the boys there is much heavier emphasis (as we might expect) on the herding of animals.<sup>34</sup>

<sup>17</sup> Nos. 16 (months 2–3) and 19 (months 7–8).

<sup>18</sup> No. 21 (months 9–12).

<sup>19</sup> No. 56 (month 2).

<sup>20</sup> No. 57 (month 2).

<sup>21</sup> Usually written *MUNUSMUNUS*<sup>idz</sup>, but also frequently merely *MUNUSMUNUS* and twice (in Nos. 6 and 52) *MUNUS*<sup>idz</sup>; often, of course, the ideographic group is replaced, after its first occurrence, by *MUNUSKI.MIN*.

<sup>22</sup> Invariably written *»pu-ḥu* or *»pu-ḥu*<sup>idz</sup>, but frequently replaced, after one occurrence, by *»KI.MIN*.

<sup>23</sup> Written *MUNUSpu-ḥu* or *MUNUSpu-ḥu*<sup>idz</sup>.

<sup>24</sup> E.g., Fort. 1016, dated in the twenty-fourth year (of Darius).

<sup>25</sup> Nos. 28–29 (year 15); "at Parsa," Nos. 39 (year 19), 66, 69 (year 20); "at Kamaini," No. 40 (year 19).

<sup>26</sup> "In Shiraz," No. 42 (year 19); "in Fasā," No. 53 (year 20).

<sup>27</sup> "In Hankurraka," No. 52 (year 20).

<sup>28</sup> No. 37 (year 19).

<sup>29</sup> No. 49 (year 20).

<sup>30</sup> "In Harkadushi," No. 41 (year 19).

<sup>31</sup> "In Makalak," No. 61 (year 20); elsewhere, No. 50 (year 20).

<sup>32</sup> No. 36 (year 19).

<sup>33</sup> No. 46 (year 19).

<sup>34</sup> Nos. 47–48 (year 19), 50, 58–59, 61, 63, 72 (all year 20).

## IV

## WEIGHTS AND SYSTEMS OF ENUMERATION

The inscriptions on our tablets are drafts on the Treasury payable to workmen for tasks they have performed. The age-old method of payment in kind was, at the time the inscriptions were written, suffering drastic modification owing to a new method of payment in cash. As we have seen, elements of the older system are still observable in the body of many texts, but totals and computed payments to individuals, whether interpreted on the basis of sheep, wine, or other commodities at a fixed rate of exchange, are always computed in and assume the existence of coined money. These totals involve a monetary unit, the Old Persian karsha.

As in Babylonia, where the monetary system comprising the talent, the mina, and the šē was based on units of weight, so too the Persian karsha was originally a ponderable mass.<sup>1</sup> Several Persian weights have been discovered; some of these, from the reign of Darius, bear inscrip-tional evidence of their value: one represents 2 karsha ( $\frac{1}{3}$  mina);<sup>2</sup> another, 120 karsha (20 mina);<sup>3</sup> another, 60 karsha (10 mina).<sup>4</sup> Thus the actual weight of a karsha can be reliably reported as 83.33 grams or about 2.93+ ounces.

As a monetary unit, however, the karsha had already been known from the Aramaic documents of Elephantine of a somewhat later date; there it was subdivided as follows:

- 1 karsha = 10 shekels (שֶׁקֶלִים)  
 1 shekel = 4 quarters (רָ)  
 1 quarter = 10 ḥallurin (חֲלָרִין)<sup>5</sup>

At Persepolis also the karsha is subdivided into ten pieces, each of which was therefore the equiv-

<sup>1</sup> Cf. L. H. Gray in A. V. Williams Jackson, "Indo-Iranian Contributions," *JAOS*, XX (1899), 55.

<sup>2</sup> Weissbach, *KA*, pp. 104 f. (weight: 166.724 grams); cf. "Zur keilinschriftlichen Gewichtkunde," *ZDMG*, LXV (1911), 641; and "Neue Beiträge zur keilinschriftlichen Gewichtkunde," *ibid.*, LXX (1916), 78 ff.

<sup>3</sup> Schmidt, *Treasury*, pp. 62 f. (weight: 9.950 kg., with chips broken away).

<sup>4</sup> Unpublished.

<sup>5</sup> Cowley, *Aramaic Papyri*, pp. xxx-xxxi.

alent of a Babylonian shekel. The single Akkadian text from the Treasury (No. 85), a re-valuation of monies submitted as taxes in the twentieth year of Darius, consistently involves the testing and handling of a ten-shekel piece—that is, of the karsha.

For the name which each "shekel" piece bears in the Elamite texts, however, no satisfactory etymology has yet been found. It is written as follows:

1. The more common form is *pan-su-kaš*, which appears in more than seventy texts. If the word should turn out to be a loan word from Old Persian a transliteration *ban-su-ka(š)* might be found to be more accurate.<sup>6</sup>

2. The writing *pan-su-uk-kaš* occurs in four texts<sup>7</sup> and is merely a variant of the preceding.

3. The writing *ba.pan-su-kaš* appears in No. 17:1 and has been transliterated as <sup>ba</sup>*pan-su-kaš*—i.e., as an (Elamite) attempt to indicate the sound of the first syllable. The same text gives four other occurrences of the word, all written *pan-su-kaš*.

4. The writing *ba-su-ka*<sub>4</sub> occurs on the badly damaged text No. 10a.

This word for "shekel" is replaced by *KA*<sub>1</sub><sup>id<sub>2</sub></sup> in two texts (Nos. 45:1 and 77:1) and by *ki-EL* in two others (Nos. 7:2 and 8:2); once, where we expect either *pan-su-kaš* or *KL.MIN* ("the same," "ditto") we find *ki-EL.na* (No. 27:5).<sup>8</sup> Such writings are baffling.

The šē appears only in text No. 82 (as šē.BAR = *uṭṭetu*<sup>9</sup>).

In the computations, therefore, "karsha" (written *kur-šá-um/am*) and "shekel" (*pan-su-*

<sup>6</sup> There is no correspondence between El. *s* (as in *su*) and Iranian *c*; thus a derivation involving Iranian *panca* (Av. *panča*), modern Persian *panj*, is out of the question. The final *š* (in *kaš*) may be of Elamite origin. Note that El. *b* usually renders OP *p*.

<sup>7</sup> In Nos. 1, 3-3a, and 9.

<sup>8</sup> The concluding genitive postfix *na* suggests that this writing is merely an error for *KL.MIN.na*.

<sup>9</sup> Cf. A. Sachs, "Notes on Fractional Expressions in Old Babylonian Mathematical Texts," *JNES*, V (1946), 203 ff.

*kaš*) occur frequently. There is need also for a number of fractions. Those in everyday use were  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{6}$ ,  $\frac{1}{8}$ ,  $\frac{1}{9}$ ,  $\frac{1}{12}$ ,  $\frac{1}{16}$ , and  $\frac{1}{18}$ , with multiples including  $\frac{2}{3}$ ,  $\frac{3}{4}$ , and  $\frac{2}{5}$ .<sup>10</sup> Two distinct methods of writing fractions are apparent. In one (A), specific words for the fractions concerned are employed, and most of these words are of Old Persian origin. In the other method (B) the terminology appears to be of Elamite origin.

#### A. WORDS EXPRESSIVE OF PARTICULAR FRACTIONS

- $\frac{1}{2}$ : *pīr-nu-ba* (4 texts)<sup>11</sup>  
*pīr-nu-ba-ak*, *pīr-nu-ba-ik* (9 texts)<sup>12</sup>  
*pīr-nu-šu* (27 texts), *pīr-na-šu* (2 texts)<sup>13</sup>  
*pīr-nu-ip* (3 texts)<sup>14</sup>  
*pīr-nu-ip-šu* (18 texts)<sup>15</sup>  
*pīr-nu-ip-su* (3 texts)<sup>16</sup>

No satisfactory etymology for this word has been found.<sup>17</sup>

- $\frac{1}{3}$ : *ši-iš-maš* (36 texts)<sup>18</sup>  
*ši-šu-maš* (2 texts, the near-duplicates, Nos. 28–29).

<sup>10</sup> In the single Akkadian document (No. 85),  $\frac{1}{3}$  (*pitqa*) and  $\frac{1}{4}$  (*gir-ú*) are used.

<sup>11</sup> In 18:22; 38:7; 42a:3, 4; 60:7, 17. It is by no means easy always to distinguish *šu* from *ba*, however, and some of the forms read *pīr-nu-ba* may be *pīr-nu-šu*, and vice versa. Both forms are clearly documented, however.

<sup>12</sup> In 30:18; 31:13 f.; 37:3, 8; 41:4, 13 f.; 42:4, 10, 15, 17, 21; 46:5, 14, 16, 19 f.; 47:5; 48:4; 59:4. Note the use of both forms in No. 42.

<sup>13</sup> See preceding n. 11. For the form *pīr-nu-šu* see, e.g., 49:8 f., 18; 52:8, 14, 17 f.; 53:3, 9, 14, 18, 21. The form *pīr-na-šu* occurs in 12:3 and 21:14.

<sup>14</sup> In 20:16; 36:5 (note the use of *pīr-nu-ip-šu* in l. 13); 40:15 (note the use of *pīr-nu-ip-šu* in ll. 5 f., 12, 19).

<sup>15</sup> E.g., 17:13, 16 f.; 61:6, 13, 17, 20, 23; 63:11. Note the use of *pīr-nu-ip-šu* in 57:8 f., 13, but *pīr-nu-šu* in l. 4.

<sup>16</sup> A scribal error may be involved in this writing; although *su* is clear in 23:16 f. and 73:16 f., in 76:1 f. *pīr-nu-ip-su* is contrasted with *pīr-nu-ip-šu* in ll. 14 f.

<sup>17</sup> The word may, of course, be of Elamite origin although its form is peculiar. It is perhaps extremely hazardous to connect it with Av. *parəna-*, "full," which (like *θri-māhya-* and *čəθru-māhya-*) is associated with *māh-* in *parənō-māh-*, "full moon(-god)" (*BAiW*, cols. 895 f.), although the full moon normally divides the month into two more or less equal parts as in Babylonia. The fuller forms of our word would be left unexplained, however, unless we could postulate a development such as *pīrənu/i* + El. *š* or *pīrənu/i* + El. plural *-ip* and *š*, for which there are no other analogous formations.

<sup>18</sup> E.g., 25:5, 12, 18, 21; 33:8, 16; 68:3, 7, 11, 14; 75:10, 18, 23.

This word subsumes an OP *\*čišwa* (cf. *čitīyam*, "third") parallel to Av. *θrišva-*, "third."<sup>19</sup> The written form (in which the final *š* is doubtless of Elamite origin) shows the expected correspondence of El. *š* for both OP *ç* and *š*. Usually the word alone is adequate, but three times it is preceded by the numeral 1 (Nos. 28, 45, 70). The fraction  $\frac{2}{3}$  is written 2 *ši-iš-maš*.

- $\frac{1}{4}$ : *ša-áš-maš* (15 texts)<sup>20</sup>  
*ša-iš-šu-maš* (3 texts, Nos. 15, 18, 22)  
*ša-iš-šu-iš-maš* (1 text, No. 13)  
*ša-iš-šu-iš-ma* (1 text, No. 14)  
*ša-šu-iš-ma* (1 text, No. 12)

The above forms give evidence of scribal difficulties in rendering an Old Persian word which is assumed to be *\*caçušwa*, corresponding to Av. *čəθrušva-*, "fourth."<sup>21</sup> The fraction is usually written by the word alone, but 1 *ša-šu-iš-ma* is written in No. 12. The fraction  $\frac{3}{4}$  is written by placing the numeral 3 before the word.

- $\frac{1}{8}$ : *áš-du-maš* (2 texts, Nos. 15 and 39)

This form subsumes an OP *\*aštama* parallel to Av. *aštəma-*, "eighth."<sup>22</sup> No multiples have yet appeared.

- $\frac{1}{9}$ : *nu-ma-u-maš* (1 text, No. 22).

This writing appears to be a somewhat inexact rendering of OP *navama*, "ninth,"<sup>23</sup> parallel to Av. *naoma-*, *nauma-*.<sup>24</sup>

$\frac{1}{8}$ : *da-na-kaš* (1 text, No. 28:22); an OP word for  $\frac{1}{8}$  shekel.

#### B. ELAMITE METHOD OF EXPRESSING FRACTIONS

The second method of expressing fractions involves the use of what is apparently an Elamite phrase *ir-ma-ki* which may mean "in it, one."<sup>25</sup>

<sup>19</sup> *BAiW*, col. 812; the author is indebted to R. G. Kent for this identification.

<sup>20</sup> E.g., 20:15; 40:1, 10, 13–14, 16, 18, 21–22; 54:3, 10, 13–14 f., 16–17.

<sup>21</sup> *BAiW*, col. 580; cf. Christian Bartholomae in W. Geiger and E. Kuhn (eds.), *Grundriss der iranischen Philologie*, I, 1 (Strassburg, 1895–1901), §§ 210 (4), 200.

<sup>22</sup> *BAiW*, col. 262.

<sup>23</sup> DB, § 4; DBa, § 4.

<sup>24</sup> *BAiW*, cols. 1045 f., and Bartholomae, *op. cit.*, I, 1, § 211 (9).

<sup>25</sup> That *ki* means "one" seems to be clear from No. 5:11 (cf. also *be-ul ki.ma*, "in one year," in DB, §§ 52, 56–57, 62). I have assumed that *.ma* (in *ir-ma-ki*) is a postfix and that *ir* is the third person pronoun. This interpretation is not altogether satisfactory, for *ir* is the "personalized" pronoun



Thus the fraction  $\frac{1}{4}$  is written *4 ir-ma-ki* and seems to mean "4, in-it-one (is to be regarded)"; the fraction  $\frac{3}{4}$  appears as *3.4 ir-ma-ki* with the meaning "3 (times the fraction) 4 in-it-one." Refinement of this method, for example, permits the fraction  $\frac{1}{18}$  to be expressed by "half of a ninth," in which the word "half" is that examined above under procedure A while "of a ninth" is written *9 ir-ma-ki.na*.

The meanings of such writings are adequately proved by the computations within the tablets, where there is abundant opportunity for checking. Also, one scribe substituted *2 ir-ma-ki* ("one-half") and *3 ir-ma-ki* ("one-third") for the more usual words for "half" and "third" examined above under method A.<sup>26</sup>

The following usages are current:

- $\frac{1}{2}$ : *2 ir-ma-ki* (No. 31); *2(?) kur-ma-ki* (No. 39)  
 $\frac{2}{3}$ : *3 ir-ma-ki* (No. 31)

meaning rather "he, him." Note also the variants *ir-ma-ak*, *ir-ma-ka*, *ir-mat-ki*, and *kur-ma-ki* in the list below. The last form instantly connects the word as used in these texts with *ki ir-ma-ka*, meaning "whole" (parallel to OP *harwa*) in DSf:15. The expression clearly seems to be of Elamitic origin; but one scribe at least was not familiar with his own wording, for he uses *1 ir-ma-ki* and *2 ir-ma-ki* to express "one-third" and "two-thirds" respectively (No. 30).

<sup>26</sup> Cf. No. 31:6 f. (*2 ir-ma-ki*) with Nos. 37:3, 46:4, etc.; cf. No. 31:15 (*3 ir-ma-ki*) with No. 37:17, etc.

- $\frac{1}{4}$ : *4 ir-ma-ki* (Nos. 37 and 42); *4 ir-ma-ak* (Nos. 28-29)  
 $\frac{1}{6}$ : *6 ir-ma-ki* (Nos. 21, 25, 37, 69-70)  
 $\frac{1}{8}$ : *8 ir-ma-ki* (Nos. 38, 39-40, 42, 52-54, 56, 61); *8 ir-ma-ka* (No. 13)  
 $\frac{1}{9}$ : *9 ir-ma-ki* (Nos. 46, 49, 50, 69-70)  
 $\frac{1}{12}$ : *12 ir-ma-ki* (Nos. 37 and 40)  
 $\frac{1}{18}$ : *pír-nu-ip-šu 8 ir-ma-ki.na*, "half of an eighth" (No. 40)  
 $\frac{1}{18}$ : *pír-nu-šu 9 ir-ma-ki.na*, "half of a ninth" (Nos. 49, 69, 70)  
*pír-nu-ba-ik 9 ir-ma-ki* (No. 46)  
 $\frac{2}{3}$ : *2.9 ir-ma-ki* (Nos. 15, 49, 50, 69-70)  
 $\frac{3}{4}$ : *3.4 ir-ma-ki* (Nos. 38, 41-42, 59)  
*3.4 ir-mat-ki* (No. 27, twice)

In checking the mathematical calculations involving the above-mentioned fractions, it has been found convenient to use the sexagesimal system. Thus the fraction  $\frac{1}{2} = 0;30$ ;  $\frac{1}{3} = 0;20$ ;  $\frac{1}{4} = 0;15$ ;  $\frac{1}{6} = 0;10$ ;  $\frac{1}{8} = 0;7,30$  (that is, seven  $\frac{1}{80}$ -units plus thirty  $\frac{1}{80}$ -units);  $\frac{1}{9} = 0;6,40$ ;  $\frac{1}{12} = 0;5$ ; and  $\frac{1}{18} = 0;3,20$ . Multiples of these fractions are then expressed as follows:  $\frac{2}{3} = 0;40$ ;  $\frac{3}{4} = 0;45$ ; and  $\frac{2}{3} = 0;13,20$ .<sup>27</sup>

<sup>27</sup> Cf. O. Neugebauer and A. Sachs (eds.), *Mathematical Cuneiform Texts* ("American Oriental Series," Vol. XXIX [New Haven, 1945]), pp. 2-6. I am greatly indebted to Dr. Sachs, who prepared for my use a table showing the sexagesimal totals for multiples from 1 to 350 of all fractions encountered in these texts.

## V

## OLD PERSIAN LOAN WORDS IN ELAMITE TEXTS

No language is entirely free from borrowed words, because no people has ever been completely isolated. Here we meet with a fundamental principle first formulated by E. Windisch: "It is not the foreign language a nation learns that turns into a mixed language; it is rather that its own native language becomes mixed under the influence of a foreign language."<sup>1</sup> Loan words do not always show a superiority of the people from whose tongue they are borrowed; they may be a necessity and not be extensive, or they may bear witness to superiority in a few specific branches of human endeavor only. In modern times translators are responsible for the great majority of intrusive words; such words might be avoided by turning the sentence a little differently or by resorting to native composition or derivation. We may suspect that in the ancient Near East some of the loan words are symptomatic of the turbulent, constantly changing ethnic and linguistic strata, but here too the influence of translators was forcefully at work.

We have known for a long time that the monumental inscriptions of the Achaemenid princes were first formulated in Old Persian and that the Elamite and Akkadian versions were but translations; hence the number of Old Persian loan words in the Elamite copies was to be expected. Had we failed to realize that the Elamite texts on clay tablets from Persepolis were likewise nothing but translations from the same tongue, the number of Old Persian words found in them could only be regarded as excessive. By understanding that a spoken order in Old Persian preceded the writing of these clay tablets, the number of words borrowed from Old Persian is not surprising.

Table 3 includes those words known hitherto; these appear in roman type. To them have been added, in italic type, those Old Persian words

<sup>1</sup> "Zur Theorie der Mischsprachen und Lehnwörter," *Verhandlungen der sächsischen Gesellschaft der Wissenschaften*, XLIX (1897), 104; cf. Otto Jespersen, *Language* (London, 1922), pp. 208 ff.

in the Persepolis tablets which have been plausibly or positively identified. In many cases the form of the Old Persian word can be written tentatively only. In order not to becloud the picture the list excludes personal and geographic names (together with their elements) and also such words as *Arta*, *Ariya* ("Aryan"), *Haumavarga* ("Amyrgian"), and the like, all of which could be considered proper names.

This list needs little explanation, and the forms added from our tablets only will here be considered. Some of them were already known either from Old Persian texts (thus *duwara*, "door"; *patikara*, "sculpture"; *bāji*, "tax"; *navama*, "ninth"; *nipištam*, "inscription"; and the combining forms *-kara* and *-bara*) or from other sources (e.g., *ga<sup>za</sup>*, "treasure"; *ga<sup>za</sup>-bara*, "treasurer"; *dānaka*, "one-eighth shekel"; *framāna-kara*, "foreman"). Their appearance here merely shows that they were actually transliterated into Elamite. Many of the words are postulated on the basis of forms in Avestan (thus *\*āstama*, "eighth"; *\*Ātar-vaxš*, "Fire-watcher"; *\*karšika*, "cultivator"; *\*caçušwa*, "fourth"; *\*dauça*, "libation"; *\*dasa*, "ten"; *\*çišwa*, "third"; *\*pasca*, "after, vice-"; *\*rabuwiš-kara* [the name of a haoma priest]; and *\*sata*, "hundred"), or in Pahlavi or modern Persian (thus *\*ādaina-kara*, "ornament maker"). Use of the combining form *-pati*, Av. *patay-* (*pati-*), "lord, master,"<sup>2</sup> was to be expected, and while *\*xara-pati*, "ass herder(?)," is conjectural, *\*dasa-pati*, "decurion," and *\*sata-pati*, "centurion," are certain.<sup>3</sup> There is no sound derivation for an

<sup>2</sup> Modern Persian *-bad*; cf. *BAiW*, col. 821; Paul Horn, *Grundriss der neupersischen Etymologie* (Strassburg, 1893), No. 188.

<sup>3</sup> Cf. Av. *baivarə-patay-*, "lord of ten thousand," *BAiW*, col. 914; for *dasa-*, "ten," cf. *ibid.*, cols. 700 f.; for *sata-*, "hundred," *ibid.*, col. 1555.

With *sata-pati* and the implied organization of workmen into groups of hundreds cf. 𐤍𐤏𐤍𐤁, "centuria," in the Elephantine papyri (Cowley, *Aramaic Papyri*, p. xvi and No. 22: 19-20; there too the reconstructed 𐤍𐤏𐤍𐤁 𐤇𐤁 of Nos. 2:11 and 3:11 is the assumed Aramaic equivalent of our title and is perhaps extant [in the plural] in No. 80:3).

OP \**karta* save the perhaps too obvious association with the past participle of the root *kar* and the fact that in all its occurrences El. *kur-taš* (with El. *š*?) seems to mean "worker." The postulated \**zraza(-kara)* shows the word in its Median form; \**fravak-*, \**kufriya*, and \**uzbarna* have little to defend them save applicability of the apparent respective meanings to their contexts. Naturally the words in Table 3 constitute only part of the picture; numerous other Old Persian words and/or elements occur in proper names, which have been rigorously excluded. More significant are the names of the twelve calendar months.

In a very few Fortification texts, Elamite month names continue to be used contemporaneously with the Old Persian names,<sup>4</sup> and once—in an Elamite text—an Akkadian "ideogram" is employed.<sup>5</sup> In the vast majority of cases, however, the names of the months are of Old Persian origin. The names of nine of these have long been

<sup>4</sup> *Ši-ul-la-tam*, (Fort. 5897:14, year 22) should be identical with *Zi-li-ti-tum* in *Mém.*, X, No. 2:14; *Mém.*, XVIII, No. 224 (= *Mém.*, XXII, No. 89), l. 9, etc.; cf. S. H. Langdon, *Babylonian Menologies and the Semitic Calendars* (London, 1935), pp. 45 f., n. 7; *Ra-hal*<sup>id</sup> (Fort. 7250:10, year 23) is so named frequently in the documents in *Mém.*, IX and XI (e.g., No. 27:7). The month *Ku-ul-ma* (e.g., Fort. 7859:11, year 22; and 1709:14, year 27) may, as Dr. Poebel once suggested, stand for Sumerian GUD = *Aiaru*. I know of no parallel for a month *DINGIRTU*<sup>id</sup> *DINGIR-la-gi-ul* (Fort. 9407:11, year 22).

<sup>5</sup> Fort. 4696:10 f., year 23, shows *DINGIRTU*(!)<sup>id</sup> *simanu* (SIG<sub>4</sub>).na.

known owing to their occurrence in Darius' Behistun inscription; but since only five of these nine could be definitely equated with the corresponding Babylonian months, the order remained uncertain. This order was first ascertained from the occurrences of the Elamite transliterations of the names of the months appearing in our Persepolis tablets,<sup>6</sup> and it is now possible to equate every Old Persian month with its Babylonian correspondent.

As might be expected, Elamite transliterations vary considerably. Some of the names can have been heard only imperfectly. Since the inscriptions on the tablets were translated from earlier copies written in the Aramaic language on parchment, it follows that the Elamite scribe must often have been confronted with transliterations which either were themselves in error or could easily induce error on his part. Finally, his available orthography—derived ultimately from Sumer and Akkad—was inadequate to express all the sounds current in the Old Persian tongue. Nevertheless his transliterations are distinctly valuable for a better understanding of Elamite phonetics and are here given in all the ways known from texts examined up to the present time (Table 4).

<sup>6</sup> Cf. Poebel, "The Names and the Order of the Old Persian and Elamite Months during the Achaemenian Period," *AJSL*, LV (1938), 130–41; quite independently the writer had reached identical conclusions.

TABLE 3  
OLD PERSIAN LOAN WORDS IN ELAMITE TEXTS

Old Persian Word	Elamite Transcription	Meaning	Ruler under Whom Elamite Word Is First Used
axšaina	ak-[še-na]	a precious stone	Darius
apadāna	ḥa-ba-da-na	"Apadana"	Artaxerxes II
apan*ya <sub>ka</sub>	ab-ba-nu-ia-ak-ka <sub>4</sub> (-mu!-me!)	"grandfather's grandfather"	Artaxerxes II
ambara	am-ba-rá(š)	"storehouse"	Darius (see No. 15, Notes)
arika	ḥa-ri-ik-ka <sub>4</sub>	"hostile"	Darius
aruvastam	ḥar-ma-[šš]-tam <sub>4</sub> <sup>2</sup>	"activity"	Darius
ardastāna	ḥar-da-iš-da-na	"orthostat"	Darius
*armatam	ir-ma-tam <sub>4</sub> , ir-ma-ut-tam <sub>4</sub>	? <sup>3</sup>	Darius
*āruvariš <sup>4</sup>	ḥal-mar-ri-iš, ḥal-mar-ráš	"fortress"	Darius
āvahya (see patiyāvahyaiy)			
*astiy	áš-du <sup>5</sup>	"it is"	Darius
*aštama	áš-du-maš	"(one-)eighth"	Xerxes (see p. 38)
ahaniy	ḥa-nu	"may I be"	Xerxes
āham	ḥa-um	"I was"	Darius
ahyāyā	a-ia-a-e	"(on) this"	Artaxerxes II
*ādāina-kara	ḥa-te-na-kara	"ornament maker"	Artaxerxes I (see No. 78)
*ādarimaniš <sup>6</sup>	ḥa-tar-ri-man-nu	"ally"	Darius
*Ātar(-vazš)	ḥa-tur(-ma-ak-šá)	"Fire(-watcher)"	Darius (see pp. 7 f.)
išti	iš-ti, i-[iš-ti]	"sun-dried brick"	Darius
ucāram	u-ša-ra-um-mi	"successful"	Darius
*uzbarna?	u-iš-bar-na	"up-carriers"	Xerxes (see No. 12)
kapautaka	ka <sub>4</sub> -ba-u-[da-ka <sub>4</sub> ]	"lapis lazuli"	Darius
-kara <sup>7</sup>	-kar-ra, -ka <sub>4</sub> -ra, -kur-ráš	"doer, maker," etc.	Darius
*karta	kur-taš	"worker"	Darius
karša	kur-šá-um	"karsha"	Darius
*karšika	kur-št-ik-kaš	"cultivator"	Xerxes (see No. 14)
kāsaka	ka <sub>4</sub> -si-ka <sub>4</sub>	"stone"	Darius
*kufriya?	ku-pír-ri(-ia)(-iš)	"copperer"	Xerxes (see No. 49)
gau	kam	"cow, herd"	Darius (see No. 5)
gāθu	o <sup>8</sup> ka <sub>4</sub> -at <sup>8</sup>	"place"	Darius
*ga <sup>9</sup> za	kán-ša(-iš)	"treasure"	Xerxes (see No. 56)
*ga <sup>9</sup> za-bara <sup>9</sup>	kán-ša-bar-ra	"treasurer"	Darius
*zara	ka <sub>4</sub> -ra	"ass"	Xerxes (see No. 47)
xšaça(m)	šá-is-šá-[um] <sup>10</sup>	"kingdom"	Xerxes
xšaçapāvān	šá-ak-šá-ba-ma-na	"satrap"	Darius
-cā	-ša <sup>11</sup>	enclitic "and"	Xerxes
*caçušwa	ša-iš-šu-iš-ma (with variants)	"(one-)fourth"	Xerxes (see p. 38)
çiça	ši-iš-šá	"seed"	Darius
tacara	da-iš-ša-ra(-um) <sup>12</sup>	"tacara"	Darius
*dainā	te-nu(-um) <sup>13</sup>	"law"	Darius
daiva	da-a-ma	"daiva"	Xerxes
*dauça	da-u-šá(-um)	"libation"	Darius (see p. 7)
*dasa	da-sa/šá	"ten"	Xerxes
dahyāuš	da-a-ú-iš, da-a-ia-ú-iš, da-a-ḥu-iš	"land"	Darius
dahyāvam	da-a-ia-ma	"land" (acc.)	Xerxes
dahyāva	da-a-ia-ma	"lands"	Xerxes
dahyūnām	da-a-ḥu-na-um	"of the lands"	Xerxes
dāta	da-at-tam <sub>4</sub> , da-ad-da, da-ad-da-um	"given, law"	Darius
*dāna (in daiva-dāna) <sup>14</sup>	da-a-[ma-da-na-um]	"daiva establishment"	Xerxes
dānaka	da-na-kaš	a Persian coin	Xerxes (see No. 28)
duvara(-kara)	du-um-mar-ra(-kur-ráš)	"door(maker)"	Xerxes (see No. 18)
*duruva	tar-ma, tar-maš	"sound"	Darius
θikā	si-ka <sub>4</sub>	"rubble"	Darius
*çišwa	ši-iš-maš (with variant)	"(one-)third"	Xerxes (see p. 38)
*-pati <sup>15</sup>	-bat-ti, -ba-te/i	"lord, master"	Darius
patiy	ba-ti	"to, attached to"	Xerxes (see No. 47)
patikara	bat-ti-kur-ráš	"sculpture"	Xerxes
patiyāvahyaiy	bat-ti-ia-man-ia-a	"I asked for help"	Darius
paru(-zanānām)	bar-ru(-ša-na-na-um), ba-ru(-ša-na-na-um)	"many (peoples)"	Darius
*pasca(-dasapati)	ba-iš-ša(-da-sa-bat-ti)	"vice(-decurion)"	Xerxes
piš			
*piθas-kara?	be-a-ši-iš-kur-ráš	"ornament maker"	Xerxes (see No. 30)
*zarani-piθa?	ša-ir-nu-pa-sa-iš	"gold ornament"	Xerxes (see No. 63)
nipištam	nu-pi-i[š-da-ma]	"inscription"	Darius (see No. 9)
-bara <sup>16</sup>	-bar-ra, -ba-ra	"bearer"	Darius

TABLE 3—Continued

Old Persian Word	Elamite Transcription	Meaning	Ruler under Whom Elamite Word Is First Used
brazmaniya	pír-ra-iz-man-nu-ia	"reverent(ly)"	Xerxes
bāji	ba-ši(-iš)	"tax, tribute"	Darius <sup>17</sup>
bāji-kara	ba-ši-ka <sub>4</sub> -ra	"tax handler"	Xerxes (see No. 41)
būmiyā	bu-mi-ia	"in the earth"	Artaxerxes II
*framāna-kara	pír-ra-ma-na-kar-ra, pír-ra-ma-na-kur-rāš <sup>18</sup>	"foreman"	Xerxes
framātāram	pír-ra-ma-da-ra-um	"lord"	Xerxes <sup>19</sup>
*framātārānām	pír-ra-ma-da-ra-na-um	"of the lords"	Xerxes
*framfram? <sup>20</sup>	pír-ra-um-pi-EL	"pell-mell"	Darius
*fravak-	pír-ru-mu-iš-si-ka <sub>4</sub> (with variants)	"decreed" (?)	Xerxes (see No. 13)
frašam	pír-ra-šá-um	"splendid"	Darius
navama	nu-ma-u-maš	"(one-)ninth"	Xerxes (see p. 38)
nipištām (see piš)			
niyāka(ma)	nu-ia-ak-ka(m-mi) <sup>21</sup>	"grandfather"	Artaxerxes II
-maiy	-mi (in da-a-ia-u-iš-mi <sup>22</sup> )	"of (to) me"	Darius
Maguš	Ma-ku-iš	"Magian"	Darius
māniya	ma-nu-iš	"house, estate"	Xerxes (see No. 47)
maškāuvā <sup>23</sup>	maš-ka <sub>4</sub> -um-ma	"on skins"	Darius
miša	mi-sa(-iš) <sup>24</sup>	"wrong"	Darius
yan(a)iy	ia-na-a	"whereon"	Xerxes
-vā (in artāvā)	-ma (in ir-da-ma)	suffix	Xerxes
*vazš- (see Ātar)			
*vak- (see *fravak-)			
visa	mi-iš-šá <sup>25</sup>	"all"	Darius
vispa	mi-iš-ba <sup>25</sup>	"all"	Darius
*raθuviš(-kara)	ra-ti-u-ú-iš-kara	"haoma mixer"	Xerxes (see pp. 5 f.)
*sata	sa-da, sad-da, sa-ad-da	"hundred"	Darius
stāna <sup>26</sup>	iš-da-na	"place"	Xerxes
si <sup>27</sup> kabruš	ši-in-ka <sub>4</sub> -ab-ru-iš	"carnelian" (?)	Darius
zana	ša-na <sup>28</sup>	"race, tribe"	Darius
*zarani <sup>27</sup>	ša-ir-nu	"gold"	Xerxes (see No. 63)
*zraza	iš-ra-ša	"armor"	Xerxes (see No. 52)
šiyāti(m)	ši-ia-ti(-um), ši-ia-ti(-iš)	"happiness"	Darius
šiyāta	šá-da, šá-ud-da	"happy"	Xerxes
hacā	ha-iš-ša	"from"	Xerxes

<sup>1</sup> So Cameron; cf. Ferdinand Bork, "Elamische Studien," *MAOG*, VII, 3 (1933), pp. 3 f.

<sup>2</sup> This reading is certain from photos of DNB:3 taken by the Oriental Institute's Persepolis Expedition; cf. also Herzfeld, *ApI*, pp. 80 f. For the meaning cf. Kent, "Old Persian Texts. VI," *JNES*, IV (1945), 50 ff. and "Old Persian Texts. VII," *ibid.*, p. 232.

<sup>3</sup> Herzfeld, *ApI*, pp. 125, 53 ("siedlung, acker"); contrast König, *Relief und Inschrift des Königs Dareios I* (Leiden, 1938), p. 75. Note the occurrence of the word in *Mém.*, IX, No. 109:13; as *ir-ma-ut-tam*, it occurs in Fort. 5903:8 (Pl. XLVI, F).

<sup>4</sup> This is very dubious; cf. the Notes to No. 3 below.

<sup>5</sup> Cf. Herzfeld, *ApI*, p. 64; König, *op. cit.*, p. 76.

<sup>6</sup> Bartholomae, *Zum altiranischen Wörterbuch* (Strassburg, 1906), pp. 225 f.; Herzfeld, *AMI*, IV (1932), p. 133, n. 2; *ApI*, pp. 330 f.; contrast Georg Hüsing, "Die elamische Sprachforschung," *Memnon*, IV (1910), p. 12, n. 1, and Bork, *op. cit.*, pp. 17-18.

<sup>7</sup> In *pāti-kara*, *bāji-kara*, *framāna-kara*, *raθuviš-kara*, *zraza-kara*, etc.

<sup>8</sup> For OP *gābavā* Elamite shows *oška<sub>4</sub>-te-ma* which perhaps should be analyzed as *oška<sub>4</sub>.e.ma*—i.e., *ka<sub>4</sub>* with Elamite postfixes; see below on *-vā*, however.

<sup>9</sup> Cf. Schaefer, *Iranische Beiträge*, I, 245.

<sup>10</sup> Cf. also König, *Der falsche Bardija*, pp. 127 f.

<sup>11</sup> In *artācā*, etc.

<sup>12</sup> Variants (in unpublished texts): *da-iš-ša-ra*, *da-iš-ra*; a \**fratacara* is presupposed for the name of a building in Fort. 5903:6 (cf. Pl. XLVI, E-F): *bar-ru-da-ša-ra*.

<sup>13</sup> Cf. DNa:46. See also El. *te-nu-um-da-ut-ti-ra* (in DNa:6) for OP \**dainam-dāta(r)*; cf. Herzfeld, *ApI*, pp. 125 f.; König, *op. cit.*, p. 128.

<sup>14</sup> Cf. Herzfeld, *ApI*, p. 131; Kent, "The Daiva-Inscription of Xerxes," *Language*, XIII (1937), 300.

<sup>15</sup> In *xara-pāti*, *dasa-pāti*, *sata-pāti*, *gau-pāti*, UDU.NITÁ<sup>15</sup>*-ba-te*, etc. Cf. OP *uwāipašiyam*, "own possession," in DB, § 12, derived from *hwāi-pāti*; also *uwāipašiyahyā* in DNB:15.

<sup>16</sup> In *ga<sup>28</sup>zabara*, \**ambara-bara* (see No. 15, Notes), etc.

<sup>17</sup> This word is obviously to be restored in DB, § 7; its first clear occurrence is in the reign of Xerxes.

<sup>18</sup> This word had already appeared in an Elephantine papyrus; cf. Cowley, *Aramaic Papyri*, No. 26:4, 8; Schaefer, *op. cit.*, I, 265 (correct only in part); Herzfeld, *ApI*, p. 147.

<sup>19</sup> Although the inscription (Darius Elvend) is reputedly that of Darius, it was written by Xerxes.

<sup>20</sup> Cf. Hüsing, *Die einheimischen Quellen zur Geschichte Elams* (I. Teil, Leipzig, 1916), p. 93; Herzfeld, *ApI*, pp. 148, 341, 363.

<sup>21</sup> The Elamite form combines the loan word with El. *.u.me*.

<sup>22</sup> In this context the *-mi* surely is direct borrowing rather than El. *.u.me(mi)*, in spite of forms like NU.MAN<sup>15</sup>*-mi*, UL.GI<sup>15</sup>*-mi*, etc.

<sup>23</sup> A loan word in OP from Akkadian. Perhaps the Elamite form involves confusion of OP *-vā* with Elamitic postfix *.ma*.

<sup>24</sup> This reading is certain from new photos of DNB:5 (unpublished); the final *-iš* is probably the Elamite ending.

<sup>25</sup> Cf. the Notes to text No. 52.

<sup>26</sup> See also *ardastāna* above.

<sup>27</sup> See *piš*. The dialectal form *darani(ya)* appears in DSf:35 and 49 f.

TABLE 4

## ELAMITE TRANSLITERATIONS OF OLD PERSIAN MONTH NAMES

NOTE:—Several of the Elamite forms bear a final š which does not always belong to the Old Persian word and which must in those cases be considered an Elamitic termination commonly found in borrowed words. For forms with *-ia-* in the last syllable compare Poebel, "The Names and the Order of the Old Persian and Elamite Months during the Achaemenian Period," *AJSL*, LV (1938), 141. Numerals following each form indicate the number of texts (including DB and Fortification texts examined up to the present) in which such form appears. References to those forms which appear in Treasury texts and in Fortification texts cited in this volume appear in chapter xii.

Old Persian Month	Corresponding Babylonian Month	Elamite Forms		
1. Ādukanaiša <sup>1</sup>	Nisanu (March–April)	<i>Ḫa-du-ka<sub>4</sub>-nu</i> (1)	<i>Ḫa-du-kán-nu-ia</i> (10)	<i>Ḫa-du-kán-na-iš</i> (7) <i>Ḫa-du-kán-nu-iš</i> (1) <i>Ḫa-du-kán-nu-ia-iš</i> (1)
2. Ūravāhara <sup>2</sup>	Aiaru (April–May)	<i>Tu-ru-ma-ir</i> (1) <i>Tu-ir-ma-ir</i> (3) <i>Tu-ra-ma-ir</i> (3)  <i>Du-ru-ma-ir</i> (1) <i>Šu-ru-ma-ir</i> (1) <i>Šu-ru-ma-ra</i> (1) <i>Šu-ru-ma-šu</i> (1)-ur (1)		<i>Tu-ru-ma-ráš</i> (4) <i>Tu-ir-ma-ráš</i> (1) <i>Tu-ur-ma-ráš</i> (7) <i>Tu-ma-ráš</i> <sup>3</sup>  <i>Šu-ur-ma-ráš</i> (2)
3. Ōāigarei <sup>4</sup>	Simanu (May–June)	<i>Sa-ak-ri-ša</i> (1)  <i>Sa-kur</i> (sic) (1)		<i>Sa-ak-ri-ši-iš</i> (1) <i>Sa-a-ik-ra-ši-iš</i> (2) <i>Sa-ak-ri-iš-ši-iš</i> (1) <i>Sa-a-ak-ri-iš-ši-iš</i> (1) <i>Sa-ak-ka<sub>4</sub>-ri-ši-iš</i> (1) <i>Sa-a-kur-ri-ši-iš</i> (15) <i>Sa-a-kur-ri-iš-ši-iš</i> (2) <i>Sa</i> (sic)- <i>ak-ri-iš-ši-iš</i> (1)
4. Garmapada <sup>5</sup>	Duzu (June–July)	<i>Ka<sub>4</sub>-ir-ma-ba-da</i> <sup>6</sup> <i>Ka<sub>4</sub>-ir-ma-pad-da</i> (1)		<i>Kar-ma-ba-taš</i> (13) <i>Kar-ma-bat-taš</i> (2)
5. *Darnabāji <sup>7</sup>	Abu (July–August)	<i>Tar-na-ba-ši-na</i> <sup>8</sup>		<i>Tar-na-ba-kaš</i> (1) <i>Tur-na-ba-ši-iš</i> (8) <i>Du-ur-na-ba-ši-iš</i> (1)
6. ? <sup>9</sup>	Uhulu (August–September)	<i>Ka<sub>4</sub>-ir-ba-ši</i> (1)	<i>Ka<sub>4</sub>-ir-ba-ši-ia</i> (6)	<i>Ka<sub>4</sub>-ir-ba-ši-ia-iš</i> <sup>6</sup> <i>Ka<sub>4</sub>-ir-pi-ši-ia-iš</i> (2) <i>Ka<sub>4</sub>-ir-pi-ši-iš</i> (2) <i>Ka<sub>4</sub>-ir-ba-iš-ši-iš</i> (1) <i>Kur-ba-ši-iš</i> <sup>6</sup> <i>Ka<sub>4</sub>-ḫar-ba-ši-ia-iš</i> (2)
7. Bāgayādi <sup>10</sup>	Tashritu (September–October)	<i>Ba-gi-ia-ti</i> <sup>6</sup> <i>Ba-ki-ia-ti</i> (1)		<i>Ba-gi-ia-ti-iš</i> (16) <i>Ba-gi-ia-ti-ia-iš</i> <sup>6</sup> <i>Ba-ki-ia-ti-iš</i> (2)
8. *Varkazana <sup>11</sup>	Araḫsamnu (October–November)	<i>Mar-ka<sub>4</sub>-ša-na</i> (1) <i>Mar-ka<sub>4</sub>-šá-na</i> (6) <i>Mi-ir-ka<sub>4</sub>-šá-na</i> (1)		<i>Mar-ka<sub>4</sub>-ša-na-iš</i> (2) <i>Mar-ka<sub>4</sub>-šá-na-iš</i> (4)
9. Āçiyādiya <sup>12</sup>	Kislimu (November–December)	<i>Ḫa-ši-ia-ti</i> (3)	<i>Ḫa-ši-ia-ti-ia</i> (1) <i>Ḫa-iš-ši-ia-ti-ia</i> (1)	<i>Ḫa-ši-ia-ti-iš</i> (13) <i>Ḫa-iš-ši-ia-ti-iš</i> (2) <i>Ḫa-iš-ši-ia-ti-ia-iš</i> (1)
10. Ānāmaka <sup>13</sup>	Tebetu (December–January)	<i>Ḫa-na-ma-ka<sub>4</sub></i> (3) <i>An-na-ma-ak-ka<sub>4</sub></i> (1)		<i>Ḫa-na-ma-kaš</i> (20) <i>Ḫa-na-ma-ak-kaš</i> (5)
11. ? <sup>14</sup>	Shabatu (January–February)	<i>Sa-mi-ia</i> (2) <i>Sa-mi-ma</i> (1)	<i>Sa-mi-man-da</i> (2) <i>Sa-mi-ia-man-da</i> (1) <i>Ša-mi-ia-man-ti</i> (1) <i>Ša-mi-man-da</i> (1)	<i>Sa-mi-ia-ma-iš</i> (2) <i>Sa-mi-ia-maš</i> (2) <i>Sa-me-ia-ma-iš</i> (1) <i>Sa-mi-man-taš</i> (1) <i>Sa-mi-ia-man-taš</i> (8)
		<i>Ša-mi-ma</i> <sup>15</sup>		

TABLE 4—Continued

Old Persian Month	Corresponding Babylonian Month	Elamite Forms	
12. Viyaxna <sup>16</sup>	Addaru (February–March)	<i>Mi-ka-na</i> (1) <i>Mi-ia-ka-na</i> (1) <i>Mi-kán-na</i> (10)  <i>Mi-ik-ka-na</i> (1)	<i>Mi-ia-ka-na-iš</i> (1) <i>Mi-ia-kán-na-iš</i> (4) <i>Mi-kán-na-iš</i> (16) <i>Mi-kán-nu-iš</i> (1)

<sup>1</sup> Ferdinand Justi ("Die altpersischen Monate," *ZDMG*, LI [1897], 245 f.), followed by Bartholomae (*BAiW*, col. 61), explained the name as "Monat der Kanalgrabenden" or "Ausstechen der Bewässerungskanäle"; this may be correct if, as Justi also saw, we understand by "Bewässerungskanäle" not "irrigation ditches" in our sense of the word but the underground conduits, *qanāt's*, used for irrigation purposes and regularly cleaned out in the spring.

<sup>2</sup> "Vigorous-spring (month)" (Justi, *op. cit.*, p. 242; *BAiW*, col. 786; H. C. Tolman, *Ancient Persian Lexicon* . . . [New York, etc., 1908], p. 97), appropriate to April–May.

<sup>3</sup> Text No. 59 in this volume twice writes the name in this fashion.

<sup>4</sup> Bartholomae (*BAiW*, col. 786), following Justi (*op. cit.*, p. 243), explained this name as "Garlic-collecting (month)." Despite difficulties with this etymology no better interpretation is apparent. Note that according to the Elamite renderings the form is perhaps better given as *Ḫāgraci*.

<sup>5</sup> Following Justi (*op. cit.*, p. 247) this name has been understood to mean "Heat-place (month)," appropriate to June–July; cf. *BAiW*, col. 515; Tolman, *op. cit.*, p. 87.

<sup>6</sup> Cf. Poebel, *loc. cit.*

<sup>7</sup> Kent suggests more properly *Dyna-bāji*, "Withheld-tax (month)," with the form *dyna-* as *n*-participle to Iranian *dar-*, "(to) hold," Sanskrit *dhṛ-*; although a participle *dhṛna-* of the latter does not occur, cf. Av. *perəna-*, "filled, full."

<sup>8</sup> The final *-na* is not the genitive in this form (Fort 2569:8 f.), but is probably a scribal error for *-iš*.

<sup>9</sup> The Elamite forms do not permit determination of the OP word; the various writings seem to imply an *r*-vocalic, but whether the initial consonant was *g*, *k*, or *z* is not clear.

<sup>10</sup> Following Justi (*op. cit.*, p. 247) and Bartholomae (*BAiW*, cols. 952 f.) the name is explainable as "(The month of) honoring the god (Mithra)."

<sup>11</sup> *Varka-zana*, "Wolf-men (month)," may be the correct interpretation of this name in spite of El. *š* for *ṣ* in several instances. Justi, *op. cit.*, pp. 249 f., interprets the name as *Margazana*, "das Wiesengras hervorbringend," impossible for October–November.

<sup>12</sup> "(Month of) fire-worship," which began on the day of the winter solstice; cf. Justi, *op. cit.*, p. 247; *BAiW*, cols. 324 f.

<sup>13</sup> "(Month of the) nameless (god)." Cf. Justi, *op. cit.*, pp. 248 f.; *BAiW*, col. 124.

<sup>14</sup> The Elamitic transliterations presuppose the OP forms *ḫway(a)va-* and *ḫway(a)vant-* or similarly. This is so close to derivatives in *-va* and *-vant* of the Av. verb *ḫway-*, "(to) arouse fear" (cf. *ḫwayah-vant-*, "fearful"; *BAiW*, col. 794), that the name may be interpreted as "The perilous (month)," quite appropriate for January–February.

<sup>15</sup> So in Fort. 4697:14, where *ḫa(!)-mi-ma* is presumably an error for *Za(ša)-mi-ma*.

<sup>16</sup> This is the usual normalization of OP *Vi-i-ya-xa-na* (Justi, *op. cit.*, p. 250; Tolman, *op. cit.*, p. 126). Though it appears to be confirmed by Elamite writings beginning *mi-ia*, it is probably wrong, and no satisfactory etymology for it in this form is apparent (cf. *BAiW*, col. 1475). The more common Elamitic transliterations presuppose not *Viyaxna* but *Vi(y)xana*; since OP *-i-ya* may represent merely *i* as in *niyašādayam = nišādayam* (cf. also *Ūva = Ūja*), our form could in reality be *vi + xan* (= Sanskrit *khan*, "(to) dig"; variant of OP *kan-*), with *vriḍḍhi*. This should mean "Digging-up (month)," appropriate to the agricultural activities of February–March.

## VI

NOTES ON ELAMITE GRAMMAR; CONJECTURED  
MEANINGS AND OBSCURE FORMS

As noted above, the compilation at this time of a grammar of the Elamite language in Achaemenian times would be decidedly premature. Although a large number of the legible texts discovered in the Fortification walls of Persepolis have been read, many still await exhaustive analysis, interpretation, and comparison. Since both they and the monumental inscriptions in the Elamite tongue were but translations from Old Persian, too hasty generalizations about the grammatical structure of Elamite would always be subject to the possibility that they were based on wrong premises, for at times the Elamite scribes undoubtedly followed carefully the word order of the Old Persian and Aramaic prototype (and hence maltreated Elamite syntax), sometimes translated freely. Until we are fully acquainted with their methods, their strictness, and their vagaries, we ourselves would but prejudice an interpretation of the language they were attempting to write. We may equally misinterpret the sounds indigenous to their speech.

When the people of one geographical area, differing in race or in language from the inhabitants of a contiguous area, borrow from them the signs or an alphabet with which to write messages in their own language, it is normally taken for granted that their borrowed symbols may not adequately express the sounds of their native tongue. A sound in the speech of the neighbor, for the writing of which a specific sign was employed, may be of slightly diverse nature, radically different, or even completely nonexistent in the tongue of the people who borrow the signs. If the syllabic value attributable to that sign in its native land is the same or only slightly different from a sound in the tongue of its borrower, that sign would doubtless bear that or a closely similar value in its new home. Nevertheless, when it differs a little, the neighbors from whom the sign was borrowed could proba-

bly detect that difference when they heard it pronounced, and if compelled to write a word in which it appeared would doubtless write it in a slightly different fashion.

Such principles, together with others, appear to underlie the peculiarities visible when Hurrian scribes attempt to write Akkadian words at Nuzi, or when Akkadian scribes endeavor to pen Hurrian words there or elsewhere. In the Hurrian system, difference in consonantal voice was neither distinctive nor perceived by the Hurrians themselves; hence, in writing Akkadian words—or their own—they display no powers of distinguishing voiced from voiceless consonants (or, what is the same thing, they misunderstand differences in voice) and therefore use indiscriminately signs in which both appear. The Akkadian scribes, however, in the writing of Hurrian words, betray a definite and consistent pattern of voiced and voiceless consonants.<sup>1</sup>

Such principles are undoubtedly present also in the materials written by Elamites, who borrowed the signs to write their language from the early inhabitants of Mesopotamia. They, too, appear to have failed to appreciate differences in voice, but the specific rules governing their methods of writing have not yet been successfully interpreted. Through centuries of use it is quite possible that they further refined or pronounced differently the values attributed to certain borrowed signs, but this also is at present conjectural.

A study of Elamite phonetics, consequently, is intimately connected not only with determining the exact phonetic value given to each of the Sumerian-Akkadian signs, but also with ascertaining the differences or refinements introduced by Elamites when they employed these signs in

<sup>1</sup> For the most recent interpretation of Nuzi materials cf. P. M. Purves in I. J. Gelb, P. M. Purves, and A. A. MacRae, *Nuzi Personal Names (OIP, LVII [1943])*, pp. 183 f., and the references there cited.



their own texts. Until sound conclusions have been reached on such matters, it would be unwise, as we shall see in chapter vii, to prejudice the case by prematurely adopting a method of transliteration which rests chiefly on a subjective interpretation of the Elamite phonetic system. Further, until such a study has been made, conclusions drawn as to the phonetic pattern of Elamite in the Achaemenian period can be only tentative, for at that time the Elamites were using the borrowed signs to write Old Persian words. The results of that study, therefore, must be checked against the known or ascertainable conclusions regarding Old Persian phonetics themselves.

In this volume, therefore, an analysis of the sounds inherent in Elamite either in the "classical" age or in the Achaemenian period will not be attempted, and only the briefest of statements will be made regarding the principles underlying Elamite grammatical structure.

Elamite was essentially a suffixing language. The "root" of a word,<sup>2</sup> as a substantive, could be "personalized" by the addition of suffixes familiar from the verbal forms (-*ra/i*, -*ip*), or "factualized" by the postfixing of a particle (-*me*) which generally gave it the quality of our abstract noun. Gender was not indicated. All "cases" were expressed by postfixes (prepositions were not employed),<sup>3</sup> and a common occurrence was an abundance of such suffixes, particularly when their presence could more specifically indicate motion toward or away from a person, place, or thing.<sup>4</sup> What in Semitic languages is called the "construct relationship" was expressed by the juxtaposition of two words, to the second of which were appended the appro-

<sup>2</sup> It has been said that Elamite "root" structure corresponded to "Caucasic" in that it consisted of consonant + vowel + consonant + vowel (Bork in *Reallexikon der Vorgeschichte*, III [Berlin, 1925], 75). This involves the exception as "abnormal" of a large number of fairly common verbal forms, e.g. *ḥalpi-*, *ḥasti-* (written *ḥa-sa-ti-*), *ḥudda-*, *masti-*, *mušni-*, *nuški-*, *šeški-*, *talli-*.

<sup>3</sup> The only apparent exception, *ku-iš*, must surely be interpreted as an adverbial phrase; note the "locative" suffix -*iš* in e.g. *Ba-ir-šá.iš*, "at Parsa," in these texts.

<sup>4</sup> Thus *du-me* »*N.ik-ka.mar du-iš-da*, "a receipt from N he received" (in Nos. 1, 3, 12, etc.), which is literally "from toward N he received." Cf. also *ka-ap-nu-iš-gi* »*sunki.na.ma.mar*, "from the Treasury of the king" (No. 27:5 f.), which is literally "from within the Treasury of the king."

prate suffixes.<sup>5</sup> Suffixes expressive of other case relationship could be (but were not always) dispensed with if a word were a personal or place name (usually preceded by one or more horizontal wedges) or a pronoun.

In the opinion of the writer the Elamite verb (which frequently "reduplicated" its initial sound) was oriented passively. Suffixes indicating that the "subject" of the action was "personal" were -*g(i)* in the first person singular, -*r(a)* in the third person, and -*(i)p* in the plural. The exact significance of other suffixes is at present unknown.<sup>6</sup>

"Tense" is largely a matter of conjecture, and the meaning of a verb with its suffixes may be more fully comprehended under the term "aspect." Thus, for example, the verbal form *du-man-ra*, with a particle -*man-* following the "root" but preceding the suffix, seems to demand a translation "he was receiving, was to receive, receives"—that is, the action is a continuing one corresponding somewhat to our "present tense"; the form *du-iš*, in its contexts, implies completed action, "it was received (by) him (them), he (they) received."

On all such matters we are feeling our way, and the utmost caution is necessary. In translation, therefore, the best we can do is to assign to a specific form that meaning which seems to be most applicable in all its contexts both in these documents and in other inscriptions.

#### *na-an-KI.MIN*

One verbal form in the opening formula of letter-type texts (»*N tu<sub>4</sub>-ru-iš* »*NN na-an-KI.MIN*) is not yet fully understood. That the phrase means "Speak to N; NN says," and is parallel to the corresponding formula of Akkadian letters, has long been recognized;<sup>7</sup> it cannot mean "N speaks; say to NN" because seal impressions prove that the author of the docu-

<sup>5</sup> See the second example cited in the preceding note.

<sup>6</sup> For example, *du-iš* and *du-iš-da* are alternate forms in phrases which are otherwise almost identical in Nos. 15:29 and 42:26; contrast *tal-li-iš* in Nos. 6:10 and 7:11 with *tal-li-iš-da* in Nos. 8:12 and 12:25, or *še-ra-iš* in No. 4:21 with *še-rás-da* in No. 6:9 f.

<sup>7</sup> Bork, "Zur Erklärung der elamischen Briefe," *BA*, V (1906), 401-4; cf. Cameron, "Darius' Daughter and the Persepolis Inscriptions," *JNES*, I (1942), 217.

ment—that is, the addressor—is the bearer of the second name mentioned.<sup>8</sup> The verb *tu<sub>1</sub>-ru-iš* may be considered an imperative of a root *turu-* or *tiri-*, “(to) say, speak,” and *na-an-* a root form of another common word meaning “(to) say.” The significance of *KL.MIN*, however, remains obscure.<sup>9</sup> The most likely interpretation is that it means “as follows, thus,” and that the whole phrase is to be translated “Say to N; NN speaks as follows”; but this seems impossible because the proper form of the verb *na-an-* would in that case be *na-an-ri*, which occurs dozens of times both before and after the subject in royal texts. A single variation in this formula has been observed to date,<sup>10</sup> but it is not impossible that others will appear when the contents of the Fortification texts can be subjected to fuller scrutiny.

*sì.sì-du*

Likewise dubious are the signs read *sì.sì-du* in letter-type texts, here translated with due reserve as an imperative, “give!” When wages are being paid to several workmen the phrase is usually preceded by *ap*, “to them”;<sup>11</sup> when only one individual is concerned it is preceded by *hu-pir-ri*, “he, to him.”<sup>12</sup> In memorandum-type documents the phrase is replaced by *hu-pi-be du-iš*, “they received,” or the like.<sup>13</sup>

<sup>8</sup> Thus seal-type 2 appears on documents addressed by Artaxama (the second name in each text) to three separate treasurers; cf., for example, Nos. 21, 27, and 54.

<sup>9</sup> In several Fortification texts (e.g., Nos. 3125 and 8621) grain is given to individuals as the sustenance (*gal*) of *ba-is-kl.min*. Dr. Richard T. Hallock once suggested to me that this might be interpreted as *\*pas-pas* and be a writing of the name of the fowl which appears in Akkadian as *paspasu*. This is not impossible, but a reading *nan-nan* for *na-an-kl.min* brings us no closer to an understanding of the phrase, whereas a meaning “the same, ditto” for *kl.min* is adequately documented in our texts.

<sup>10</sup> Fort. 8275 (read by Dr. Hallock) begins: *1»ú-iš-ba-ka na-an-kl.min 280 udu.nitá<sup>14</sup>*, etc. Here the addressee is not indicated.

<sup>11</sup> So in 28 texts; it is omitted in 9 texts (Nos. 31, 37–38, 41–42a, 46–48).

<sup>12</sup> So in No. 1.

<sup>13</sup> Cf. No. 1:10 with No. 11:6 f.; for the meaning of the root *du-* see Poebel, “The Names and the Order of the Old Persian and Elamite Months during the Achaemenian Period,” *AJSL*, LV (1938), p. 134, n. 15.

The value *sì* has been selected simply because the form of the sign resembles to a considerable degree the late Akk. *sì*, which, as an “ideogram” possessing a meaning (*nadānu*, “[to] give”) similar to that apparently needed here, can be reduplicated.<sup>14</sup> It is very similar to the *ITU* (“month”) sign of late texts from Susa.<sup>15</sup> Quite possibly *sì.sì* is to be interpreted as but one sign, or as two signs with but a single value. If that is so, we could compare a compound frequent in “classical” Elamite texts, *si-ma-ta-a<sup>2</sup>*; here the root *ta-*, “(to) place, put,” is paired with *sima-*, for which a Sumerian origin has been proposed.<sup>16</sup> There is even a very faint possibility that our reading of *sì.sì-du* should be *šim-du* or *šim-du*; in that case further comparison would be justified with Kassite *šim-di*, for which the Akkadian equivalent is *nadānu*, “(to) give.”<sup>17</sup> Such speculations are not overly productive, however; our transliteration serves merely to indicate the need for caution and for further light from the documents now available.

*kur-mín*

Memorandum-type documents adhere rather strictly to a regular formula which begins with the following clauses:

1. A statement of the total expenditures involved (grain, oil, or some other commodity in Fortification texts, money in Treasury texts).

2. Some Treasury documents declare that the monies are “from the Parsa Treasury”; if this is lacking, they—like all Fortification texts—add to clause 1 a phrase involving the word *kur-mín* followed by a personal name or professional title

<sup>14</sup> Cf. A. Deimel, *ŠL*, II, No. 164:15, also 164:46.

<sup>15</sup> *Mém.*, IX. It is tempting also to compare the sign with Akk. (Sum.) *DAG* (Deimel, *ibid.*, No. 280; cf. *DAG.DAG*, No. 280:19). The form could be a slight variation of *DAG* as it appears in letters from Egypt in the Amarna period (see Otto Schroeder’s table in *VS*, XII [1915], 75 ff.), but one would be loath to accept the value *dag* (or *ták*) because the sign *tak* is already present in the syllabary (see sign list, No. 3) and would surely have been used one or more times in place of *sì.sì*.

<sup>16</sup> Bork in *Reallexikon der Vorgeschichte*, III, 76.

<sup>17</sup> T. G. Pinches, “The Language of the Kassites,” *JRAS*, 1917, pp. 103 ff., l. 46 (rev.). Hüsing, “Kaspisches III: Zum Verbum,” *OLZ*, XX (1917), cols. 206 ff., had already associated *sima-ta-* with Kassite *šim-di*.

to which is appended the genitive element *.na*—i.e., *kur-mín* » *N.na*.<sup>18</sup>

3. The name(s) of the recipient(s), or a description of the task performed by “men,” “boys,” etc., or (in Fortification texts) the words for various kinds of animals which received the grain, etc.

4. A verb meaning “(to) receive, take, earn, consume,” or the like. Quite obviously the subject of this verb has appeared in clause 3, the object in clause 1.

Our interest here lies in the *kur-mín* phrase in clause 2. For a long time this phrase was interpreted subjectively because no word *kur-mín* appeared to be extant in other Elamite texts. Noted was the fact that when this phrase was omitted in Treasury texts there was a statement that the monies involved stemmed directly “from the Treasury”; since all our documents are in fact Treasury records, it followed that the official or person named after *kur-mín* was either a Treasury officer or a third party through whose hands the money had passed before it reached the workmen for whom it was intended. Hence for *kur-mín* » *N.na* a translation “(monies which) by the hand of N (NN received)” seemed entirely possible.

Comparison with the constantly recurring phrase in royal records, *ša-u-mi-in* <sup>a</sup>*U-ra-maš-da.na*, “by the favor of Ahuramazda,”<sup>19</sup> was instructive, for it too showed a word ending in *-mín* followed by another word in the genitive. If *ša-u-mín* meant “by the favor”<sup>20</sup> and *kur-mín* “by the hand,” obviously the agential indication was embodied in the last syllable *-mín* of each word. The construction, however, seemed peculiar; according to what little we knew of Elamite syntax such a phrase as “by the hand

<sup>18</sup> The reading is *kur-mín*, not *kur-muk* (for the latter see Poebel, *op. cit.*, p. 133, n. 9). Several Fortification texts (e.g., Nos. 2572:2, 3547:2) provide the welcome variant *kur-man*.

<sup>19</sup> OP: *vašnā Auramazdāha* (with variants); Akk.: *ina šilli šā* <sup>a</sup>*Ahuramazda*.

<sup>20</sup> Nikolaï Marr long since derived *ša-u-mín* from a “Caucasian” root *zaw* (*caw*) meaning “water” to which was added an abstract *.me* and an oblique *-n* (so Robert Bleichsteiner, “Beiträge zur Kenntnis der elamischen Sprache,” *Anthropos*, XXIII [1928], 191), but this explanation appears to be utterly fanciful.

of N” should be expressed in this order: “hand, N, of, by,” and not “hand-by, N-of” which seemed to exist here. That such a construction was old, and not a recent development, however, was indicated by a phrase in a text of the “classical” Shutruk-Nahhunte:

*su-um-mi-in* <sup>a</sup>*Huban* [*a-ak* <sup>a</sup>*In*]-*šu-ši-na-ak*  
*na-pir.ú-ri.me*<sup>21</sup>

Here *su-um-mi-in* appears to be an earlier form of Achaemenid *ša-u-mi-in*; translation should read: “By the favor of Huban and Inshushinak my (special) god.”

At this point there was obviously a need to validate the meaning “hand” for *kur*. Proof for this meaning exists. In paragraph 54 of Darius’ Behistun inscription we read: “And afterwards Ahuramazda gave (*lit.*: made) them into my hands” (*kur-pi* <sup>1</sup>*Ú-ni-na.ma*); similarly, in paragraph 11, describing the death of Cambyses, we read: “He was smitten (by) a blow (of) his (own) hands” (*hal-pi kur-pi.e.ma hal-pi-ik*).<sup>22</sup> These forms give the plural, *kur-pi*; the singular would be *kur*. Finally, in paragraph 63 we read <sup>UL.HI</sup><sup>id\*</sup> <sup>1</sup>*Ú-ni-na.ma* <sup>1</sup>*kur-me-in* <sup>1</sup>*par-ru-iš-da*.<sup>23</sup> Here the translation, paralleling OP “(the man who) put forth effort for my house” may be “who went forth with his hand (i.e., strength) for my estate.”

Thus our interpretation of *kur-mín* » *N.na* as “(monies) by the hand of N (which NN received)” appears certain. In all cases N would seem to be an official authorized by the Treasury to make payments on its behalf. There is reason to believe that he had already paid the workmen and by submitting the document in which his name or title appears was merely entering the payment on the Treasury records so that he himself might be reimbursed.

<sup>21</sup> Weissbach, “Anzanische Inschriften” (*ASGW*, XII, 2 [1891]), p. 135 and Tafel II, ll. 29 f.

<sup>22</sup> Cf. Bork, “Elamische Studien,” *MAOG*, VII, 3 (1933), p. 13.

<sup>23</sup> For the half-bracketed word in question E. Norris (“Mémor on the Scythic Version of the Behistun Inscription,” *JRAS*, XV [1855], pp. 59 and 131, and Pl. VII, l. 81) read *du(?) -in* or *na(?) -in*; L. W. King and R. C. Thompson (*The Sculptures and Inscription of Darius the Great . . .* [London, 1907], p. 148) appeared to see signs which could be transliterated only as *du(?) -in*; Weissbach, however (*KA*, p. 66), saw that the proper transliteration could be only *kur-me-in*.

*šá-ra-man-na*

A phrase usually present in both memorandum- and letter-type texts involves a word *šá-ra-man-na*,<sup>24</sup> which always follows either a personal name or the second person pronoun, "you." In memo-documents the name which precedes it is always different from that of the individual through whose hands the monies are said to have passed.<sup>25</sup> In letter-type documents the name is sometimes that of the treasurer addressed,<sup>26</sup> sometimes different from the names of both addressor and addressee.<sup>27</sup> Once it is the name of a person who himself subsequently became treasurer.<sup>28</sup> In one tablet from the reign of Darius the name is that of Megabates, admiral of the Persian fleet and obviously an important personage;<sup>29</sup> in other cases we are unable to determine whether or not the individual named held a significant position.<sup>30</sup>

Sometimes the omission of the phrase involv-

<sup>24</sup> There are no variations in the writing of this word except for six occurrences of *šá-ra-ma* and one of *šá-ra-ra*. Three of the former (Nos. 49, 68–68a) are preceded by the pronoun "you" (*nu*), to which is added (the agential?) *in*; one (No. 54) simply replaces the fuller form; the two remaining (Nos. 60 and 79) are in damaged context.

<sup>25</sup> Thus in Nos. 5–8, 11, 17, 20, 23–24, and 26. After the sixteenth year of Xerxes (No. 30) no texts involve the phrase *kur-mín* »*n.na*, for the monies are all said to have come from the Treasury; hence there is no opportunity to observe whether the individual referred to by »*n šá-ra-man-na* is the same or not.

<sup>26</sup> So in Nos. 3, 29, and 44, in which the name is written in full, and in Nos. [9], 25, 27, 37, 49, 68–68a, and 75, which employ the pronoun "you."

<sup>27</sup> So in Nos. 1, 9a, 10a, 12, 13–15, 18, 22, 31, 38, 41–42a, 46–47, 52–54, 58, 60.

<sup>28</sup> Thus Vahush is named before *šá-ra-man-na* in Nos. 12, 13–15, 18, and 22, all written in years 3–6 when Baradkama was treasurer; but, as noted above, Vahush himself became treasurer probably in the tenth year, and in eight memos and four letters dating from years 10–19 his name precedes the word in question.

<sup>29</sup> No. 8.

<sup>30</sup> Thus, when Shakka was treasurer, the name of Vahauka (No. 1, Darius, year 32). When Baradkama was treasurer, the name of Pattinasha (No. 9a, year broken). When Vahush was treasurer, the names of Mannanda (Nos. 31 and 33, years 16 and 18); Shedda (No. 38, year 19); Bakurada (Nos. 42–42a, year 19); Pelpakka (Nos. 46–47, year 19). When Ratininda was treasurer (year 20), the names of Otanes (No. 52), Napezza (No. 53), Hystanes (No. 54), as well as Pelpakka (No. 58) and Bakurada (No. 60) just mentioned. To this list are to be added the names of Appishiatish, Saddumish, and Uratinda, all in memo-type texts.

ing a name and *šá-ra-man-na* appears to be mere happenstance; thus it does not occur in No. 28, but is present in the latter's near-duplicate No. 29.<sup>31</sup> At other times it appears to be replaced by a phrase involving workmen who may be accountants "in the Treasury," "in the Treasury storeroom," or in some other designated post.<sup>32</sup>

The preceding paragraphs have given in detail the contexts of *šá-ra-man-na* because no satisfactory etymology for it is apparent. In form, it could be a good Elamite future (passive), gerund, or perhaps infinitive.<sup>33</sup> Derivation from the root *še-ra-*, "(to) command," seems impossible, however,<sup>34</sup> and no other Elamite word known to me gives a meaning applicable to our contexts.<sup>35</sup> Likewise, in spite of the many Old

<sup>31</sup> Also there seems to be nothing to replace it in Nos. 33 (contrast with No. 31), 55, and 63.

<sup>32</sup> Thus Nos. 16 ("at Parsa in the Treasury"), 19 ("at Parsa, in the Treasury, in the storeroom"), 21 ("who are in the storeroom"), 48 ("who are accountable(?) [to N] at Partetash"), 59 ("at Partetash"), and 57 ("in [of] . . ."). But cf. Nos. 52–53, where the phrase concerning workmen "accounted(?)" to a person or place is followed by »*n šá-ra-man-na*.

<sup>33</sup> Cf. "He commanded that a stone be cut" (*gi-iš-ša-ma-na*; XV, § 3); "I commanded that an inscription be written" (*tal-li-ma-na*; XV, § 3); ". . . the lands which (to) the sea are going forth(?)" (*mi-ud-du-man-na*; DNa, § 3); "as I was desiring(?)" (*tuk-man-na*; DPf, § 2).

<sup>34</sup> In Nos. 5–8 in this volume both *še-ráš-da*, "he commanded," and *šá-ra-man-na* occur; I know no reason why the vowel of the first syllable should be *e* in one instance, *a* in the next, if the root of these two forms were identical.

The word occurs in *Mém.*, IX, No. 116:6–7 (cf. also No. 139:17), but the context is not clear to me.

<sup>35</sup> I do not believe that we can associate this word with an apparent *šá-ra-ma* in the Elamite version of DSf:21 (cf. *Mém.*, XXIV, Pl. III), for here, where the word appears to correspond to OP *fravata*, "in depth," the reading would seem to be [a]-*ak na-šá-ra-ma*, "and in depth," or similarly (cf., however, the unfathomable *šá-ra* in DB, § 32).

It is scarcely to be connected with a *ša/šá-ra-ma* which twice occurs after the name of a deity in Neo-Elamite inscriptions (*Mém.*, V, p. 68 [No. 85c], Pl. XI [2], l. 5; *Mém.*, III, pp. 92 f. [No. 58], Pl. XX, l. 16; cf. Maurice Pézard, "Reconstitution d'une stèle de Adda-hamiti-In-sušnak," *Babyloniaca*, VIII [1924], 8); with both of these occurrences cf. also *ša-ra-ra* in *Mém.*, VIII, Pl. XV (and *Mém.*, V, p. 1) (No. 65), l. 9, and *ša-ra-a-ra* in *Mém.*, XI, p. 64 (No. 96), l. 64; Hüsing, *Quellen*, p. 50; Bork in *Reallexikon der Vorgeschichte*, III, 78 f. The writing *šá-ra-ma* in six of our texts (see above, n. 24) does not permit us to say that these words are identical with our form.

Likewise, there can hardly be a connection between our word and *šá-rak*, which is so often the Elamite equivalent of OP *patiy* in Achaemenid inscriptions, and on which cf. Willy Foy, "Die neuelamische Inschrift Sus. a," *WZKM*, XIV (1900), 290 n.

Persian loan words in our texts there is little probability that this word too may have been borrowed; no \*šarman (or similar form) is known in Persian (or in any dialect of it), and the uniformity with which the first syllable is rendered by šá rather precludes the possibility that an Old Persian word such as \*sarman was intended.<sup>36</sup>

The translation of N šá-ra-man-na here offered—"N is responsible"—is necessarily only a guess; "N being present (as a witness)," "N is the recorder," or the like might perhaps be defended with equal vigor. However, it is necessary to note these facts:

1. The expression normally follows a clause dealing with the workmen and the task on which they have been engaged; the (apparently important) individual named in it may have been charged either with the discipline of the workmen or with paying them their wages.

2. When the phrase is omitted, it sometimes appears to be replaced by a declaration that the workmen are assigned to specific tasks or (distant) posts; the name of the "responsible" party might in such cases be either unnecessary or unknown.

### gal

One of the most troublesome words in all the Persepolis texts involves sign No. 83, which hitherto was known to possess in Elamite the phonetic value ráp/b only. It was observed that

<sup>36</sup> If the word were OP, it would be either a compound, a participle in -ma-, -mana-, -māna-, or a word with suffix -man-, as Professor Kent points out to me. Of all possibilities, the only form which even looks hopeful would be Av. sára-, "head, chief" (BAiW, col. 1572) + suffix -man- (cf. Av. airyaman-, "Genosse," Bartholomae, in Geiger and Kuhn [eds.], Grundriss, I, 1, § 188; BAiW, cols. 198 f.), for which an OP \*sar-man would be demanded (cf. Horn, Grundriss, Nos. 690 and 726). Thus one might suggest "headman, chieftain," or the like. It is true that OP initial s is frequently represented by El. š (thus for the Elamite rendering of OP saka, sugda, si<sup>3</sup>kabruš), but El. s is also used in that position for OP s (thus for OP sikayawatiš, kasaka), and if the word was intended to represent an OP \*sarman surely among all the occurrences we would find at least one writing \*sa-ra-man-na.

Now that we know that a written order on parchment or papyrus preceded the composition of our tablet it might indeed be tempting to connect our word with an OP \*caraman, comparable to Av. čarəman-, "skin, leather" (BAiW, cols. 582 f.); translation could be "(to) N (is) the parchment." But Av. č becomes OP š only before y (Meillet-Benveniste, Grammaire, §§ 124 and 126), and, since our writings would demand an OP š, this interpretation too is apparently impossible.

frequently the sign alone represented a single word; since it was never followed by the sign signifying "ideogram" (MEŠ; sign No. 109), it followed that the phonetic value of the sign must be understood to stand for the complete word, to which a dative-locative or genitive postfix (.ma or .na) could be added.<sup>37</sup> The value gal, not ráp/b, was accepted because of one occurrence in Treasury texts of gal-li;<sup>38</sup> Fortification documents then presented numerous occurrences of gal-li, gal-lu, and gal-la; finally, a single example of a writing ka<sub>4</sub>-la proved this reading as unimpeachable.<sup>39</sup> No meaning for the word, however, was known in extant Elamite texts.

The laborious methods by which a meaning was derived for this word need not be entered into here. Noted was the fact that gal.uk-ku ("upon or for gal"), which occurred in two texts, seemed to be replaced by pi-ik-ti, "help, aid," in another.<sup>40</sup> Determination of a meaning was also bound up intimately with determination of the meanings of two other words: šá-ag-gi (with variants), which frequently preceded it, and forms of ma-ki-, which sometimes followed it.<sup>41</sup> It is sufficient to state that for Treasury texts, written at a time when coined money was obviously available, a meaning "wage(s)" or "payment(s)" is applicable in every instance. In Fortification texts, written when payments were made in grain, flour, etc., and before the introduction of coinage at Persepolis, the same meaning is peculiarly apt although we must frequently understand the word in context to mean "wages (in food)" or "(sustenance) payments."

<sup>37</sup> Cf. No. 64:6-7 (gal.ma, gal.na).

<sup>38</sup> No. 27:11.

<sup>39</sup> Thus gal-li: Fort. 3666:11, 7862:3, 11473:3 (see above, p. 7, n. 40); gal-lu: Fort. 3670:5; gal-la: Fort. 3567:4; cf. the following texts with Nos. 7-8 in this volume:

Fort. 6413:

<sup>1</sup>188 ŠE.BAR<sup>1</sup> k[ur-mín] <sup>2</sup>da-ak-ka<sub>4</sub>.na <sup>3</sup>kur-taš<sup>1</sup> gal ma-ki-ip <sup>4</sup>kar-ki-iš <sup>5</sup>šá-ra-man-na <sup>6</sup>pa-iš-šá-x<sup>1</sup> ka<sub>4</sub>-la.ma du-iš-da DINGIRTU<sup>1</sup>, etc.

Fort. 6414:

<sup>1</sup>47 1/2 ŠE.BAR<sup>1</sup> kur-mín <sup>2</sup>mi-ra-man-na.na <sup>3</sup>kur-taš <sup>4</sup>taš-šá-kam-pa-iš gal-la ma-ki-ip <sup>5</sup>šu-ud-da-ia-u-da <sup>6</sup>šá-ra-man-na<sup>1</sup> gal-lu.ma <sup>7</sup>du-iš DINGIRTU<sup>1</sup>, etc.

<sup>40</sup> Cf. Nos. 7:9 and 8:9-10 with No. 6:8.

<sup>41</sup> It was first thought that gal (if read as ráb) ma-ki- might have some connection with (amēl)rab mu-á-gu as in VS, V (1908), No. 117:3 (accession year of Xerxes); see also Jeremiah 39:3, 13!

*ma-ki-*

Following the word *gal*, "wages, payments," in Treasury texts there frequently appears a root which is written *ma-ki-ra* in the (personalized) singular, *ma-ki-ip* in the plural.<sup>42</sup> Both are clearly verbal forms, the subject of which is the workman or workmen receiving wages. Other forms which occur in Fortification texts (usually without reference to *gal*) are *ma-ki-iš*, *ma-ki-iš-da*, *ma-ki-man-pi/ba*, and *ma-ak-ka*. Although the root is certainly of Elamite origin, no comparable word has yet appeared in other Elamite texts and the meaning must be derived exclusively from context; it has nothing to do with Magians, El. *Ma-ku-iš*.

The possible range of meanings for the root runs from "(to) allot" through "(to) consume" to "(to) earn"—that is, it can be a verb which narrows down the wide range of meanings applicable to specific verbs belonging to the general category signifying "(to) receive."<sup>43</sup>

*ša-ak*

Another word was long a considerable stumbling block to the proper understanding of those memo-type texts and letters in which it appears. It is written in three ways: alone, followed by *.ma* (which was understood to be a postfix ["in, for"]), and also followed by *-me* (which was taken to be a particle signifying that the word in these instances was an abstract noun). The various forms are as follows (numerals in paren-

<sup>42</sup> Nos. 1 (*ma-ki-ra*), 7-9a, 12, 13, 15-16, 18-19, 29.

<sup>43</sup> Cf. Fort. 6780: 1324 ŠE.BAR<sup>idz</sup> 2»*mi-iš-du-kaš-na* 1<sup>3</sup> *du-ša* 3 ANŠU.KUR.[RA]<sup>idz</sup> 4»*KASKAL*<sup>idz</sup> [sunki.na] 6*un-ra* 3 *ka*, 6*ma-ki-iš* 7 DINGIRITU<sup>idz</sup> 12-*na* 8 DINGIRITU<sup>idz</sup> 1-*na* 927 GIŠ.BAR<sup>idz</sup> 10*ma-ki-man-ba* 11*be-ul* 15-*na*, which may be translated as follows: "324 (measures of 10 qa), grain (barley) 2(which) Mishdukašna 3has received (for) 3 horses 4(on) an errand of the king. 5Each 6is allotted (consumed?) 3 qa (per day) 7(through) 12 months—8(that is), per month 9-10they are allotted 27 10-qa measures. 1115th year."

In Fort. 3543 a quantity of grain is received (*du-iš-da*) by one Šu-*da-ak-ka*, through the hand (*kur-min*) of *Mi-ra-ma-na*; in ll. 7-8 we read the solitary phrase *me-ni* »*kur-taš-be ma-ki-iš* which could be translated in a variety of ways, e.g., "afterwards the workers received (or consumed) it" or "he delivered it (or it was allotted) to the workmen." Since the common verb *du-* seems specifically to mean "(to) receive, take," it is quite likely that the verb *ma-ki-* is a further refinement of that meaning. In Fort. 1018 a form of *ma-ki-* replaces the more usual *du-*: 115 ZID.DA<sup>idz</sup> *kur-min* 2»*ši-ni-ni-na* 3*bar-na-ak-ka*, *ma-ki-iš-da*: "15 (10-qa measures), flour, (which) by the hand 2of Šinini 3Pharnaces has been allotted."

theses refer to the total number of *texts* in which each form appears):

<i>ša-ag/k</i>	(4)				
<i>ša-gi</i>	(2)	<i>ša-gi-me</i>	(2)	<i>ša-gi.ma</i>	(15)
<i>ša-ag-gi</i>	(5)	<i>ša-ag-gi-me</i>	(1)	<i>ša-ag-gi.ma</i>	(8)
		<i>ša-ak-ki-me</i>	(2)		
		<i>ša-ak-ki-mi</i>	(1)		
<i>ša-ag/k</i>	(13)				
<i>ša-ig/k</i>	(8)				

The forms in which the initial syllable is *ša* are unquestionably identical in meaning with those having initial *ša*;<sup>44</sup> this may be merely an added indication that actual pronunciation of this syllable was *ša* and, since the word is probably of Elamite origin, cannot certainly help us in the interpretation.<sup>45</sup> Again no comparable Elamite word has appeared to date in published texts, and its meaning must be determined by context.

The position of any one of the above forms of *ša-ak* varies considerably within a specific formula; this may indicate that the formula itself was not stereotyped or standardized. Nevertheless one form or another of the word usually occurs in either or both of the following clauses:

1. Immediately after "sheep," "wine," or both. Often the two words UDU.NITÁ<sup>idz</sup> *ša-gi.ma* (or GIŠ.GEŠTIN<sup>idz</sup> *ša-gi.ma*) form a compact little phrase understandable in itself;<sup>46</sup> more frequently, this is followed by a phrase dealing with the exact value of one sheep and/or one jar of wine—for example, "one sheep for three shekels"; a few times some form of our word replaces *uk-ku*, "for, upon," in the latter stock phrase.<sup>47</sup>
2. Immediately before expressions for "wages" (*gal*), "half of the wages," or similarly; usually, in such cases, a genitive postfix follows the latter expression, that is, it is the "*ša-ag* (or similarly) of the wages."

<sup>44</sup> Cf., e.g., *ša-ak pír-nu-šu gal.na* in No. 64:6 f. with *ša-ak pír-nu-šu gal.na* in No. 52:8 f.; *ša-gi 2 ši-iš-maš gal GEŠTIN.na* in No. 25:11 f. with *ša-ak 2 ši-iš-maš gal GIŠ.GEŠTIN.na* in No. 68:6 f., etc.

<sup>45</sup> There may here be involved a point in Elamite grammar which escapes us for, except in the one instance cited in the previous note, *ša-ak* or *ša-ik* is always followed by some form of the word for "half" (*pír-nu-šu*, etc.).

<sup>46</sup> Cf. Nos. 21:8 f., 62:8 f., 78:10.

<sup>47</sup> Cf. No. 23:8.

The meaning which seems to be most applicable to the word without postfix is "equivalent"; to that with the postfix *.ma*, "for the equivalent (of)"; to the abstract form, "equivalence." Thus the expression signifies that sheep, wine, or both, serve as substitute for (or the equivalent of) cash money in payment of all or a part of the wages of the workmen enumerated.

### *hal-mi*

A rather common word which occurs in letter-type texts from the Treasury, and in both memorandums and letters from the Fortifications, is *hal-mi*.<sup>48</sup> In Treasury texts it appears exclusively in the phrase "This *hal-mi* has been given."<sup>49</sup> In the absence of any known meaning for the word in Elamite it seemed possible to translate it by "seal" and to see in it a reference to the seal impression (or the seal which caused it) on the one flat end of each tablet. Thus the scribe could have written "This seal (which now is impressed on the tablet) has been given (in order to validate payment)."

Proof for this meaning of the word seemed to be apparent in Fort. 7096:11 ff.<sup>50</sup> where we read:

. . . and the seal (*hal-mi*) which formerly was mine, that has been lost(?). Now, indeed, the seal which is impressed (on) this tablet, that is mine.<sup>51</sup>

The phrase just quoted is part of a letter written by Pharnaces; the tablet bears the impression of a cylinder seal which an Aramaic inscription declares to be the "seal (of) Pharnaces son of Arsames."<sup>52</sup> One fragmentary Treasury tablet bearing an impression of "seal-type 24" gives adequate confirmation to this meaning of the word in certain contexts. Type 24 appears only on letters written by Appishmanda;<sup>53</sup> this sadly

<sup>48</sup> The word appears also in a number of the late Elamite or early Achaemenid texts from Susa published in *Mém.*, IX and XI, e.g., Nos. 6:9 and 120:14 (*hal-mi*), 104:11 and 302:13 (*hal-mu*); cf. also the text of "Shutruru" in *Mém.*, V, pp. 69 ff., Pl. XII (No. 86), rev., l. 38.

<sup>49</sup> Written *hal-mi hi li-ka*, (as in Nos. 12:25, 21:19, etc.); also merely *hal-mi li-ka*, (as in Nos. 22:28, 27:29, etc.).

<sup>50</sup> Also in its near-duplicate, Fort. 6415:10 ff.

<sup>51</sup> The text reads: ". . . *ku-ud-da hal-mi ap-pa ap-pu-ka*, *u-ni-ni hal-mi hu-be pi-ti-ka am ka-ak-kán-na hal-mi ap-pa tu-pi hi ha-rák-ka hu-be u-ni-ni*."

<sup>52</sup> חתה פרנך בר ארשם.

<sup>53</sup> Nos. 2, 9-9b. Dr. Schmidt's records show that the same type seal appeared also on fragments numbered PT 4 336a, 371, 615, 698, 785, 828-29, 982, 995.

damaged specimen<sup>54</sup> bears an Elamite inscription, faintly but nevertheless surely visible from photographs of the seal impression, which states that "this seal (*hal-mi*) (is that) of Appishmanda, son of. . . ."<sup>55</sup>

In passing, we may perhaps be justified in expressing doubt whether *hal-mi* is to be viewed as a native Elamite word. Probability is strong that it is a loan word from Aramaic חתה. We note that the respective words are employed in the same fashion in both Elamite and Aramaic inscriptions. We know that the Elamites had a sound which could not adequately be represented by the values inherent in the borrowed cuneiform script and which was sometimes rendered by *t*, sometimes by *l*, and sometimes by *ll*.<sup>56</sup> Best proof of this is in the Elamite name of the land Elam itself, which is written both as *Haltamti* and as *Hatamti*. To date the writing *Halamt* has not appeared in Elamite texts, but that at least was the pronunciation heard by the early settlers of Babylonia who accepted *Elamtu* as the name of the area.<sup>57</sup> Hence it is possible to assume that the Elamite scribes heard as this sound the so-called "dental" in Aramaic חתה and expressed it neither by *haltam* nor by *hatam* but by *halam* (more accurately, *halm*, which could be written by either *hal-mu* or *hal-mi*).<sup>58</sup>

The translation "seal" for *hal-mi* was not always adequate, however. Some Fortification tablet inscriptions showed phrases in which such a translation was, in fact, impossible; for example, "This *hal-mi* was given to them";<sup>59</sup> "A *hal-mi* of the king he brought from Susa to Parsa"; "A *hal-mi* of Ciçavahush he brought; from Parsa he goes to (the land of) the Elamites."

<sup>54</sup> PT 4 371 in the preceding list.

<sup>55</sup> The two-line text reads: *hal-mi hi ap-pi-[iš-man-]da.na šak(šum) pi(?)* . . .

<sup>56</sup> Cf. Hüsing, *op. cit.*, pp. 91 f., where, however, some of the proposed equations (such as that *hi-ia-an* is identical with Akk. *hīlāni*) are unacceptable. For the same phonetic peculiarity in the central Zagros cf. E. A. Speiser, *Mesopotamian Origins* (Philadelphia, 1930), p. 100.

<sup>57</sup> Cf. Poebel, "The Name of Elam in Sumerian, Akkadian, and Hebrew," *AJSL*, XLVIII (1931-32), 20 ff.

<sup>58</sup> It is even possible that the final *u* and *i* represent, respectively, first and third person (singular) Elamite pronominal affixes.

<sup>59</sup> The reading is *hal-mi hi ap du-mu-ka*, (Fort. 5234:9 f.; the other phrases quoted are given in transliteration above, p. 31).

Here "order" or the like appeared to be a much better translation. For the realization that "sealed order, sealed document" is the correct rendering I am greatly indebted to Professor F. W. Geers, who compared Akk. *kunukku*, which may mean not only the "seal" or "sealing" of a tablet but also the sealed document itself.

This expression "sealed order" was also first understood to have reference to the inscribed clay tablet. However, we now realize that the

tablet inscription was preceded by—and was, in fact, essentially a duplicate of—an inscription upon parchment or papyrus, and that this original text was tied and closed with a clay sealing before it was presented at the Treasury office. Hence it is quite obvious that in most cases the "sealed order" (*hal-mi*) refers to the original sealed parchment roll which, after its order had been complied with, was again rolled, tied, sealed, and affixed to its Elamite translation.



## VII

## SEAL IMPRESSIONS ON TREASURY TABLETS

The seal impressions on the Treasury tablets demonstrate that the designs on the original seals were superb examples of the finest type of Achaemenid art. On tablets, the impression always appears on the flat left end, rarely elsewhere also,<sup>1</sup> and never is more than one seal used on a single tablet. Two of the seals impressed on tablets are represented also on a number of the sealings discussed above on page 28; descriptions of the designs or "types," therefore, must obviously include both categories of objects. Since such descriptions, together with photographs and listings of the numbers of all tablets and sealings which bear the same impressions, are to appear in Schmidt's definitive report on the Persepolis excavations, there is no need to publish them here. However, it seemed advisable to indicate the design or type of seal impression on each tablet here published; in the Notes accompanying the transliteration and translation of each tablet inscription, therefore, will be found a statement of that type to which belongs the impression of the seal upon it (see also Table 5). I owe this information to Dr. Schmidt, and employ his type numbers.

All tablet letters addressed to a treasurer or treasurers by the same individual bear one and the same seal impression. For example, the letters addressed to the treasurer Baradkama by Darkaush in the early years of Xerxes all bear an impression of seal-type 1. The impression of this seal<sup>2</sup> shows a trilingual inscription which begins, "I, Darius . . . ." <sup>3</sup> Similarly, all letters ad-

<sup>1</sup> The following tablets now in Chicago show impressions at other places also: No. 3, on the lower edge of the reverse; No. 5, on the lower half and edge of the reverse; No. 82, on the lower edge of the obverse and on the whole of the reverse; No. 83, on the entire reverse.

The only tablets without seal impressions are: No. 81, an undated pillow-shaped tablet; perhaps No. 84; and No. 85, the sole text written in Akkadian cuneiform.

<sup>2</sup> The seal impression on tablet No. 18 (type 1) is illustrated in Schmidt, *Treasury*, p. 39, Fig. 23 (PT 4 652).

<sup>3</sup> The preserved text reads: <sup>1</sup>(OP): [a]-da-ma\da-a-ra-[ya-va-u-ša . . . .] <sup>2</sup>(El.): [Yú] Yda-ri-a-ma-u-i[š . . . .] <sup>3</sup>(Akk.): [a-n]a-ku Yda-ḥu(sic)-a-iá(imperfectly cut; the sign is actually šá)-muš [. . . .].

dressed to the treasurers Baradkama (in the fourth and sixth years of Xerxes), Vahush (in the twelfth and nineteenth years), and Ratininda (in the twentieth year) by Artataxma bear an impression of seal-type 2.<sup>4</sup> This type also shows a trilingual inscription, not of Xerxes—in whose reign the documents were written—but of Darius, beginning, "I, Darius . . . ." <sup>5</sup> It follows that seal-type 1 must have been the seal of Darkaush, seal-type 2 that of Artataxma—that is, the seal employed was that of the addressor. Though the inscriptions bear the name of Darius, one must conclude with Schmidt that the seals can be called "royal" only in the sense that they had been given by the king to these "officials."

Type 3 seal impression is found on two undated letters addressed to the treasurer Baradkama and probably written in the later years of Darius. The imperfectly cut trilingual inscription also begins, "I, Darius . . . ." <sup>6</sup> On tablet No. 3 the name of the addressor (to whom the seal apparently belonged) is given as *Ru-ma-te<sup>1</sup>-[in]-da*; on No. 3a it is given as *Ū-ra-tin<sup>1</sup>-da*. The two writings probably represent variant efforts on the part of the same scribe to reproduce a name not overly familiar to him, but in any event the seal can scarcely have been the official or private property of the king.

Type 5 seal impression appears on a large number of tablets (exclusively memorandums) dated to the nineteenth and twentieth years of Xerxes and to the first, third, and fifth years of Artaxerxes I.<sup>7</sup> It bears a two-line Old Persian

<sup>4</sup> The seal impression on tablet No. 22 (type 2) is illustrated in Schmidt, *op. cit.*, p. 39, Fig. 23 (PT 4 726).

<sup>5</sup> The preserved text reads: <sup>1</sup>(OP): a-da-ma\da-a-ra-ya-va-[u-ša . . . .] <sup>2</sup>(El.): Yú Yda-ri-[a-ma-u-iš . . . .] <sup>3</sup>(Akk.): [a-na-ku Y]da-ri-a<sup>1</sup>-[iá-muš . . . .].

<sup>6</sup> The preserved text reads: <sup>1</sup>(OP): [a]-da-ma\da-a-ya(sic)-va-u-š[a . . . .] <sup>2</sup>(El.): [Yú] Yda-ḥu(sic)-a-ma-u-i[š . . . .] <sup>3</sup>(Akk.): ana-ku Yda-ḥu(sic)-a-iá(imperfectly cut; the sign is actually šá)-muš [. . . .].

<sup>7</sup> The seal impression on tablet No. 40 (type 5) is illustrated in Schmidt, *op. cit.*, p. 39, Fig. 23 (PT 4 650).

TABLE 5  
TYPES OF SEAL IMPRESSIONS ON TREASURY TABLETS

Seal Impres- sion Type	Tablet No.	Nature of Inscription on Tablet	User (Assumed Owner)	Inscription on Seal Impression	Reign	Year
1	10	Letter	Darkaush	"I, Darius . . . ."	Xerxes	2
	10a	"	"		?	?
	10b	"	"		?	?
	13	"	"		Xerxes	3
	15	"	"		"	3
	16	"	"		"	4
	18	"	"		"	4
	19	"	"		"	4
	2	21	"	Artataxma	"I, Darius . . . ."	"
22		"	"		"	6
27		"	"		"	12
37		"	"		"	19
38		"	"		"	19
38a (7 tablets)		"	"		"	19
41		"	"		"	19
42		"	"		"	19
42a(?)		"	"		"	19(?)
42b		"	"		"	19
46		"	"		"	19
47(?)		"	"		"	19
48(?)		"	"		"	19
48a		"	"		"	19(?)
49		"	"		"	20
49a (3 tablets)		"	"		"	20
49b (2 tablets)		"	"		"	19
52		"	"		"	20
53		"	"		"	20
54		"	"		"	20
55		"	"		"	20
56		"	"		"	20
57		"	"		"	20
58		"	"		"	20
59		"	"		"	20
59a (2 tablets)		"	"		"	20
60(?)		"	"		"	20
63		"	"		"	20
63a		"	"		"	20
68a		"	"		"	?
3	3	"	Rumatenda	"I, Darius . . . ."	(Darius?)	?
	3a	"	Uratinda		(Darius?)	?
4	1	"	Baradkama	None	Darius	32
	17	Memorandum	?		Xerxes	4
	23	"	?		"	6
	24	"	?		"	7
5	34	"	?	"Xerxes, Great King"	"	19
	35	"	?		"	19
	39	"	?		"	19
	40	"	?		"	19
	43(?)	"	?		"	19
	45	"	?		"	19
	50	"	?		"	20
	51	"	?		"	20
	61	"	?		"	20
	62	"	?		"	20
	64	"	?		"	20
	65(?)	"	?		"	20
	66	"	?		"	20
67	"	?		"	20	
69	"	?		"	20	

TABLE 5—Continued

Seal Impres- sion Type	Tablet No.	Nature of Inscription on Tablet	User (Assumed Owner)	Inscription on Seal Impression	Reign	Year
5	70	Memorandum	?	"Xerxes, Great King"	Xerxes	20
	71(?)	"	?		"	20
	72	"	?		"	20
	73	"	?		"	20
	74	"	?		"	20
	80	"	?		Xerxes(?)	20(?)
	76	"	?		Artaxer- xes I	1
	77	"	?		"	1
	78	"	?		"	3
	79	"	?		"	5
6	28	Letter	Ciçavahush	"I, Xerxes, King"	Xerxes	15
	29	"	"		"	15
	31	"	"		"	16
	33	"	"		"	18
8	68	"	Artasyras	"I, Xerxes, King, . . ."	"	20
	75	"	"		"	20
14	12	"	Aspathines	"Aspathines, son of Prexaspes"	"	3
	12a	"	"		"	3
	12b	"	"		"	2
	14	"	"		"	3
15 (unique)	83	Memorandum	?	Illegible	Not dated	
16	36	Letter	Megadates	None	Xerxes	19
	44	"	"		"	19
	44a	"	"		"	19
24	2	"	Appishmanda	"This seal (is that) of Appish- manda, son of . . ."	Darius	32
	9	"	"		"	32(?)
	9a	"	"		"	?
	9b(?)	"	"		"	?
25	25	"	Marrezza	None	Xerxes	7
26	11	Memorandum	?	None	"	2
	20	"	?		"	4
	26	"	?		"	10
30	30	"	?	Illegible	"	16
	32	"	?		"	16
33	4	Memorandum	?	"Artadara, who is chief . . ."	Darius	?
	5	"	?		"	?
	6	"	?		"	?
	7	"	?		"	?
	8	"	?		"	?
42 (unique)	82	"	?	Illegible	Not dated	

inscription reading "Xerxes, Great King."<sup>8</sup> There is little indication as to the real owner or user of this type seal.

Type 6 seal impression appears on four letters written in the fifteenth, sixteenth, and eighteenth years of Xerxes. It too bears a two-line Old Persian inscription which reads, "I (am) Xerxes, King."<sup>9</sup> All four letters are addressed to the treasurer Vahush by Ciçavahush, whose official seal this may have been.

Type 8 seal impression is that of the last of the so-called "royal" seals used on tablets from the Treasury. It bears a two-line Old Persian inscription beginning "I, Xerxes, King, . . ."<sup>10</sup> and appears only on letters addressed to the treasurer Ratininda by Artasyras in the twentieth year of Xerxes.

The designs of seal-types 1, 2, 3, 5, 6, and 8 are typically Achaemenid, and the ruler is shown in combat with ferocious animals or with demoniac monsters.<sup>11</sup> Seal-type 14, of a different nature, appears only on letters addressed in the early years of Xerxes to the treasurer Baradkama by Aspathines. The imperfectly cut Elamite inscription upon it, discussed in the notes to tablet No. 12, appears to designate this Aspathines as the son of Prexaspes. Seal-type 24 appears on letters of Appishmanda to the treasurer Baradkama, all of which probably date to the last years of Darius. The Elamite inscription which it bears, described above on page 53, note 55, informs us that "this seal (is that) of Appishmanda, son of . . . ."

Unfortunately there seems to be no sure means of determining the name of the owner of a seal employed on memorandum-type docu-

<sup>8</sup> The text reads: <sup>1</sup>za-ša-ya-a-ra-ša-a <sup>2</sup>xš\va-za-ra-ka.

<sup>9</sup> The text reads: <sup>1</sup>a-da-ma\xa-ša-[ya]-<sup>2</sup>a-ra-ša-a\ xš; there is no room for the adjective "great" which, however, is frequently omitted (cf., e.g., the text of Darius on the seal published in H. Frankfort, *Cylinder Seals* [London, 1939], Pl. XXXVIIa).

<sup>10</sup> The preserved text reads: <sup>1</sup>[a-da]-ma\ xa-ša-ya-a-ra-ša-a\ xš <sup>2</sup>[. . .].

<sup>11</sup> Cf. Schmidt, *op. cit.*, pp. 38 ff.

ments, and hence the name of the real author of the text. For example, the only personal name which appears in texts 39 and 40 is that of Vahush, "responsible for" the workmen. We might conclude that Vahush had formulated the text of the inscription and used his seal upon the tablet were it not for the fact that the same seal (type 5) is used on Nos. 45, 61, 64, 73, etc., memorandums in which Uratinda serves in the identical capacity, as well as on tablet No. 78, in which Barishsha is the only name mentioned.<sup>12</sup> Similarly, seal-type 33, discussed in the notes to tablet No. 4, bears an Aramaic inscription of "Artadara who is chief . . . ." In the body of the memorandum texts on which this seal is employed, however, no such name appears; instead it is specified that the monies here given are awarded at the direct command of "Darius the king" (sometimes merely "the king") and are paid "through the hand of" *Un-sa-ak*. As suggested in the Notes it is possible that *Un-sa-ak* is the title of an official whose name was actually Artadara, but we cannot be sure of this, and consequently the name of the actual owner of the seal in the time of Darius must likewise remain uncertain.

No great significance, of course, need be attached to the name of the owner of a seal. More important is the realization that a seal hitherto called "royal" because its design portrayed a king in combat with monsters or enemies or bore an inscription containing his name and title need not be the official seal of a reigning monarch at all. The chief value of the seal impressions, however, is that they will enable us to write a new chapter on the stylistic and aesthetic qualities of the glyptic art of the ancient Persians; to that end full publication of the seal impressions as they appear on the Fortification and Treasury tablets and sealings from Persepolis in the heart of old Persia will be most welcome.

<sup>12</sup> Nevertheless the seal employed on tablet No. 1 (type 4) was assuredly that of the addressor, Baradkama, and the same seal was used on tablets 17 and 23-24 (all memorandums) in which Baradkama is "responsible for" the workmen.

## VIII

## THE TRANSLITERATION OF ACHAEMENID ELAMITE TEXTS

At one stage in their history the Elamites borrowed from Babylonia the signs to write their language. Just as in Babylonia, where the Semitic Akkadians borrowed the Sumerian system of writing and adapted it to a language for which it was not created, so too in Elam this borrowing precipitated evolution. Also like the Akkadians, the Elamites utilized only a part of the syllabic values of the signs they borrowed. In all probability, however, those values which they did retain corresponded rather closely, at the moment of borrowing, to the contemporary Akkadian sounds. Naturally some of the values were inadequate to express certain sound patterns of the Elamite language; also, evolution of sound patterns through the centuries created a tendency to remove still further the pronunciation given to any particular sign by the Elamites from that pronunciation which it possessed among the Akkadians. Elam, nevertheless, was at no great distance from Akkadian-speaking peoples; always greatly influenced by the impact of Akkadian civilization, much of "civilized" Elam was frequently overrun by Akkadians. We must admit the possibility, therefore, that in almost every period of their history the Elamites knew the Akkadian sound value of every sign they retained in their own syllabary, and that if the syllabic value they attributed to a sign differed to any appreciable extent from that current among Akkadians it might not continue to be used in the same manner as heretofore but another borrowed sign, the syllabic value of which was closer to their sound, might be substituted for it.

In addition to the fact that the Elamite language was written with signs borrowed from Babylonia, it is without known descendants and from our point of view has long been a "dead" language. Obviously, therefore, from the limited materials at hand, we cannot identify and classify every Elamitic sound or phoneme. We may be able to deduce a limited number of

phonetic "rules" or "laws" and, by applying them in a few special cases, reasonably approximate the pronunciation of some of the words in the Elamite vocabulary; particularly would this seem to be true of the signs used to represent the syllables of Old Persian words which are reproduced in the Elamite tongue.<sup>1</sup> But it must be clearly understood that we do this both subjectively and on the basis of a relatively small body of comparative material. "How far one can go," Weissbach cogently remarked, "in an approximation to the spoken language depends largely on the subjective measuring of particulars; positive sure results can be achieved only in rare cases."<sup>2</sup>

In the present state of our knowledge, therefore, it would appear unsafe to attempt to apply a phonemic system of transliteration to Elamite; that is, no system of transliteration can be acceptable at this time which a priori endeavors to reproduce Elamitic *sounds*. Hence the views that one may possess today concerning Elamite phonetics do not justify a change in the value ascribable to a specific Elamite sign from that value which is normally applied to it in the transliteration of Akkadian texts *from the same period*. To do so would be unjustifiable from the standpoint of methodology. It would also be unwise from the standpoint of familiarity: it would remove from those very scholars who both can and should make full use of the materials the opportunity to become more fully acquainted

<sup>1</sup> From OP proper names and loan words in Elamite texts we may draw up a list of the particular values *in OP* of most of the Elamite signs. This list appears in the last column of the sign list (chap. x) where the OP (transliterated) value which it seems to be trying to reproduce is given for each sign whenever possible. Obviously this list must be used with caution: it is constantly being expanded as new names and loan words are discovered; combinations of Elamite signs are frequently necessary (see the additions to this list on pp. 81 f.) to bring to expression a single OP sound. Nor must it be forgotten that the OP transliteration of a syllable is itself merely an approximation to the sound of the spoken syllable.

<sup>2</sup> Weissbach, *KA*, p. xlii.

with another language of the ancient Near East, and with the history and culture of one of the few areas of importance in that Near East still to be investigated.

It is, of course, an indispensable prerequisite that each Elamite sign be correctly correlated with its corresponding Akkadian sign. Barring a few minor exceptions, that correlation is now an established fact.

If we transliterate an Elamite text with the syllabic values which the corresponding signs have in Akkadian texts of the same period, it does not at all follow that the phonetics of the Elamite language correspond to Akkadian phonetics or that studies in Elamite phonetics cannot and should not be made. The consonantal patterns of the two languages were in fact quite dissimilar. Elamite, for example, in its prevailing orthography does not appear to have reflected the Akkadian distinction between voiced and voiceless stops. Long since Weissbach (*KA*, pp. xl f.) expressed this as follows:

Die neuelamische Schrift hat zwar Zeichen für da, ti, du und tu, aber keine für ta und di; sie schreibt zwar ka, gi, ki, ku, aber nicht ka, ga, gu; sie besitzt zwar ba, pa, pi, bu (= pu, wie im Bab.), aber kein bi. Kommen in fremden Eigennamen die Silben ta; di; ka, ga; gu; pa; bi vor, so schreibt das Neuelamische dafür der Reihe nach da; ti; ka; ku; ba; pi. Hieraus ergibt sich mindestens, dass die neuelamische Sprache auf die Unterscheidung der Lautabstufungen Tenuis, Media, Emphatica keinen Wert legte, vielleicht sogar, dass sie überhaupt nur je einen Dental, Guttural, und Labial besass. Die ap. Spiranten k [i.e. x], t [i.e. θ], und p [i.e. f] werden im Neuelamischen verschieden wiedergegeben: ka [i.e. xa] durch ka, kr [i.e. xr] durch kur, ta [i.e. θa] durch sa, tu [i.e. θu] durch tu, p [i.e. f] durch p. Also hat die neuelamische Sprache auch Spiranten entweder nicht besessen oder doch in der Schrift nicht kenntlich gemacht. Die altelamische Schrift hat noch einige Zeichen, die im späteren El. aufgegeben worden sind, z. B. eines für die Silbe ta. Indessen wechselt schon im Altelamischen ta mit da in einem und demselben Wort, sodass wir auch für jene Stufe bereits folgern müssen, dass auf die Unterscheidung von Tenuis und Media kein Gewicht gelegt wurde. . . .

Nimmt man an, dass die neuelamische Sprache nur je einen Guttural, Dental, Labial (etwa die Tenuis k, t, p) besass, so bleibt noch ein auffälliger Umstand: Warum hat die Schrift neben ba auch pa, neben gi auch ki und neben du auch tu beibehalten?

Oppert, Hüsing, Bork und Foy (*ZMDG* 52, 122 ff. 1898) haben dies daraus erklärt, dass das Elamische nach ihrer Ansicht 5 Vokale (a, e, i, o, u) nicht nur besass, sondern auch in der Schrift unterschied. Die bab. Schrift bringt dagegen nur a, i, u deutlich, e mangelhaft und o gar nicht zum Ausdruck. Allerdings besitzt die bab.-assyrische Schrift mehrere Zeichen für den Vokal u, und die neuelamische hat noch zwei davon bewahrt . . . ; aber nach der Ansicht der oben genannten Gelehrten sollen damit im Neuelamischen o und u geschrieben sein. Es ist nicht zu leugnen, dass dieses Fünf vokalsystem den scheinbaren Überfluss an Silbenzeichen in der neuelamischen Schrift auf natürliche Weise erklären würde: Wir hätten demnach statt u o zu lesen . . . , statt gi ke, statt kam, das zweimal ap. gau wiedergibt, ko, statt tu to, statt pa po. Indessen kann ich den Beweis für die Existenz dieses Fünf vokalsystems noch nicht als erbracht ansehen. Da ausserdem diese Frage hier, wo es sich lediglich um eine unzweideutige Transkription der neuelamischen Inschriften handelt, unwesentlich ist, kann ich mir ersparen, auf Einzelheiten einzugehen.

Weissbach's remarks have been quoted extensively both because they may serve as another introduction to the tangled skein of arguments concerning the transliteration of Elamite and because they were in themselves an answer to Bork's judgment of the method to be followed. Said Bork:

Nach einer wenigstens zwei Jahrtausende umfassenden Geschichte war aus dem übernommenen Syllabar ein System mit einer besonderen Entwicklungsrichtung entstanden. "Die neusysische Schrift ist keine Sylbenschrift mehr, sondern auf dem Uebergange zur Lautschrift begriffen",<sup>3</sup> das ist die Formel, in die Weissbach dieses Entwicklungsgesetz gekleidet hat. Gewisse Silbenschiesser wie *um*, *ul*, *ut*, *iš*, *ir* sind zu reinen Schlusskonsonanten geworden, die sich an jeden Vokal anlehnen können. Dafür liefern die neuen Texte Belege in Menge.<sup>4</sup>—Ist es nun schon im höchsten Masse verwirrend, wenn man in den älteren Texten *ta-ak-ki-me* neben *da-ak-ki-me*, *hu-ut-tak* neben *hu-ud-dak*, *hu-ud-da-ga* neben *tum-ru-un-ka*, <sup>nap</sup>*La-ga-mar* neben <sup>nap</sup>*La-ga-mar* u. v. a. sehen muss, so springt die Sinnlosigkeit der konventionellen Umschreibungsmethode in den neuen Texten erst recht in die Augen. . . . Die landläufige babylonistische Umschreibungsmethode ist nicht nur eine

<sup>3</sup> The quotation is from Weissbach, *Die Achämenideninschriften zweiter Art* (Leipzig, 1890), p. 30.

<sup>4</sup> The reference is to the texts in *Mém.*, IX, which Bork is reviewing.

lästige Zwangsjacke, sondern auch eine Scheuklappe, die den Weg zur Erkenntnis verdeckt. Deshalb muss sie fallen.<sup>5</sup>

Weissbach replied to this statement of the situation in the continuation of his remarks cited above:

Auf Grund aller dieser Erwägungen habe ich bereits in meinen Abhandlungen "Anzanische Inschriften" (1891) und "Neue Beiträge" (1894) die früher von mir (Assyr. Bibl. Bd. 9) angenommene Umschreibungsweise aufgegeben und führe nunmehr auch in den Achämeniden-Inschriften die "landläufige babylonistische Umschreibungsmethode" ein, natürlich nicht, um der el. Forschung "eine lästige Zwangsjacke" oder eine "Scheuklappe, die den Weg zur Erkenntnis verdeckt" (Bork OLZ 10, 477) anzulegen, sondern—und hier glaube ich, zugleich im Namen Scheils sprechen zu dürfen, an den Borks eben zitierte Worte zunächst gerichtet waren—lediglich in der Absicht, dem Leser zu zeigen, was in den el. Texten eigentlich geschrieben steht.<sup>6</sup>

This is sound methodology and merits our approval. In his review of Weissbach's book, Bork complained with considerable acrimony that Weissbach showed not what was actually written in the Elamite text but "what syllabic value the student of Babylonian imputed to the corresponding [Elamite] sign in the Babylonian system of cuneiform writing."<sup>7</sup> To this Weissbach replied:

Das (ist) vollkommen richtig. Aber es ist nicht das einzige und nicht das wichtigste. Meine Umschrift ist so ausgewählt, dass man aus ihr unter Zuhilfenahme der beigegeführten Schrifttafel augenblicklich erkennen kann, welche Zeichen im Originaltext stehen. Sie tritt nicht nur "mit dem Anspruch auf, zu zeigen, was in den elamischen Texten eigentlich geschrieben steht", sondern sie erfüllt diesen Anspruch auch. Sie ersetzt in gewisser Beziehung das Original.<sup>8</sup>

<sup>5</sup> OLZ, X (1907), cols. 476 f.      <sup>6</sup> KA, pp. xlii f.

<sup>7</sup> OLZ, XV (1912), col. 65. Bork's further statements in "Elamische Studien," MAOG, VII, 3 (1933), pp. 7-21, merely clarify his position on this matter. It is interesting to observe that the more recent studies in the interpretation of Hurrian texts have given up the "normalized" methods advocated by Bork and have returned to direct transliterations; cf., e.g., Speiser, *Introduction to Hurrian* (Annual of the American Schools of Oriental Research, XX [New Haven, 1940-41]), p. xxix: ". . . our knowledge of the sounds of Hurrian is as yet far from sufficient to permit adequate normalization in all instances. For this reason the great majority of citations will be given in direct transliteration. . . ."

<sup>8</sup> "Zur Kritik der Achämenideninschriften," ZDMG, LXVII (1913), 283.

These words are echoed so fully by Poebel that he too may be quoted in full:

The transliteration of Elamite words . . . follows the principle observed also by Weissbach in KA of rendering each sign of the Elamite system of writing with only that phonetic value which it had in the usual Akkadian systems of writing. For instance, KAR is rendered with *kar* only, TI with *ti*, KUR with *kur*, UL with *ul*, UD with *ut*, etc., although it is quite evident from the rendering of foreign words that, e.g., *kar-ma-ba-daš* represents \**gar-ma-pa-daš*; *ba-gi-ja-ti-iš*, *ba-gi-ja-di-iš*; . . . etc. But as long as neither all peculiarities of Elamite phonetics nor all peculiarities of Elamite grammar have been clearly recognized and brought into a system, it is of course impossible or at least useless to work out a system of phonetic values for the signs of the Elamite system of writing. For example, to date it has not yet been established whether the fact that the Elamites use only a sign *da* but not *ta*, and only a sign *ti* but not *di*, indicates that they had only one dental—*t* or *d* or some intermediary consonant—or whether the use of one sign is merely due to the fact that they used a simplified system of writing which—like the Old Akkadian—neglects the difference between voiced and voiceless consonants. For this reason it is still advisable to adhere to the method described above, which at least has the advantage of rendering the signs with values familiar to Assyriologists.<sup>9</sup>

The quotation from Weissbach already cited has referred to the so-called "five-vowel system," repeatedly attributed to Georg Hüsing but first proposed in part by Holtzmann (1851) and Mordtmann (1862) and fully by Oppert (1879). According to this system one must always read *o* for *u*, *ko* for *kam*, *to* for *tu*, *po* for *pa*, *tik* for *tuk*, *tir* for *tur*, and similarly.<sup>10</sup> When, for example, Elamite texts show the "root" of the verb "(to) say" in the various writings *ti-ri-*,

<sup>9</sup> "The Names and the Order of the Old Persian and Elamite Months during the Achaemenian Period," *AJSL*, LV (1938), p. 132, n. 5.

<sup>10</sup> Hüsing, *Die iranischen Eigennamen* (Inaugural-Dissertation, Norden, 1897), pp. 44 ff.; "Elamische Studien," *MVAeG*, III, 7 (1898), pp. 288 ff.; Bork, *OLZ*, XV (1912), col. 66; *Reallexikon der Vorgeschichte*, III, 74. The adherence of F. W. König and Wilhelm Brandenstein to similar views is evident from their transliterations, e.g., König in "Der Burgbau zu Susa," *MVAeG*, XXXV, 1 (1930), Brandenstein in "Die neuen Achämenideninschriften," *WZKM*, XXXIX (1932), 7 ff.

For the earlier history of this "system" see the references cited by Weissbach, *op. cit.*, pp. 286 f.

*tu<sub>4</sub>-ri-*, and *tur-ri-*, the adherents to this system argue that we must assume a value *tī* for *TU<sub>4</sub>* and a value *tīr* for *TUR*, since the values attributed by the Elamites to the signs they employed had changed from those current among the Akkadians.

Since 1898 no Elamite sign list has been formulated on the basis of this system; even at that time the values attributed to any one sign were dubious because they rested on relatively few examples of comparative materials. Since that time we have constantly been increasing the known size of the Elamite syllabary (see below, chap. ix), and it is not unlikely that in the near future some of the signs hitherto missing (for example, *TIR*) will be found and so make the proposal untenable. At any rate, in transliterations which attempt to indicate clearly the signs which appear in the texts we must leave open the possibility that, for example, the vowel of the Elamite word for "(to) say" was not a "pure" vowel but was of such a nature that neither the writing *turi-* nor *tiri-* was quite adequate to express it and, consequently, that either method of writing could be used. So long as we cannot be certain on this point, we cannot afford to prejudice our final judgment by accepting a transliteration which is already based on an interpretation of Elamite phonemics.

Unqualified acceptance of the "five-vowel system" and its corollary, according to which an ancient Elamite *u*-vowel always develops into a late Elamite *i*-vowel, all too frequently at the present time lands us in difficulties. In one of his more recent studies on Elamite transcription, for example, Bork continues to read *tīr* for the *TUR* sign; but, whenever the same Old Persian word is written with both *TUR* and *TAR*, he argues that we must accept a value *tār* for the latter. Thus, in the Old Persian name *Dadaršiš*, which is written in Elamite as both *Da-TUR-ši-iš* and *Da-TAR-ši-iš*, his transliterations are *Ta-tīr-ši-iš* and *Ta-tār-ši-iš*.<sup>11</sup> His suggestion at first sight appears plausible.

Our Persepolis texts, however, make a significant contribution on this very point and demonstrate anew the dangers inherent in a "phonemic" system of transliteration. A place name particularly common in the Fortification texts is

<sup>11</sup> MAOG, VII, 3 (1933), p. 8.

written *Ku-in-TUR-ru-iš*,<sup>12</sup> *Ku-un-TAR-ru-iš*,<sup>13</sup> and *Ku-un-TUR-ru-iš*.<sup>14</sup> Obviously the same place name appears in our Treasury documents as *Kin-DA-RI-iš-ša*.<sup>15</sup> Perhaps this does not represent the place mentioned in paragraph 31 of the Behistun inscription, where the Elamite form is *Ku-un-TAR-ru-iš*, for that is called a "town in Media" and the village named in our Persepolis texts is clearly not far distant from Persepolis, but the names themselves are surely identical. In view of Old Persian *Ku<sup>n</sup>duruš* and Akkadian *Ku-un-du-ur*, both of which show the vowel *u* in the second syllable, together with the unequivocal writing of the same name in the Aramaic papyri of Elephantine as כנרר, Bork's suggestion that the vowel in question partook of the coloring of *i* or *ā* can hardly find acceptance. Furthermore, the Persepolis texts show still another method of writing the name: *Ku-un-TAR-TUR-ri-iš-ša*.<sup>16</sup> To the unprejudiced observer the last writing could just as easily be an attempt to reproduce neither an *a*-, *ā*-, or *i*-vowel, nor an *u*-vowel, but an *o*-vowel, and the Old Persian, Akkadian, and Aramaic forms would be quite understandable if that were correct.

In any event the examples just given may serve to demonstrate the misleading conclusions which can be drawn when a text is transliterated according to a system which endeavors to combine phonemic presuppositions with a representation of the signs employed. We are therefore forced to conclude that until we are much further along in an understanding of Elamite phonetics there must be no tampering with the normally accepted values of Akkadian signs as used in Elamite texts, on the basis of "subjective measuring of particulars."

Variant writings of another word in Treasury texts may make the point still clearer. The first sign of an Elamite word translated in this volume as "equivalent" (see above, pp. 52 f.) is written both as *ša* and as *šá*. It is the custom of what may be called the "Hüsing school" to transliterate the *ša/za* sign by *ca*, the *ši* sign by *ci*. Obviously this has the disadvantage that it hides from other cuneiform scholars the signs

<sup>12</sup> Fort. 8625:3 f.

<sup>13</sup> Fort. 15:6.

<sup>14</sup> Fort. 15:4.

<sup>15</sup> Text No. 48:8 f., in this volume.

<sup>16</sup> Fort. 9409:4 f.



with which they are already quite familiar; it is nevertheless true that the normal Old Persian equivalent of Elamite *š* is *c*, and we may indeed suspect that if the word were Old Persian its transliteration in that language would be something like *cak*. Our suspicions cannot in this case be confirmed, however, for Elamite *šá* is never elsewhere used to reproduce Old Persian *ca*, and yet *šá* is used to write the word even more fre-

vowel) does not agree with the vowel of the second sign (vowel + consonant). The examples in Table 6 are derived exclusively from the Persepolis tablets.

Weissbach formulated his explanation for these writings in the following words:

Finden sich die neuelamischen Zeichen für ik, ip, in, ir, iz, iš hinter a oder u, die für ul, um, ut hinter a oder i, so wird nur ihr Konsonant gelesen. Die Dop-

TABLE 6

ELAMITE WRITINGS OF CLOSED SYLLABLES						
<i>ba-ip</i>	<i>ba-ik</i> <i>pa-ik</i>	<i>ba-ir</i> <i>pa-ir</i> <i>ka-ir</i>	<i>ba-is</i>	<i>ba-iš</i> <i>pa-iš</i> <i>ka-iš</i> <i>da-iš</i>	<i>da-ut</i> <i>ma-ut</i>	
<i>ma-ip</i> <i>na-ip</i>	<i>ma-ik</i>	<i>ma-ir</i> <i>na-ir</i>		<i>ma-iš</i> <i>na-iš</i> <i>la-iš</i>	<i>ma-um</i> <i>na-um</i>	
<i>ra-ip</i>			<i>ra-is</i>	<i>ra-iš</i>	<i>ra-ut</i>	<i>ra-um</i> <i>sa-um</i>
<i>ša-ip</i>	<i>ša-ik</i>	<i>ša-ir</i> <i>šá-ir</i> <i>ḫa-ir</i>	<i>ša-is</i>	<i>ša-iš</i> <i>šá-iš</i> <i>ḫa-iš</i> <i>du-iš</i>	<i>ḫa-ut</i>	<i>šá-um</i>
<i>du-ip</i> <i>nu-ip</i> <i>lu-ip</i>	<i>du-ik</i>		<i>mu-is</i> <i>nu-is</i> <i>lu-is</i>	<i>mu-iš</i> <i>nu-iš</i> <i>nu-aš</i> <i>lu-iš</i> <i>ru-iš</i>		<i>nu-in</i>
<i>su-ip</i> <i>šu-ip</i>				<i>šu-iš</i> <i>ḫu-iš</i> <i>u-iš</i> <i>ú-iš</i> <i>ku-iš</i>		<i>ku-in</i>
		<i>tu-ir</i>	<i>ku-is</i>		<i>pi-ut</i>	
						<i>gi-um</i> <i>gi-ul</i> <i>e-ul</i> <i>be-ul</i>
					<i>ti-ut</i>	
					<i>ši-ut</i> <i>ḫi-ut</i>	<i>mi-um</i> <i>mi-ul</i> <i>ši-ul</i>
					<i>še-ut</i>	<i>te-um</i>

quently than *ša*. Sound methodology in the transliteration of a cuneiform text, therefore, would compel us to continue in this case also to assign to Elamite signs the values which are accepted by other cuneiform scholars for the corresponding signs in Akkadian. Only later can we draw conclusions about the phonemes involved.

A somewhat more complicated problem is extant in a late Elamite method of writing in which two signs are used to write what at first sight appears to be a closed syllable consisting of consonant, vowel, and consonant, but in which the vowel of the first sign (consonant +

pelvokale ai, ui, au, und iu entstehen in diesen Fällen nur graphisch, und es ist z.B. statt *ša-ir* vielmehr *šar*, statt *ba-ik* vielmehr *bak*, statt *ha-ul* vielmehr *hal* auszusprechen usw.<sup>17</sup>

When we observe that the writing *ra-iš* varies with *ráš* in the verb *šerasš(da)*, that the writing *pa-ik* varies with *pa-ak* in the proper name *Be-ul-pa-i/ak-ka*, that *šá-um* varies with *šá-am* in the word *kur-šá-u/am*, "karsha," that *tu-ir* varies with *tu-ur* in the Elamite spelling of the Old Persian month name *Θūravāhara*, and that

<sup>17</sup> KA, p. xlii; cf. *Die Achämenideninschriften zweiter Art*, p. 30.

the same or similar phenomena occur in a number of other passages, we may perhaps be persuaded that the correct explanation has been found. According to this explanation, then, in writings of this sort the vowel of the second sign may be disregarded because it was ignored by the Elamite scribe, who himself had chosen that sign merely because of the consonant embodied in its pronunciation.

Whether or not we accept this opinion<sup>18</sup>—and we shall see that there are strong arguments against it—the transliteration should at least indicate clearly what signs are used to write the syllable. Transliterations such as *Mu-š-ra*,<sup>19</sup> *Ni-ti-t-pe-l*,<sup>20</sup> and *hu-po-p-pi*<sup>21</sup> are misleading and unjustifiable. No scholar would know, without a personal examination of the text, whether these were actually written *Mu-iš-ra* or *Mu-aš-ra*, *Nu-ti-ut-be-ul* or *Nu-ti-at-be-ul*, *hu-pa-ip-pi* or *hu-pa-ap-pi*, etc. We are not today justified in saying that the way such words are written is of no significance at all, for we can by no means be sure it is not. Admittedly these words *may* have been pronounced nearly in the manner indicated, but on this point there can be no certainty at present, and such transliterations only prejudice our opinion and depend on “subjective measuring.”

I am not persuaded, however, that the above explanation is the only one possible for these writings. To be sure, the late Elamite syllabary did not preserve, according to the information available at the moment, signs for *up*, *ar*, *us/š*, *uš*, *it*, *im*, and *el*; consequently, writings like *du-ip* for *du-up*, *ša-ir* for *ša-ar*, *mu-iš* for *mu-uš*, *du-iš* for *du-uš*, *pi-ut* for *pi-it*, *te-um* for *te-im*, and *be-ul* for *be-el* could be more or less understandable. The syllabary does preserve, however, the signs for

<sup>18</sup> Brandenstein (*op. cit.*, pp. 7 ff.) argues cogently against “phonetic” transliterations but has accepted Weissbach’s formulation of the principles underlying the kind of writings just enumerated. He then argues that retention of the vowel of the second sign (in transliterations such as *ra-iš*) tends to falsify the state of affairs in an archaistic fashion (“... den Tatbestand historisierend zu verfälschen”).

<sup>19</sup> Bork, *OLZ*, XV (1912), col. 66: *Mu-š-ša-ri*; Brandenstein, *op. cit.*, p. 77: *Mu-c-ra*.

<sup>20</sup> Bork, *op. cit.*, col. 65, n. 2 (“Lies mit Hüsing: Ni-ti-t-pe-l”), and *MAOG*, VII, 3 (1933), pp. 10, 19.

<sup>21</sup> Hüsing, “Die elamische Sprachforschung,” *Memnon*, IV (1910), p. 12, n. 1.

*ap*, *ak*, *áš*, *at*, *am*, *ur*, and *un*; hence our problem concerns the reason behind Elamite writings like *ba-ip* for *ba-ap*, *ba-ik* for *ba-ak*, *ba-iš* for *ba-áš*, *ma-ut* for *ma-at*, *ma-um* for *ma-am*, *tu-ir* for *tu-ur*, and *ku-in* for *ku-un*. In addition, the Elamite syllabary has preserved a number of signs possessing the traditional values of consonant + vowel + consonant which could and sometimes did replace the writing with two signs; for example, the *nap* sign, which could have been used to replace the writing *na-ip*, the *ráp* sign for *ra-ip*, the *b/par* sign for *ba-ir* (*pa-ir*), the *mar* sign for *ma-ir*, the *har* sign for *ha-ir*, the *kaš* sign for *ka-iš*, the *d/taš* sign for *da-iš*, the *maš* sign for *ma-iš*, the *ráš* sign for *ra-iš*, the *mat* sign for *ma-ut*, the *rat* sign for *ra-ut*, the *d/tuk* sign for *du-ik*, the *tur* sign for *tu-ir*, and the *muš* sign for *mu-iš*. We have already observed that the Elamites did on occasion represent such syllables by a single sign. Thus we find writings like *še-ráš-da* varying with *še-ra-iš-da* and *Bar-šip* (“Persians,” once in our texts and frequently elsewhere) contrasting with *Ba-ir-šá*, “Parsa, Persepolis,” etc. But it is by no means inconceivable that a more careful examination than has hitherto been made may reveal a very good reason for the Elamite’s choice of syllabic signs. This reason may be that *under certain circumstances such writings as ba-ir, ha-ir, ku-in, etc., better expressed the color of the vowel, or the particular nature of the following consonant, than would the use of the very common signs bar, har, etc., or writings like ku-un, etc., under the same circumstances.*

If writings like *ma-ir*, *ka-ir* or *ku-ir*, *tu-ir*, *pa-ir* or *ba-ir*, *ha-ir*, and *ku-in* and *ku-un* merely represent, respectively, the syllables *mar*, *kar* or *kur*, *tur*, *par* or *bar*, *har*, and *kun*, we may well ask why, in respect to *ma-ir*, the Old Persian month name *Varkazana* is always written in Elamite with the *mar* sign, never with the signs which would render it as *ma-ir*. Including Behistun and all of the Persepolis texts so far examined by me, there are now fourteen occurrences of this month name (see above, Table 4). Thirteen employ the *mar* sign; the fourteenth carefully avoids the writing *ma-ir* and writes *mi-ir*! The Old Persian loan word *duvara*, “door,” becomes *du-um-mar-ra* in Elamite, not *du-um-ma-ir-ra*, and so it is with a host of other

words, e.g. *Margiana*, *Mardonius*, *Martiya*, *Fravartish* (Phraortes), *Haumavarka*, etc. The very common Elamite verb *marri-* appears as *mar-ri-* (23 times), *ma-u-ri-* (3 times), and once, apparently, as *mur-ri-*; *ma-ir-* (or *mu-ir-*) is never used. The words for "artisans" (*mar-ri-ip*, 14 occurrences) and "jar" (*mar-ri-iš*, 7 occurrences) are always so written, and never with *ma-ir*.

In respect to *ka<sub>4</sub>-ir* and *ku-ir*, the Old Persian loan word *-kara* is consistently rendered by *ka<sub>4</sub>-ra*, *kar-ra*, and more commonly by *kur-ráš*, but never by *ka<sub>4</sub>-ir-ra* or *ku-ir-ra(š)*; OP *karša* becomes *kur-šá-um* or *kur-šá-am* in every one of its seventy-odd occurrences to date, and the first syllable is never written *ku-ir* or *ka<sub>4</sub>-ir*; the land name Caria (OP *Karka*, Akk. *Karsa*) becomes *Kur-ka<sub>4</sub>*, never *Ku-ir-ka<sub>4</sub>* or *Ka<sub>4</sub>-ir-ka<sub>4</sub>*.

In respect to the syllabic writing *tu-ir*, the first syllable of the Old Persian month name *Darnabāji* is written with the *tur* sign (in texts examined by me up to the present, 8 times) or the *tar* sign (2 times); in the one exceptional writing (Fort. 5904) *tu-ir* is carefully avoided by the writing *du-ur*.

In respect to the writings *pa-ir* and *ba-ir*, neither is ever employed in writing the names of Parthia (*Bar-tu-ma*, 10 occurrences), Parga (*Bar-rák-ka<sub>4</sub>*), and Sardis (*Iš-bar-da*); *ba-ir* is never used to reproduce OP *-bara*, which becomes either *ba-ra* or *bar-ra* in Elamite; it is not employed to write the name of Gobryas (OP *Gau-baruwa*), which becomes *Kam-bar-ma*. Just as *ma-ir* was not used to replace the *mar* sign in *Mi-ir-ka<sub>4</sub>-šá-na* (*Varkazana*; see above), so OP *Bardiya* appears as *Pir-ti-ia*, not as *Ba-ir-ti-ia* or similarly.

In respect to the writing *ha-ir*, the names of Arachosia (9 times), Armenia (12 times), "Aryan" (9 times), Arabia, Arbela, Aria, and Ariaramnes begin in Elamite with the *har* sign in all cases but one; the exception is Aria, which once begins *ha-ri*; *ha-ir* is never used in any of these forms.

In respect to the writings *ku-un* and *ku-in*, we have seen that in the name of the town *Ku<sup>r</sup>duruš* the first syllable is variously written in both fashions, and this would appear to argue strongly for a pronunciation *kun*. We have also seen, however, that this syllable is once written with

the *kín* sign, which just as strongly protests against that pronunciation.

On the other hand, the Elamite writing of the first syllable of the sixth Old Persian month name, whatever its pronunciation in the latter language, is more than twelve times *ka<sub>4</sub>-ir*, twice *ka<sub>4</sub>-har* (see Table 4), and at least once *kur*; the *kar* sign is never employed in any of its sixteen occurrences to date. Such consistency in the use of signs employed for the writing of this syllable and of all the other syllables cited above argues very cogently for the acceptance of the conclusion that the Elamite scribes knew very well what they were about when they used the signs for *ka<sub>4</sub>-ir*, *ma-ir*, *ku-in*, etc.

A few writings would appear to make untenable the suggestion here offered that in most cases the choice of signs was deliberate. These are:

1. The frequent occurrences of *Bar-šip*, *Bar-šir*, and *Bar-šir-ra*, over against the very explicit writing of the name "Parsa" (Persepolis), as *Ba-ir-šá*, always so written (more than ninety times).
2. The apparent interchange of *pa-ir-na* with *bar-na* in the Old Persian element *farna-* appearing in proper names; thus *Pa-ir-na-da-da*<sup>22</sup> as opposed to *Bar-na-da-ad-da* and *Bar-in-da-ad-da*, etc.; *Ba-ka<sub>4</sub>-pa-ir-na*<sup>23</sup> as opposed to *Ba-ka<sub>4</sub>-bar-na*.
3. The apparent interchange of *ha-ir* with *har* in the personal name *Ha-ir-ba-mi-iš-šá*,<sup>24</sup> *Har-ba-mi-iš-šá*.<sup>25</sup>
4. The Old Persian month *Garmapada* appears fifteen times as *Kar-ma-ba(or bat)-taš*, twice as *Ka<sub>4</sub>-ir-ma-ba(or pad)-da*.

In item 1 above we may note the fact that the writings with *bar* all show the addition of a vowel and consonant (*ip*, *ir*) to the word which otherwise appears as *Ba-ir-šá*; change of stress could easily have affected the color of the first vowel of the word as the Elamite heard it or pronounced it, and therefore as he wrote it, just as, for example, the addition of an element to Anglo-Saxon *Franc*, "France," gave rise to *frencisc*, "French." For items 2, 3, and 4 there may be no explanation for the variant writings other than the suggestion that to some scribes the sound of the syllables as they heard them or themselves pronounced them sometimes induced the writings

<sup>22</sup> Fort. 1706:2.

<sup>24</sup> Fort. 5904:3.

<sup>23</sup> Fort. 1680:4 f.

<sup>25</sup> In Hallock's "List of Names."

*pa-ir* for *bar*, *ha-ir* for *har*, etc.; in other words, that such writings could and did at times better reproduce the sound involved in the vowel, in the consonant following the vowel, or perhaps in both, than the other methods of writing they could have employed.

I am persuaded that this latter principle is involved in the case of such writings as *ba-ip*, *ma-ip*, etc., *du-ip*, *nu-ip*, *lu-ip*, etc. For here the Elamite plural form of the independent noun or verb form is usually present,<sup>26</sup> and this plural form is not, in the great majority of cases, simply the consonant *p*<sup>27</sup> nor, for the independent noun, “*-p*, *-pe* oder *ip*,”<sup>28</sup> but is actually *-ip* in what corresponds to our nominative case and *-ippe* in what corresponds to our genitive and dative cases. There are, it is true, a number of instances in which the plural is written with *-ap*, notably in the Darius Susa *f* inscription; but that the real plural is not merely *-p* but is *-ip* is suggested, for example, by the Achaemenid forms of the verb *hudda-* “(to) make, do.” In its very frequent occurrences the end vowel of the expanded stem is almost uniformly of the coloring of *a* or *u* (thus *hu-ud-da*, *hu-ud-da-ak*, *hu-ut-tan-ti*, *hu-ud-da-ra*, *hu-ut-taš*, *hu-ut-taš-da/ti*, *hu-ud-du*, *hu-ut-tuk*, *hu-ut-tuk-ka*).<sup>29</sup> When, however, the stem of *hudda-* is pluralized, the end vowel does not remain as *a* but either becomes *i* (thus *hu-ut-ti-ip* in our texts, *hu-ut-ti-u-ut*, “we made,” in Behistun) or demands the addition of *i* in the following syllable (thus the reduplicated *ha-hu-ud-da-ip* in Behistun). If it is true that the plural form is *-ip* in the verb *hudda-*, it is very likely indeed that many of the *ba-ip*, *ma-ip*, etc., forms, as well as *du-ip*, *nu-ip*, etc., forms deserve the same explanation. We may at the present time

<sup>26</sup> Indeed, it may not be impossible to claim that in such writings the plural is always involved. Apparent exceptions are *in.nu.ib.be.da* (DB, §§ 65–66) and *nu.ib.ba.ak* (DB, § 59); but König, *Relief*, p. 77, explains the former as a plural (*in-nu-ip-pe-da*), and Bork’s explanation of the latter, *op. cit.*, p. 19, can scarcely be correct.

<sup>27</sup> Bork in *Reallexikon der Vorgeschichte*, III, 75.

<sup>28</sup> Weissbach, *Die Achämenideninschriften zweiter Art*, p. 49.

<sup>29</sup> An exception is *hu-ut-ti-iš*; the form *hu-ud-da-iš* may be dialectically distinct from *hu-ut-taš* and display a writing indicating that the Elamite was deliberately trying to show *huddaiš*. The form *hu-ut-ti-ra*, “maker,” also should not be used, for we lack specific information on the nature of the *r* (see below), which may well have induced the preceding *i*-vowel despite the form *hu-ud-da-ra* frequent in DB.

be unable to decide whether the nature of the consonant was such that it preferred an *i*-vowel, or whether the *i*-vowel was actually a part of the plural form. In either case, the majority of the writings in which the last sign is *ip* may be explainable in this fashion.

For a time I thought it might be possible to explain those writings in which the second sign was *ir* (*ma-ir*, *ba-ir*, *tu-ir*, etc.) on the basis of the particular nature of the *r* concerned. We know, for example, that Old Persian still possessed, in certain words, the *r* sonant in addition to the *r* consonant,<sup>30</sup> and that this semivowel is regularly reproduced in Elamite by *ir*; thus *ir-da* for OP *arta* (*rta*), *ir-iš-ti* for *aršti* (*ršti*),<sup>31</sup> etc. My view on this matter cannot, however, be satisfactorily substantiated, for it so happens that much of our knowledge concerning the existence of OP *r* is itself based on Elamite transliterations of Old Persian words, and any further work on the problem would merely be arguing in circles. For the present it is perhaps better to suggest that such writings as *ba-ir*, *ma-ir*, etc., may have been intended by the scribe to render more effectively what he heard or pronounced in actual speech, than would have been possible by the use of the simple *bar*, *mar*, etc., signs.

The same conclusion may properly be drawn for the majority if not all of the writings presented in Table 6 above. In each particular case we may be unable to decide whether the *i*-vowel (where the second sign is *ip*, *ik*, *ir*, *is*, *iš*, and *in*) or the *u*-vowel (where the second sign is *ut*, *um*, and *ul*) was an integral part of the sound the scribe attempted to reproduce, or whether the consonant which followed the vowel induced that vowel. Whatever decision may ultimately be made in this regard would not appear to invalidate the probability that the scribe was in each case deliberately employing the method of writing which best accounted for the sound in question.

By the same token, this writer is disinclined to

<sup>30</sup> Bartholomae, in Geiger and Kuhn (eds.), *Grundriss*, I, 1, §§ 57 and 290; Meillet-Benveniste, *Grammaire*, § 93; Herzfeld, *ApI*, p. 294.

<sup>31</sup> The name Astyages, interpreted as OP (Median) \**Aršti-vaiga-* (\**ršti-vaiga-*), “Lanzenschwinger,” by Herzfeld, *ApI*, p. 77, appears in Fortification texts (e.g., Nos. 708, 6031, 7096) as *Ir-iš-ti-man-ka*.

accept a value *ni*<sub>5</sub> for the *nu* sign<sup>32</sup> even in the face of such apparently "clear" indications as in the Old Persian name and appellative "Achaemenes" and "Achaemenid," which appear in Old Persian as *Haxāmaniš* and *Haxāmanišiya* and in Akkadian as *A-ḥa-ma-ni-ši*<sup>3</sup> and *A-ḥa-ma-ni-iš-ši*<sup>3</sup> and the like, as opposed to El. *Ḥa-ak-ka<sub>4</sub>-man-nu-iš* and *Ḥa-ak-ka<sub>4</sub>-man-nu-ši-ia*.

The explanation made heretofore for the phenomena we have been considering will under no circumstances account for the loss of such signs as *ar*, *el*, *im*, *it*, etc., from the Elamite syllabary. It merely assumes that those signs had already disappeared from the syllabary and that as a result of their loss the scribes were compelled to write *ma-ir* for *ma-ar*, *be-ul* for *be-el*, *gi-um* for *gi-im*, *pi-ut* for *pi-it*, and similarly. The interpretation here suggested—that such writings best represented what the Elamites themselves heard and spoke—does account for the loss of these signs. If they usually heard, not *mar* but *ma<sup>2</sup>ir* or *ma<sup>2</sup>er*, not *pit* but *pi<sup>2</sup>ut*, or similarly, then it is quite understandable that they would write what they heard and pronounced, and that the signs for sounds not heard would gradually disappear from use.

The above deductions become of vital importance in the transliteration of Elamite texts from every period. We have pointed to significant facts which tend to show how inadequate, even inaccurate, is what we have chosen to call a "phonemic" system of transliteration. We have concluded that the system was phonemic only in so far as it was based on subjective considerations concerning the phonetics of the Elamite language. If our above conclusions concerning such writings as *ma-ir*, *ba-ip*, etc. have validity, it is obvious that a "phonemic" system is itself concealing the very materials on which any sound judgment of Elamite phonetics can be based. In other words, it is not the "provincial Babylonian system of transliteration" which is the "wearisome straitjacket" or the "blinder," but the "phonemic" system which conceals the road to discovery.

In the sign-by-sign transliterations in this vol-

<sup>32</sup> As proposed, for example, by Weissbach, *KA*, p. xlii; "Die dreisprachige Inschrift Darius Susa e," *ZA*, XLIV (1938), 157. See also Bork, *OLZ*, X (1907), col. 520.

ume, therefore, almost every sign of the Elamite system of writing is rendered by the first and most common value which is customarily employed for the corresponding sign in the transliteration of Akkadian texts dating to the late Assyrian and Neo-Babylonian (early Persian) periods. This has been done primarily in order to reproduce faithfully and clearly the various systems of writing used by the Elamites of the Achaemenid period without obscuring them by diacritical marks and without prejudicing the ultimate goal: a phonetic rendering of the Elamite words.<sup>33</sup> When diacritical marks are absolutely necessary, as in distinguishing the different signs for *u* and *ip*, F. Thureau-Dangin's system of transliteration is used.<sup>34</sup> Whenever an Akkadian sign has two values, e.g., *bu/pu*, *ban/pan*, both without a diacritical mark, usually the value with the voiceless consonant has been chosen. Similarly, whenever an Akkadian sign has two values, e.g. *bir/pir*, *gán/kán*, each with a diacritical mark, the value with the voiceless consonant has been selected. When, however, an Akkadian sign has two values, e.g., *bār/pār*, *be/pè*, one without and one with the diacritical mark, the former only has been employed.

The result is obviously artificial. It is, however, intentionally so, for it serves immediately to warn the reader that the rendering is not based on phonetic presuppositions. For example, the Old Persian loan words \**ga<sup>2</sup>zabara* and \**satapati* are transliterated *kán-ša-bar-ra* and *sa-da-bat-ti*, not *gán-za-bar-ra* and *sa-tà-pát-ti*.

Once a sign-by-sign transliteration has shown the actual signs which are used to write a word, we may then at times render it in connected writing, without hyphens. In this volume such writings will be restricted chiefly to names of individuals, and sometimes to place names. In effect, of course, what is given becomes a quasi-phonetic rendering which is intended to serve two purposes: first, it enables us to present the

<sup>33</sup> The practice also avoids the extra expense of printing transliterations with more diacritical marks than are necessary.

A similar practice is stated by Gelb to have been followed in transliterating Hurrian names; cf. Gelb, Purves, and MacRae, *Nuzi Personal Names*, p. 4.

<sup>34</sup> As expounded in his *Le syllabaire accadien* (Paris, 1926) and *Les homophones sumériens* (Paris, 1929). It might here be observed that, to be really effective, such syllabaries should be compiled for each successive period of each language.

translation of a text without again transliterating the names which appear in it;<sup>35</sup> second, it offers some indication, however slight, of the approximate manner in which we now think the names in question were pronounced.

For Elamite names there will remain considerable doubt at present as to the exact pronunciation, as has been indicated above. In the name *Hi-ut-ti-be-ul-la*, for example, there is reason to believe that the signs comprising the syllables *hi-ut* and *be-ul* may originally have been chosen intentionally. For a connected rendering, however, we have little choice but to write Hittipella, in partial agreement with our present notions regarding the Elamite phonetic system. Similarly the names transliterated as *At-te-ba-du-iš* and *Be-ul-pa-i/ak-ka<sub>4</sub>* will be written in connected fashion as Attepatush and Pelpakka. In each case the disparity between the sign-by-sign transliteration and the connected writing should be noted.

Where the word or name is known to be of Old Persian origin and is so familiar that there is comparatively little doubt as to its probable pronunciation in Old Persian, a (simplified) Old Persian form will be employed in the connected writing. Thus for the Elamite transliterations *Maš-da-ia-úš-na*, *Ba-ka<sub>4</sub>-pi-ik-na*, and *Bar-na-da-ad-da* the connected writings will be Mazdayasna, Bagabigna, and Farnadata. A number of Old Persian names, through Greek or other sources, have already become familiar to English readers and will here be written in their familiar forms; thus the names Darius, Megabyzus, and Aspathines are better known than the Old Persian renderings *Dārayavauš*, *Bagabuxša*, and *Aspacanā*, for which the Elamite transliterations are *Da-ri-ia-ú-iš* (with variants), *Ba-ka<sub>4</sub>-pu-uk-šá*, and *Áš-ba-ša-na*.

There are, of course, many words and names for which the Elamite pronunciation, or the Persian pronunciation or equivalent, is either unknown or in reasonable doubt. For such cases we have little recourse but to reduce the sign-by-sign Elamite transliteration to an almost verbatim connected writing. Thus *An-nu-gi-ru-iš*, *Mi-ra-u-da*, and *Bar-ni-iš-ša* are written connectedly as Annugirush, Mirauda, and Parnizza.

<sup>35</sup> It also represents a considerable saving in the ultimate expense.

Again the disparity between the connected rendering and the transliteration should serve to warn the reader that the exact correspondence is in doubt.

A few other notes on the principles underlying the transliterations here offered follow.

Akkadian (Sumerian) "ideograms" and Sumerian signs are transliterated in small capitals according to the usual fashion when the exact Elamite equivalent is either unknown or uncertain; thus UDU.NITÁ, SÌ.SÌ-du, etc.

The Elamites employed the Akkadian (Sumerian) MEŠ sign, not in its proper meaning to express plurality of the preceding (only "personalized" nouns, of course, could be pluralized), but merely to express the fact that the preceding sign or group of signs was an "ideogram" or logogram; a raised <sup>idg</sup> following GEŠTIN, UDU.NITÁ, etc., therefore, is only an attempt to indicate that usage.<sup>36</sup> Certain common Elamite words such as *ruh(u)*, "man,"<sup>37</sup> and *pu-ḥu*, "boy," were usually treated by the Elamites themselves as similar "ideograms," and whether written by one sign (RUḤ; No. 81 in the sign list) or by two signs (*pu-ḥu*) were frequently followed by MEŠ; hence such transliterations as RUḤ<sup>idg</sup> and *pu-ḥu<sup>idg</sup>*.<sup>38</sup>

Where an individual sign<sup>39</sup> can be demonstrated to be a separate postpositional element, it is normally preceded in the transliteration by a period, as in the following examples:

- Ba-ir-šá.iš* (No. 1:9), "at Parsa"  
*Ba-ir-šá.na* (No. 32:3), "of Parsa"  
*Ba-ir-šá.an* (No. 22:1), "of Parsa"  
*be-ul 32-na.ma* (No. 1:18), "in the 32nd year"  
*šá-ag-gi.ma* (No. 1:11), "for (its) equivalent"  
*pan-su-uk-kaš.na* (No. 1:4), "of a shekel"

This principle has not been employed in connection with verbal forms; thus I have transcribed not *še-iš-ki.ra* or *ma-ki.ra* but *še-iš-ki-ra* and *ma-ki-ra* (No. 1:7-8). To have followed the prin-

<sup>36</sup> Contrast Bork's argument for <sup>mei</sup>, *op. cit.*, cols. 524 f.

<sup>37</sup> The writing *ru-uḥ* (for OP *martiya*, "man") replaces the "ideogram" RUḤ in DB, §§ 16, 22, etc. (contrast § 45). For the writing *ru-uḥ-ḥu* cf. DB, § 1. The basic meaning of El. *ruh(u)* was probably "heir."

<sup>38</sup> This practice follows that of Weissbach in *Die Achämenideninschriften zweiter Art*, p. 43 (No. 100), and *KA*, p. xviii (No. 102).

<sup>39</sup> Or a group of signs such as *.ik-ka<sub>4</sub>.mar*.

ciple here would present almost insuperable difficulties in numerous transliterations; for example, one could indeed write *še-ra.iš* (No. 4:21), but forms like *še-ráš-da* (No. 7:10), if transliterated *še-rá.š-da*, would only be disconcerting.

Similarly this principle has not been applied to the singular *-ra* or the plural *-ip* of "personalized" nominal or verbal forms; thus I transcribe *Mu-šir-ri-ia-ra* (No. 1:6) and *Mu-šir-ia-ip* (No. 15:5), not *Mu-šir-ri-ia.ra* or *Mu-šir-ia.ip*. Such transliterations as the latter could only result in perplexity were we to read as *Bar-šī.p* the signs for which a normal transliteration is *Bar-šīp*, and similarly.

It has not always been possible to employ this principle even when a postpositional element is added to a noun; in *pír-ra-tam<sub>4</sub>-ma*, for example, the form as written must be analyzed grammatically as *birta.ma* (or *birāta.ma?*; see Notes to text No. 3), but a transliteration such as *pír-ra-ta.m<sub>4</sub>-ma* could be only confusing. Likewise it could not always be used in connection with the *-me* ending of abstract or "factual" nouns; while its use would, of course, be permissible with forms like *šá-ag-gi.me* (No. 21:8f.; cf. *šá-ag-gi.ma*, No. 1:11), it would not be so—without confusion—for forms such as are written *du-um-me* (e.g., No. 12:26), for the latter, which frequently appears as *du-me*, would then have to be transliterated *du-u.m-me*.

Superficially, the principle would thus seem to have been disregarded in an overlarge number of cases; hence it might be thought that a clear statement of it, and an explanation of exactly what was written and meant by such transliterations as *še-rá.š-da*, *Bar-šī.p*, etc., would have enabled one to employ the principle in every instance. That, however, was clearly impossible; all too frequently, in the present state of our knowledge, *we cannot determine how an Elamite word is to be analyzed*. In the common word *kur-mín*, for example, which apparently means "through (or by) the hand(s) (of)" (see pp. 48f.), the grammatical construction of the word escapes us; although we have deduced *ša-u-mi-in* (*\*šau-min*) as a parallel formation, we must confess some doubt whether the ending *-min* is a coherent postpositional element or is itself a compound; hence such a transliteration as *kur.mín* (or *kur.mí.n*, which would deny the reader certainty as to the exact signs employed) would be only guesswork and would pretend to a knowledge of Elamite grammar which we are far from possessing. The same arguments hold for the common "word" *un-ra* following *ruḫ<sup>ids</sup>* (e.g., No. 12:15); there is a strong probability that the *ra* is the third person singular "personalizing" element, but there is at present no certitude whatsoever that *un* is itself a unit which cannot be analyzed as *u.n*.

## IX

## THE ELAMITE SIGNS OF THE ACHAEMENID PERIOD

It is becoming increasingly apparent that the Elamite syllabary was not so simple as we had been led to believe or as we had hoped. It is still true that every Elamite sign has at least one of the phonetic values of its Akkadian equivalent, and that if the latter possesses numerous values the Elamite generally preserves only the simplest and most common.<sup>1</sup> There is a very real danger, however, that we become lulled into too great a sense of security in this regard. While there is nothing like the number of signs as we find them, for example, in the Assyrian syllabary nor yet the abundance of values for some of the individual signs or the enormous number of "ideograms," it is nevertheless a fact that the few tablets from Persepolis read up to the present time have substantially expanded our acquaintance with the late Elamite and Achaemenid syllabary.

Thus we have discovered No. 50 of the sign list, with the phonetic value *sùk*, and sign No. 16, which we have tentatively read *sì.sì*. Perhaps we should also mention at this point two signs for the fraction  $\frac{1}{2}$ ,<sup>2</sup> numeral signs for 10, 20, 30, 40, and 50 (which in Akkadian are restricted to measures of volume but which may be used in Elamite for enumerations of men, for example), two new signs for 60,<sup>3</sup> and those for "total"<sup>4</sup> and "ditto."<sup>5</sup>

Included in the sign list (see below, pp. 74 ff.) are seven new "ideograms"—new, that is, to demonstrably Achaemenid texts:

GEŠTIN, "wine" (No. 49) (with or without GŠ determinative)	14	<i>kin</i>	<i>ḫar, mur</i>
KÙ, "money" (No. 118)	31	<i>rad/t</i>	<b>MÁ</b> <sup>7</sup>
ŠE.BAR, "grain" (No. 10)	46	<i>mat, sad</i>	<i>kur</i>
GŠ.BAR, "measure (of ten qa)" (No. 21)	54	<i>kas(?)</i> <sup>7</sup>	<b>KASKAL</b>
GŠI, "oil" (No. 57)	83	<i>gal</i>	<i>ráp/b</i>
KAŠ, "beer" (No. 35) (with or without GŠ determinative)	87	<i>kat</i> <sub>6</sub>	<i>šu</i>
ZÍD.DA, "flour" (No. 114)	113	<i>ur</i>	<i>taš/s/š</i>

<sup>1</sup> Cf. Weissbach, *Die Achämenideninschriften zweiter Art*, p. 28.

<sup>2</sup> MAŠ, No. 99 in the sign list, and TAN, No. 59.

<sup>3</sup> DIŠ, No. 97, and MA, No. 110.

<sup>4</sup> PAB, No. 20.      <sup>5</sup> MIN, No. 111 (cf. KI.MIN, No. 94).

and also three others which appear in Persepolis texts as well as in the documents published in *Mém.*, IX and XI:

NITÁ and UDU.NITÁ, "male" and "(male) sheep" (Nos. 9 and 121)
KÙ.BABBAR, "silver" (No. 118)
KÙ.GI (i.e., GUŠKIN), "gold" (El. <i>la-áš-du</i> ) (No. 118)

A number of other "ideograms" appear in Fortification texts and are not illustrated in the sign list.<sup>6</sup>

Thus it begins to look as though the Elamites could without too much difficulty avail themselves of a larger number of the "ideograms" and signs used in the Land of the Two Rivers than we had expected. The fact that they lacked certain signs which were employed in Akkadian for the writing of some of these "ideograms" seems to have bothered them not at all.

It is when we examine the individual syllabic values of the signs, however, that we must be constantly on our guard and, for each sign which in Akkadian possesses numerous values, suspect at least one occurrence of some of those additional values. The following new values for signs already known have appeared in our texts, and it is not impossible that a few others have been overlooked:

Sign Number	New Value(s)	Previously Known Value(s)
14	<i>kin</i>	<i>ḫar, mur</i>
31	<i>rad/t</i>	<b>MÁ</b> <sup>7</sup>
46	<i>mat, sad</i>	<i>kur</i>
54	<i>kas(?)</i> <sup>7</sup>	<b>KASKAL</b>
83	<i>gal</i>	<i>ráp/b</i>
87	<i>kat</i> <sub>6</sub>	<i>šu</i>
113	<i>ur</i>	<i>taš/s/š</i>

<sup>6</sup> Such are GŠ.KA.BAR<sup>id</sup>, which may well be Akk. *kiskibirru*, "coriander"; ŠEGIG<sup>id</sup>, Akk. *qibtu*, "wheat"; GŠMA<sup>id</sup>, "fig (tree)"; GŠTAR.MU (some kind of grain?); GŠKA.RU.KUR<sup>id</sup> (meaning unknown).

<sup>7</sup> See, however, the notes on this sign appended to the sign list.



We must also realize that although the number of signs employable may have been deliberately limited by the scribes of royal inscriptions, there were in all likelihood many which found common use in texts of a more prosaic character. The documents published in *Mém.*, IX and XI, for example, show the use of signs the values of which are *al*, *ar*, *ʾa*, *id*, *naḥ*, *šar*, and perhaps *gab*, *gīr*, *gur*, and *taḥ*, which have not yet appeared in demonstrably Achaemenid texts but which may well turn up when we have been able to examine with greater care a larger number of the Fortification texts. According to present evidence the signs for *ub* and *tir* were last used by Adda-hamiti-Inshushinak (653–648), that for *il* by “Tepti-Huban-Inshushinak” (663–653), and those for *uš*, *ša*, *šu*, and *mut* by Shutruk-Nahhunte II (717–699) and Shutruru. But that does not mean that they completely passed out of use in later periods, even if it is unlikely that we shall find the signs for *ù*, *ta*, and *ga*, which were last used by Huteludush-Inshushinak (ca. 1150–1140), and those for *ka* and *di*, last employed by Untash-Huban (ca. 1265–1245).

Consequently we must avoid categorical statements on the number and use of the various signs until a larger body of material is available. This also means that we should adhere rather strictly to the normal transliteration—that is, to the values usually found in Akkadian in the same period—for every sign that we meet. It is not unlikely, for example, that the *tik/g* sign may appear on one or more of the texts yet to be studied; if, arbitrarily, we transliterate the *tuk/ráš* sign as *tik*,<sup>8</sup> then we shall by the same token be forced to give a new and (to Assyriologists the world over) unfamiliar value to the sign usually read *tik*. The whole problem here involved is treated more fully above, and we need not enter into it further; it is mentioned at this point merely to stress our relative inacquaintance with the elements of the syllabary available to the Elamites and the probability that the number of signs they could and did use was much larger than we have hitherto been accustomed to believe.

#### ORIGIN OF THE ACHAEMENID ELAMITE SIGNS

Never fully examined, the question of the origin of the sign forms in use by the Elamites of

<sup>8</sup> See above, p. 61.

the Achaemenid period still raises a number of problems. When Weissbach placed the Neo-Babylonian sign forms alongside those current in Achaemenid Elamite,<sup>9</sup> the implication that the latter were derived from the former was obvious. This implication was considerably qualified by his remarks to the effect that our signs lead back through middle to “old” Elamite; but his further statement that “die neuelamische Schrift ist also eine Seitenverwandte der neubabylonischen, aber sie hat sich in eigenartiger Weise entwickelt, nicht nur in ihrem inneren Bau, sondern auch in ihrer äussern Gestalt”<sup>10</sup> merely appeared to strengthen the first impression. His view in this instance must be considered today as less successful than (and a partial refutation of) an earlier interpretation of his in which he said that “die neusysische Schrift nicht aus einer neuassyrisch-babylonischen Bildung hervorgegangen sein kann. Ihr Ursprung ist vielmehr in der Schrift der Texte von Mál-Amír (mittelsusisch), weiterhinauf in der altsusischen Schrift zu suchen, welche auf einer Stufe mit der altassyrischen und der altbabylonischen Schrift steht und namentlich mit der letzteren sehr nahe verwandt ist.”<sup>11</sup>

Neither interpretation, however, is quite adequate, but even a rapid scrutiny of our signs will show that there is little in common between them and the Neo-Babylonian forms except that both are ultimately derived from some mutual source. Our signs are almost identical with those used on the tablets from Susa published in *Mém.*, IX, Nos. 1–298, and *Mém.*, XI, pp. 89 ff., Nos. 299–309; as noted above,<sup>12</sup> one of these is certainly Achaemenid in date and could almost be considered a Susa duplicate of a Persepolis Fortification text, while the others also may be from the Achaemenid period. Our sign forms are also quite similar to those on the relief inscriptions cut by Hanni in the vicinity of Mal-Amir, as Weissbach noted, although the latter are inscribed on rocks, not on clay, and no judgment concerning them can be decisive. The Achaemenid forms are all but duplicated by the signs used on Elamite letters found in the library of

<sup>9</sup> *KA*, pp. lxxvii ff.

<sup>10</sup> *Ibid.*, p. xxxix.

<sup>11</sup> *Die Achämenideninschriften zweiter Art*, p. 25.

<sup>12</sup> See p. 24, n. 2.

Ashurbanipal,<sup>13</sup> and have descended from those employed on rock and on clay by the Neo-Elamite rulers Adda-hamiti-Inshushinak, "Tep-ti-Huban-Inshushinak," Shilhak-Inshushinak II, and Shutruk-Nahhunte II.

At this point sound proof of descent ceases. By no stretch of the imagination can our signs be derived from those current in the period of the Elamite Empire in the thirteenth and twelfth centuries. In fact, it has not been sufficiently emphasized that the signs of the royal inscriptions of that period, whether written on clay or on stone, are merely the contemporary Babylonian signs, and only of the type employed in Babylonia for monumental texts. The signs of Shilhak-Inshushinak I and Huteludush-Inshushinak, for example, are identical in form with those on the Ritti-Marduk *kudurru* of Nebuchadnezzar I,<sup>14</sup> as a comparison of such common signs as *uk*, *in*, *iš*, *la*, *li*, *te*, *ma*, *ru*, and *tak* will demonstrate. Thus the signs used on royal inscriptions of the Empire period do not enter into the picture we are endeavoring to draw of the origin of the signs employed by the Elamites of the Achaemenid period. It is, of course, our misfortune that we possess no business documents from the Empire period, for scribes of commercial texts doubtless wrote much less formally and conservatively than did the royal scribes.

Contemporary with the First Dynasty of Babylon are a number of business documents found at Susa (and, a little later in date, at Mal-Amir).<sup>15</sup> While no one would doubt the contemporaneity of the signs upon them with First Dynasty signs, there is about them a rigidity which is typical only of rock-cut signs; further, a number of the sign forms<sup>16</sup> show peculiarities which distinguish them from the Babylonian signs of the same period. Since these sign forms are clearly ancestral to our late Elamite signs, the ultimate origin of the latter would thus appear to have been determined.

<sup>13</sup> Weissbach, "Susische Thontäfelchen," *BA*, IV (1902), 168-201. Cf. Bork, "Zur Erklärung der elamischen Briefe," *BA*, V (1906), 401-4; Cameron, *History of Early Iran*, p. 169.

<sup>14</sup> King, *Babylonian Boundary-Stones and Memorial-Tablets in the British Museum* (London, 1912), No. 6, pp. 29-36, Pls. LXXXIII ff.

<sup>15</sup> *Mém.*, XXII-IV, XVIII, IV.

<sup>16</sup> Particularly those from the times of Tan-Uli and Temti-halki; cf. Cameron, *op. cit.*, pp. 85 ff.

There is, however, the possibility that if we take into account one other factor we may be led still closer to the source of our late Elamite signs. A number of the signs employed on the tablets of Azeru and his successors in Amurru in the Amarna period exhibit certain peculiarities which manifestly distinguish them from signs possessing the same values employed on other Amarna tablets or on documents from Babylonia in the same period.<sup>17</sup> It is rather astonishing to observe that those very peculiarities which distinguish some of the "Amorite" signs from those used elsewhere are likewise characteristic of a number of our Neo-Elamite and Achaemenian Elamite signs; thus, for example, the signs for *ak*, *har*, *ib*, *ku*, *tu*, *ú*, and sometimes *an* have definite resemblances.

It would, of course, be absurd to conclude that Elamites learned to write Akkadian signs in Amurru. It may not be absurd to consider the possibility that Elamite scribes were profoundly influenced by Amorite scribes in *Elam*. Amorite names—or, rather, names embodying the name of the god Amurru—appear in surprising quantities in the Susa tablets dating to the First Dynasty of Babylon.<sup>18</sup> We now know that Zimrilim of Mari was kept informed about the activities of Elamite mercenaries in the Hammurabi period;<sup>19</sup> we have long been aware also that, still earlier, the influx of Amorites which brought to an end the Third Dynasty of Ur and gave rise to the dynasties in Isin, Larsa, and Babylon likewise penetrated Elam, although the exact position of Shimti-Shilhak (whom I identified tentatively with the Elamite Shilhaha) and his son Kudur-Mabuk, bearers of the (Amorite?) title

<sup>17</sup> Cf., e.g., the sign list of Schroeder, *VS*, XII (1915), 75 ff., with that of Clay, *Documents from the Temple Archives of Nippur Dated in the Reigns of Cassite Rulers* (*BE*, XIV [1906]), pp. 75 ff.

<sup>18</sup> The following list is by no means complete: <sup>m</sup>*A-mu-ur-ri-i* (*Mém.*, XXIII, Nos. 282:7 and 283:6); canal *A-mu-ur-ri-i* (*Mém.*, XXIII, No. 169:43); <sup>md</sup>*Amurru*(<sup>d</sup>MAR.TU)-*ga-mil* (*Mém.*, XVIII, No. 208 [= *Mém.*, XXII, No. 57], l. 17); <sup>md</sup>*Amurru*(<sup>d</sup>MAR.TU)-*na-šir* (*Mém.*, XXII, No. 67:4-5, 12); <sup>m</sup>*Warad-d**Amurru*(<sup>d</sup>MAR.TU) (*Mém.*, XXIII, Nos. 198:2, 5, nail, 199:4, 241:4, 271:2, 272:3, etc.; *Mém.*, XXIV, No. 330:36); <sup>m</sup>*Apil-d**Amurru*(<sup>d</sup>MAR.TU) (*Mém.*, XXIV, No. 391:17); <sup>m</sup>*Apil-d**Amurru*(<sup>d</sup>MAR.TU), scribe (*Mém.*, XXIV, Nos. 335-37); <sup>d</sup>*Amurru*(<sup>d</sup>MAR.TU) is invoked together with Sin, Shushinak, and other gods in *Mém.*, XXIII, No. 198:17.

<sup>19</sup> C. F. Jean, "Hammurapi", d'après des lettres inédites de Mari," *RA*, XXXV (1938), 109.

"*adda* (father) of Amurru," may still be far from clear.<sup>20</sup> At any rate, it is not impossible that Amorite scribes in Elam may have taught the Elamites how to write.

The following picture, consequently, may be tentatively advanced. Before they themselves entered on their eastward trek, the Amorites wrote inscriptions in cuneiform with signs borrowed some decades or centuries earlier from Babylonia, and in the course of time there developed among their scribes certain provincial peculiarities in the fashioning of signs. Those who accompanied their brethren into Babylonia, impressed by the antiquity of that land and the high stage of civilization of its people, rapidly succumbed to the influence of the contemporary Babylonian scribes and soon drew signs in the manner accepted there. Those who descended still further to Elam, however, found there no "standard" usage, if indeed the Elamites were themselves writing at all. Thus in Elam a few peculiarities in the drawing of certain signs could continue; when the Elamites themselves began to borrow signs to write their own language, those "Amorite" peculiarities remained to influence the subsequent development of the scribal art in this area.

Admittedly this picture cannot be proved at present. A cogent argument against it is the fact that one cannot discern many West Semitic or "Amorite" influences in the language of the earliest "Hammurabi period" tablets from Susa. It is quite possible, however, that such influences in the language had already disappeared by the time of our "Hammurabi period" business documents from Susa, while the "Amorite" peculiarities in the drawing of some signs remained and influenced the form of some later Elamite signs. Provable or not, the picture is not vital to our inquiry, for the ultimate source of the late signs in Elam was, of course, the cursive script of Babylonia, and whether or not there was an intermediate "Amorite" stage does not affect that conclusion. Neither the script of the royal texts of the Elamite Empire nor the Neo-Babylonian script had any influence whatsoever upon the Achaemenid Elamite signs.

<sup>20</sup> Cf. Cameron, *op. cit.*, pp. 67 ff.; but see Poebel, "The Assyrian King List from Khorsabad," *JNES*, I (1942), 285 and n. 95.

#### THE STYLE OF WRITING ON THE PERSEPOLIS TABLETS

For the preparation of his writing surface the Persepolis scribe took his stylus and, apparently beginning at the right end, laid it down horizontally upon the tablet to form (so to speak) "ruled" lines.<sup>21</sup> The result was a series of parallel "ridges" and "valleys." The tip-end of the stylus, which frequently drew near to but did not always extend beyond the flat left end of the tablet, seems in side view to have been straight on one side and rounded off on the other to form a point, to judge from the mark of this end left on some tablets.<sup>22</sup>

The writing itself has a peculiar appearance. Wedges intended to be verticals often slant sharply from the upper right toward the lower left, as in "Cappadocian" tablets. Horizontals slant from the upper left toward the lower right, but the head of the horizontal wedge is often impressed so deeply and with such a pronounced slant that the lower angle of the wedge is forcefully indicated and the wedge as a whole closely resembles a vertical. Most late Elamite signs are so fashioned that one wedge will not cross another; for example, the tail of the horizontal in the *bar* sign (No. 21 in the sign list) is not bisected by the vertical but merely extends up to it. At Persepolis this principle does not prevent the wedge of a horizontal, when it follows immediately after a vertical, from cutting through to the left of that vertical (as in the *me* sign, No. 98 in the sign list).

In their written materials of all periods the Elamite scribes had no feeling whatsoever against "hyphenating" words. A "determinative" may appear at the end of one line, the word it determines at the beginning of the next. Sometimes even an "ideogram" could be so divided.<sup>23</sup> Such practices bespeak lack of acquaintance with the scribal art as it was practiced in Babylonia.

<sup>21</sup> Some impressions seem to indicate the use of a stylus round in cross section; others, of a stylus with at least one flat side.

<sup>22</sup> Cf. photos of the obverse of No. 26 and of the reverse of No. 70.

<sup>23</sup> In Fort. 6412:3-4, 6582:4-5, and 6750:6-7 the *ANŠU* sign (in the group *ANŠU.KUR.RA*<sup>126</sup>) is thus split in two; this may not be a good illustration, however, for it appears certain that to the Elamites the *ANŠU* sign was composed of two distinct parts (see notes to No. 104 in the sign list).

## X

## LIST OF ELAMITE SIGNS OF THE ACHAEMENID PERIOD

Number	Sign	Syllabic Value(s)	"Ideographic" Signification	Normal Old Persian Equivalent <sup>1</sup>
1	𐎠, 𐎡		determinative	
2	𐎢, 𐎣, 𐎤	hal	determinative	hal(a)
3	𐎥, 𐎦, 𐎧, 𐎨	tak		tax
4	𐎩, 𐎪	mu		mu, ma
5	𐎫, 𐎬	an	determinative "god"	an
6	𐎭, 𐎮		ITU, "month"	
7	𐎯, 𐎰, 𐎱, 𐎲, 𐎳	du		du, tu, θu, ta
8	𐎴, 𐎵, 𐎶	na		na, nā, a <sup>n</sup>
9	𐎷, 𐎸, 𐎹, 𐎺		NITÁ, "male"	
10	𐎻, 𐎼, 𐎽 𐎿	še	ŠE.BAR, "grain (barley)"	šai
11	𐏀, 𐏁, 𐏂	hi		hi
12	𐏃, 𐏄, 𐏅, 𐏆	ak/g		ak, ax, (i)x
13	𐏇, 𐏈	la		la
14	𐏉	har, mur, kin	"stone"	har, ar, ku <sup>n</sup>
15	𐏊, 𐏋, 𐏌, 𐏍, 𐏎	ra		ra, rā
16	𐏏, 𐏐, 𐏑, 𐏒	sì.sì		
17	𐏓	ʔa, ʔi, ʔu		
18	𐏔	kam	"sea"	kam, gau
19	𐏕	be, bat/d		bai, pat
20	𐏖, 𐏗, 𐏘		PAB, "total"	
21	𐏙, 𐏚, 𐏛 𐏜	bar	"10 qa" 𐏜BAR	par, bar, far
22	𐏞, 𐏟, 𐏠	ti		dī, ti
23	𐏡, 𐏢	más/z		mac
24	𐏣	kin		

<sup>1</sup> See pp. 81 f. for supplementary equivalents.

## LIST OF ELAMITE SIGNS OF THE ACHAEMENID PERIOD

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Number	Sign	Syllabic Value(s)	"Ideographic" Signification	Normal Old Persian Equivalent
25		si		si, sa, θi
26		en		
27		gi		g(a)
28		ik/g		ig, ik, x
29		kúp/b		
30		hu		u
31		rat/d	MÁ, "ship"	rad, raθ
32		ri, tal		ri, rā(i)
33		is/s/z	GIŠ, "wood"	z, c
34		man		man, vai, vah, va <sup>n</sup>
35		kaš/s	( <sup>aiš</sup> )KAŠ, "beer"	ka (+ Elamite š)
36		pu		bu
37		tu		θu, θa
38		muš		
39		šir, šir <sub>1</sub>		zr(a), dr(a), car
40		li		(ru)
41		ap/b		ap/b
42		nap/b		nab
43		uk/g		uk, ug, ux
44		at/d		at
45		aš/z		
46		kur, sad, mat	KUR, "land, mountain"	gar, kar
47		tin		
48		pan		pa
49			( <sup>aiš</sup> )GEŠTIN, "wine"	
50		sùk		
51		sùk, š/zik		
52		iš		iš, š, s, z
53		tu <sub>4</sub> , t <sub>1</sub> p/b		
54		kas(?)	KASKAL, "road"	
55		ka <sub>4</sub>	"qa" (a measure)	ka, ga, gā, xa

## PERSEPOLIS TREASURY TABLETS

Number	Sign	Syllabic Value(s)	"Ideographic" Signification	Normal Old Persian Equivalent
56	𐎧	<i>kak</i>		
57	𐎧, 𐎧 𐎧𐎧	<i>ni</i>		<i>nai</i>
58	𐎧, 𐎧, 𐎧	<i>ir</i>		<i>ar (=r)</i>
59	𐎧, 𐎧	<i>tan, kal</i>	(fraction) "one-half"	
60	𐎧, 𐎧, 𐎧	<i>kán</i>		<i>gan, ga<sup>n</sup>, ka<sup>n</sup></i>
61	𐎧, 𐎧	<i>ut/d</i>		<i>ud, t</i>
62	𐎧, 𐎧, 𐎧	<i>pi</i>		<i>pi, bi</i>
63	𐎧, 𐎧, 𐎧	<i>am</i>		
64	𐎧, 𐎧, 𐎧	<i>te</i>		<i>di, dai, θ(a)</i>
65	𐎧, 𐎧	<i>kar</i>		<i>gar</i>
66	𐎧, 𐎧, 𐎧	<i>pír, tám, šap</i>		<i>bar</i>
67	𐎧	<i>e</i>		
68	𐎧 𐎧		síp(?), "door"	
69	𐎧, 𐎧, 𐎧, 𐎧	<i>ru, šub</i>		<i>ru, ra</i>
70	𐎧, 𐎧	<i>tup</i>		
71	𐎧	<i>lak/g</i>		
72	𐎧, 𐎧, 𐎧	<i>mar</i>		<i>mar, var</i>
73	𐎧, 𐎧	<i>um</i>		<i>m, v</i>
74	𐎧𐎧		SAG, "head"	
75	𐎧, 𐎧	<i>un</i>		
76	𐎧, 𐎧	<i>ú</i>	"I"	<i>u</i>
77	𐎧, 𐎧, 𐎧	<i>da</i>		<i>da, dā, ta, tā</i>
78	𐎧	<i>i</i>		<i>i, hi</i>
79	𐎧	<i>ia</i>		<i>ya, yā</i>
80	𐎧, 𐎧	<i>in</i>		<i>i<sup>n</sup></i>
81	𐎧, 𐎧, 𐎧		RUH, "man"	
82	𐎧, 𐎧	<i>ba</i>		<i>ba, pa</i>
83	𐎧, 𐎧, 𐎧	<i>gal, ráp/b</i>		<i>rab</i>
84	𐎧, 𐎧	<i>tur</i>	šak (DUMU), "son"	<i>dar, dra</i>
85	𐎧, 𐎧, 𐎧	<i>su</i>	KUŠ, "leather (parchment)"	

## LIST OF ELAMITE SIGNS OF THE ACHAEMENID PERIOD

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Number	Sign	Syllabic Value(s)	"Ideographic" Signification	Normal Old Persian Equivalent
86		ši		ci, ca, ji
87		šu, kat₆		su, çu, θu
88		u	(numeral) "ten"	u, u (= <sup>h</sup> u), <sup>h</sup> au
89		nu		ni, niy, na
			NU.MAN, "seed"	
90		ul		
			UL.ĪI, "estate"	
91		tam₄		ta
92		mi		mi, vi, maiy
93		ši		ši, si, çi, tri
94			KI.MIN, "ditto"	
95		ki		k, g, c
96		šip/b		
97			determinative; (numeral) "sixty"	
98		me	(numeral) "hundred"	
99		maš	(fraction) "one-half"	maš, mas, maz, (ma + Elamite š)
100		tar		dar, tur, dur(u), tr, dr
101		pa		
102		mīn	MUNUS, "feminine"	
103		rāk		rak, raz, rag, rg
104			ANŠU.KUR.RA, "horse"	
			ANŠU.A.AB.BA, "camel"	
105		EL (lam?, ram?)		
106		sa		θa
107		ip/b		b
108		áš		aš, as
109			determinative	
110		ma	(numeral) "sixty"	ma, va, wa
111			MIN	
112		tuk, rás/š		raz, ruš

Number	Sign	Syllabic Value(s)	"Ideographic" Signification	Normal Old Persian Equivalent
113		taš/s/š, ur		(da + Elamite š); (u)r
114		ku		ku, gu, ka
			zÍD.DA, "flour"	
115		a		a, ai, ai'y
116		šá		ša, sa, xša, ça, za
117		ša		za, zā, ca, cā, ci
118			KÙ, "money"	
			KÙ.BABBAR, "silver"	
			KÙ.GI(?) (GUŠKIN), "gold"	
119		ha		ha, aha, a, ā
120			sunki, "king"	
121		lu, tip	UDU, "sheep"	
122		šà		

## SIGN LIST NOTES

1. Determinative before place names (e.g., *Ba-ir-šá*, "Parsa") and similar ideas (e.g., *kur*<sup>idz</sup>, "land"); before the names of buildings or parts of them (e.g., *hal-mar-ráš*, "fortress," *i-ia-an* and *hi-ia-an*, *Mi-iš-ba-ši-ia-ti-iš*, "[Gateway] *Višpašiyātiš*").<sup>2</sup> As in monumental texts (cf. Weissbach, *KA*, p. xliii), it is present before *be-ul*, "year," and *ḫar*<sup>idz</sup>, "stone." In these texts it appears also before *hal-mi*, "seal(ed order)"; *ši-la*, "relief(?)"; *ki-iš-nu-iš-ki-ip*, "beer tenders" (by mistake?); *la-áš-tuk-ki-ip*, "goldworkers"; and (erroneously?) before the Old Persian loan words *bat-ti-kur-ráš*, "sculpture(s)" (once, in No. 20, out of five occurrences), *du-um-mar-ra-kur-ráš*, "door-makers," *be-a-ši-iš-kur-ráš*, "ornament makers," and *nu-pi-i[š-da-ma]*, "inscription."

2. Determinative before personal names, titles, gentilics, and ideas revolving around people, e.g., before *kur-taš*, "worker(s)"; *taš-šu-tp*, "people, army"; *sunki(r)*, "king"; *da-sa-bat-ti*, "chief-of-ten"; *Kur-kaš*, "Carian"; *nu*, "you"; the demonstrative pro-

<sup>2</sup> Sometimes it appears before *ka-ap-nu-iš-ki*, "Treasury," but frequently it is omitted; it appears five times with *ka-ap-nu-iš-ki-ra*, properly "he of the Treasury," but often it is absent. It appears before *kán-ša-iš nu-da-nu*, "treasure store-room," but only twice out of forty times with *kán-ša-bar-ra*, OP *ga*"*zabara*, "treasurer."

nouns *ḫu-pir-ri*, "he, that one"; *ḫu-pi-be*, "they, them" (but not *ap*, "to them"); *ruḫ*<sup>idz</sup>, "man"; etc. In some texts this determinative is used interchangeably with No. 97 (e.g., cf. text No. 21).

4. All too frequently *mu* is almost indistinguishable from Nos. 3 (*tak*), 12 (*ak*), 36 (*pu*), and 43 (*uk*).

5. In these texts this sign is used as a determinative only before the "ideogram" for "month" (𐎠𐎡), the names of the months, and the word "day" (*na-an*); once it is used as the "ideogram" for "god" (El. *napi(r)*).

7. Frequently identical in form with No. 41 (*ap*).

10. The sign *še* is often almost indistinguishable from No. 11 (*hi*).

11.<sup>1</sup> See preceding note.

12. Frequently difficult to distinguish from Nos. 3 (*tak*) and 4 (*mu*).

14. The value *kín* appears for the first time in these texts (see above, p. 70). The value *mur*, known from monumental texts, has not yet appeared in Treasury or Fortification documents.

16. The reading *sì.sì* is obviously a makeshift, and the sign, apparently reduplicated, occurs only in the common phrase *ap sì.sì-du* (see above, p. 48; is the reading syllabic *sim*, *sum*, or similarly?). Note that the sign is very similar in form to 𐎠𐎡 in the documents published in *Mém.*, IX.



17. There is no proven example of <sup>3</sup>a etc. in Treasury or Fortification texts except in the name *Hu-pan-a-pi* in a seal inscription on Fort. 6365.

19. The value *mit/d* was proposed by Bork in "Elamische Studien," *MAOG*, VII, 3 (1933), p. 11 (but see the Notes to text No. 25); in these texts only the values *be* and *bat* have been recognized. The sign is often written like No. 20 (PAB).

21. Not always clearly distinguishable from Nos. 89 (*nu*) and 98 (*me*).

23. Cf. Weissbach, "Die dreisprachige Inschrift Darius Susa e," *ZA*, XLIV (1938), 157.

24. Weissbach's No. 25 (*kin*; *KA*, pp. xlv and lxxviii) has not yet appeared in Persepolis texts.

25. A value *dir* for this sign is not yet proved (cf. Weissbach, *KA*, p. xlv [No. 26]).

27. The pronunciation *ke* is frequently indicated: the postposition *uk-ku* appears to be written *ug-gi* at times; the word "Treasury" is written both *ka-ap-nu-iš-gi* and *ka-ap-nu-iš-ki*; and a place name in Fortification texts frequently written *Ka-ma-ru-uk-kaš* (see chap. xii) twice appears as *gi-ma-ru-uk-kaš* (Fort. 6664:3 f. and 8959:8 f.). Retention of the transliteration *gi* is called for at present, however, by the writing of the Old Persian month *Bāgayādiš* as *Ba-gi-ia-ti-iš*, although the latter also appears as *Ba-ki-ia-ti-iš*.

29. The reading *kúp* becomes still more likely from the place name *Be-ul-κῦρ-pa-at* in Fort. 1706:8 f.

31. See text No. 10a, Notes. Whether the Elamites confused the Sumerian *rad* sign with the Sumerian sign *má* as they had developed it cannot now be determined, but it is quite possible that the two are distinct signs, with the last horizontal of El. *rat/d* lower than the same wedge in *má*.

33. Frequently *is* (*giš*) is written almost identically with Nos. 55 (*ka*) and 61 (*ut*).

39. Cf. Weissbach, *ZA*, XLIV (1938), 157, and the notes to No. 96 (*šip*) of this list (but read *šir*, and cf. Deimel, *ŠL*, I<sup>2</sup>, p. 34\*). The value *šir* must be retained to account for the writing of such words as *Mu-šir-ra-ia* ("Egypt"), Akk. *Mušri*, OP *Mudrāya*.

40. This sign (*li*) closely resembles *la* (No. 13) in some instances.

41. It is usually difficult to distinguish *ap* from No. 7 (*du*). Note also some writings of No. 9 (*niṭá*).

43. Frequently *uk* is almost indistinguishable from No. 4 (*mu*).

46. To the hitherto accepted value *kur* for this sign must now be added *sad* (as in *sad-da-bat-ti*; OP *sata-pati*) and *mat* (as in *ir-mat-ki*; see text No. 27:5, Notes).

49. For *GEŠTIN* cf. Poebel, "The Names and the Order of the Old Persian and Elamite Months during

the Achaemenian Period," *AJSL*, LV (1938), p. 133, n. 8. The <sup>ais</sup> determinative is often omitted.

50. The reading *suk* is certain from its occurrences in the words *suk-ki-ra* and *suk-ki-ip*, which occur also as *su-ki-ip* and *sik-ip*.

53. See Cameron, "Darius' Daughter and the Persepolis Inscriptions," *JNES*, I (1942), 216 f., and Weissbach, *op. cit.*, p. 158.

54. A syllabic value is indicated (but remains uncertain) by the personal name *KASKAL-su* in Fort. 8624:4 and by the name of the wood <sup>ais</sup>*KASKAL-la* in Fort. 1494, obv., ll. 2 and 13; rev., l. 11, a text which appears to be a list of woods or staves required in the nineteenth year of Darius.

55. Cf. Weissbach, *op. cit.*, p. 157. In many Fortification texts this sign—with or without the determinatives <sup>ais</sup> and <sup>idg</sup>—serves to express the (Akk.) measure "qa."

59. The value *kal* was proved by Bork, *OLZ*, XV (1912), col. 67, and accepted by Weissbach, "Zur Kritik der Achämenideninschriften," *ZDMG*, LXVII (1913), 295. In a considerable number of Fortification texts it is a measure of quantity, totaling one-half qa.

66. The values *pír* and *tám* are certain (see finally Weissbach, *ZA*, XLIV [1938], 157 f.); the value *šap*, hitherto somewhat dubious, is proved, for example, by the writing *kur-ša-ap* (Fort. 11473:5 f.) for *kur-šap* (in similar context in Fort. 3666:10, 4696:5, etc.).

68. The usual reading for this sign in *XPa:11, e-ma-me*, is erroneous. Photographs taken by the Persepolis Expedition show that the sign is written as shown: the supposed "second" sign is not *ma*, nor is there a space between it and the assumed *me*; it would seem to be but a single sign. See also the drawing of what is probably the same sign in Notes to text No. 59. The meaning is "gate" or "door," for the equivalent in *XPa* is OP *duwarθim*, Akk. *bābu*. Elsewhere the Elamite equivalent for these Old Persian and Akkadian words is *ši-ip* (DB, §§ 32-33); perhaps, therefore, this sign is an Elamite development of the Akkadian *šip* sign.

70. Although this sign (*tup*) does not occur in texts from the Treasury, it is common in those from the Fortifications, as in the personal name *Ir-tup-pi-ia* (e.g., Fort. 1708:2), as also in the loan word *tup-pi* (see above, p. 19, n. 124).

71. The sign (*lak*) occurs but once (in the place name *Ma-ka-lak*) in Treasury texts; it is common elsewhere, however, for example, in *hu-ut-lak* (e.g., Fort. 6829:3 and 7097:3) and in the personal name *Šu-lag-gi-ra* (var.: *Šu-ul-lag-gi-ra*) in Fortification texts (from Hallock's "List of Names").

74. In DB, § 32, the correct reading is surely *ḫal-mar-ri-iš.ma.mar* SAG<sup>idz</sup> *ap-pi-ni*, "from within the fortress their heads (I lopped off)"—i.e., the bodies were impaled on top of the wall but the heads were cut off "from within" the fortress and allowed to fall down outside. Contrast König (*Relief*, pp. 73–74), who makes *mar-sag* a loan word from Akk. *mašku!*

83. For this sign the value *ráp/b*, known from monumental texts, is now supplemented by *gal*; see above, p. 70.

87. The value *kat<sub>6</sub>*, doubtless derived from Akk. *gat*, is proven for the first time in Elamite by the writing of the word *pu-un-kat<sub>6</sub>-te.ma* in text No. 75:14.

89. As Professor Poebel (in conversation) recognized, *nu-man<sup>idz</sup>* is the proper reading for the previously accepted GUL<sup>idz</sup> (Weissbach, *KA*, p. lxxxii [No. 83]); the writing is, of course, an effort to reproduce Sumerian *n u m u n*.

91. The reading *tam<sub>4</sub>*, first proposed by Weissbach (for references see *ZA*, XLIV [1938], 157 f.), is made certain also by such writings in Treasury texts as *pír-ra-tam<sub>4</sub>-ma*, "in the fortress."

94. Although this sign (KI.MIN) has already occurred in monumental texts of Darius (twice, in variant copies: *Mém.*, XXI, Pl. IV, l. 20; *Mém.*, XXVIII, No. 18, l. 2), its meaning is there questionable. It appears frequently in Treasury and Fortification texts, as well as in the inscriptions published in *Mém.*, IX and XI, where it clearly signifies "ditto," as in Sumerian-Akkadian texts. See above, p. 48, n. 9.

Note that, properly speaking, the sign is not KI (No. 95) + MIN (No. 111), for the KI always has but two horizontals in this compound. To secure a complete KI in KI.MIN we must go back to the Neo-Elamite inscriptions of "Tepti-Huban-Inshushinak" (*Mém.*, XI, 80 f., Fig. 15 [No. 102], ll. 3 and 10).

96. Since "Parsa" is uniformly written *Ba-ir-šá* in Elamite, the gentilic singular should be written *Bar-šir<sub>7</sub>-ra*, the plural *Bar-šip*; see also Weissbach, *op. cit.*, p. 157, for other references. In Fort. 1638:5 appears the verb *šib-ba-man-ra*.

97. In Treasury texts this vertical determinative is less common before personal names than No. 2.

98. It is frequently difficult to distinguish *me* from Nos. 89 (*nu*), 99 (*maš*), and sometimes 21 (*bar*).

99. See notes to the preceding sign. As a numeral this sign serves to express the fraction "one-half." In Fort. 8976, for example, this sign (with this meaning) is clearly written differently from No. 21 (*bar*).

102. A value *muk* (Weissbach, *KA*, pp. xlvi f. [No. 95], lxxi, 159; Poebel, *op. cit.*, p. 133, n. 9) cannot

yet be proved. The value *min* is certain from the variant to *kur-mín* which is written *kur-man* (see above, p. 48, n. 18).

104. It seems certain that by Achaemenid times the ANŠU sign was thought of by the Elamites as being not a single sign but two separate ones: PA + *x*. In numerous writings the PA is spaced as far from the rest of the sign as is one sign from another (cf. also Weissbach, *KA*, p. xlviii [No. 97]); in five Fortification documents the PA is written at the end of one line, the remainder of the sign at the beginning of the next (Fort. 3565, 4697, 6412, 6582, 6750). Comparison with the form of the sign in late Akkadian texts offers conclusive proof, however, that it is actually ANŠU.

Curious writings of the "ideogram" for "horse" in Fortification texts are ANŠU.RA<sup>idz</sup> (Fort. 7253:4) and ANŠU.RU<sup>idz</sup> (Fort. 5465:10). ANŠU.A.AB.BA<sup>idz</sup> occurs in Fort. 3546:10.

105. Cf. Weissbach, *ZDMG*, LXVII (1913), 296–98. The controversy over the value of this sign must, it appears, continue, for no convincing demonstration of the value *lam* (Hüsing, Bork, König) has come to light, whereas its form is closer to EL than to anything else. In the Treasury texts it appears three times: in *ki-EL*; in the Fortification texts so far examined, once: in *za-EL* (Fort. 6781:7); in other Achaemenid texts: in *EL-ma* and *EL-ma-ak*, *EL-ma-man-ra*, *EL-man-ri*, *EL-man-ti* and *EL-man-da*, *EL-te*, *ú-EL-man-nu*, *ú-EL-ma*, and *pír-ra-um-pi-EL*; in the documents of *Mém.*, IX, in *ḫu-EL*, *ša-EL*, *be-EL*, *pi-EL*, *ḫa-pi-EL*, and *šá.iš.šá.EL.ma.na.ma*. Admittedly the sign is hardly *el*; proof of this could alone be found in the word *be-ul*, "year," which may have been pronounced *pel* or similarly but which in its numerous occurrences is never written *be-EL*.

Up to the present time the most convincing argument that the sign possessed the syllabic value *lam* is Herzfeld's argument that El. *pír-ra-um-pi-EL* is actually a loan word from OP \**framfram* (*ApI*, p. 148; see above, p. 43, and cf. Hüsing, *Quellen*, p. 93). This suggested OP word, however, is not documented in any Persian source but must be conjectured on the analogy of "pell-mell" and the like. Further, it must also be observed that in the very passage where Elamite is supposedly borrowing an OP word the OP text—which was assuredly the original of which the Elamite is only a translation—uses a totally different verb (cf. Kent, "The Nakš-i Rústam Inscriptions of Darius," *Language*, XV [1939], 165). Thus there is really no adequate proof for a reading *lam*, although the syllabic value (or at least one syllabic value) ended in *m*.

Comparison of the above noted *šá.iš.šá.EL*.

*ma.na.ma* in *Mém.*, IX, No. 139, rev., l. 6, with *šá-dš-šá-ra-ma.na* in *Mém.*, IX, No. 116:6 f., could argue just as convincingly that the syllabic value of the sign was *ram*, but connection with Akk. *ram* is perhaps out of the question both because of the form of the sign and because of the fact that this syllabic value is a late development in Akkadian.

110. The use of MA in the meaning "sixty" is beyond question (Poebel, "The King of the Persepolis Tablets. The Nineteenth Year of Artaxerxes I," *AJSL*, LVI [1939], p. 302, n. 2, suggests that the Elamite word for "sixty" was pronounced *ma*); there is no possibility of reading šv—i.e., Akk. (Sum.) *šuššu*. For the "ideogram" <sup>aiš</sup>MA, "figs," see above, p. 70, n. 6.

111. Aside from its occurrence in KL.MIN (No. 94) this sign (MIN) with the meaning "ditto" occurs only in text No. 66 (twice).

112. The value *ráš* is indicated by a place name written *Ráš-ši-ud-da* (Fort. 2511:3 f.).

113. To the hitherto accepted value *taš/s/š* must now be added the value *ur* because of the writing of the second OP month as *Tu-ur-ma-ráš*, etc.

114. The "ideogram" zfd.DA occurs only in Fortification texts.

118. KÙ alone appears only in text No. 22. KÙ.BABBAR is identical in form with the sign written in a number of the documents published in *Mém.*, IX, e.g., Nos. 5:1, 38:22 (cf., however, No. 120:2); also in *Mém.*, XI, Nos. 301:1, 302:1, etc. Note, however, that the Elamite form is not really a combination of KÙ plus El. *p̄r* (No. 66), since it usually possesses an extra horizontal. KÙ.GI, i.e., GUŠKIN, appears only once in Treasury texts (No. 83; but see the notes *ad loc.*) but occurs frequently in the texts published in *Mém.*, IX and XI. The Elamite word for "gold" was written *la-dš-du*.

122. This sign, as its form seems to indicate, is Sum. *šà*, Akk. *šà* and *lib*. The value *šà* fits admirably in all extant Elamite contexts, while *lib* does not. In DB, §§ 13, 25, 28, and 30, appears the Elamite phrase *ku-iš Yú ši-in-nu-gi-ut*, paralleling OP *yātā adam arasam* and (a point overlooked by König, *op. cit.*, p. 68) Akk. *adi muḫḫi šá anāku allaku*, "until I came." In DB, § 49, for OP *yātā adam pār-saiy utā mādaiy āham* and Akk. *adi muḫḫi šá anāku ina (mātu)parsu u (mātu)madaia . . .* the Elamite version retains the same phrase: *ku-iš Yú Ybar-šip.ik-ki a-ak Yma-da-be.ik-ki šà-nu-gi-ut*. The "roots" *šà-nu-* and *ši-in-nu-* are thus seen to be identical (cf. also DB, §§ 23 and 59 with §§ 19 and 31; contrast Bork, *MAOG*, VII, 3 [1933], pp. 12 f.; Poebel, "Chronology of Darius' First Year of Reign," *AJSL*, LV [1938], 162 n., thinks that *šà-nu-* "means

'to be' in the sense of 'to dwell' or 'to stay (somewhere).'" Also perhaps compare *šà-ri-ut* in DB, § 18 ("reed(s)"), with <sup>aiš</sup>*še-ir-ut/it* in *Mém.*, IX, Nos. 38:11, 136:3, 144:5, 287:6; also the personal name *Šà-ka-iš* in a Fortification tablet (from Hallock's "List of Names") with *Šà-ki-iš* in Fort. 1016:6 f.

SPECIFIC COMBINATIONS OF ELAMITE SIGNS  
(SYLLABLES) EMPLOYED IN THE RENDERING OF OLD PERSIAN WORDS

Certain combinations of Elamite signs (syllables), used to write Old Persian loan words or proper names, reproduce a number of Old Persian sounds which have not been fully taken into account in the last column of the above sign list. The following table shows these combinations (the preceding numeral has reference to the number of the basic sign in the sign list).

Elamite Combinations	Old Persian Renderings
10 še-ir	šayār
12 ak-šá	aça, axš(a)
ak-iš	axš
ak-ši	axtri
22 ti-ia	tiya, diya, tāyā
28 ik-še	xšayā
ik-šá	xšā
ik-tur	xtr
32 ri-ia	riya, raya, rāya
33 iṣ-ša	(ā)zā, (a)ca
iṣ-ši	ici
iṣ-ra	zra, drā
iṣ-ra, iṣ-ša-ri	drāy
41 ab-ba	apa
ap-pi	āpi
43 uk-ba	upa
44 at-ta, ad-da	āta
at-ti	ati
at-tar-ri	açi
46 uk-kur-ra	uxra
52 iš-šá	isa, ša, (i)ça, (a)ça
iš-ši	çi
iš-šu	çu
(a)-iṣ-ša	ašca
ak-iš	axš
mi-iš	mis, vis, viš, vāyas, vahyaz
55 ka <sub>4</sub> -ir	gar
58 ka <sub>4</sub> -ir	gar
ba-ir	par
ma-ir	vāhar(a)
mi-ir	var
tu-ir	θur
ik-še-ir	xšayār

## PERSEPOLIS TREASURY TABLETS

Elamite Combinations	Old Persian Renderings	Elamite Combinations	Old Persian Renderings
60 kán-na	kana, xana	(i)-in-ša	i <sup>n</sup> ci
(u)k-kán-na	gana	(u)-in	u <sup>n</sup>
61 ud-da	utā, (i)ta, (a)ta, (ā)ta	84 ak-tur-ri	āxtri
ut-ti	(a)ti	90 (cf. be-ul	baira, Akk. bēl)
ti-ut	di <sup>n</sup> t(a)	92 mi-iš	mis, vis, viš, vāyas, vahyaz
66 pír-ra, pír-ru	fra, frā, bra	95 ki-ú-ma	kayauva
67 (cf. a-ia-a-e	ahyāyā	áš-ki	*ašciy
še	šai	ki-ia	gayā
be	bai)	100 u/at-tar-ri	açi
69 pír-ru	fra, frā, bra	107 (i)b-ba	bā
ia-ru	yara	108 áš-šá	asa, aça
ru-iš	ruš	112 (cf. ḥar-rá[š-u-ma-	harauvatiš)
tur-ru-šir	drācar	ti-iš]	
73 (a)-um	am, a <sup>n</sup>	115 (cf. ḥa-a-na-a-ra	ainaira
um-ma	uva, (a)ma, (i)ma	da-a-ia	dāhya
(i)-um	im	a-ia-a-e	ahyāyā
76 ki-ú-ma	kayauva	ia-na-a	yanaiy)
ra-ú-ma	ravā	116 šá-ud-da, šá-da	šiyātā
u-ú-iš	viš	ak-šá	aça, axša
77 (a)-da	iyāta	iš-šá	isa, (a)ça, (i)ça
(a)-ad-da	āta	áš-šá	asa, aça
(i)-ud-da	ita	117 iš-ša	ca <sup>3</sup>
(a)-ud-da	āta, ātā, iyāta	119 (cf. ir-da-ḥa-ši	artācā
ud-da	tā	ḥa-a	ai)
78 i-ia	ya, yā, iya, aya		
80 (a)-in	a <sup>n</sup>		

<sup>3</sup> But note El. *iš-ša-ri* = OP *drāy*.

## XI

TRANSLITERATIONS AND TRANSLATIONS OF PERSEPOLIS  
TREASURY INSCRIPTIONS<sup>1</sup>

## 1 (Pl. I)

	1	ʾšá-ak-ka <sub>4</sub> tu <sub>4</sub> -ru-iš	(To) Shakka speak,
	2	ʾba-rad-ka <sub>4</sub> -ma na-an-KI.MIN	Baradkama says:
	3	ʾ3 kur-šá <sup>1</sup> -um a-ak 2 pan-su-uk-kaš	3 karsha and 2 shekels
	4	ʾpír <sup>1</sup> -nu-ʾšú pan-su <sup>1</sup> -uk-kaš.na	(and) a half of a shekel,
	5	[KÜ.BABBAR] <sup>idg</sup> » ʾa-ʾrad(?) <sup>1</sup> -ka <sub>4</sub> (?) <sup>1</sup> -ma ʾi-še	silver, (to) Haradkama, his name,
	6	» mu-šir-ri-ia-ra <sup>aiš</sup> GİŠ <sup>idg</sup>	an Egyptian wood-
	7	ʾ» ʾše-iš-ki-ra sa-ad-da-	worker (and) chief-of-hundred,
Edge	8	ʾbat <sup>1</sup> -ti-iš gal ma-ki-ra	(who) is earning wages
	9	[>b]a-ir-šá.iš [»m]a-u-ka <sub>4</sub> šá-ra-man-na	at Parsa (and for whom) Vahauka is responsible,
	10	ʾ» ʾʾhu-pír-ri sî.sî-du UDU.NITÁ <sup>idg</sup>	give him. Sheep
Rev.	11	a-ak <sup>aiš</sup> GĒŠTIN <sup>idg</sup> šá-ag-gi.ma	and wine (serve) as the equivalent (of the money):
	12	1 UDU.NITÁ <sup>idg</sup> 3 pan-su-uk-kaš.uk-ku	1 sheep for 3 shekels,
	13	1 mar-ri-iš 1 KI.MIN KI.MIN	1 jug (of wine) for 1 (of) the same.
	14	ʾ <sup>DINGIR</sup> ITU <sup>idg</sup> <sup>DINGIR</sup> mar-ka <sub>4</sub> -šá-na-iš a-ak	Months: Varkazana and
	15	[ <sup>DINGIR</sup> ʾ]a-ši-ia-ti-iš a-ak <sup>DINGIR</sup> ʾa-na-ma-ak-kaš	Açiyadiya and Anamaka,
	16	[ <sup>DINGIR</sup> ]sa-mi-ia-man-taš <sup>DINGIR</sup> mi-kán-na-iš	Samiamantash, Viyaxna—
	17	PAB 5 <sup>DINGIR</sup> ITU <sup>idg</sup> ʾa-tu.ma	within a total of 5 months
	18	>be-ul 32-na.ma	in the 32nd year.
	19	1 RUḪ <sup>idg</sup> <sup>DINGIR</sup> ITU <sup>idg</sup> .na 6 pan-	1 man, per month, 6 shekels
	20	su-uk-kaš a-ak pír-nu-šú pan-su-	and a half
	21	uk-kaš.na du-man-ra » ʾi-pír-uk-ka <sub>4</sub>	of a shekel is to receive. Hipirukka
	22	tal-li-iš du-me » mar-du-uk-ka <sub>4</sub> .ik-ka <sub>4</sub> .	wrote (the tablet), the receipt from Mardukka
	23	mar du-iš-da	he received.

## CONTENTS

Baradkama informs (the treasurer) Shakka that the sum of 3 karsha, 2½ shekels of silver should be given to an Egyptian woodworker and centurion named Haradkama who is a wage earner at Persepolis and for whom Vahauka is responsible. The payment is not in cash, however, but in sheep and wine at the rate of one sheep for three shekels, one jug of wine for one shekel. The sum is paid for services performed in the eighth to twelfth months (inclusive) of the thirty-second year (of Darius), and the Egyptian is to be paid the equivalent of 6½ shekels per month. The scribe of the tablet was Hipirukka, who received a receipt (for the order?) from Mardukka.

## NOTES

Line 7: The word *še-iš-ki*, which may be a reduplication of a root *še-ki-*, is used in connection with wood ten times in these texts; one therefore thinks of a translation “(wood) carver,” especially since three of these occurrences stipulate that “sculptures” (*bat-ti-kur-ráš*, OP *patikara*) are being made. Once, however, in the form *šá-iš-ki*, the word is connected with *is-ma-lu*, “(gold) inlay (or overlay)” (see No. 27:7); hence the neu-

<sup>1</sup> Throughout, all translations are literal and as nearly line-by-line as possible; when, for example, a singular subject in the Elamite text is followed by a plural verb, the translation follows faithfully, sometimes even painfully and at the expense of English grammar.

tral translation "worker." There can be no connection between this word and *ši-iš-ni*, parallel to OP *naibam*, Akk. *babbanū*, although the latter Akkadian word is itself doubtless derived secondarily from *banū*, "to fashion (beautifully)."

Lines 7-8: For *sa-ad-da-bat-ti-iš*, OP \**satapati*, "centurion," see above, p. 40.

Line 21: Whether *du-man-ra* (pl. *du-man-pi*) means "is to receive" or "was receiving" escapes the writer. The verbal forms with inserted *-ma(n)* seem to express continuing action; see above, p. 47.

Line 22: The word *du-me* frequently appears to be carefully written *du-nu*, but the variant *du-um-me* establishes the reading beyond question. Without adequate proof I understand the word as a factual noun from the verbal root *du-* which appears in *du-man-ra* and its plural *du-man-pi*, also in *du-iš*, *du-šá*, *du-iš-da* and *du-iš-ti*; the last four forms appear also in DB, §§ 12 and 14, parallel to OP *adinā*, "he deprived"; *āyasatā*, "he appropriated"; Akk. *ekēmu*, "to take."

#### PERSONNEL

*Šd-ak-ka<sub>4</sub>*, (treasurer and) addressee: An individual with this name appears also in Nos. 11, 17, 20, 23, 24, and 26 (years 2, 4, 6, 7, and 10 of Xerxes) as the man by whose "hand" monies are paid out; the name could well be interpreted as "the Scythian."

*Ba-rad-ka<sub>4</sub>-ma*, addressor: This individual is the addressee (and hence probably the treasurer) in No. 2, which records payment for services performed from the seventh month through the intercalated twelfth month of the thirty-second year of Darius. We may therefore assume that he became treasurer either in the intercalated month or—since the tablet may have been written in one of the early months of the thirty-third year—at the beginning of that thirty-third year. He last appears in a seventh-year tablet of Xerxes' reign (No. 24).

The name is not easily explainable as OP owing to the lack of a junction vowel between the two assumed elements \**bard* ("high, lofty"; cf. Av. *barāz* and the names Smerdis, Bardiya) and *kāma*, "will"; no vowel is present in the carefully written-out spelling *Bar-ra-ad-ka<sub>4</sub>-ma* in No. 10a, nor in the only other variant *Bar-rad-ka<sub>4</sub>-ma* in Nos. 14 and 21.

*Ha-rad-ka<sub>4</sub>-ma*, the Egyptian woodworker and "centurion" who receives the money: On this name R. A. Parker of the Oriental Institute has submitted the following note:

If this name is Egyptian, it would seem unlikely that its first syllable is the name of the god Horus, since no continuative presents itself. One is then left with the possibility that *harad-* may represent Eg. *hrd*, "child," in Greek *χρότης*; *-kama* might then be Eg. *km*, "black," Coptic *κμε* (giving, in full, "the black child" or "the child is black"), or possibly Eg. *Kmt*, "Egypt," Coptic *κμε* (giving "child of Egypt" or similarly). Hermann Ranke, *Die ägyptischen Personennamen*, lists no examples of either of the names proposed, but a priori there is no reason to reject them as impossible.

*Ma-u-ka<sub>4</sub>*, responsible for the workman: This name, which reappears in Treasury texts in No. 63 and perhaps in No. 7, is clearly OP *Vahauka* (DB, § 68; El. *Ma-u-uk-ka<sub>4</sub>*), Greek, *Ῥχος*. Variant writings apparently of the same name in Fortification texts include *Ma-ú-uk-ka<sub>4</sub>*, *Man-ú-uk-ka<sub>4</sub>*, and *Man-ú-ú-uk-ka<sub>4</sub>* (in Hallock's "List of Names").

*Hi-pir-uk-ka<sub>4</sub>*, scribe: The same scribe seems to have written Nos. 3-3a and 9. He wrote also a number of Fortification tablets, e.g., Nos. 3566 (year 23 of Darius) and 1016 (year 24), in both of which his name is written *Hi-in-pir-uk-ka<sub>4</sub>*. The name would seem to be of Elamite origin, as indeed are most of the names of the scribes.

*Mar-du-uk-ka<sub>4</sub>*, from whom a receipt was secured: This name (cf. the Hebrew "Mordecai") is probably a hypocoristic and common Akkadian name; see also *Mar-duk-ka<sub>4</sub>* in No. 84 and *Mar-du-kán-na-šir* in No. 25.

#### DATE

Payment is herewith ordered for services performed in the eighth to twelfth months (inclusive) of the thirty-second year (of Darius), or from October 26, 490, through March 20, 489 B.C. It is not without its own particular interest to observe that the Egyptian began his work at Persepolis within a month of the usually accepted date of Darius' battle with the Greeks at Marathon.

#### SEAL

Type 4, without visible inscription; presumably this is the seal of Baradkama, here the addressor. It appears also on tablets 17 and 23-24.

## TRANSLITERATIONS AND TRANSLATIONS

85

## 1a

Preceding tablet No. 1 in point of time is a mutilated document (PT 6 50) examined at Persepolis. Among the many fragments which had been found together, only two could be joined, but all pieces were hopelessly scarred and so friable that they could not be brushed to remove the adhering dirt without flaking off such signs as remained. Scarcely a single sign could be recognized on the obverse. On the reverse only about one sign to a line could be made out up to line 3, where [. . .] *ir-ma-k[i . . .]*, indicating a fraction, was recognized. Line 4 also was unreadable, but the first part of line 5 showed clearly *'be<sup>1</sup>-ul 30-um-[me-na . . .]*, "of the 30th year." This tablet, consequently, appears to be the earliest preserved Elamite Treasury document at Persepolis.

## 2

	1	Υ <i>ba-rad-ka<sub>4</sub>-<sup>1</sup>ma<sup>1</sup> tu<sub>4</sub>-ru-iš</i>	(To) Baradkama speak,
	2	Υ <i>ap-pi-iš-man-da na-an-k</i> [I. MIN]	Appishmanda says:
	3	29 <i>kur-šá-um</i> [. . .]	29 karsha . . . .
		Rest illegible.	
Edge	x+1	DINGIR <sup>ITU</sup> idg DINGIR <sup>ba-gi</sup> -[ <i>ia-ti-iš</i> ]	Months: Bagayadi,
	x+2	DINGIR <sup>mar-ka<sub>4</sub>-šá-na</sup> [DINGIR <sup>ha-ši-ia-ti-iš</sup> ]	Varkazana, Aqiyadiya,
Rev.	x+3	DINGIR <sup>ha-na-ma-<sup>1</sup>kaš<sup>1</sup></sup>	Anamaka,
	x+4	DINGIR <sup>sa-mi-ia-man-<sup>1</sup>taš<sup>1</sup></sup>	Samiamantash,
	x+5	DINGIR <sup>mi-<sup>1</sup>kán<sup>1</sup>-na-iš a-a</sup> [k DINGIR <sup>mi-kán-na-iš</sup> ]	Viyaxna <the former> and Viyaxna
	x+6	<sup>1</sup> <i>me-šá</i> (?) <sup>1</sup> PAB 7 DINGIR <sup>ITU</sup> idg <i>h[a-tu.ma]</i>	the later—within a total of 7 months
	x+7	[ <i>be</i> ]-ul 32-na.ma [. . .]	in the 32nd year . . . .
		Rest illegible.	

## CONTENTS

Appishmanda informs (the treasurer) Baradkama that upwards of twenty-nine karsha (of silver) are to be paid to workmen for services performed from the seventh through the intercalated twelfth month (inclusive) of the thirty-second year (of Darius).

## NOTES

Only the left half of the tablet is preserved, and much of this is scratched and scarred. Nothing beyond line 3 of the obverse could be made out, and the text is given here chiefly because of the date which it bears.

Line x+6: The reading *me-šá* is quite uncertain. I first copied the wedges beginning the line as *tuk(ráš)*, but since the word *a-ak*, "and," follows the first mention of the twelfth month it is clear that an intercalated month must have been named; hence *me-šá*, "later," has been presumed on the basis of the usual formula.

## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*, (treasurer and) addressee: See No. 1.

*Ap-pi-iš-man-da*, addressor: The name of this individual, who addressed also Nos. 9-9b, is probably of OP origin. For the latter element we may compare Av. *mand-*, as in the name *Ἀριομάνδης* (Stonecipher, *GPN*, p. 20). The prior element is not clear; see, however, *Ap-pi-ši-ia-ti-iš* in No. 6.

## DATE

The tablet once computed payment for the period between the month Bagayadi (Tashritu) and presumably the second or intercalated Viyaxna (Addaru), inclusive, of the thirty-second year (of Darius), or from September 26, 490, through April 18, 489 B.C.

## SEAL

Type 24, apparently belonging to Appishmanda and used also on Nos. 9-9b, where he is again the addressor.





- (3) An individual responsible for workmen during the nineteenth and twentieth years (of Xerxes), and the first and third years (of Artaxerxes) (Nos. 45, 50–51, 61, etc.). It is noteworthy that Uratinda appears in this capacity only in memorandum-type documents.

The name of a man who delivers a receipt in Nos. 31–31a is written *U-ra*; this may be merely a hypocoristicon for *Ū-ra-tin-da*. If so, the individual so named is probably the third here mentioned, for Nos. 31–31a are dated in the sixteenth year (of Xerxes).

The name is undoubtedly of Persian origin; the prior element, *ura*, appears in OP *ahura*, “lord” (OP *Ahuramazda* = El. *U-ra-maš-da*). The posterior is puzzling; we can scarcely compare the name Artayntes, which has been assumed to be *arta* + Av. *vanta-*, “(to) praise” (Justi, *NB*, p. 38; Stonecipher, *GPN*, p. 27). Perhaps it is the present active participle of *dā-*, “(to) give” (cf. *BAiW*, cols. 683 and 711 ff.).

*Hi-ptr-uk-ka*, scribe: See No. 1.

*Hi-ut-ti-be-ul-la*, deliverer of a receipt: The name of this individual has, up to the present, appeared only in tablets written by Hipirukka; his function is uncertain in No. 3a, but in Fortification texts Nos. 3566 and 1016 (years 23 and 24 of Darius), where his name is written *Hi-ti-be-ul*, he delivers a receipt as here. Perhaps the name *Hi-ti-iš* in No. 19 is but a hypocoristicon.

The name appears to be of Elamite origin. For the prior element, *hit*, compare the name of the eleventh king of Awan preceding Puzur-Inshushinak, *Hi-ta-a* (*Mém.*, XXIII, p. iv, l. 11), the name *Hi-te* in *Mém.*, X, No. 18:2, and, in middle Elamite texts, the word *hi-it* to which has been given the meaning “army” (Hüsing, *Quellen*, p. 80; cf. König, “Drei altelamische Stelen,” *MVAeG*, XXX, 1 [1925], p. 46). For the latter element, since the word for “year,” *be-ul*, can scarcely be considered in this connection, compare the verb *be-la-* (reduplicated *pepla-*), “(to) place, set.”

## DATE

Uncertain, but perhaps in the thirty-third year of Darius (489–488 B.C.).

## SEAL

Type 3, also appearing on No. 3a. The impression shows a trilingual inscription beginning “I, Darius,” carelessly made in all three languages.

## 3a

	1	[>>]ba- <sup>1</sup> rad-ka <sub>1</sub> - <sup>1</sup> ma tu <sub>1</sub> -ru-iš [>>]	(To) Baradkama speak,
	2	ú-ra- <sup>1</sup> tin <sup>1</sup> -da na-an-KI.MIN [x kur-šá-um]	Uratinda says: [x karsha],
	3	5 pan-su-uk-kaš a-ak ši-[iš-maš]	5 shekels and a third (of a shekel),
	4	KÛ.BABBAR <sup>idg</sup> >> kur-taš <sup>1</sup> ap-pa <sup>1</sup> [mar-ri]-	silver, (to) workmen, who are artisans
	5	[ip] <sup>1</sup> ba <sup>1</sup> -ir-šá.iš [ . . . ]	at Parsa, (give) . . . .
		Rest broken.	
Rev.	x+1	89 >> RU[ <sup>idg</sup> . . . . ši]-	89 men, [each, per month, . . . . shekels and] a third.
	x+2	<sup>1</sup> iš <sup>1</sup> -maš 72 >> [ . . . ]	72 . . . .
	x+3	[>> hi]-ut-ti-be-ul-la . . . .]	Hittipella . . . .
	x+4	ı-i-ia-a[n . . . .]	the columned hall . . . .
	x+5	[ . . . ] >> ki-r[i(?)]- . . . . ša-ak]	. . . . (it is) the equivalent
	x+6	[ptr]-nu-ip-šu [gal.na . . . . >>]	(of) half of the wage . . . .
Edge	x+7	hi-ptr- <sup>1</sup> uk-ka <sub>1</sub> <sup>1</sup> tal-li-iš-da du-u[m-me >> ir-da-ka <sub>1</sub> ]-	Hipirukka wrote (the document), the receipt from Irdakaia(?)
	x+8	ia.ik-ka <sub>1</sub> .mar du-iš-da	he received.

## CONTENTS

Uratinda informs (the treasurer) Baradkama that monies should be paid to Persepolis artisans. The exact number of workmen is unknown, but it was upwards of 160. There is mention of an individual named Hittipella and of a “columned hall”; there is also, apparently, the statement that the sum represents but half of the total wages to be paid. The scribe, Hipirukka, received a receipt from (perhaps) Irdakaia.

## NOTES

This tablet was copied at Persepolis in 1939; it was in very bad condition and only the upper part of the obverse (and consequently the lower part of the reverse) was preserved.

Line  $x+4$ : *i-ia-an*. That this word, which interchanges with *hi-ia-an*, describes a portion or the whole of a building, is quite certain, but its exact nature has been considered dubious. From its occurrences in classical Elamite texts Hüsing (*Quellen*, pp. 51 and 91 ff.) deduced that it was phonetically identical with the (*bit*-) *hilāni* of Akkadian inscriptions; this is itself highly questionable, for the examples Hüsing gives of the phonetic transition between an assumed \**hillan* (also *halt-ilan*) and *hi-ia-an* are most unsatisfactory. His conclusion, however, is accepted by König (*op. cit.*, p. 41, n. 108), who gives to the word the meaning "Vorhof = Säulenhalle." Without committing himself to this etymology Weissbach (*ZA*, XXXVI [1925], 311) points out the obvious fact that the word designates a building similar to a temple (*si-ia-an*)—perhaps a part of one like Akk. *papaḫu*, "cella," or *kisallu*, "court."

In view of the nature of the religion of the Old Persians (as it can be ascertained from contemporary native sources or as it is described, for example, by Herodotus), there can scarcely be a place for a "temple" at Persepolis. It would seem to be by no means impossible, however, that this Elamite word is itself the ancestor of modern Persian and Arabic *aiwān* (أَيْوَان) which, among other things, signifies a rectangular hall enclosed by walls on three sides but open on the fourth and which is frequently translated "portico." A classical example of the architectural form of such a building is the Sasanian palace at Ctesiphon, which is still known as the *Aiwān-Kisrā*, "The *Aiwān* of Chosroes." At Persepolis the unit of composition of such buildings as the Palace of Darius and the Hall of a Hundred Columns consists essentially of a portico between two closed rooms with a vast hall behind. This is the *aiwān-liwān* type (cf. Franz Oelmann, "Hilani und Liwanhaus," *Bonner Jahrbücher*, Heft 127 [1922], 189–236).

Since the word first appears in thirteenth-century Elamite texts its origin would seem to be Elamite; since it was applied to buildings at Persepolis, perhaps the Old Persians had borrowed it to describe a particular kind of architectural structure. The borrowed word may then have been retained in Persian throughout Parthian and Sasanid times, ultimately to be borrowed once more by the Arabs.

The translation "columned hall" here adopted, however, does not depend on any of these hypotheses, although it has in mind the predominant type of architecture at Persepolis.

## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*, (treasurer and) addressee: See No. 1.

*Ū-ra-tin-da*, addressor: See No. 3.

*Hi-ut-ti-be-ul-la*: See No. 3.

*Hi-pīr-uk-ka<sub>4</sub>*, scribe: See No. 1.

*Ir-da-ka<sub>4</sub>-ia*, deliverer of a receipt: The restoration of this name is probable in view of the similar function performed by this man in Nos. 9, 13, 15, 16, and 18. The name is obviously of Persian origin, and is perhaps Artaces (Justi, *NB*, p. 33).

## DATE

Destroyed.

## SEAL

Type 3; see text No. 3.

## 4 (Pl. III)

1 5 ME 30 *kur-šá-am* KÙ.BABBAR<sup>idg</sup>

2 *kur-mīn* » *un-sa-ak-na*

3 60(MA) » *am-mu-uk-ka<sub>4</sub>*

4 60 » *ab-bat-ra*

5 60 » *mar-ia-kar-šá*

6 60 » *an-nu-gi-ru-iš*

7 50 » *a-ša-ak-ka<sub>4</sub>*

8 50 » *maš-da-ia-áš-na*

530 karsha, silver, (which)

by the hand of the "administrator" (is to be distributed as follows):

60 (karsha): Vahauka;

60: Appatra;

60: Mariakarsha;

60: Annugirush;

50: Azakka;

50: Mazdayasna;

## TRANSLITERATIONS AND TRANSLATIONS

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Edge	9	50 » <i>ba-ka<sub>4</sub>-pi-ik-na</i>	50: Bagabigna;
	10	30 » <i>mi-ut(is?)-ra-an-ka<sub>4</sub></i>	30: Mit(?)ranka;
Rev.	11	30 » <i>da-man-bar-na</i>	30: Damanbarna;
	12	20 » <i>bar-na-ak-ka<sub>4</sub></i>	20: Pharnaces;
	13	20 » <i>ba-gi-iš-ša</i>	20: Bagizza;
	14	20 » <i>ba-ka<sub>4</sub>-gi-ia</i>	20: Bagagia;
	15	20 » <i>bar-ni-iš-ša</i>	20: Parnizza.
	16	PAB <i>hi</i> » RUḫ <sup>id<sub>g</sub></sup> <i>ak-ka<sub>4</sub>-be</i> »	This total, (to) men who
	17	<i>bar-šip.ḫa-tu.ma</i> » <i>an-</i>	among the Persians
	18	<i>da-kaš ma-a-raš-šá-ip</i>	held(?) the . . . ,
	19	<i>ap du-nu-ka<sub>4</sub></i> » <i>da-ri-</i>	was given to them.
	20	<i>ia-u-iš</i> » <i>sunkir ap</i>	Darius the King to them
	21	<i>še-ra-iš</i>	commanded (it).

## CONTENTS

By personal order of Darius the King, 530 karsha of silver are here distributed by an "administrator" in varying amounts to thirteen specified individuals, the majority of whom (if their names are to be trusted) are Persians. The money itself is here paid; there is no reference to its "equivalent" in terms of sheep or wine. The amount itself is quite sizable; if we keep in mind the purchasing power of the ten-shekel karsha, and recall that the standard price of one sheep is three shekels—hence roughly equivalent to \$3.00 U.S. currency in 1939—the 530 karsha here given by royal order is perhaps the equivalent of well over \$5,000.

## NOTES

Line 2: Preceded by the "personal wedges," *un-sa-ak* appears also in Nos. 5–8, always in identical function, and on a number of seal impressions in Fortification texts. It appears frequently in the texts of *Mém.*, IX, in contexts such as the following: No. 127:7 f.: PAB 2 » *ḫu-ut-lak* » *un-sa-ak.be.na*, "A total of 2 messengers of the . . ."; No. 100:2 f.: 5 » *šá-lal<sup>id<sub>g</sub></sup>-ip taš-šub-be* » *un-sa-ak.be-ib-ba*, "5 slaves(?), peoples of the . . . ." While the word as written may, of course, represent a perfectly good Elamite personal name, it is possible that it is the Elamite form of Sum. *u m u n - s i (k)*, the Eme-sal equivalent of the main dialect form *e n s i (k)* (PA.TE.SI) which was borrowed by the Akkadians as *iššakku* (cf. A. Falkenstein, *ZA*, XLII [1934], 152–54). Note that there are in all probability both of the following developments in Sumerian:

Eme-ku    *e n* (= *ē n* < \**e w e n*, *e m e n*)  
 Eme-sal    \**u n* (= *ū n* < *u w u n*, *u m u n*)

(cf. Poebel, *Grundzüge der sumerischen Grammatik* [Rostock, 1923], § 25); it is therefore not inconceivable that there once existed in Sumerian an *u n - s i (k)* (and perhaps even an *u n - s a (k)*, with final *a*-vowel, in view of Akk. *iššakku*).

Except in paternities (which signify nothing), the Akkadian loan word *iššakku* is by no means common in late-period texts from Babylonia aside from its use by the archaizing Nebuchadnezzar. It does occur, however; cf. G. Contenau, *Contrats néo-babyloniens*, I (*TCL*, XII [Paris, 1927]), No. 18:6–7: <sup>am<sup>l</sup></sup>*Za-bi-da-a lib-bu-ú<sup>am<sup>l</sup></sup>iššakkê<sup>pl</sup>* in an Uruk text from the time of Nabopolassar. Thus, if El. *un-sa-ak* does represent the same Sumerian word which was borrowed as Akk. *iššakku*, we may plausibly assume that the "profession" indicated is that of some kind of an administrator (cf. O. Krückmann, *Reallexikon der Assyriologie*, I [1928], 449).

Note also that the Aramaic inscription on the seal of all the Treasury tablets in which *un-sa-ak* appears is that of "Artadara who is chief [. . .]." Consequently, *un-sa-ak* may well be the Elamite word for some such title as Aramaic *רַב הַחֶמֶת*; the Akkadian equivalent for the latter in the late period would presumably be *rab-unqāte*, "chief of the seals" (or, less literally but more accurately, "chief seal [bearer]" or similarly).

Lines 3 ff.: For MA as an "ideogram" for the numeral 60, see above, p. 81.

Lines 17–18: While many variant readings for the signs in these lines are possible (e.g., » *an-da-kaš.ma a-tuk-šá-ip*), none seems to hold much promise. An Elamite word or phrase *a-tuk/ráš* occurs often in the documents of *Mém.*, IX (e.g., No. 281:12, 20–21, 25; also in at least twenty other tablets in the same volume, as likewise in *Mém.*, XI, Nos. 302:10 and 303:12); hence it can be recognized as an independent element. Unfortunately the context of each occurrence is not fully intelligible to me, but since it nearly always appears

after proper names it may be assumed to be the name of a title or profession. In Fort. 6032, grain is given "by the hand of" (*kur-mín*) one *Bar-ru* to individuals for whom a *Bar-ru* (a different individual?) is "responsible" (*šá-ra-ma*); the inscription on the seal impression of Fort. 6032 reads: '[. . .] <sup>2</sup>*Bar-ru* <sup>3</sup>*a-tuk/ráš*. Perhaps it should be said in passing that comparison with Sum. *á-tu-k* (= *bél-pāni*; cf. Deimel, *ŠL*, No. 334:182) is hardly to be considered.

The more probable reading of our signs is doubtless to be derived from a comparison of these lines with Treasury text No. 5:8 where we find *mar-ri-iš an-da-kaš* in similar context. Hence the safest conclusion we can draw is that our phrase is to be read »*an-da-kaš ma-a-ráš-šá-ip*. The spelling of the latter word does not appear strange in view of the divergent writings of the root *marri-* which occur in other Achaemenid Elamite texts; there we have not only *mar-ri-* but also *ma-u-ri-* and probably even *mur-ri-* (DB, § 20; cf. Bork, "Elamische Studien," *MAOG*, VII, 3 [1933], p. 10). In translation this verb is equated with both OP *grab*, "(to) seize, grasp," Akk. *šabātu*, "(to) seize, take" (as in DB, §§ 11, 16, etc.) and OP *dār*, "(to) hold (firm)," Akk. *šabātu* (DB, §§ 9 and 32) and *kalū*, "(to) hold" (XPh, § 3; DN*a*, § 3). The meaning of our word in the present contexts could be of a similar nature, but even if another word, *mar-ri-iš*, meaning "jug, jar," can scarcely enter into the picture, we cannot ignore the fact that the Elamite plural word *mar-ri-ip*, meaning "artisans," can hardly be derived from a verb signifying "(to) seize, take, hold," or the like.

Unfortunately, however, the writer for one has been unable to find a satisfactory explanation for *an-da-kaš* which (once preceded by the "personal wedges") could be "held" or "grasped." A word *an-du-uk-ni* twice appears in inscriptions of Huteludush-Inshushinak (*Mém.*, XI, p. 72, l. 1; p. 75, l. 11; Hüsing, *op. cit.*, Nos. 61*b* and 62[3]), but this is an optative in form, with unknown meaning.

It is just barely possible that our phrase may refer to honors or favors which the persons here enumerated have achieved. First, we note that both here and in No. 5 the money is distributed by personal order of Darius. Next, the amount is itself quite a sizable sum. Hence it may not be inappropriate to propose that the king is in this manner paying off a part of his obligation to men whom he considers his "benefactors." The practice is well known; Herodotus (viii. 90) describes it as follows:

Whenever Xerxes saw any feat achieved by his own men in the battle, . . . he inquired who was the doer of it, and his scribes wrote down the names of the ship's captain and his father and his city.

Again (viii. 85):

Phylacus was recorded among the king's benefactors and given much land. These benefactors of the king (*εὐεργέται βασιλέως*) are called in the Persian language *όροσάγγαι*.

Darius' own rescript to Gadatas, preserved in a late Roman copy of the original Ionic translation of the Persian, says:

. . . I commend your purpose, and because of this there shall be laid up for you great favor (*χάρις*) in the king's house . . . (W. Dittenberger, *Sylloge Inscriptionum Graecarum*<sup>3</sup>, No. 22).

The Persian letter of Xerxes in Thucydides, i. 129 (cf. Olmstead, "A Persian Letter in Thucydides," *AJSL*, XLIX [1932/33], 154 ff.) is quite similar:

. . . Because of the men whom you have saved for me . . . there shall be laid up for you favor (*εὐεργεσία*) in our house, forever recorded . . . .

For other references to this practice of rewarding those who have performed some service to the king and the state, see Meyer, *Geschichte des Altertums*, IV<sup>3</sup>, p. 41, n. 3, to which may be added Diodorus xvii. 14.2; Aelian *Varia historia* 40; and Josephus *Antiquities* xi. 6. In his tomb inscription (DN*b*; see now Kent, "Old Persian Texts. VI," *JNES*, IV [1945], pp. 39 ff., ll. 37-40), Darius says:

Once let there be seen with understanding in the place (of battle), what I see (to be) rebellious, what I see (to be) not (rebellious), both with understanding and with command then I am the first to think with action.

Here, too, perhaps Darius is indicating his willingness to reward—that is, to make "king's benefactors" of—those who show bravery, strength, and wisdom in the service of the state. If, in the tomb inscription, we understand by "command" what is perhaps more commonly termed "protocol" or "edict," then the many instances in which the Persian "Book of Records" is referred to in classical and biblical sources immediately become more understandable: even in the heat of battle names are entered in the record books, ultimately to be followed by reward-bearing edicts.

The two troublesome words in lines 17–18 of our text (and l. 8 of No. 5) may, then, have reference to the fact that the men enumerated “hold” or “possess” certain merits, favors, or benefactions among the Persians, much as we speak of men “holding” or “possessing” the Congressional Medal or the like.

This is, of course, a highly tentative proposal that cannot be said to have any real validity until a satisfactory rendering of the words in question has been achieved.

## PERSONNEL

*Un-sa-ak*, by whose hand the monies are distributed: Probably not a personal name; see above.

*Am-mu-uk-ka<sub>1</sub>*: Presumably this is a variant form of writing the OP name Vahauka; for other variants see No. 1.

*Ab-bat-ra*: Neither this reading nor *Ab-be-ra*, *Ap-pè-ra* resembles a name known hitherto either in OP or in Elamite circles.

*Mar-ia-kar-šá*: If the name is OP (in Fort. 6782 it is written *Mar-ri-ia-kar-šá*), the form would doubtless be something like *M/Var(h)yagarša*. The prior “element” would seem to appear in the name מריזר in Elephantine papyri (Cowley, *Aramaic Papyri*, index; Schaefer, *Iranische Beiträge*, I, 269 [71]). For the posterior compare the second element of Artageres (Justi, *NB*, p. 33; Stonecipher, *GPN*, p. 24). Perhaps *Mar-ri-e-iš-ša* in No. 25:3 is merely a hypocoristic of this name.

*An-nu-gi-ru-iš*: Perhaps the resemblance is merely accidental between this name and that of Anacharsis, the “Scythian” of somewhat doubtful “royal birth” whose story is related, *inter alia*, in Herodotus, iv. 76 f. (cf. Justi, *NB*, pp. 15 f.), but it is indeed difficult to ignore comparison with Greek names such as Anagyris.

*A-ša-ak-ka<sub>1</sub>*: Doubtless a hypocoristic form based on Av. *āza-*, “directing, guiding” (similar to \**Azana*, Greek Ἀζάνης [Stonecipher, *GPN*, p. 16; Justi, *NB*, p. 53]), plus the suffix *-ka*.

*Maš-da-ia-áš-na*: *Mazdayasna*, “Who worships Mazda.” The name appears in the thirteenth (Farvardin) Yasht of the Avesta (cf. *BAiW*, col. 1161).

*Ba-ka<sub>1</sub>-pi-ik-na*: Just so the name of the father of Vidarna (OP *Bagābigna*) is transliterated in the Elamite version of DB, § 68 (cf. *BAiW*, col. 922).

*Mi-ut-ra-an-ka<sub>1</sub>*: Although it is seldom possible to determine a difference between the *ut* and the *iš* signs, this is the preferred reading in view of the name מירך, which is written in ink on many of the bowls, mortars, and pestles from the Treasury and which is, of course, identical with the name *Mihrak*, מירך in the Karnamak and ميره in Ṭabarī and Firdausī, on which see Nöldeke, “Persische Studien” (*SPAW*, CXVI [1888]), p. 416. Compare also *Mi-ut(?)*-*ra* in *Mém.*, IX, No. 135:4, and *Mitnak* (i.e., *Mihhraka*) in Justi, *NB*, p. 214.

*Da-man-bar-na*: Probably a compound of *farnah*, “glory,” with *dāman*, “abode” (*BAiW*, cols. 734 ff.), rather than with *daiva*, which is uniformly written *da-a-ma* in Elamite transliteration. This name occurs also in Fort. 706:2.

*Bar-na-ak-ka<sub>1</sub>*: The well known name, Pharnaces.

*Ba-gi-iš-ša*: The large number of names ending in *-iš-ša* (e.g., *Mar-ri-e-iš-ša* in No. 25; *Na-pi-iš-ša* in No. 53; *Ka<sub>1</sub>-me-iš-ša* in Fort. 1016 and 3566; *Bar-ni-iš-ša* [the second name below, also in Fort. 6663], and a host of others) suggests that we are here dealing with hypocoristic formations. Compare also the *Bagazus* of Deinon (Justi, *NB*, pp. 56 f., s.v. *Bagabuzša*), and the name *Ba-gi-ia-a-zu/Ba-gi-a-zu* in Clay, *BE*, IX and X (indexes).

*Ba-ka<sub>1</sub>-gi-ia*: Doubtless abbreviated from another OP name involving *baga*, “god.”

*Bar-ni-iš-ša*: This name also occurs in Fort. 6663, on which see above, p. 7, n. 34. Apparently it is a hypocoristic formation (see above under *Ba-gi-iš-ša*) involving *farnah*, “glory.”

*Da-ri-ia-u-iš*: By far the most common way of writing the name in Elamite is *Da-ri-ia-ma-u-iš*; once it is *Da-ri-ia-ma-ú-iš* (XPh:8), and Artaxerxes II writes it *Da-ri-ia-ḥu-iš* (A<sup>2</sup>Sd:2). The inscriptions on the cylinder seal impressions from the Treasury write the name as *Da-ri-a-ma-u-iš*.

## DATE

This tablet specifies “Darius the King” as the giver of the order; No. 5 says merely “Darius commanded,” and Nos. 6–8 say “the king commanded.” No year is stipulated, but we are perhaps to assume that all these tablets were written between the thirtieth and the last years of Darius.

## SEAL

Type 33, bearing an Aramaic inscription which Dr. Bowman reads as [. . .] אֲרִיָדָר זִי רֵב, "Artadar, who (is) chief . . ."; perhaps this title is the Aramaic equivalent of the Elamite loan word *unsak* which we have above suggested may be equated with Sum. *ens i(k)*, Akk. *iššakku*, and translated "administrator."

## 5 (Pl. IV)

	1	9 ME 4 <i>kur-šá-am</i> KÙ.BABBAR	904 karsha, silver,
	2	<sup>idz</sup> <i>kur-mín</i> » <i>un-sa-</i>	(which) by the hand of the
	3	<i>ak.na</i> » <i>kam-ba-ti-</i>	"administrator" (to) the herdsmen(?)
	4	<i>ia-ip</i> » <i>bar-mi-iš-ša.</i>	of (the place) Parmizza,
	5	<i>an</i> » <i>sad-du-mi-iš</i>	(for whom) Saddumish
	6	<i>šá-ra-man-na ak-ka-</i>	is responsible, (and) who
	7	<i>be</i> » <i>mar-sa-iš-kaš</i>	(in the place) Marsashka(sh)
Edge	8	<i>mar-ri-iš an-da-kaš</i>	held . . . . ,
Rev.	9	<i>ap du-nu-ka<sub>4</sub></i> » <i>da-</i>	has been given to them.
	10	<i>ri-ia-u-iš</i> <sup>idz</sup> <i>še<sup>l</sup>-ráš-da</i>	Darius commanded (it).
	11	<i>un-ra</i> » RUH <sup>idz</sup> <i>ki-ir.</i>	Each man (received)
	12	<i>na 8 kur-šá-am</i>	8 karsha.

## CONTENTS

By specific order of Darius, the sizable amount of 904 karsha of silver (perhaps the equivalent of \$9,000 currency in 1939) is here given to "herdsmen of Parmizza" who in Marsashka were performing the same action described in tablet 4. Since each man is granted 8 karsha, there will have been 113 men involved in the grant.

## NOTES

Lines 3-4: *kam-ba-ti-ia-ip*. The final *-ip* indicates a (personal) plural, and the plural relative pronoun *ak-ka<sub>4</sub>-be* in lines 6-7 refers back to this word; hence the word is not a personal name. Since El. *kam* normally represents OP *gau* (as in *Kam-bar-ma*, OP *Gaubaruwa*, Gobryas; *Kam-ma-ad-da*, OP *Gaumāta*), our word is surely an OP compound *\*gau-pati*, "cattle master, cattle herdsman." Similar to such a phrase are UDU.NITÁ <sup>idz</sup> *ba-te-ip* of Nos. 61:3 and 50:4, and *ka<sub>4</sub>-ra-bat-ti-iš* of Nos. 47:6 and 58:5 f. The former may represent such an OP compound as *\*maiša-pati* (cf. Av. *maēša* - [BAiW, col. 1109], modern Persian *mīš*); the latter (cf. also *kur-ri-iš* in No. 59:6) seems to document an OP *\*zara-pati*, "ass-master, ass-driver."

Lines 4 and 7: *Bar-mi-iš-ša* and *Mar-sa-iš-kaš* (place names). From the context these places should lie not far from each other, for the herdsmen of *Bar-mi-iš-ša* are performing some action in *Mar-sa-iš-kaš*. The first name has not yet reappeared in other texts; the second occurs in Fort. 5466:4, in which "workmen of the king earning wages in *Mar-sa-iš-kaš*" are paid "by the hand of *Mar-šu-uk-ka<sub>4</sub>*," and in Fort. 6663, on which see above, p. 7, n. 34. The possibility of identifying the sites with assurance, however, is slight. It is none too likely that *Bar-mi-iš-ša* is identical with modern Pārīz, 135 kilometers southwest of Kirmān (Percy M. Sykes, *Ten Thousand Miles in Persia* [London, 1902], pp. 74 f.; Schwarz, *Iran im Mittelalter*, p. 189), but *Mar-sa-iš-kaš* may be represented by modern *Mazijān*, Arabic *Muraizigān* in the Bavānāt plain some 140 miles northwest of Pārīz (Aurel Stein, "An Archaeological Tour in the Ancient Persis," *Iraq*, III [1936], 207 f.; Schwarz, *op. cit.*, p. 22), for *Mazijān* is less than 40 airline miles from Pasargadae.

Line 8: For the possible meaning of this line, see No. 4.

## PERSONNEL

*Un-sa-ak*, the "administrator": See No. 4.

*Kam-ba-ti-ia-ip*, "herdsmen": See above, Notes.

*Sad-du-mi-iš*: This name appears as that of the scribe of Fort. 3678 (it is also in Hallock's "List of Names"), but there is at present no way of determining whether the first sign is to be read as *kur*, *sad*, *šad*, or even *mad*.

*Da-ri-ia-u-iš*, Darius: See No. 4.

## DATE AND SEAL

Type 33; see tablet No. 4.

## TRANSLITERATIONS AND TRANSLATIONS

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## 6

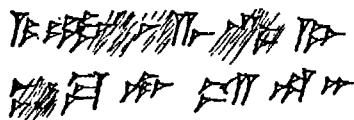
	1	1 ME MA 5 kur-šá-	165 karsha,
	2	am KÙ.BABBAR <sup>idg</sup> kur-mín »	silver, (which) by the hand
	3	un-sa-ak.na MUNUS <sup>idg</sup>	of the "administrator" the women (of)
	4	ANŠU.[KUR.] <sup>1</sup> RA <sup>1idg?</sup> MUNUS	the horses of the woman
	5	'ab <sup>1</sup> -ba-ak-iš.na »	Abbakish,
	6	'ap <sup>1</sup> -pi-ši-ia <sup>1</sup> -ti-iš	(for whom) Appishiyatish
Edge	7	šá-ra-man-na du-iš-	is responsible, have
	8	da pi-ik-ti	received (for) sustenance.
Rev.	9	» sunkir ap še(!)-ráš-	The king commanded (it) for them.
	10	da » da-du-man-ia tal-li-iš	Dadumania wrote (the document).

## CONTENTS

By order of "the king"—without question it is Darius who is named on Nos. 4–5, since the same seal is employed on Nos. 4–8 inclusive—165 karsha of silver are here awarded by the "administrator" for the maintenance of the "women of the horses" of the woman Abbakish, who presumably was a personage of some moment at the court and for whom Appishiyatish was responsible. The tablet is written by a man with the same Iranian name as that of the father of Megabyzus in the Behistun inscription: Datuvahya.

## NOTES

Lines 4–5: My copy shows the following:



Although the next to the last sign of line 4 appears to be *-ik*, it is quite unlikely that we should read ANŠU. KUR.RA.IK or that the Elamites should thus have attempted to preserve the final *-k* as the Sumerian genitive; for in that case the MEŠ sign, which normally follows "ideograms," would be lacking. The last sign of the line is clearly MUNUS, preceding the feminine name which follows (see below). The form MUNUS.ANŠU.KUR.RA is known in Babylonia (see Deimel, *ŠL*, No. 208:48), and the Elamites would not at all consider it strange to insert MEŠ (= "ideogram") after the first sign of the compound in line 3; but an interpretation that "mares" had received the money could only be ridiculous.

## PERSONNEL

*Un-sa-ak*, the "administrator": See No. 4.

<sup>MUNUS</sup>*Ab-ba-ak-iš*: Like so many others, this name too may be of Elamite origin; in the forms *Ab-ba-uk-ka<sub>4</sub>-iš* and *Ab-ba-uk-iš* it appears in Hallock's "List of Names."

*Ap-pi-ši-ia-ti-iš*, the "responsible" party: In No. 7 the father is named as perhaps Vahauka. If we compare the Elamite doubling of the voiceless labial in *Ka<sub>4</sub>-ap-pi-šá-ka<sub>4</sub>-nu-iš* for OP *Kāpišakāniš*, the first part of this name may represent an OP *\*api*, surely the preposition *apiy*, "on, upon, thereto," rather than the noun *āpi*, "water." The second part of the name has already occurred several times in the royal inscriptions as a loan word from OP *šiyāti*, "happiness"; it has been recognized in a number of Persian names transmitted through Greek sources, e.g., Παρύσατις, Σατιφέρνης, Σατιβάρας, and others (see Stonecipher, *GPN*, ad loc.; J. Marquart, "Beiträge zur Geschichte und Sage von Erān," *ZDMG*, XLIX [1895], p. 634, n. 2). Parysatis appears in Fortification texts as *Ba-ru-ši-ia-ti-iš* (e.g. Fort. 1017:2 f.) and *Bar-ru-ši-ia-ti-iš* (in Hallock's "List of Names"), while Satiphernes also appears as *Ši-ia-ti-bar-na* (*ibid.*). The name *Ir-da-ši-ia-ti-iš* (Fort. 7094:4 f.) combines the element with *arta*, "universal law, divine order"; the gate(?) name *Mi-iš-ba-ši-ia-ti-iš* (Nos. 49 and 59 in these texts) combines it with OP *vispa*, "all"; and the names *Ši-ia-ti-iš* and *Ši-ia-ti-iš-ša* of Fort. 706:5 and 3566:1, respectively, are obviously hypocoristics (cf. the *-iš-ša* ending referred to above in text 4).

*Da-du-man-ia*, scribe: The writer also of Nos. 7, 8 (where his name is written *Da-ad-da-man-ia*), and doubtless also of No. 12, where the scribe's name, *Da-ad-da*, would seem to be abbreviated. It is very likely that this same scribe likewise wrote Nos. 4–5.

The father of Megabyzus bears the same name (written *Da-ad-du-man-ia*) in DB, § 68; the Akkadian form is there <sup>m</sup>*Za-tu-a*, but the partially missing OP form is questionable (cf. Herzfeld, *ApI*, p. 58; Rössler, *Untersuchungen*, p. 62).

## DATE

Reign of Darius; see No. 4.

## SEAL

Type 33; see tablet No. 4.

## 7

	1	<i>4 ME 10 kur-šá-am</i>	410 karsha,
	2	<i>6 ki-EL KÙ.BABBAR<sup>idz</sup></i>	6 shekels(!), silver,
	3	<i>kur-mín » un-sa-ak.</i>	(which) by the hand of the "administrator"
	4	<i>na » kur-taš gal ma-</i>	the workmen earning wages
	5	<i>ki-ip » ap-pi-ši-</i>	—(it is) Appishi-
	6	<i>ia-ti-iš DUMU</i>	yatish the son of
Edge	7	<i>'ma(?)-ú<sup>1</sup>-ka<sub>4</sub> ak-ka<sub>4</sub></i>	Vahauka(?) who
	8	<i>šá-ra-man-na du-iš-</i>	is responsible (for them)—have received
Rev.	9	<i>da gal.'uk<sup>1</sup>-ku »</i>	for wages.
	10	<i>sunkir še-ráš-da »</i>	The king commanded (it).
	11	<i>da-du-man-ia tal-li-iš</i>	Dadumania wrote (the document).

## CONTENTS

By order of the king (Darius), the sum of 410 karsha and 6 shekels of silver is here said to have been paid as wages through the hand of the "administrator" to workmen for whom Appishiyatish (probably the son of Vahauka) was responsible. The scribe was Dadumania.

## NOTES

Line 2: For the equation of *ki-EL* with *pan-su-kaš*, "shekel," see p. 37.

Line 9: Note that *gal*, "wages," here replaces *pi-ik-ti*, "aid, sustenance," of No. 6:8.

## PERSONNEL

*Un-sa-ak*, the "administrator": See No. 4.

*Ap-pi-ši-ia-ti-iš*, responsible for the workmen: See No. 6.

*Ma-ú-ka<sub>4</sub>*, father of the preceding: The rendering is not wholly certain, for the first sign was damaged almost beyond recognition, although *ma* was a not impossible reading. See No. 1.

*Da-du-man-ia*, the scribe. See No. 6.

## DATE

Reign of Darius; see No. 4.

## SEAL

Type 33; see No. 4.

## 8 (Pl. V)

	1	<i>14 kur-šá-am '6(?)<sup>1</sup></i>	14 karsha, 6
	2	<i>ki-EL KÙ.BABBAR<sup>idz</sup></i>	shekels(!), silver,
	3	<i>kur-mín » un-sa-</i>	(which) by the hand of the "administrator"
	4	<i>ak.na » kur-taš gal</i>	the workmen entitled to receive
	5	<i>ma-ki-ip » ba-</i>	wages (for whom) Mega-
	6	<i>ka<sub>4</sub>-ba-da <sup>GIS</sup>MÁ</i>	bates the
	7	<i><sup>idz</sup> 'gi-ul-li]-</i>	"admiral"
Edge	8	<i>ra šá-ra-man-'na<sup>1</sup></i>	is responsible,
Rev.	9	<i>du-iš-da gal.</i>	have received for
	10	<i>uk-ku » sunkir še(!)-</i>	wages. The king
	11	<i>ráš-da » 'da<sup>1</sup>-ad-</i>	commanded (it). Dad-
	12	<i>'da<sup>1</sup>-man-ia 'tal<sup>1</sup>-li-iš-'da<sup>1</sup></i>	dumania wrote (the tablet).



## TRANSLITERATIONS AND TRANSLATIONS

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## CONTENTS

By order of "the king" (Darius), 14 karsha and perhaps 6 shekels of silver are here distributed through the hand of the "administrator" as wages to workmen for whom Megabates, the admiral of the fleet, is responsible. The tablet was written by Daddamania and sealed with the same seal as Nos. 4-7.

## NOTES

Lines 6-8:  $\text{𐎠𐎢𐎠}^{\text{idg}}$  *[gi-ul-li]-ra*, "boatmaster, fleet commander, admiral," the title of Megabates. Such a translation—in view of the fact that our text was found at landlocked Persepolis—seemed at first utterly fantastic, and the writer considered even the reading dubious. First of all there was a question regarding the actual value of the  $\text{𐎠}$  sign, which may have been confused by the Elamites with the sign possessing the phonetic value *rad/t*, although  $\text{𐎠𐎢𐎠}^{\text{idg}}$  was known in DB, § 18, where it seemed to have the meaning "ship(s)" (OP *nāviyā*), as would have been expected, of course, from Akk.  $\text{𐎠𐎢𐎠}$  = *elippu*. Next, there were the somewhat questionable signs in *[gi-ul-li]-ra*, although this seemed to be the best possible reading; XPh:13 yielded El. *gi-ul* [. . .], corresponding to OP *patiyaxšayaiy*, Akk. *šá-al-aš-ak*, "I govern, am master (of)." Nevertheless the identification of Megabates, whose title this is, with that Megabates who was an admiral of the Persian fleet (see below under Personnel) proves beyond doubt the correctness of this interpretation.

## PERSONNEL

*Un-sa-ak*, "the administrator": See No. 4.

*Ba-ka<sub>4</sub>-ba-da*, "the fleet commander, admiral": Unquestionably this individual is none other than the Achaemenid Megabates (OP *Bagapāti*), cousin of Darius and of Darius' brother and satrap of Sardis, Artaphernes. He is known from classical sources as the admiral (Greek *naumarchos*) of the Persian fleet which in 500-499 B.C. undertook the conquest of Naxos and thus touched off the already simmering Ionian revolt (Herodotus, v. 32 ff.; Plutarch *De malig. Herodoti* 36). According to Strabo (*Geography* ix. 12.9) and Diodorus (xi. 12.2; cf. Aeschylus *Persae* 982), Megabates was also one of the commanders of the fleet who accompanied Xerxes to the victory at Thermopylae and the disaster at Salamis, but according to Herodotus (vii. 29) it was Megabates' son, Megabyzus, who was an admiral at that time.

In the twentieth year of Xerxes (tablets Nos. 58 and 68) a scribe bears the same name (written *Ba-ka<sub>4</sub>-ba-ad-da*).

*Da-ad-da-man-ia*, the scribe: See No. 6.

## DATE

Reign of Darius; see No. 4.

## SEAL

Type 33; see No. 4.

## 9 (Pl. VI)

	1	$\Upsilon$ <i>ba-rad-ka<sub>4</sub>-ma tu<sub>4</sub>-ru-[iš]</i>	(To) Baradkama speak,
	2	$\Upsilon$ <i>ap-pi-iš-man-da n[a-an-KI.MIN]</i>	Appishmanda says:
	3	8 <i>kur-šá-um a-ak</i> 7 <i>p[an-su-uk-kaš]</i>	8 karsha and 7 shekels,
	4	$\text{KÙ.BABBAR}^{\text{idg}}$ $\gg$ <i>kur-taš ap[-pa . . .]</i>	silver, (which) workmen who (are) [. . .]
	5	<i>a-ak</i> $\gg$ <i>mu-šir-ri-i[a-ip 𐎠𐎢𐎠<sup>idg</sup>]</i>	and Egyptians, stone-
	6	$\gg$ <i>še-iš-ki-ip</i> $\gg$ <i>m[u-šir-ri-ia]</i> .	workers, (who) from Egypt
	7	<i>an.mar</i> 𐎠 <i>ba-ir-šá.i[š ši-nu-ip]</i>	came to Parsa,
	8	𐎠 $\text{HAR}^{\text{idg}}$ $\gg$ <i>hu-ut-ti-[ip . . .]</i>	makers of stone-[, . .],
Edge	9	𐎠 <i>i-ia-an</i> 𐎠 <i>nu-pi-i[š-da-ma hu-ud-da]-</i>	who are making the inscription(s) (on) the columned
			hall,
	10	<i>man-ba gal ma-ki-ip</i> [ $\gg$ <i>nu?</i> ]	earning wages, (for whom) [you?]
	11	<i>šá-ra-man-na</i> $\gg$ <i>hu-pi-[be gal.ma ap sù.sù]</i> -	are responsible, to them give for wages.
	12	<i>du</i> UDU.NITÁ <sup>idg</sup> <i>šá-ag-g[i-me 1 UDU.NITÁ<sup>idg</sup>]</i>	Sheep (are) the equivalent (of the money): 1 sheep
Rev.	13	3 <i>pan-su-uk-kaš.uk-ku</i> $\text{DIN}^{\text{GIRITU}^{\text{idg}}}$	for 3 shekels. Month
	14	$\text{DINGIR}^{\text{idg}}$ <i>kar-ma-bat-taš 1-na</i> [𐎠 <i>be-ul 32(?)</i> - <i>na.ma</i> ]	Garmapada—(i.e.,) 1 (month)—in the 32nd(?) year.

## PERSEPOLIS TREASURY TABLETS

15	11	»RUḪ <sup>idz</sup> un-ra 3 pa[n-su-uk-kaš]	11 men, each, 3 shekels.
16	20	»KI.MIN KI.MIN 1 K[I.MIN pīr-nu-šu]	20 ditto, ditto, 1 ditto (and) a half
17		KI.MIN.[na]	of the same.
18	24	»RUḪ <sup>idz</sup> un-ra 1 p[an-su-uk-kaš]	24 men, each, 1 shekel.
19	PAB 55	»kur-taš »ḫi-p[īr-uk-ka <sub>4</sub> ]	Total: 55 workmen. Hipirukka
20		tal-li-iš-da be-ti-ka <sub>4</sub> -maš-še	inscribed (it), after it had been interpreted(?);
21		»nu-tan-nu-ia li-i[š-da du-me]	(by) Nudannua it was given. The receipt
22		»ir-da-ka <sub>4</sub> -ia.ik-[ki.mar du]-	from Irdakaia
23		iš-da	he received.

## CONTENTS

The Persian Appishmanda informs his superior Baradkama (doubtless the treasurer) that the sum of 8 karsha and 7 shekels of silver is to be paid to workmen of Egyptian (and, perhaps, Syrian) origin who had come from Egypt to Persepolis to cut stone and make inscriptions in a columned hall and for whom perhaps Baradkama is himself responsible. The workmen do not receive cash but its equivalent in sheep at the rate of a sheep for three shekels. The computations are as follows:

	MEN	EACH RECEIVES SHEKELS	TOTAL	
			KARSHA	SHEKELS
	11	3	3	3
	20	1½	3	
	24	1	2	4
Total	55		8	7

The scribe Hipirukka wrote the document after it was translated (from Aramaic?), Nudannua distributed the supplies(?), and a receipt was secured from Irdakaia.

## NOTES

Lines 4-5: In view of No. 15:5, one here expects »kur-taš (»)at-ti-ip a-ak »mu-šir-ri-ia-ip ("Hittite—i.e., Syrian—and Egyptian workmen"), but the first sign after »kur-taš is clearly ap; hence compare Nos. 3:4; 3a:4; 53:5, etc.

Line 9: nu-pi-i[š-da-ma]. Almost without question this word is none other than OP *nipištam*, the participle of the verb *ni-piš* (BAiW, col. 817; Tolman, *Ancient Persian Lexicon*, p. 111; Nyberg, *Hilfsbuch des Pehlevi*, II, "Glossar," p. 160). Note that our text as restored corresponds almost exactly with XV, § 3: *nipištām akunauš*, "he made (cut) an inscription."

Line 10: Perhaps a personal name is to be restored in place of »nu, "thou," since the line as so restored is a little short, but for this phrase see, for example, Nos. 25:11; 75:8 f., etc.

Lines 19-23: For the whole phrase compare Fort. 1016:21 ff. (a near-duplicate is Fort. 3566:16 ff.):

<sup>21</sup>. . . »ḫi-in-<sup>22</sup>pīr-uk-ka<sub>4</sub> tal-li-iš be-ti-<sup>23</sup>ka<sub>4</sub>-maš »ka<sub>4</sub>-me-iš-ša li-iš du-me <sup>24</sup>»ḫi-ti-be-ul.mar du-iš, ". . . Hipirukka wrote, after it had been translated(?) Kamezza gave (it). The receipt from Hitipel he received."

Also Fort. 5899:11 ff.:

<sup>11</sup>. . . »ka<sub>4</sub>-me-ša <sup>12</sup>tal-li-iš be-ti-ka<sub>4</sub>-<sup>13</sup>maš-še »man-nu-un-da <sup>14</sup>li-iš-da;  
and Fort. 6764:18 ff. (Cameron, "Darius' Daughter and the Persepolis Inscriptions," *JNES*, I [1942], 214 ff.):

<sup>18</sup>. . . »napi(r)-<sup>19</sup>su-uk-ka<sub>4</sub> tal-li-iš be-ti-ka<sub>4</sub>-maš-<sup>20</sup>še »ma-ra-ša li-iš-da.

The root of *li-iš* and *li-iš-da* means "(to) give"; this is certain from the Elamite text of the tomb inscription DNb:1-2, where *li-iš-da* is the Elamite translation of OP *adādā* and Akk. *iddinnū* (see already Weissbach in *ASGW*, XXIX, 1 [1911], p. 29; the reading has been assured from better photos of the Elamite text taken by Schmidt which will appear in a later Persepolis volume). I can make no advance over the proposal in *JNES*, I (1942), 216, that there is in *be-ti-ka<sub>4</sub>* the same root which in the Achaemenid inscriptions is parallel to Akk. *nakāru*, and that it means "(to) change, alter," hence "(to) interpret," as well as "(to) be hostile, give battle." This is not wholly satisfactory but all contexts eliminate the latter

meaning. If, furthermore, *be-ti-ka*<sub>4</sub> is identical with *pi-ti-ka*<sub>4</sub>, the translation "(to) change, alter" is encouraged (see n. 51 on p. 53). For *maš-še* one should perhaps compare *me-šá* and *me-iš-ši-in*, "later" (Poebel, "The Names and the Order of the Old Persian and Elamite Months during the Achaemenian Period," *AJSL*, LV [1938], p. 138, n. 21), and, better still, *maš-šá*, which in the Elamite version of XPh:39 is the equivalent of OP *apara*, Akk. *ina arkī*, "hereafter, later." Thus the phrase seems to mean that (in this text) Hipirukka wrote the tablet after the original order (which had been written in Aramaic) had been translated, and that Nudania gave the supplies (or the sealed order?) after he had secured a receipt from Irdakaia.

It is by no means inconceivable, however, that this explanation is quite erroneous and that an OP word or phrase may underlie the writing. Just as El. *ba-ti-ma-nu-iš* seems to represent an OP phrase \**patiy māniya* (see No. 47, Notes), so we may ultimately discover that *be-ti-ka*<sub>4</sub>-*maš* represents an OP \**patiy kāma*, or similarly.

## PERSONNEL

*Ba-rad-ka*<sub>4</sub>-*ma*, addressee (and probably the treasurer): See No. 1.

*Ap-pi-iš-man-da*, addressor: See above, No. 2.

*Mu-šir-ri-ia-ip*: Egyptians, described as "workmen" (l. 4) "earning wages" (l. 10), "who had come from Egypt to Persepolis," stone masons and inscription cutters.

*Hi-pir-uk-ka*<sub>4</sub>, scribe: See No. 1.

*Nu-tan-nu-ia*, supply(?) clerk: The only appearance of this name (perhaps of Aramaic or Akkadian origin) to date.

*Ir-da-ka*<sub>4</sub>-*ia*, who provided the receipt: See No. 3a.

## DATE

The very faint possibility that we should restore line 14 to read <sup>DINIR</sup>*kar-ma-bat-taš* < *be-ul* > *1-na*, and hence assign this text to the first year of Xerxes (cf., e.g., the formula in No. 32:7), is practically eliminated by Fort. 3566:10 f. which is written by the same scribe Hipirukka and which reads: <sup>DINIR</sup>*sa-mi-ia-man-taš 1-na* <sup>be-ul</sup> *23-na.ma* (cf. also No. 27:11-14). Line 14 was probably considerably longer than the other lines of our document (as is often true of the date line on other tablets) and continued around the end of the tablet. Since the text is in general so similar to Nos. 1-3, the date may be presumed to be late in Darius' reign and perhaps in the same year (the thirty-second) as No. 2, in which the same addressor appears.

## SEAL

Type 24; see text No. 2.

## 9a

This tablet was in very bad condition and only a few lines of its text could be read with any degree of certainty; its date could not be ascertained. Like No. 9, the seal impression was of type 24.

- |       |   |   |
|-------|---|---|
|       | 1 | <i>ba-rad-ka</i> <sub>4</sub> - <i>ma</i> [ <i>tu</i> <sub>4</sub> - <i>ru-iš</i> ] |
|       | 2 | <i>ap-pi-iš-man-da</i> n[ <i>a-an-KI.MIN</i> ]                                      |
| circa | 6 | [. . . <i>gal</i> ]   |
|       | 7 | <sup>ma</sup> <i>ki-ip</i> <sup>ba-ir-šá-iš</sup> <sup>bat-ti-</sup>                |
|       | 8 | <i>na-šá</i> <i>šá-ra-man-na</i> <sup>hu-pi-be</sup>                                |
|       | 9 | [. . .]   |

The rest of the text was illegible. Since the wording so closely resembles that of No. 9, no translation is necessary. The name *Bat-ti-na-šá* appears also in No. 51:5 f. and, written *Bat-ti-na-iš-šá*, in No. 69:5 (both year 20, Xerxes); excluding the name *Περτινης* of a Persian army leader referred to by Arrian (*Anabasis* i. 12.8; i. 16.3), no similar Elamite or Persian name is known to me. The writing does closely resemble a name found in a number of Akkadian tablets dating from the last years of the Achaemenid period, however; compare *Pa-da-ni-e-si*<sup>2</sup>, Clay, *BE*, X (1904), No. 15, nail; *Pa-da-ni-e-si*<sup>2</sup>, *BE*, X, No. 15:15; *Pa-da-an-e-si*<sup>2</sup>, *BE*, X, No. 39:14; and

*Pa-at-na-a-šú*, the father of <sup>m</sup>*Pi-su-sa-as-ma-ka-a-šá* in a tablet dated in the tenth year of Xerxes, *CT*, IV, Pl. 34d:2. All these names have been explained as Egyptian, and that may also be the origin of our name, for note that in No. 9, to which this text bears some resemblance, Egyptians are mentioned.

## 9b

Only parts of the first three lines of this very fragmentary tablet could be made out, and the date was completely missing; the seal impression had been destroyed, but it was probably type 24 like the preceding.

- 1 *Yba-rad-ka<sub>4</sub>-ma tu<sub>4</sub>-ru-iš*
- 2 *Yap-pi-iš-man-da na-a[n-KI.MIN . . . .]*
- 3 *KÛ.BABBAR<sup>id</sup>[<sup>g</sup> . . . .]*

## 10

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1 <i>Yba-rad-ka<sub>4</sub>-m[a tu<sub>4</sub>]-r[u-iš]</i></li> <li>2 <i>Ytar-ka<sub>4</sub>-a-ú-iš [na-an-KI.MIN]</i></li> <li>3 <i>MA 3 [kur-šá-um . . . .]</i></li> </ol> <p>Rest of obverse fragmentary and illegible.</p>  | <p>(To) Baradkama speak,<br/>Darkaush says:<br/>63 karsha . . . .</p>   |
| <p>Rev. 1 [ . . . ] <sup>DINGIR</sup>ITU<sup>id<sub>g</sub></sup> <i>ka<sub>4</sub>-ir-ba-</i></p> <p>2 <i>ši-ia 'ir-pi.na' a-ak ka<sub>4</sub>-ir-ba-</i></p> <p>3 <i>ši-ia me-šá.na PAB 2</i> <sup>DINGIR</sup>ITU<sup>id<sub>g</sub></sup> <i>ha-</i></p> <p>4 <i>tu.ma</i> <i>↳ be-ul 2-um-me.na</i></p> <p>5 . . . .</p> | <p>. . . . Months: Karba-<br/>shiya the former and Karba-<br/>shiya the later—within a total of 2 months<br/>of the 2nd year.</p> |

## CONTENTS

Darkaush informs (the treasurer) Baradkama that upwards of sixty-three karsha, probably of silver, are to be given for certain purposes which the present condition of the tablet no longer permits us to discover. The payments are made for the sixth month and the following (intercalated) month of the second year (of Xerxes).

## NOTES

Reverse, lines 2-3: The meaning of *ir-pi*, "earlier, former" (older El. *ur-pu*) has long been known from its occurrence in the Elamite version of DB, § 59. In Treasury documents it occurs but twice: here, and in No. 27:12 f. ("former Viyaxna"), where it is written *ir-ip*. For *me-šá*, "the latter," see the Notes to No. 9 of this volume. The fact that the genitive *.na* follows not the name of the month but the adjectives *ir-pi* and *me-šá* seems to indicate that the Elamites usually conceived the words in such a month name as "former Karbashiya" as composing a unit similar to *sunki-ir-šá-ir-ra*, "Great King" (on which cf. Herzfeld, *ApI*, p. 2); but this interpretation is belied by Fortification tablet 5902:9 ff. (year 22, Darius) which bears the anomalous writing: <sup>9</sup>DINGIRITU<sup>id<sub>g</sub></sup> <sup>DINGIR</sup>mi-ia-<sup>10</sup>kán-na-iš.na ma-še-iš-šá-<sup>11</sup>um-me.

## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*: See No. 1.

*Tar-ka<sub>4</sub>-a-ú-iš*, addressor: This name is limited to documents from years 2 to 4 (of Xerxes). It is indubitably Iranian; compare Av. *darəgāyav-* (*BAiW*, col. 694), "long-lasting, of long duration," and the OP adjective *dargam*, "long"; note, however, that the *a-ú-iš* writing is exactly paralleled in certain Elamite spellings of the name of Darius.

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## DATE

The first and second (intercalated) Karbashiya (Ululu) of Xerxes' second year was from August 21 through October 18, 484 B.C.

## SEAL

Seal-type 1, bearing an inscription of Darius.

## 10a

1	ʾbar <sup>1</sup> -ra-ad-ka <sub>4</sub> -ma kán-ša-bar-ra	(To) Baradkama the treasurer
2	tu <sub>4</sub> -ru-iš » tar-ka <sub>4</sub> -a-ú-iš na-an-KI.MIN	speak, Darkaush says:
3	28 kur-šá-um 6 1/2 ba-su-ka <sub>4</sub> (sic).	28 karsha, 6½ shekels,
<4	na KÙ.BABBAR <sup>idg</sup> ap sî.sî-du » RUḪ <sup>idg</sup> -ip.>	<silver, give to men>
5	na DINGIR <sup>idg</sup> » ak(!)-ka <sub>4</sub> -be »	(of the?) god (for) whom
6	ra-a-ma-ši-is-ra šá-ra-man-na <sup>1</sup>	Ramasisra is responsible.
7	GEŠTIN <sup>idg</sup> šá-ak-ki-mi » [hi-ia]-	Wine (serves as the) equivalent (of the money).
8	ma-ši-ka <sub>4</sub> te-u[m(!)-ip-te hu-ut-taš-da]	In (the place) Hiamasika . . . .
9	DINGIR <sup>idg</sup> ha-[. . . .]	Month(s) . . . .
10	ku-iš [. . . .]	to (and including) . . . .
Rev. 11	. . . .	. . . .

## CONTENTS

The treasurer Baradkama is informed by Darkaush that the sum of 28 karsha, 6½ shekels of silver is to be paid to priests(?) for whom Ramasisra is responsible. Not the money, however, but wine is to be doled out.

## NOTES

This difficult tablet, legible only in small part and so heavily corroded on the reverse that a reading proved impossible, is nevertheless quite helpful. For its proper interpretation Nos. 22 and 27 must be compared.

Line 1: The full spelling of the personal name as ʾBar<sup>1</sup>-ra-ad-ka<sub>4</sub>-ma enables us to identify sign No. 31, first described by Poebel, *op. cit.*, p. 133, n. 10; see above, pp. 6 and 79.

Line 3: The writing *ba-su-ka<sub>4</sub>* provides a welcome variant to the more commonly written *pan-su-kaš* and *pan-su-uk-kaš*. The fraction ½ is written with the *maš* sign (No. 99).

Line 4: This line is altogether assumed. My copy continues without any sign of doubt from line 3 to line 5 of the present numbering, and I can only assume that my eyes jumped from one line beginning with the *na* sign to another beginning with the same sign. For admittedly we need mention of KÙ.BABBAR, GUŠKIN, or some other monetary medium in the line following line 3, and all we appear to have is DINGIR<sup>idg</sup>. While it might be argued that the latter is "lead," Sum. *a n n a*, Akk. *anāku* (ideographically normally AN.NA), this would be quite without parallel in the Persepolis texts and is improbable. That a *na* sign began the line is suggested by the fact that this genitive so frequently follows *pan-su-kaš* when the latter is preceded by *pīr-nu-šu* (or, in fact, by any designated fraction); see, for example, Nos. 14:12, 17; 25:18 ff.; 32:11 f.; 79:2; etc.

Line 5: If line 4 has been properly restored, we may perhaps see in [RUḪ<sup>idg</sup>-ip].na DINGIR<sup>idg</sup>, "(for) men (of) the god," a phrase somewhat similar to that of Fort. 6415:4 ff. and 7096:4 ff. (two almost identical tablets written on the same day by Pharnaces, son of Arsames, to two different people) in which is found an order that silver be given to » šá-tin-be » ak-ka<sub>4</sub>-be » ka<sub>4</sub>-a-ma-ru-(uk-)kaš.ma hu-ud-da-iš-ni DINGIR<sup>idg</sup> da-u-šá-um DINGIR<sup>idg</sup> na-(ap)-pan-na ap-pa » ka<sub>4</sub>-a-ma-ru-kaš.na, "priests who (are) in Kamarukka(sh); let them make libations of (to) the god who is of Kamarukka(sh)." The word *da-u-šá-um*, here translated "libation," is obviously the Elamite rendering of OP \**dausa*, Av. *zaōra-* (see above, pp. 6 f.), which means "liquid for pouring" or "act of pouring." In practice the Avestan word means either the libation itself or the office of the man who performs the libation, as Professor Kent reminds me; hence *hu-ud-da-iš-ni* DINGIR<sup>idg</sup> da-u-šá-um could be translated either "let them make a libation" or "let them perform the office of libator." In any case there is now—as there was not hitherto—good documentary evidence for the name of the chief performer of the Magian and Zoroastrian rites, Av. *zaotar*, modern Parsi *zâtî*, in Achaemenid times; perhaps, then, "men (of) the god" in our No. 10a has reference to him and his associates.

Although *ak-ka-be* must be the correct reading in this line in view of the somewhat similar text No. 27:8, the first sign of the group more closely resembles *du* or *ap*.

Lines 7-8: Restored on the basis of No. 27:15f. (cf. also No. 22:11f.) where the place name(?) will be examined in detail. The last two legible signs of line 8 seemed to be *te-be*-. . .] in Teheran, and perhaps we should restore neither *te-um-pi-* with No. 22:11 nor *te-um-ip-te* with No. 27:15, but *te-be-[ti]*, i.e., *tepti*. The possible meaning of the phrase will be discussed under No. 22.

A very few legible signs on the reverse of this badly damaged tablet suggested that there were once tabulated there the numbers of men etc. who were to be paid at differing wage scales: e.g., "*x* men, *y* shekels per month."

## PERSONNEL

*Bar-ra-ad-ka<sub>4</sub>-ma*, treasurer and addressee: See No. 1.

*Tar-ka<sub>4</sub>-a-ú-iš*, addressor: See No. 10.

*Ra-a-ma-ši-is-ra*. Surely the form of this name is identical with the Avestan compound adjective *raēvas-čīθra-*, "von reicher Herkunft, von vornehmer Abstammung" (*BAiW*, col. 1485). For the Elamite writing of the prior element cf. *da-a-ma*, OP *daiva*, Av. *daēva-*.

## DATE

The line bearing the year date was destroyed; the first month named could have been OP Adukanaisha (first month), Aciyadiya (ninth), or Anamaka (tenth).

## SEAL

Seal-type 1, with trilingual inscription beginning "I, Darius . . ."

## 10b

This tablet, which is somewhat larger than the average, is quite fragmentary and exceedingly fragile. Nearly all of the inscription was illegible. Parts of it, especially on the reverse, are completely obscured by melted iron and only the first two lines of the obverse could be made out:

- 1 *Țba-rad-ka<sub>4</sub>-ma ka<sub>4</sub>-ap-nu-iš-ki-ra tu<sub>4</sub>-[ru-iš]*
- 2 *Țtar-ka<sub>4</sub>-a-ú-iš[š na-an-KI.MIN . . .]*

The individuals named are those of Nos. 10-10a; where the latter in describing Baradkama as "treasurer" uses the OP title, this text employs the Elamite equivalent *ka<sub>4</sub>-ap-nu-iš-ki-ra*. The word, though not its meaning, was already known from the texts of *Mém.*, IX, e.g., Nos. 3:7 f.; 6:13, etc., where it is written *kap-nu-iš-ki-ra* (and, in the plural, *kap-nu-iš-ki-ip-pe*), though Père Scheil said of it that it "should denote a profession." The word "Treasury" appears in our texts as *ka<sub>4</sub>-ap-nu-iš-ki*.

By its apparent etymology the OP word *\*ga<sup>n</sup>za-bara* means "treasure bearer." The Elamite equivalent, here first evident, would seem to mean something like "treasure(?) tender, guarder." While no Elamite word *kap* appears in sufficiently intelligible context for us to determine its meaning with accuracy, a verb *nu-iš-gi/ki-* is already familiar from royal inscriptions as the equivalent of OP *pā*, Akk. *našāru*, "(to) guard, protect." It is found again in No. 38:8 f. as an epithet applied to certain workers at Persepolis who are designated as <sup>aiš</sup>ú.SA-*nu-iš-ki-ip*, "beer tenders," as also in No. 46:6, where *ki-iš-nu-iš-ki-ip* (which probably represents *kaš-nu-iš-ki-ip*) should have the same or a similar meaning. All this would imply that the Elamites already had their own professional titles which they normally substituted for those current among the Persians, and that many Persian titles (such as those ending in *-bara*, for example) had already so lost their original meanings or significance that the Elamites would not always attempt to translate them literally.

Frequently, however, they did translate such titles literally. Thus, for example, since the normal Elamite equivalent of OP *-bara* would be *kuti-* (or *kukti-*), OP *vaça-bara*, "bow bearer," is literally translated *li-ip-te ku-uk-ti-ra* in DNd; thus also there may have been in use among the Persians such a title as "wine bearer" which was literally rendered as <sup>aiš</sup>GEŠTIN<sup>idz</sup>-*ku-ti-ra* as it is found applied to one *Ū-šá-ia* in a letter addressed to him by Pharnaces (*Bar-na-ak-ka<sub>4</sub>*) in the twenty-second year of Darius (Fort. 6415:1) and which is also given to *Ū-da-na* (Otanés) in No. 36 of the present publication.

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## 11

	1	<i>5 pan-su-kaš a-ak ša-dš-maš</i>	5 shekels and a fourth
	2	KI.MIN KÙ.BABBAR <sup>idg</sup> <i>kur-mín</i> » <i>šá-ak-</i>	(of) the same, silver, (which) by the hand
	3	<i>ka<sub>4</sub>.an-na 1</i> » RUḪ <sup>idg</sup> <i>ra-ti-</i>	of Shakka, 1 man, a haoma
	4	<i>ú-u-iš hu-ut-ti-ra</i>	priest ( <i>raθwiš-kara</i> )
	5	» <i>ba-ir-šá</i> » <i>ba-rad-ka<sub>4</sub>-ma</i>	(at) Parsa, (for whom) Baradkama
	6	<i>šá-ra-man-na hu-pír-ri</i>	is responsible, he
Edge	7	<i>du-iš</i> UDU.NITÁ <sup>idg</sup> <i>šá-ag-</i>	has received. Sheep (serve)
	8	<i>gi.ma 1</i> KI.MIN. <i>na 3</i>	as the equivalent (of the money): 1 of the same
Rev.	9	<i>pan-su-kaš</i> KÙ.BABBAR <sup>idg</sup> DINGIRITU <sup>idg</sup>	(for) 3 shekels silver. Months:
	10	<i>ka<sub>4</sub>-ir-ba-ši-ia me-šá.na.</i>	from the later (intercalated) Karbashiya
	11	<i>ik-ki.mar ku-iš</i> DINGIRITU <sup>idg</sup>	up to (and including) the month
	12	<i>mi-kán-na.na PAB 7</i> DINGIRKI.MIN.	of Viyaxna—within a total of 7 of the same
	13	<i>ha-tu.ma</i> » <i>be-ul 2-na</i>	of the second year.
	14	<i>1</i> » RUḪ <sup>idg</sup> <i>3 ša-dš-maš.na du-man-ra</i>	1 man, 3 fourths (of a shekel) he was receiving
	15	DINGIRITU <sup>idg</sup> <i>-tan-na</i>	per month.

## CONTENTS

This “memorandum”-type document reveals that a haoma priest at Persepolis has been paid the equivalent in sheep of 5½ shekels of silver (at the rate of three shekels for one sheep) by the hand of Shakka. Baradkama (the treasurer) was responsible for the payment, which was for services rendered from the beginning of the intercalated sixth month through the twelfth month of the second year (of Xerxes). The scribe correctly computes the payment as for one man, three-fourths of a shekel per month for seven months.

## NOTES

Line 1: *ša-dš-maš*, “a fourth”: See p. 38.

Lines 3–4: *ra-ti-ú-u-iš hu-ut-ti-ra*. Since the OP equivalent of the Elamite verb *hu-ut-ti-ra*, “he made, maker,” would be *-kara*, this compound is quite obviously the OP equivalent of Avestan *raθwiš-kara*, Pahlavi *raθwiškar*, the name of one of the seven Zoroastrian priests whose particular function it is to mix the haoma and the milk and to apportion the mixture (see above, pp. 5 f.), and whose modern descendant among the Parsis, the *Raspi*, alone stands beside the chief priest or *zotar* as the one whose services can least be dispensed with. In the Nirangistan, § 79, we are told that he and the Frabaretar stand on the left side (of the fire altar) in front of the Barsom (for a description of the haoma ceremony as performed in ancient and in modern times, see Haug, *Essays*, pp. 393 ff., and J. J. Modi [article, “Haoma”] in James Hastings [ed.], *Encyclopaedia of Religion and Ethics*, VI [1914], 506 ff.).

Line 15: The significance of *-tan-na*, which here as in Nos. 12, 14, 21, and 23 sometimes replaces the far more usual *-na* following the ideographic group meaning “month,” escapes me. Note that in No. 14 *-tan-na* occurs but once while *-na* appears twice.

## PERSONNEL

*Šá-ak-ka<sub>4</sub>*, paymaster: See No. 1.

*Ba-rad-ka<sub>4</sub>-ma*, the responsible party: See No. 1. Presumably he is the treasurer.

## DATE

The payments are computed for a period from the beginning of the intercalated Karbashiya (Ululu) to the end of Viyaxna (Addaru) of Xerxes’ second year, or from September 19, 484, through February 13, 483 B.C. The tablet itself was probably written subsequent to the latter date.

## SEAL

Seal-type No. 26, which appears also on Nos. 20 (year 4) and 26 (year 10), without visible inscription.

## 12 (Pl. VII)

	1	[ <i>ʔ ba-rad-ka</i> ] <sub>4</sub> - <i>ma</i> <i>ʔka</i> <sub>4</sub> - <i>a</i> [ <i>p-nu-iš-ki-ra</i> ]	(To) Baradkama the treasurer
	2	[ <i>u</i> <sub>4</sub> - <i>ru-iš</i> ] <i>ʔdš-ba-ša-na</i> <i>ʔna-an-KI.MIN</i> <sup>1</sup>	speak, Aspathines says:
	3	3 ME 50 <i>ʔ</i> <sup>1</sup> <i>kur-šd-um</i> 9 <i>pan-su-kaš</i> <i>pír-na-šu</i>	357 karsha, 9 shekels (and) a half
	4	[ <i>pan</i> ]- <i>su-kaš.na</i> KÙ.BABBAR <sup>idg</sup> <i>ap</i> <i>sì.sì-du</i> » <i>kur-taš</i>	of a shekel, silver, give to them, (to) workmen
	5	[ <i>gal ma-ki</i> ]- <i>ip</i> » <i>ba-ir-šd</i> » <i>ma-u-iš</i> <i>šd-ra-man-na</i>	earning wages (at) Parsa (for whom) Vahush is responsible
	6	[» <i>at-t</i> ] <i>i-ip</i> <i>ú-iš-pír-ʔna</i> <sup>1</sup> - <i>iš-be</i> » <i>hi-ia-an-na</i> .	—(they are) Hattian (Syrian) “laborers” upon the columned hall.
	7	[ <i>uk-ku</i> ] UDU. <sup>1</sup> NITÁ <sup>1</sup> <sup>idg</sup> <i>a-ak</i> <sup>1</sup> GEŠTIN <sup>1</sup> <sup>idg</sup> <i>šd-ak-ki-me</i>	Sheep and wine (are) the equivalent (of the money):
	8	1 UDU.NITÁ <sup>idg</sup> 3 <i>pan-su-kaš</i> <i>a-ak</i> 1 <i>mar-ri-iš</i>	1 sheep, 3 shekels, and 1 jug
	9	GEŠTIN <sup>idg</sup> 1 <i>pan-su-kaš</i> KÙ.BABBAR <sup>idg</sup> <i>gal</i> DINGIR <sup>1</sup> ITU <sup>idg</sup> DINGIR <sup>1</sup> ba- <i>ki-</i>	(of) wine, 1 shekel, silver. Wage (of) the months of Baga-
	10	<sup>1</sup> <i>ia-ti-iš</i> <sup>1</sup> . <i>na</i> DINGIR <sup>1</sup> mar- <i>ka</i> <sub>4</sub> - <i>šd-na</i> DINGIR <sup>1</sup> ha- <i>ši-ia-ti-iš</i>	yadi, Varkazana, Açıyadiya,
	11	DINGIR <sup>1</sup> ha- <i>na-ma</i> <sup>1</sup> - <i>kaš</i> DINGIR <sup>1</sup> ( <sup>1</sup> ) <i>sa-mi-ia-ma-iš.na</i> DINGIR <sup>1</sup> <i>mi-ia-</i>	Anamaka, of Samiamantash,
Edge	12	<sup>1</sup> <i>kán-na-iš</i> <sup>1</sup> . <i>na</i> PAB 6 DINGIR <sup>1</sup> ITU <sup>idg</sup> <i>ha-tu.ma</i>	of Viyaxna: within a total (of) 6 months
	13	» <i>b[e-ul 2]-um-me.na</i> (erasure) » RUḪ <sup>idg</sup> » <i>da-šd-bat-</i>	of the 2nd year. (It is paid to) men (who are)
Rev.	14	[ <i>ti-iš</i> ] <sup>1</sup> <i>a-ak</i> » <i>da-šd-bat-ti-iš-me.ma</i>	chiefs-of-ten and (who belong) to (the class of) the chiefs-of-ten.
	15	80 <sup>1</sup> <i>ʔ</i> » RUḪ <sup>idg</sup> <i>un-ra</i> DINGIR <sup>1</sup> ITU <sup>idg</sup> - <i>tan-na</i>	84 men, each, per month,
	16	3 <i>pan-su-kaš</i> KÙ.BABBAR <sup>idg</sup> <i>du-man-ba</i> 50 <sup>1</sup> » RUḪ <sup>idg</sup>	3 shekels, silver, they (!) are receiving; 57 men,
	17	<i>un-ra</i> DINGIR <sup>1</sup> ITU <sup>idg</sup> - <i>tan-na</i> 2 <i>pan-su-kaš</i> KÙ.BABBAR <sup>idg</sup> <i>du-man-ba</i>	each, per month, 2 shekels, silver, they (!) are receiving;
	18	70 4 <sup>1</sup> » RUḪ <sup>idg</sup> <i>un-ra</i> DINGIR <sup>1</sup> ITU <sup>idg</sup> - <i>tan-na</i> 1 <i>pan-su-kaš</i>	74 men, each, per month, 1 shekel (and)
	19	3 <i>ša-šu-iš-ma</i> <i>pan-su</i> (!)- <i>kaš.na</i> KÙ.BABBAR <sup>idg</sup> <i>du-man-ba</i>	3 fourths of a shekel, silver, they are receiving;
	20	19 » RUḪ <sup>idg</sup> <i>un-ra</i> DINGIR <sup>1</sup> ITU <sup>idg</sup> - <i>tan-na</i> 1 <i>pan-su-kaš</i>	19 men, each, per month, 1 shekel (and)
	21	1 <i>ša-šu-iš-ma</i> <i>pan-su-kaš.na</i> KÙ.BABBAR <sup>idg</sup> <i>du-man-ba</i> (!) 70 9 <sup>1</sup> » <sup>1</sup>	1 fourth of a shekel, silver, they are receiving; 79
	22	RUḪ <sup>idg</sup> <i>un-ra</i> DINGIR <sup>1</sup> ITU <sup>idg</sup> - <i>tan-na</i> 1 <i>pan-su-kaš</i> KÙ.BABBAR <sup>idg</sup>	men, each, per month, 1 shekel, silver,
	23	<i>du-man-ba</i> PAB 3 ME 13 » <i>kur-taš</i> DINGIR <sup>1</sup> ITU <sup>idg</sup>	they are receiving. Total: 313 workmen. (In the month
	24	DINGIR <sup>1</sup> <i>kar-ma-ba-taš.na</i> » <i>be-ul</i> 3- <i>um-me.na</i>	of Garmapada of the 3rd year
	25	» <i>hal-mi hi li-ka</i> <sub>4</sub> » <i>da-ad-da tal-li-iš-da</i>	this sealed order has been given. Dadda inscribed (it),
Edge	26	<i>du-um-me</i> » <sup>1</sup> <i>šd</i> <sup>1</sup> -[ <i>ak-ka</i> <sub>4</sub> . <i>ik</i> ]- <i>ka</i> <sub>4</sub> . <i>mar</i>	the receipt from Shakka(?)
	27	<i>du-i</i> [ <i>š-d</i> ] <i>a</i>	he received.

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The treasurer Baradkama is informed by Aspathines (who in all probability is the famous “bow bearer” of Darius) that the Treasury balance is to be decreased by the sum of 357 karsha, 9½ shekels, which is to be given to workmen who are earning (food) wages at Persepolis, with Vahush being responsible. The workmen are, ap-



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parently, Syrian (Hattian) laborers ("up-carriers") who are employed upon the building(s). Sheep and wine replace money in the payment, at the usual rate of three shekels for one sheep, one shekel for a jar of wine. The payments cover the period from the seventh month through the twelfth month of the second year, but the tablet was prepared only in the fourth month of the third year. The payments are computed as follows:

MEN	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
84	3	25	2
57	2	11	4
74	1½ (=1;45)	12	7;50
19	1¼ (=1;15)	2	3;45
79	1	7	9
<hr/> Total 313 workmen		59	6;35 ×6 months
		<hr/> 357	<hr/> 9;30

As the phrase has been interpreted above, a sealed (parchment) order (*hal-mi*) was tied to the document. The scribe was Dadda, and a receipt was secured from Shakka.

## NOTES

Line 6: For the restoration to *ṣ-at-ti-ip*, "Hattians," i.e., Syrians, see Nos. 15:5 (year 3) and 22:5 (year 6).

*Ū-iš-pir-na-iš-be*, normally written *ū-iš-bar-na-iš-be*. No similar Elamite form or word is known to me, and we may suspect an OP loan word. Since post-vocalic *š* in Elamite, preceding another labial, may represent OP *z* (as in El. *Ma-ra-iš-mi-iš* = OP *Uvārazmiya*; but note El. *Mi-iš-ba-u-ša-ti-iš* = OP *Višpauzātiš*), the beginning *ū-iš* may represent OP *uz* (cf. El. *Ū-ip-ra-du(?)i-š* = OP *Ufrātūwā*). As Professor Kent suggests to me, therefore, the word may be an OP word containing the prefix *ud-*, "up (from under), away" (which appears in Avestan usually in the combining form *us-* or *uz-*), plus the root *bar-*, "(to) bear, carry," plus the participial suffix *-na-*, with form and meaning similar to Av. *uzbar-* (*BAiW*, cols. 938 f.). The tentatively proposed OP word is, then, *\*uzbarna*, which is here followed by the Elamite terminations *š* and *-be*, the latter marking the personalized plural. The meaning may be primarily "carriers of something from below upwards," perhaps the equivalent of our "hodcarriers." Note that the word may, in No. 22:7, be paralleled by *ra-ab-ba-ab-ba*, q.v.

Lines 13-14: *da-šá-bat-ti-iš* (see above, p. 40). The *-me* in the second occurrence of this word would seem to be factual and the word could therefore indicate the class to which the men enumerated belong. In No. 15:16-17, we have "chiefs-of-ten and assistant chiefs-of-ten"—i.e., the latter specifically designates the men intended to receive the money whereas our present text gives a very general idea.

## PERSONNEL

*Ba-rad-ka<sub>1</sub>-ma*, addressee and treasurer: See No. 1.

*Áš-ba-ša-na*, addressor (also in Nos. 12a and 14): Aspathines, whose seal impression (see below) marks him as the son of "Prexaspes." Herodotus (iii. 70, 78) assigns Aspathines (paternity not given) to the group of six conspirators who, with Darius, accomplished the overthrow of the false Smerdis and whose activities were assisted by the timely announcement of Prexaspes, Cambyses' chief usher (*hazarapatiš* and *chiliarch*; cf. P. J. Junge, "Hazarapatiš," *Klio*, XXXIII, 1/2 [1940]). Later, Herodotus (vii. 97) names Aspathines as the father of one Prexaspes, an admiral of the fleet. In all probability there is but one Aspathines here involved; in any event, we note that Aspathines is in Herodotus (iii. 70) closely associated with Gobryas. Although Darius himself does not accredit Aspathines to the original group of conspirators, he does reveal the intimate association between Gobryas and Aspathines, and on the tomb relief (DNC-d) these two alone of all the followers of Darius are portrayed: Gobryas as "spear bearer," Aspathines as "bow bearer of Darius the king, (who) holds the battle mace" (see last Kent, "Old Persian Texts. VII," *JNES*, IV [1945], 233). Consequently the addressor of this tablet is almost undoubtedly none other than the fabled Aspathines, son of Prexaspes, bow bearer of Darius.

*Ma-u-iš* (in other tablets *Ma-u-ū-iš*), appears in responsible position from the third through the nineteenth year (of Xerxes); he is first denominated "treasurer" in the twelfth year. The name is identical with Elamite writings of the concluding part of the name of Darius (*Da-ri-ia-ma-u-iš*); hence the OP element involved is *va<sup>h</sup>u*, "good."

*Da-ad-da*, scribe: Compare No. 6.

*Šá-ak-ka*<sub>4</sub> (this may not, of course, be correct, but traces of the first sign well conform to *šá*), who delivers a "receipt": See No. 1.

## DATE

The tablet is itself dated in the month Garmapada (Duzu) of Xerxes' third year (July 11–August 9, 483 B.C.), and computes payments for a period ending three months earlier, from the first of Bagayadi (Tashritu) through Viyaxna (Addaru), of the second year of Xerxes—i.e., from October 19, 484, through April 13, 483 B.C.

## SEAL

Type 14, also on Nos. 12a–b and 14. The incomplete and carelessly cut inscription on the seal impression is perhaps best read as follows (with exclamation point marking signs left incomplete or cut inaccurately by the seal cutter): <sup>1</sup>*ʾáš-<sup>2</sup>ba-ša* <sup>3</sup>*DUMU pa-<sup>4</sup>ir(!)-rāk(!)-<sup>5</sup>dš(!)-<sup>6</sup>pi-na(!)*, "Aspathines, son of Prexaspes." Note that in this reading the name of Aspathines lacks its final syllable *na* in line 2. In line 4, *ni* is written for *ir*, *rāk* is missing one horizontal wedge, and only the vertical of the *dš* sign appears ever to have been written. In line 5 the final *na* appears to need one more horizontal. This is a surprising number of errors for one seal inscription, although it is not without parallel (in Seal-type No. 3 the name of Darius himself is miswritten in all three languages). While I believe that the above reading is preferable for the name of the father, the last two signs could perhaps be read as *is-na*, *pi-is*, or *pi-ka*<sub>4</sub>.

## 12a

	1	<sup>1</sup> <i>ʾba<sup>1</sup>-rad-ka<sub>4</sub>-ma</i> <sup>2</sup> <i>ka<sub>4</sub>-ap-nu-i[š-ki-ra]</i>	(To) Baradkama the treasurer
	2	<sup>3</sup> <i>ba-ir-šá tu<sub>4</sub>-ru-iš</i> <sup>4</sup> <i>» dš-b[a-ša-na]</i>	(at) Parsa speak, Aspathines
	3	<i>na-an-KI.MIN 50 kur-šá-um 3 pan-[su-kaš]</i>	says: 50 karsha, 3 shekels,
	4	<i>KÙ.BABBAR<sup>idg</sup> ap si.sì-du gal</i> <sup>5</sup> <i>» ku[r-taš . . .]</i>	silver, give to them (as) the wages of workmen
	5	. . . .	. . . .
Rev.	x+1	<i>[x<sup>1</sup>ap-pi(?) pa-ri-ma-na(?)]<sup>1</sup> [DINGIR<sub>1</sub>ITU<sup>idg</sup>]</i>	(wages) which to them are to go. Month
	x+2	<i>DINGIR<sub>1</sub>ha-du-<sup>1</sup>kán<sup>1</sup>-nu-ia [x-x<sup>1</sup>]</i>	Adukanaisha
	x+3	<i>» be-ul 3-um-me.n[a DINGIR<sub>1</sub>ITU<sup>idg</sup>]</i>	of the 3rd year. (In) the month
	x+4	<i>DINGIR<sub>1</sub>kar-<sup>1</sup>ma(!)<sup>1</sup>-ba-taš.na</i> <sup>2</sup> <i>» [hal-mi hi]</i>	of Garmapada this sealed order
	x+5	<i>li-ik-ka<sub>4</sub> » mi-iš-šá-[ . . . tal]-</i>	was given. Mishsha- . . . wrote
	x+6	<i>li-iš-da du-um-me [ . . . ]</i>	(the document), the receipt from [ . . . ]
	x+7	<i>ti(?) ik-ka<sub>4</sub>.mar du-[iš]</i>	he received.

The seal impression (type 14) on this tablet is rather well preserved, and its legend helped to determine the paternity of that Aspathines who is the addressor of the tablet inscription. Unfortunately, however, the written portion of the document had been crushed while moist and of the obverse only the first four lines could be read with any degree of certainty. The reverse, too, was difficult to read, but barring line x+1 the above seemed rather certain.

## 12b

Only half of this tablet is preserved, with the first lines of the obverse (and, consequently, the last lines of the reverse) completely missing. The reading of legible lines is given solely because the preserved portions of the obverse correspond closely to lines 9–13 of No. 12. The badly damaged reverse was not copied; it appeared to be computations similar in character to lines 15–22 of No. 12, with those lines missing which may have corresponded to lines 23–27. The seal impression is type 14, like the preceding.

<i>circa</i>	8	<i>gal DINGIR<sub>1</sub>ITU<sup>idg</sup> ba-gi-ia-ti-iš.na a-ak [DINGIR]</i>
	9	<i>mar-ka<sub>4</sub>-šá-na-iš.na DINGIR<sub>1</sub>ha-<sup>1</sup>šá<sup>1</sup>-ia-ti-[iš.na]</i>
	10	<i>DINGIR<sub>1</sub>ha-na-ma-kaš.na DINGIR<sub>1</sub>sa-mi-ia-man-ti<sup>1</sup>.na<sup>1</sup></i>
	11	<i>DINGIR<sub>1</sub>mi-kán-nu-iš.na PAB 6 DINGIR<sub>1</sub>ITU<sup>idg</sup> ha-[tu.ma]</i>
	12	<i>» be-ul 2-um-me-man-na [ . . . ]</i>

## 13 (Pl. VIII)

	1	<i>Tba-rad-ka<sub>4</sub>-ma tu<sub>4</sub>-ru-iš</i>	(To) Baradkama speak,
	2	<i>Tar-ka<sub>4</sub>-a-ú-iš na-an-KI.MIN</i>	Darkaush says:
	3	<i>13 kur-šá-um(!) a-ak 1 pan-su-kaš a-ak</i>	13 karsha and 1 shekel and
	4	<i>3 ša-iš-šu-iš-maš pan-su-kaš.na</i>	3 fourths of a shekel,
	5	<i>KÙ.BABBAR<sup>idg</sup> » kur-taš du-ma-kaš-be gal ma-</i>	silver, (to) workmen of the . . . , earning wages
	6	<i>ki-ip » ba-ir-ša.iš » ma-u-iš</i>	at Parsa, (for whom) Vahush
	7	<i>šá-ra-man-na » ak-ka<sub>4</sub>-be ú-iš-</i>	is responsible, (workmen) who (are) "laborers"
	8	<i>bar-na-iš-be » hi-ia-an.uk-ku</i>	on the columned hall,
	9	<i>hu-pi-be gal.ma ap šì.šì-du</i>	to them, for wages, give.
	10	<i>UDU.NITÁ<sup>idg</sup> a-ak <sup>aiš</sup>GEŠTIN<sup>idg</sup> šá-ag-</i>	Sheep and wine (serve) as the equivalent (of the money):
	11	<i>gi.ma 1 UDU.NITÁ<sup>idg</sup> 3 pan-su-kaš</i>	1 sheep (for) 3 shekels,
Edge	12	<i>1 mar-ri-iš <sup>aiš</sup>GEŠTIN(!)<sup>idg</sup> 1 pan-su-kaš.</i>	1 jug (of) wine for 1 shekel—
	13	<i>uk-ku pí-r-ru-mu-si-ka<sub>4</sub> gal <sup>DINGIR</sup>ITU<sup>idg</sup></i>	(at the rate) fixed by edict. The wage (is for) the months
Rev.	14	<i><sup>DINGIR</sup>sa-a-ak-ri-iš-ši-iš a-ak</i>	Thaigarci and
	15	<i><sup>DINGIR</sup>kar-ma-ba-taš <sup>DINGIR</sup>tur-na-ba-ši-</i>	Garmapada, Darnabaji,
	16	<i>iš <sup>DINGIR</sup>ka<sub>4</sub>-ir-ba-iš-ši-iš PAB 4 <sup>DINGIR</sup>ITU<sup>idg</sup>.</i>	Karbashiya—within a total of 4 months
	17	<i>ha-tu.ma » be-ul 3-na.ma</i>	in the 3rd year.
	18	<i>4 » RUḪ<sup>idg</sup> un-ra <sup>DINGIR</sup>ITU<sup>idg</sup>.na(!) 1 pan-</i>	4 men, each, per month, 1 shekel
	19	<i>su-kaš a-ak 3 ša-iš(!)-šu-iš-maš pan-su-kaš.na</i>	and 3 fourths of a shekel
	20	<i>a-ak 8 ir-ma-ka<sub>4</sub> pan-su-kaš.na</i>	and an eighth of a shekel
	21	<i>du-man-ra</i>	is to receive.
	22	<i>11 » RUḪ<sup>idg</sup> un-ra <sup>DINGIR</sup>ITU<sup>idg</sup>.na 1 pan-</i>	11 men, each, per month, 1
	23	<i>(erasure) su<sup>1</sup>-kaš du<sup>1</sup>-man-ba</i>	shekel they are to receive.
	24	<i>11 » <sup>1</sup>RUḪ<sup>idg</sup> un<sup>1</sup>-[ra] <sup>DINGIR</sup>ITU<sup>idg</sup>.na</i>	11 men, each, per month,
	25	<i>[ša-iš-šu-iš-maš pan]-<sup>1</sup>su-kaš.na<sup>1</sup></i>	a fourth of a shekel
	26	<i>[a-ak 2.9 ir-ma-ka<sub>4</sub> pan-su-kaš].na du-man-ba</i>	and 2 ninths of a shekel they are to receive.
Edge	27	<i>[x » RUḪ<sup>idg</sup> un-ra <sup>DINGIR</sup>ITU<sup>idg</sup>.na]</i>	<i>x</i> men, each, per month, . . . .
	28	<i>[x . . . pan]-su-kaš.na</i>	. . . . of a shekel.
	On left margin, beginning on reverse (replacing the last item?):		
	29	<i>11 » RUḪ<sup>idg</sup> un-ra <sup>DINGIR</sup>ITU<sup>idg</sup>.na pí-r-nu-šu pan-su-kaš a-ak <sup>1</sup>šì-iš<sup>1</sup>-maš pan-su-kaš.na</i>	11 men, each, per month, a half shekel and a third of a shekel.
	On right end:		
	30	<i>PAB 37 » kur-taš</i>	Total: 37 workmen.
	31	<i>» mu-iš-ka<sub>4</sub> tal-li-iš du(!)-</i>	Mushka wrote (the document),
	32	<i>me » ir-da-ka<sub>4</sub>-ia.mar</i>	the receipt from Irdakaia
	33	<i>du-iš</i>	he received.

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Darkaush informs (the treasurer) Baradkama that the sum of 13 karsha, 1 $\frac{3}{4}$  shekels of silver is to be paid to workmen who are entitled to draw wages from the Persepolis Treasury. Apparently under the supervision of Vahush, these workmen are designated as laborers ("up-carriers") upon structures at Persepolis. No money changes hands, however; the payments are made in sheep and wine at the standard rate (as announced by [royal?] edict) of three shekels for a sheep, one shekel for a jar of wine. The period of work is from the third to the sixth month (inclusive) of Xerxes' third year, and thirty-seven workmen are involved. Mushka the scribe wrote the tablet after obtaining a receipt from Irdakaia.

## PERSEPOLIS TREASURY TABLETS

Lines 25–28 are so damaged that the scribal computations cannot be completely checked. The normal procedure is for the scribe to cover the tablet with lines of writing as usual; then, if more space is needed, to write on the right end. If still more space is demanded, the scribe writes one or more lines on the left margin of the tablet, perhaps all the way around it. On this tablet this procedure appears to be violated; the line which is written on the left margin clearly belongs within the main body of the text, while those lines on the right end just as clearly are the final lines of the tablet. In view of the fact that the visible numbers of men enumerated in lines 18, 22, 24, and 29 total thirty-seven, agreeing with the scribe's own total in line 30, it is possible that the line on the left margin (l. 29) is a somewhat later addition intended to correct an erroneous enumeration in lines 27–28, for the (partially restored) totals as secured by the computations below agree closely with the scribe's own totals stated in lines 3–4. Perhaps, therefore, the damage which the tablet has suffered at this point is attributable, at least in part, to an intentional mutilation.

The scribe may, therefore, have intended to set forth these figures:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
4 men	$1\frac{3}{4} + \frac{1}{8}$ (= 1;52,30)		7;30
11 "	1		11
11 "	$\frac{1}{4} + \frac{2}{5}$ (= 0;28,20)		5;11,40
11 "	$\frac{1}{2} + \frac{1}{3}$ (= 0;50)		9;10
<hr style="width: 100%; border: 0.5px solid black;"/> Total 37 workmen			<hr style="width: 100%; border: 0.5px solid black;"/> 32;51,40
			× 4 months
		13	1;26,40

i.e., 13 karsha,  $1\frac{1}{2} + \frac{1}{4}$  shekels. This is close to, but does not agree exactly with, the scribe's totals of 13 karsha, 1 shekel, and three-fourths of a shekel.

## NOTES

Line 5: *du-ma-kaš-be*. One wedge of the sign read as *du* is very faint, and a reading *na-ma-kaš-be* could be considered were it not for the fact that the sign concerned is identical with the certain *du* in lines 9 and 21. Except for suggestions made below in No. 68, search for a parallel word or formation has proved fruitless. The final *-be* indicates a personalized plural form, and the preceding *š* may or may not indicate that the word has been borrowed by the Elamites. Derivation from the root *du-* (with its expanded *-ma(n)-* as seen in *du-man-ra*, *du-man-ba*) seems improbable, but I find no OP or Avestan word (such as *dwaxš* or *θwaxš*) which could give suitable meaning in the context. For its possible meaning we may compare  $\gg$  *kur-taš ka<sub>4</sub>-ap-nu-iš-ki-ip*, "workmen of the Treasury" (e.g., in Nos. 40:3 f.; 45:3; 66:3), or  $\gg$  *kur-taš mar-ri-ip*, "workmen, artisans" (e.g., in Nos. 69:4; 70:3; 71:4).

Lines 7–8: *ú-iš-bar-na-iš-be*. See No. 12.

Line 13: *pír-ru-mu-si-ka<sub>4</sub>*. This word or phrase, here translated "fixed by edict," appears in a variety of forms:

<i>pír-ru-mu-si<sup>2</sup></i>	<i>pír-ru-mu-iš-si<sup>3</sup></i>
<i>pír-ru-mu-si-ka<sub>4</sub><sup>4</sup></i>	<i>pír-ru-mu-iš-si-ka<sub>4</sub><sup>5</sup></i>
<i>pír-ma-mu-šá-gi<sup>6</sup></i>	
<i>pír-ru-mu-šá-ka<sub>4</sub><sup>7</sup></i>	<i>pír-ru-mu-iš-šá-ak<sup>8</sup></i>
<i>pír-ma-mu-šá-iš<sup>9</sup></i>	<i>pír-ru-mu-iš-šá-iš<sup>10</sup></i>
	<i>pír-ru-mu-iš-šá-iš-da<sup>11</sup></i>
<i>pír-ru-tak-šá-ka<sub>4</sub><sup>12</sup></i>	
<i>pír-ru-uk-ku<sup>13</sup></i>	

<sup>2</sup> 26:10.

<sup>8</sup> 22:20 f.

<sup>3</sup> 15:12.

<sup>9</sup> 27:26.

<sup>4</sup> 13:13; 16:9 f.

<sup>10</sup> 18:28 f.

<sup>5</sup> 15:31; 18:8 f.; 19:10 f.

<sup>11</sup> 22:25 f.

<sup>6</sup> 27:22.

<sup>12</sup> 21:15.

<sup>7</sup> 28:9 f.; 29:13.

<sup>13</sup> 30:11 f.

The first two signs are *pīr-ru* in all save two occurrences, where they are written *pīr-ma*. Hence it might be thought that comparison with a six-times recurring *pīr-ru* in DB would be profitable. In DB, §§ 26–30 and 46, there is the phrase:

Elamite: ʾbe-ti-īp *pīr-ru ir-šá-ir-ra-ib-ba*  
 Old Persian: *hamiçiyā haʾgmatā*  
 Akkadian: *nīkrūtu iphurūnimma*

Foy, in "Beiträge zur Erklärung der altpersischen Achaemenideninschriften," *Zeitschrift für vergleichende Sprachforschung*, XXXVII (1904), 511 f., explained this *pīr-ru* as an expansion of *pīr* (as it occurs in *pīr-šá-ti-ni-ka*, OP *dūray apiy*, "far and wide"); Bork, *op. cit.*, p. 20, joined *pīr-ru* to the following to form a new verb by his reading *pīr-ru-ir-šá-ir-ra-ib-ba*. I have long thought that the above DB "form" was merely a connecting link between the preceding *petip*, "rebels," and the following verb, which could be a reduplication of the verb *ir-šá(-ir)*, *ri-šá(-ir)*, "(to) be great," so that the writing, normalized as *petippi (r)rīršarra(i)ppa*, actually represented *petip rīršaripa*, or similarly, and was perhaps to be translated "the rebels increased (in number), made (themselves) larger," or the like. If this interpretation is correct there is no "word" *pīr-ru* known at present in Achaemenid Elamite, and even if it is not we have gained nothing toward an understanding of our forms in the Treasury texts.

The deviating methods of writing the phrase in our tablets lead one to suspect that the Elamite scribes are trying to reproduce a word foreign to the Elamite language. However, such endings as *-ak* and *-ka*, *-iš* and *-iš-da*, could indicate that the word has been, so to speak, "Elamitized"—that is, good Elamite verbal endings have been applied to the borrowed word. This suspicion is heightened by various OP words which are written as follows in Elamite:

*Fravartiš* : *Pīr-ru-mar-ti-iš*  
*Frāda* : *Pīr-ra-da*  
*framātāram* : *pīr-ra-ma-da-ra-um*  
*frašam* : *pīr-ra-šá-um*<sup>14</sup>

The first example indicates that El. *pīr-ru-m*<sup>o</sup>- renders OP *frav*<sup>o</sup>-; if our word is truly OP we can expect it so to begin.

Unfortunately our analysis henceforth becomes more unstable. Two writings which present great difficulty are *pīr-ru-tak-šá-ka*, and *pīr-ru-uk-ku*; perhaps the latter could represent some such form as OP \**fravukku* or the like, but the clear *tak* sign in the former can scarcely be said to have been intended for *mu*, although we may be forced so to conclude. In any event I have found no form in OP or Avestan which satisfactorily explains all the writings.

Nevertheless, we may not be far wrong if we relate our word to Av. *frāvak*-, a combination of the prefix *frā*- and the verbal root *vak*- which means "edicere, enuntiare" (*BAiW*, cols. 1331 f.), and which in the Gathas appears in such forms as:

*frāvaočā* (Yasna XXXIV:12; XLVI:7), "do thou proclaim"  
*fravaxšyā* (Yasna XLIV:6; XLV:1), "I will speak, proclaim"  
*fraoxtā* (Yasna XLVIII:1), "(things) which were proclaimed"

Although we may be unable to determine the exact form such an Avestan word would take in OP, there is perhaps sufficient basis for assuming that Elamite renderings of it would take some of the forms which appear above.

The meaning is just what we require. Without such a phrase as "(equivalent rate) as fixed by edict" or the like, we would justifiably question why the rate of exchange or "equivalent" is *always* figured in terms of one sheep for three shekels, one jug of wine for one shekel; with it, our phrase—like *mašihu ša šarri*, "the king's measure," in Achaemenid Babylonia—expresses the fact that this was the "standard" rate of exchange, i.e., standard by royal or other edict, pronouncement, or command. In other words, this rate has been "promulgated, proclaimed" to be the standard. While we might have expected in this context some form of the Avestan and OP verb *frāmā*-, which means specifically "als Norm aufstellen, anordnen, befehlen" (*BAiW*, col. 1166), it must be confessed that the possible OP derivatives of Av. *frāvak*- better agree with the Elamite forms we possess, and fit almost as well with the meaning which seems to be demanded.

<sup>14</sup> An apparent *pīr-ra-ma-ak* in the DSz inscription does not exist despite Brandenstein's ingenious suggestion ("Die neuen Achämenideninschriften," *WZKM*, XXXIX [1932], 73, 74, n. 4) that this may be OP *fra-mā*-; cf. Weissbach, "Achämenidisches," *ZDMG*, XCI (1937), 83 and 86.

## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*: See No. 1.

*Tar-ka<sub>4</sub>-a-ú-iš*: See No. 10.

*Ma-u-iš*: See No. 12.

*Mu-iš-ka<sub>4</sub>*: This name also appears in Hallock's "List of Names," but does not recur on the Treasury tablets.

Since it is the name of the scribe it is probably of Elamite origin. Clearly the name cannot be compared to

*Mi-iš-ka<sub>4</sub>-ma*, which appears several times in the documents in *Mém.*, IX (e.g., Nos. 19:4; 55:4), and which is an OP name (*Vahyazkāma*; cf. OP *Vahyazdāta* = El. *Mi-iš-da-ad-da*).

*Ir-da-ka<sub>4</sub>-ia*: See No. 3a.

## DATE

The payments stipulated are from the third through the sixth month of Xerxes' third year, or from June 12 through October 7, 483 B.C. The tablet was probably written subsequent to the latter date.

## SEAL

Seal-type No. 1, bearing an inscription of Darius.

## 14

	1	<i>ȳbar-rad-ka<sub>4</sub>-ma</i> ȳ <i>k[án-ša-bar-ra]</i>	(To) Baradkama the treasurer
	2	<i>tu<sub>4</sub>-ru-iš</i> ȳ <i>dš-ba-š[a-na]</i>	speak, Aspathines
	3	<i>na-an-KI.MIN</i> 32 <i>kur-šá-<sup>1</sup>um<sup>1</sup></i>	says: 32 karsha,
	4	9 <i>pan-su-kaš</i> KÙ.BABBAR <sup>idg</sup> <i>ap</i> [šì.sì-du]	9 shekels, silver, give to them
	5	<i>gal</i> ȳ <i>kur-ši-ik-kaš-be(!)</i> ȳ <i>d[a?- . . .]</i>	(as) wages—(to) cultivators . . . .
	6	ȳ <i>ma-u-iš</i> šá-ra-man-na UDU.NITÁ <sup>idg</sup>	(for whom) Vahush is responsible. Sheep (serve)
	7	šá-ak-ki-me <i>gal ap-pa ap pa-ri-</i>	as the equivalent (of) the wage which is owing to them.
	8	<i>ma-na</i> DINGIRITU <sup>idg</sup> DINGIR <sup>ba</sup> -gi-ia-	Month of Bagayadi
	9	<i>ti-iš.na</i> ȳ <i>be-ul<sup>idg</sup>(sic)</i> 3-um-	of the 3rd year.
Edge	10	<i>me.na</i> 1 MA 6 ȳRUḪ <sup>idg</sup> <i>un-ra</i>	66 men, each,
	11	DINGIRITU <sup>idg</sup> -tan-na 1 <i>pan-su-kaš</i>	per month, 1 shekel
Rev.	12	<i>a-ak pír-nu-šu pan-su-kaš.na</i> KÙ.BABBAR <sup>idg</sup>	and a half of a shekel, silver,
	13	<i>du(!)-man-ba</i> 1 ME 12 ȳRUḪ <sup>idg</sup> <i>un-ra</i>	they are to receive. 112 men, each,
	14	DINGIRITU <sup>idg</sup> .na 3 <i>ša-iš-šu-iš-ma</i>	per month, 3 fourths
	15	<i>pan-su-kaš.na</i> KÙ.BABBAR <sup>idg</sup> <i>du-man-ba</i>	of a shekel, silver, they are to receive.
	16	2 ME 90 2 ȳRUḪ <sup>idg</sup> <i>un-ra</i> DINGIRITU <sup>idg</sup> .	292 men, each, per month,
	17	<i>na pír-nu-šu pan-su-kaš.na</i> KÙ.BABBAR <sup>idg</sup>	a half of a shekel, silver,
	18	<i>du-man-ba</i> PAB 4 ME 70 ȳRUḪ <sup>idg</sup> 1 UDU.[NITÁ <sup>idg</sup> 3 <i>pan-su-kaš</i> ]	they are to receive. Total: 470 men. 1 sheep, 3 shekels.
	19	DINGIRITU <sup>idg</sup> <i>ba-gi-ia-ti-iš.<sup>1</sup>na<sup>1</sup></i>	(In the) month of Bagayadi
	20	ȳ <i>be-ul<sup>idg</sup></i> 3-um-me.na ȳ <i>hal-<sup>1</sup>mi<sup>1</sup></i>	of the 3rd year a sealed order
	21	<sup>1</sup> <i>li<sup>1</sup>-ik-ka<sub>4</sub></i> ȳ <i>ka<sub>4</sub>-ma</i> t[al-ti]-	has been given. Kama wrote (the document),
	22	<i>iš-da du-um-me</i> [ȳ. . . .]-	a receipt from . . . .
	23	<i>iš.ik.mar</i> d[u-iš]	he received.

## CONTENTS

Aspathines informs the treasurer Baradkama that the sum of 32 karsha, 9 shekels, silver, is to be paid to people who appear to be designated by an OP loan word as "cultivators," for whom Vahush is responsible. Their wages, however, are to be paid in sheep and not in the money which is said to be owing to them for work performed in the seventh month of Xerxes' third year, in which month the document appears to have been drawn up. A sealed

## TRANSLITERATIONS AND TRANSLATIONS

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order accompanied the document, which was written (apparently) by one named Kama, and a receipt was secured from a man whose name is no longer legible. The scribal calculations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
66	$1\frac{1}{2}$ (=1;30)	9	9
112	$\frac{3}{4}$ (=0;45)	8	4
292	$\frac{1}{2}$ (=0;30)	14	6
Total 470		32	9

## NOTES

Line 5: *kur-ši-ik-kaš-be*, "cultivators, furrowers." This word replaces the usual *kur-taš* (in No. 31:5 we seem to have  $\text{RU}\bar{\text{U}}^{\text{da}} \text{kur-}^{\text{I}}\text{ši-kaš}$ ). It could, therefore, be the name of a particular class of workmen. In the absence of a similar word or formation in any known Elamite texts, and perhaps without sufficient justification, I propose a derivation from the Avestan root *karš-*, meaning "to cut a furrow" (*BAiW*, col. 457; cf. the adjectival noun *karšivant-*, "cultivator"), followed by the suffix *-ka*. El. *kur* is always used to reproduce OP *kar*, and after the consonant *r* an El. *š* always shows an OP *š*; also, El. *-ikk<sup>o</sup>* in *Si-ik-ki-u-ma-ti-iš* stands for OP *-ik<sup>o</sup>* (*Sikayawatiš*). The posited OP word is, then, *\*karšika*, which is here followed by the Elamite terminations *-š* and *-be*, with the latter marking a "personalized" plural. If this interpretation is correct, the natural assumption would be that we here have reference to agricultural laborers; there is, however, a faint possibility that the "furrowers" are connected with religious duties as are the *raθwiš-kara* and the *dauša*, i.e., haoma distributors and libation pourers. For the furrow plays a greater part in Mazdean liturgy than in any other: "By means of the furrow, drawn with proper spells, and according to the laws of spiritual war, man either besieges the fiend or intrenches himself against him," says Darmesteter in connection with Fargard IX of the Vendidad (Darmesteter, *The Zend Avesta*, "Sacred Books of the East" [American ed.], III, p. 125, n. 1). Erich Schmidt reminds me in this connection of the iron blades found in the Persepolis Treasury which were first tentatively interpreted as halberds (Schmidt, *Treasury*, p. 49 and Fig. 29, top); Schmidt has since become convinced that the objects are plowshares.

However, it must be admitted that little plausibility attaches to this suggestion, for the large number of workmen (470) indicates that the laborers are rather "cultivators."

Lines 7-8: The root *pa-ri-*, which in these texts appears in two forms (*pa-ri-ma(n)-na* and *pa-ri-ma-ak*), is known from the DB and DN<sub>a</sub> inscriptions as the equivalent of Akk. *kašādu* and *alāku*, OP *šiyu*, *parā + gam*, and *parā + ar*; it means "(to) arrive at, attain, go toward."

## PERSONNEL

*Bar-rad-ka<sub>4</sub>-ma*, treasurer and addressee: See No. 1.

*Áš-ba-ša-na*, addressor: See No. 12.

*Ma-u-iš*: See No. 12.

*Ka<sub>4</sub>-ma*, scribe: My copy shows the beginning of a *ri* sign immediately following the *-ma*, and I have assumed that this was the beginning of the verb "he wrote." It is, of course, possible that *tal-li-* occurred further along the damaged line and that *Ka<sub>4</sub>-ma* is not the full name of the scribe; in that event we may compare the personal names *Kam-ri-mi-ka<sub>4</sub>* in *Mém.*, IX, No. 294:6 or *Kam-ri-ma-ra(-na)* in *Mém.*, IX, No. 57:4. In any event the name is probably of Elamite, not OP, origin.

## DATE

Month of Bagayadi (seventh month: Ululu) of Xerxes' third year, or from October 8 through November 6 of 483 B.C.

## SEAL

Seal-type 14; see No. 12.

## 15 (Pl. IX)

	1	<i>Tba-rad-ka<sub>4</sub>-ma tu<sub>4</sub>-ru-iš</i>	(To) Baradkama speak,
	2	<i>Ttar-ka<sub>4</sub>-a-ú-iš na-an-KI.MIN &lt;100&gt; 40 3</i>	Darkaush says: <1 hundred (and)> 43
	3	<i>kur-šá-um a-ak 3 pan-su-kaš a-ak (erasure)</i>	karsha and 3 shekels and
	4	(erasure) <i>2.9 ir-ma-ki pan-su-kaš.na</i> <i>KÛ.BABBAR<sup>idg</sup>]</i>	2 ninths of a shekel, silver,
	5	<i>»kur-taš »KUR<sup>idg</sup> at-ti-ip mu-šir-ia-ip</i>	(to) workmen (of) the lands of the Hattians (Syrians), Egyptians,
	6	<i>a-ak »ia-u-na-ip gal ma-ki-ip »</i>	and Ionians, (who are) earning wages,
	7	<i>ma-u-iš šá-ra-man-na »ba-ir-šá.iš »hu-</i>	(and for whom) Vahush is responsible at Parsa,
	8	<i>pi-be gal.ma ap si.si-du ak-ka<sub>4</sub>-be in</i> <i>ú-iš<sup>1</sup>-bar-na-iš-be (erasure)</i>	(to) these, for wages, give—(to these) who are “laborers”
	9	<i>»i-ia-an.uk-ku ha-nu »i-ia-an hu-ut-</i> <i>tuk-ka<sub>4</sub>.na</i>	upon the columned hall, the . . . of making the col- umned hall.
	10	<i>UDU.NITÁ<sup>idg</sup> a-ak <sup>ois</sup>GEŠTIN<sup>idg</sup> šá-ag-gi</i> <i>1 UDU.NITÁ<sup>idg</sup> 3 pan-</i>	Sheep and wine (serve as) the equivalent: 1 sheep for 3
	11	<i>su-kaš 1 mar-ri-iš <sup>ois</sup>GEŠTIN<sup>idg</sup> 1 pan-su-kaš</i> <i>KÛ.BABBAR<sup>idg</sup>.</i>	shekels, 1 jug (of) wine for 1 shekel, silver,
	12	<i>uk-ku pí-ru-mu-iš-si gal <sup>DINGIRITU</sup><sup>idg</sup></i>	(as the rate has been) set by edict. (It is) wages from the month
	13	<i>ba-gi-(erasure)ia-ti-iš.mar ku-iš</i>	of Bagayadi through
	14	<i><sup>DINGIR</sup>mi-kán-na PAB 6 <sup>DINGIRITU</sup><sup>idg</sup> ha-</i>	Viyaxna—within a total of 6 months
Edge	15	<i>tu.ma »be-ul 3-na.ma</i>	in the 3rd year.
	16	<i>MA 3 »RUḪ<sup>idg</sup> da-sa-bat-ti-iš-be</i>	63 men, chiefs-of-ten
	17	<i>a-ak ba-iš-ša da-sa-bat-ti-iš-be</i>	and assistant chiefs-of-ten,
Rev.	18	<i>un-ra <sup>DINGIRITU</sup><sup>idg</sup>.na 1 pan-su-kaš a-ak</i>	each, per month, 1 shekel and
	19	<i>3 ša-iš-šu-maš a-ak áš-du-maš pan-su-</i> <i>kaš.na du-man-ba</i>	3 fourths and an eighth of a shekel they are to re- ceive.
	20	<i>40 6 »RUḪ<sup>idg</sup> un-ra <sup>DINGIRITU</sup><sup>idg</sup>.na 1 pan-</i>	46 men, each, per month, 1 shekel
	21	<i>su-kaš a-ak(!) pí-ru-nu-<sup>1</sup>šú<sup>1</sup> áš-du-maš</i> <i>pan-su(!)-kaš.na du-man-ba</i>	and a half (of) an eighth of a shekel they are to re- ceive.
	22	<i>40 6 »RUḪ<sup>idg</sup> un-ra <sup>DINGIRITU</sup><sup>idg</sup>.na</i>	46 men, each, per month,
	23	<i>1 pan-su-kaš.na du-man-ba</i>	1 of(!) a shekel they are to receive.
	24	<i>40 6 »<sup>1</sup>RUḪ<sup>idg</sup> un-ra <sup>DINGIRITU</sup><sup>idg</sup>.na</i>	46 men, each, per month,
	25	<i>pí-ru-nu-šú pan-<sup>1</sup>su-kaš<sup>1</sup>.na a-ak áš-du-maš</i> <i>pan-su-kaš.na</i>	a half of a shekel and <a half of> an eighth of a shekel
	26	<i><sup>1</sup>du-man-ba<sup>1</sup> PAB 2 ME 1 »kur-taš</i>	they are to receive. Total: 201 workmen.
	27	<i>»<sup>1</sup>ú-ra-te-en-da da(!) tal-li-</i>	Uratenda wrote (the tablet inscription),
	28	<i><sup>1</sup>iš<sup>1</sup> du-me(!) »ir-da-ka<sub>4</sub>-ia.ik-ka<sub>4</sub>.</i>	the receipt from Irdakaia
Edge	29	<i>mar du-iš KÛ.BABBAR<sup>idg</sup> hi »pi-ka<sub>4</sub>-da-</i>	he received. (For) this (silver) money Pikada-
	30	<i>bar-ma a-ak »ak-ka<sub>4</sub>-ia-še(!) mu(!)-ši-in</i>	barma and the attendants
	31	<i>sùk-ki-ip pí-ru-mu-iš-si-ka<sub>4</sub></i>	have established an accounting (at the rate as) set by edict.

## CONTENTS

Darkaush informs (the treasurer) Baradkama that a sum of money which must be restored to total 143 karsha, 3 $\frac{3}{4}$  shekels (actually 3 $\frac{1}{2}$  shekels), is to be given to Syrian, Egyptian, and Ionian workmen at Persepolis for whom Vahush is held responsible, as wages for their labor upon the columned hall(s) at the site. Sheep and wine, however, are to serve as the actual pay, and these are to be prorated on the basis of the promulgated standard of one sheep for three shekels, one jar of wine for one shekel. The payment is for the last six months of the third year (of Xerxes). The tablet was written by Uratenda, who secured a receipt from Irdakaia. A further notation



## TRANSLITERATIONS AND TRANSLATIONS

perhaps indicates that one Pikadabarma and his helpers have accounted for the actual exchange of the sheep for the money at the rate fixed by edict.

The scribe's carelessness, apparently, accounts for the difference between his totals in lines 2-4 and the computations called for by his figures in lines 16-26. He states that the sum of money to be disbursed is 43 karsha, 3½ shekels; his computations require that sum to be 143 karsha, 3¼ shekels—in other words, his total in lines 2-4 is short almost exactly 100 shekels! The disparity between his ¾ shekel and the actual ¼ shekel may be partially explained also by scribal confusion: he himself has erased some figures at the end of line 3 and the beginning of line 4. His calculations compare with his (restored) totals as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
63 men	$1\frac{3}{4} + \frac{1}{8}$ (=1;52,30)	11	8; 7,30
46 "	$1 + \frac{1}{2}$ of $\frac{1}{8}$ (=1; 3,45)	4	8;52,30
46 "	1	4	6
46 "	$\frac{1}{2} + \frac{1}{2}$ of $\frac{1}{8}$ (=0;33,45)	2	5;52,30
<hr/> Total 201		<hr/> 23	<hr/> 8;52,30 ×6 months
	Correct total	143	3;15
	Scribe's total (restored)	143	3;13,20

## NOTES

Line 9: A horizontal wedge before the second occurrence of *i-ia-an* has been inserted belatedly, but is clear.

With *ha-nu i-ia-an hu-ut-tuk-ka<sub>4</sub>.na* must be compared the *ha-nu i-ia-an(!).na ak-ka<sub>4</sub>-be te-um-pi-tin-na.at(?)pi hu-ut-taš-da* of No. 22:10-12, a tablet which was written in this same sixth year. Also for comparison may serve phrases from inscriptions of Shilhak-Inshushinak in the "classical" period of Elamite history: *hi-ia-an a-ap-me hi-nu-un-ka<sub>4</sub> in-ti-ik-ka<sub>4</sub>* (*Mém.*, III, pp. 82 ff., Pl. 16 [No. 55], obv., ll. 15 f. [cf. König, *MVAeG*, XXX, 1 (1925), p. 22]; and *Mém.*, XI, pp. 21 ff., Pls. 4 f. [No. 92], obv., col. I:30 f.) and *hi-ia-an a-pi-e hi-en-ka<sub>4</sub> in-ti-ik-ka<sub>4</sub>* (*Mém.*, V, p. 59, Pl. 9 [No. 79], l. 4). These, however, are phrases at whose meaning we can only guess (König, *op. cit.*, p. 41, n. 109, suggests "weihen" for *hin-*); and there is, of course, no certainty that there is any connection between *ha-nu* and the "root" *hi-nu-*. The word *ha-nu* also occurs in the XPh inscription (last published by Herzfeld, *ApI*, pp. 27 ff.) in line 39: *šá-da ha-nu (ka<sub>4</sub>-tuk-da)*, but here it is merely the Elamite rendering of OP *ahaniy* in the completely borrowed phrase OP *šiyāta ahaniy (jivā)*, "Happy may I be (while living)."

Line 10: NITÁ twice resembles the plain NAP sign.

Line 17: *Ba-iš-ša* is the transliteration to be expected for the OP (actually Median) word *pasca*. To Professor Kent I owe recognition of the fact that in *pasca-dasapati* we are confronted with a compound word meaning "assistant (or vice-) *dasapati*" ("chief-of-ten") like our "under-secretary." For, as Kent reminds me, it is entirely possible that there was a declinable adjective *pasča-* in Iranian which meant "after, secondary" (cf. the preposition *pasā* [true OP form] in *pasā tanūm* in XPf).

Line 19 (also ll. 21 and 25): For *dš-du-maš* see page 38.

Line 21: In the sixth sign from the end of the line the scribe has omitted the second vertical from the *su* sign, and the sign as written is *šu*.

Line 27: The extra *da* sign may be a careless repetition, or perhaps the verb is really a reduplicated *talli- = tatalliš*.

Lines 30-31: *mu-ši-in sùk-ki-ip*. The wording of No. 18:27 f. is almost identical with that here; so too is No. 27:24 f., where the verb accompanying *mu-ši-in* is written briefly as *sik-ip*. In No. 22:23 ff., however, where the wording is likewise very similar, we read *ak-ka<sub>4</sub>-da-bar-ma a-ak ak-ka<sub>4</sub>-ia-še mu-iš-ši-in hu-ut-ti-ip*, i.e., "Pikadabarma and the 'helpers' are making (or are makers of) *mu-iš-ši-in*." In No. 16:4 f. and its near-duplicate (though in different months) No. 19:4 f., money is (to be) paid to men "*mu-ši-in sùk-ki-ip* at Parsa in the Treasury"; a similar statement appears in No. 56:6 f., where our phrase is written *mu-ši-in su-ki-ip*. In No. 21:5 f., money is (to be) paid to one individual and nine "helpers" (*ak-ka<sub>4</sub>-ia-še*), making a total of "10 *mu-ši-in sùk-ki-ip*." In No. 57:6 f., money is (to be) paid to a named individual *mu-ši-in sùk-ki-ra*, and in Fort. 2569:3 f. wine is given to one *ti-ri-ia mu-ši-in sùk-ki-ra*. In No. 48a:x+1 f., with preceding lines missing, we have "*mu-ši-in sùk-ki-ip* upon the structure." Other Fortification tablets present the word

*mu-ši-in* in various contexts. One (Fort. 15) gives a listing of “sheep and oil of the storehouse” (*am-ba-rdš.na*; note the OP loan word, which is later supplemented by *am-ba-ra-bar-ra* [“storehouse keeper”] following the names of various individuals), “which have been withdrawn (*māš-ši-ka<sub>4</sub>*) in the seventeenth year”; immediately following the ruled listings we read (l. 17): *mu-ši-in* 𐎠𐎵𐎠𐎹 17-um-me-man-na. Later (ll. 20f.) we read that *mu-ši-um-me in-ni hu-ut-tuk-ka<sub>4</sub>*, “*mu-ši-um-me* was not made” by certain specified individuals. Fort. 8976 begins: ‘*mu-ši-in hi* 𐎠𐎵𐎠𐎹 18-um-me.na 𐎠𐎵𐎠𐎹 19-na hu-ut-taš, i.e., “This *mu-ši-in* of the 18th year 𐎠𐎵𐎠𐎹 (they) made in the 19th year.”

Aside from Achaemenid El. *me-iš-ši-in*, OP *apara(m)*, Akk. (*ina*) *arkī*, “later” (which also occurs as *maš-šá* in XPh), I know no comparable Elamite form (for a dubious *me-iš-ši* in “classical” Elamite cf. König, *op. cit.*, p. 26 and n. 41). I have tentatively translated the word by “record, account(ing).” A derivation from, or comparison with *me-iš-ši-in* and its related *me-šá*, “later (i.e., intercalated [month]),” seems improbable, since in our No. 27 we find both spellings: *me-šá* (l. 13) and *mu-ši-in* (l. 25). In any case the meaning would at best be something like “subsequent (record).”

The meaning of *sik-*, *sukki-*, in this context cannot be far from that of *hutti-*, “(to) make”—by which it is once indeed replaced; see above. With justice, therefore, we may compare *sik-kak* and *sik-kak-ka<sub>4</sub>* in DSf: 22–23 and 25, where it refers to rubble that is “packed down” (OP *avaniy*; Akk. *malī ibaššī*, “became filled [up]”) and to a palace that Darius “erected” (OP *frāsaḥam*; Akkadian uses the root *epēšu*, “[to] make, build”). The basic meaning of the Elamite root may, therefore, be no more than “(to) place, establish.”

Line 31: I am at a loss to know why the rendering of an account(ing)—if, indeed, that is the correct translation—should be required by edict—if that is also the correct interpretation of the last word of the inscription (see above in No. 13). Perhaps the meaning could be that the individuals named in the immediately preceding lines have accounted for the money specified by exchanging it for the appropriate number of sheep and the requisite number of jars of wine at the standard rate as it had previously been set forth by edict.

## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*, (treasurer and) addressee: See No. 1.

*Tar-ka<sub>4</sub>-a-ú-iš*, addressor: See No. 10.

*Ma-u-iš*, the individual “responsible”: See No. 12.

*Ū-ra-te-en-da*, scribe: See No. 3.

*Ir-da-ka<sub>4</sub>-ia*, who delivers the receipt: See No. 3a.

*Pi-ka<sub>4</sub>-da-bar-ma*, who with the helpers (or attendants?) (*ak-ka<sub>4</sub>-ia-še*; see No. 3) renders an accounting: The name is clearly OP. Since the El. *pi* sign may render OP *bi* as well as OP *pi* (cf. *Ba-ka<sub>4</sub>-pi-ik-na* = *Bagābigna*; *Ha-pi-ra-du-iš* = *Abirāduš*), the prior element may be OP *\*bikta*, “illuminated, radiant” (Justi, *NB*, p. 489). The second element, *bar-ma*, appears just so in the Elamite rendering of the name of Gobryas, *Kam-bar-ma*; it appears to be OP *\*baruwa*, “lord” (Stonecipher, *GPN*, p. 35).

## DATE

Payments are computed for labor performed from the first of Bagayadi (Tashritu) through Viyaxna (Addaru)—the last six months—of the third year (of Xerxes) or from October 8, 483, through April 2, 482 B.C. The tablet was obviously written on or after the latter date.

## SEAL

Seal-type 1, bearing a trilingual inscription of Darius.

## 16 (Pl. X)

1	<i>𐎠𐎵𐎠𐎹𐎠𐎹𐎠𐎹𐎠𐎹</i> <i>tu<sub>4</sub>-ru-iš</i>	(To) Baradkama speak,
2	<i>𐎠𐎵𐎠𐎹𐎠𐎹𐎠𐎹𐎠𐎹</i> <i>na-an-KI.MIN</i>	Darkaush says:
3	<i>1 kur-šá-um a-ak 3 pan-su-kaš</i>	1 karsha and 3 shekels,
4	<i>KÛ.BABBAR<sup>idg</sup> 𐎠𐎵𐎠𐎹<sup>idg</sup> mu-ši-in sùk-</i>	silver, (to) men rendering
5	<i>ki-ip 𐎠𐎵𐎠𐎹-ir-šá.iš 𐎠𐎵𐎠𐎹-</i>	accounts at Parsa
6	<i>ap-nu-iš-ki.ma gal ma-ki-</i>	in the Treasury, earning
7	<i>ip 𐎠𐎵𐎠𐎹-pi-be gal.ma</i>	wages, (to) these, for wages

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	8	<i>ap si.sì-du</i> UDU.NITÁ <sup>idg</sup>	give. (The rate of exchange is) a sheep
	9	3 <i>pan-su-kaš.uk-ku pír-ru-</i>	for 3 shekels, (as has been)
Edge	10	<i>mu-si-ka<sub>4</sub> gal</i> DINGIR <sub>1</sub> ITU <sup>idg</sup>	set by edict. (It is) wages (of) the months
	11	(blank)	(blank)
Rev.	12	DINGIR <sub>1</sub> <i>tu-ru-ma-ir</i> DINGIR <sub>1</sub> <i>sa-a-</i>	Thuravahara, Thai-
	13	<i>kur-ri-ši-iš</i> PAB 2 DINGIR <sub>1</sub> ITU <sup>idg</sup>	garci—within a total of 2 months
	14	<i>ḥa-tu.ma ṽ-be-ul 4-na.ma</i>	in the 4th year.
	15	13 »RUḤ <sup>idg</sup> <i>un-ra</i> DINGIR <sub>1</sub>	13 men, each,
	16	ITU <sup>idg</sup> . <i>na pír-nu-šu pan-su-kaš.</i>	per month, a half of a shekel
	17	<i>na du-man-ba</i>	they are to receive.
	18	» <i>ú-ra-te-en-da tal-</i>	Uratenda wrote,
	19	<i>li-iš du-me »ir-da-</i>	the receipt from Irda-
	20	<i>ka<sub>4</sub>-ia.mar du-iš</i>	kaia he received
	21	ṽ <i>ba-ir-šá.iš</i>	at Parsa.

## CONTENTS

Darkaush informs (the treasurer) Baradkama that the sum of 1 karsha, 3 shekels of silver is to be paid to men who are “rendering accounts” in the Persepolis Treasury. The amount of money stipulated is to be figured in terms of sheep at the standard rate as set by formal decree of one sheep for three shekels. The men are to be paid for services performed during the second and third months of the fourth year (of Xerxes). Thirteen men are involved, with each receiving the equivalent of one-half shekel per month. The scribe Uratenda wrote the tablet at Persepolis after securing a receipt from Irdakaia.

This tablet is a near-duplicate of No. 19, and obviously deals with payments to the same group of individuals. It tells of payments for the second and third months of the calendar year, however, whereas No. 19 records payments for the seventh and eighth months of the same year.

## NOTES

Lines 4–5: For *mu-ši-in sùk-ki-ip* see No. 15.

Lines 9–10: For *pír-ru-mu-si-ka<sub>4</sub>* see No. 13.

## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*, (treasurer and) addressee: See No. 1.

*Tar-ka<sub>4</sub>-a-ú-iš*, addressor: See No. 10.

*Ú-ra-te-en-da*, scribe: See No. 3.

*Ir-da-ka<sub>4</sub>-ia*, who delivered a receipt: See No. 3a.

## DATE

The money—that is, its equivalent—is said to be for services rendered from the month Thuravahara (Aiaru) through Thaugarci (Simanu) of the fourth year (of Xerxes), or from May 3 through June 30, 482 B.C. Nothing is said about the date of the tablet itself, but tablet No. 19 is written by the same scribe, is very similar in all its details, and is sealed by the identical seal. Perhaps, therefore, both tablets were inscribed at the same time. No. 19, however, cannot have been written before the eighth month of the fourth year.

## SEAL

Seal-type 1, bearing a trilingual inscription of Darius.

## 17 (Pl. XI)

1	5 <i>kur-šá-um a-ak 9<sup>ba</sup>pan-<sup>1</sup>su<sup>1</sup>-kaš</i>	5 karsha and 9 shekels,
2	KÙ.BABBAR <sup>idg(!)</sup> <i>kur-mín »šá-ak-ka<sub>4</sub>.na »</i>	silver, by the hand of Shakka,
3	<i>kur-taš</i> (erasure) GIŠ <sup>idg(!)</sup> <i>še(!)-iš-ki-ip</i>	(which) the workmen laboring (on) wood,
4	<i>bat-ti-kur-ráš</i> KI.MIN. <i>na(!) ḥu-ut-ti-</i>	making sculptures of the same
5	<i>ip ṽba-ir-šá »ba-rad-ka<sub>4</sub>-</i>	at Parsa (and for whom) Baradkama
6	<i>ma šá-ra-man-na ḥu-pi-be du-iš</i>	is responsible, they have received.

## PERSEPOLIS TREASURY TABLETS

Edge	7	UDU.NITÁ <sup>idg</sup> šá-ag-gi.ma	Sheep (serve) for the equivalent (of the money):
	8	1 KI.MIN 3 pan-su-kaš KÙ.BABBAR <sup>idg</sup>	1 (of) the same (for) 3 shekels, silver.
	9	<sup>idg</sup> DINGIR ITU <sup>idg</sup> sa-a-kur-ri-	Months Thaugarci (and)
Rev.	10	ši-iš <sup>DINGIR</sup> kar-ma-ba-taš	Garmapada
	11	↳be-ul 4-um-me.na	of the 4th year.
	12	<sup>10</sup> (erasure) »RUḪ <sup>idg</sup> un-ra 1 pan-	10 men, each, 1 shekel
	13	su-kaš a-ak pír-nu-ip-šu(!) KI.MIN.na	and a half of the same (is to receive).
	14	10 »RUḪ <sup>idg</sup> un-ra 3 ša-dš-maš	10 men, each, 3 fourths
	15	pan-su-kaš.na du-man-ra	of a shekel is to receive.
	16	14 »RUḪ <sup>idg</sup> un- <sup>1</sup> ra <sup>1</sup> (erasure) pír-nu-	14 men, each, a half
	17	ip-šu pan-su-kaš du-man-ra	(of) a shekel is to receive.
	18	PAB 34 »kur-taš	Total: 34 workmen.

## CONTENTS

A memorandum-type tablet in which the sum of 5 karsha, 9 shekels of silver is said to have been paid by Shakka to laborers working on wood and making wood sculptures or reliefs, for whom Baradkama (the treasurer) was responsible. However, sheep, not the money, are the medium of payment, at the rate of one sheep for three shekels. Thirty-four workmen are involved, the period of work running through the third and fourth months of the fourth year (of Xerxes). The scribal totals are secured as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
10	1½ (=1;30)	1	5
10	¾ (=0;45)		7;30
14	½ (=0;30)		7
<hr/>		<hr/>	
Total 34		2	9;30
			×2 months
		<hr/>	<hr/>
		5	9

This text and No. 20 deal with payments to the same number of men working at the same jobs, but in different months of this year.

## NOTES

Line 1: The writing <sup>ba</sup>pan-su-kaš no more indicates that the initial labial is voiced than does the customary writing of OP *Pārsa*, "Persepolis," *Ba-ir-šá*. The normal way of understanding this writing of the word for shekel is to see the initial *ba* as a semiprothetic "determinative."

Line 2: The scribe has placed the vertical wedge of the "ideographic" sign (MEŠ) after, instead of before, the horizontals, then covered the head of the vertical with a piece of clay though leaving the tail of the wedge intact.

Line 3: An erasure, and perhaps a split stylus, makes the <sup>aiš</sup>GIŠ appear abnormal, and a horizontal wedge preceding the group may or may not have been intended.

Line 14: The last sign appears to be *dš* also, but closer inspection proves it to be merely *maš*.

Lines 7–18: These lines are partially obscured by melted iron, but there is no doubt about any of the readings.

## PERSONNEL

Šá-ak-ka<sub>4</sub>, through whose hand the monies are paid: See No. 1.

Ba-rad-ka<sub>4</sub>-ma, who is "responsible" for the men or the work performed: See No. 1.

## DATE

Payments are computed for work performed during the months of Thaugarci (Simanu) and Garmapada (Duzu) of the fourth year (of Xerxes), or from June 1 through July 29, 482 B.C. It is quite possible that this

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tablet was written simultaneously with No. 20, which cannot have been drafted until the month of Anamaka (tenth month: Tebetu) of this year.

## SEAL

Seal-type 4, probably the seal of Baradkama; see No. 1.

## 18

	1	<i>Yba-rad-ka<sub>4</sub>-ma tu<sub>4</sub>-ru-iš</i>	(To) Baradkama speak,
	2	<i>Ytar-ka<sub>4</sub>-a-ú-iš na-an-KI.MIN 88</i>	Darkaush says: 88
	3	<i>kur-šá-um a-ak 5 pan-su-kaš KÙ.BAB- BAR<sup>idg</sup> »</i>	karsha and 5 shekels, silver,
	4	<i>kur-taš '» du<sup>l</sup>-um-mar-ra-kur-ráš-be a-ak AN.BAR<sup>idg</sup></i>	(to) workmen, doormakers and (makers of) iron
	5	<i>aiš<sup>(l)</sup> ši-ip gal ma-ki-ip »-ba-ir-šá.</i>	door(s) (who are) earning wages at Parsa
	6	<i>iš » ma-u-iš šá-ra-man-na » hu-pi-be</i>	(and for whom) Vahush is responsible, (to) these
	7	<i>gal.ma ap si.sì-du UDU.NITÁ<sup>idg</sup> šá-ag-gi</i>	for wages give. Sheep (serve for) the equivalent (of the money):
	8	<i>1 UDU.NITÁ<sup>idg</sup> 3 pan-su-kaš.uk-ku pír-</i>	1 sheep for 3 shekels, as (the standard) has been set
	9	<i>ru-<sup>l</sup>mu<sup>l</sup>-iš-si-ka<sub>4</sub> ak-ka<sub>4</sub>-be ú-iš-</i>	by edict. (These are men) who are
	10	<i>bar-na-iš-be »-i-ia-an.uk-ku</i>	“laborers” on the columned hall.
	11	<i>gal DINGIR<sup>ITU</sup><sup>idg</sup> DINGIR<sup>sa</sup>-a-kur-ri-</i>	(It is) wages (of) the months Thairgarci
	12	<i>ši-iš.na a-ak DINGIR<sup>kar</sup>-ma-bat-</i>	and Garmapada,
Edge	13	<i>taš DINGIR<sup>tur</sup>-na-ba-ši-iš</i>	Darnabaji,
	14	<i>DINGIR<sup>ka<sub>4</sub></sup>-ir-ba-ši-ia PAB 4</i>	Karbashiya—within a total of 4
Rev.	15	<i>DINGIR<sup>ITU</sup><sup>idg</sup> ha-tu.ma</i>	months
	16	<i>»-be-ul 4-na.ma</i>	in the 4th year.
	17	<i>75 » RUḪ<sup>idg</sup> un-ra DINGIR<sup>ITU</sup><sup>idg</sup>.na</i>	75 men, each, per month,
	18	<i>1 pan-su-<sup>l</sup>kaš<sup>l</sup> a-ak pír-nu-ba pan-su- <sup>l</sup>kaš<sup>l</sup>.{na du-man-ba}</i>	1 shekel and a half of a shekel they are to receive.
	19	<i>1 ME 7 » RUḪ<sup>idg</sup> un-ra DINGIR<sup>ITU</sup><sup>idg</sup>.{na}</i>	107 men, each, per month,
	20	<i>3 ša-iš-šu-maš pan-su-kaš.na du-<sup>l</sup>man-ba}</i>	3 fourths of a shekel they are to receive.
	21	<i>57 » RUḪ<sup>idg</sup> un-ra DINGIR<sup>ITU</sup><sup>idg</sup>.na</i>	57 men, each, per month,
	22	<i>pír-nu-ba pan-su-kaš.na du-man-ba</i>	a half of a shekel they are to receive.
	23	<i>PAB 2 ME 39 » kur-taš » ú-ra-</i>	Total: 239 workmen. Ura-
	24	<i>te-en-da tal-li-iš du-me</i>	tenda wrote, the receipt
	25	<i>» ir-da-ka<sub>4</sub>-ia.ik-ka<sub>4</sub>.mar</i>	from Irdakaia
	26	<i>du-iš KÙ.BABBAR<sup>idg</sup> hi »</i>	he received. (For) this silver
	27	<i>pi-ka<sub>4</sub>-da-bar-ma a-ak » ak-ka<sub>4</sub>-ia-še</i>	Pikadabarma and the helpers
	28	<i>» mu-ši-in sùk-ki-ip pír-ru-mu-iš-šá-</i>	have rendered an accounting (at the rate as) set by edict.
End	29	<i>iš hal-mi hi(?) [li-ka<sub>4</sub>]</i>	This sealed order has been given.

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Darkaush informs (the treasurer) Baradkama that the sum of 88 karsha, 5 shekels of silver is to be paid to “doormakers”—apparently further designated as men laboring upon the “iron doors”—entitled to receive wages from the Persepolis Treasury and for whom Vahush is responsible. Sheep, and not the money, constitute the medium of payment, at the rate set by official edict: three shekels for each sheep. The work has been performed during the third to sixth months inclusive of the fourth year (of Xerxes), and a total of 239 workmen is involved. The tablet was written by Uratenda, who secured a receipt from Irdakaia. Pikadabarma and his “helpers” are said to have performed the exchange of sheep for the money stipulated at the official rate, and a “sealed order” once accompanied the document.

The scribal computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
75	1½ (=1;30)	11	2;30
107	¾ (=0;45)	8	9;15
57	½ (=0;30)	2	8;30
<hr/> Total 239		<hr/> 22	<hr/> 1;15 ×4 months
		88	5

## NOTES

Line 4: *du-um-mar-ra-kur-rdš(-be)*, the expected form for OP *dwara-kara*. The first sign of the group was carelessly written by the scribe, and my copy in Teheran read it as *na*. Fortunately, however, Dr. Donald E. McCown had prepared a cast of this tablet at Persepolis and Dr. Schmidt brought it to Chicago; examination of the cast demonstrated that both the *du* on this line and that on line 7 resemble *na* but are unquestionably *du*. The tablet has suffered serious damage since it left Persepolis; lines 8–10 and 17–29 were almost completely illegible at Teheran, and the readings of these lines are from the cast.

Note how misleading “parallel” passages may be; lines 4–5 resemble lines 5–6 of No. 74:  $\gg$  *kur-taš* <sup>GRŠ</sup> *GIŠ*<sup>idg</sup> *še-iš-ki-<sup>1</sup>ip*<sup>1</sup> AN.BAR<sup>idg</sup> <sup>GRŠ</sup> *si-ip* and yet the translation must be decidedly different. Following the word “door-makers” the *a-ak*, “and,” is somewhat confusing.

## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*, (treasurer and) addressee: See No. 1.

*Tar-ka<sub>4</sub>-a-ú-iš*, addressor: See No. 10.

*Ma-u-iš*, “responsible”: See No. 12.

*Ú-ra-te-en-da*, scribe: See No. 3.

*Ir-da-ka<sub>4</sub>-ia*, who brought the receipt: See No. 3a.

*Pi-ka<sub>4</sub>-da-bar-ma*, who with the helpers or attendants accounted for the exchange of sheep for money: See No. 15.

## DATE

Payments are computed for services rendered from Thagarci (Simanu) through Karbashiya (Ululu) of the fourth year (of Xerxes), or from June 1 through September 27, 482 B.C. The tablet was probably compiled some weeks or even months after the latter date.

## SEAL

Seal-type 1; see tablet No. 10. The trilingual inscription beginning “I, Darius . . .” is very clear on this tablet.

## 19 (Pl. XII)

	1	<i>Yba-rad-ka<sub>4</sub>-ma tu<sub>4</sub>-ru-iš</i>	(To) Baradkama speak,
	2	<i>Ytar-ka<sub>4</sub>-a-ú-iš na-an-KI.MIN</i>	Darkaush says:
	3	<i>1 kur-šá-um 3 pan-su-kaš KÙ.BABBAR<sup>idg</sup></i>	1 karsha, 3 shekels, silver,
	4	$\gg$ <i>RUḪ<sup>idg</sup> mu-ši-in sùk-ki-</i>	(to) men rendering accounts
	5	<i>ip ṽba-ir-šá.iš ṽka<sub>4</sub>-ap-nu-iš-</i>	at Parsa, in the Treasury,
	6	<i>ki.ma nu-da-nu-iš.ma gal</i>	in the storeroom, earning
	7	<i>ma-ki-ip ṽhu-pi-be gal.</i>	wages, (to) these, for wages,
	8	<i>ma ap si.si-du UDU.NITÁ<sup>idg</sup></i>	give. Sheep (serve for) the
	9	<i>šá-ag-gi 1 UDU.NITÁ<sup>idg</sup> 3</i>	equivalent (of the money): 1 sheep for 3
	10	<i>pan-su-kaš.uk-<sup>1</sup>ku<sup>1</sup> pír-ru-</i>	shekels (as the standard has been) set
Edge	11	<i>mu-iš-si-ka<sub>4</sub> gal DINGIR<sup>1</sup>ITU<sup>idg</sup></i>	by edict. (It is) wages (of) the months
Rev.	12	<sup>DINGIR</sup> <i>ba-gi-ia-ti-iš a-ak</i>	Bagayadi and
	13	<sup>DINGIR</sup> <i>mar-ka<sub>4</sub>-šá-na PAB 2 DINGIR<sup>1</sup>ITU<sup>idg</sup></i>	Varkazana—within a total of 2 months
	14	<i>ḫa-tu.ma ṽbe-ul 4-na.ma</i>	in the 4th year.

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15	13 »RUḪ <sup>idg</sup> un-ra <sup>DINGIR</sup> ITU <sup>idg</sup> .	13 men, each, per month,
16	na pir-nu-šu pan-su-kaš.na	a half of a shekel
17	du-man-ba »ú-	they are to receive.
18	ra-te-en-da tal-li-	Uratenda wrote,
19	iš du-me »hi-ti-	the receipt from Hitish
20	iš a-ak »ap-ti-iš.	and Aptish
21	ik-ka <sub>4</sub> .mar du-iš	he received
22	↳ba-ir-šá.iš	at Parsa.

## CONTENTS

Darkaush informs (the treasurer) Baradkama that the sum of 1 karsha, 3 shekels of silver should be paid to men who keep records in the storeroom of the Persepolis Treasury; sheep, and not the money, are the medium by which they are to be paid, at the standard rate (as fixed by formal decree) of one sheep for three shekels. Thirteen men are involved, each of whom is to receive a half of a shekel per month for services performed over a period of two months: through the seventh and eighth months of the fourth year (of Xerxes). The scribe was Uratenda, who secured a receipt from two men named Hitish and Aptish at Persepolis.

## NOTES

Line 6: Tablet No. 16, which is addressed by and to the same parties, bears the same seal impression, was written by the same scribe, and may have been composed on the same date as this tablet although it deals with services performed some months earlier in the year. There, however, the word *nu-da-nu-iš.ma* is lacking; this word, consequently, constitutes a unit, and probably not a significant one. With its appearance here must be compared the following:

No. 56:6-8: »RUḪ<sup>idg</sup> mu-ši-in su-ki-ip ↳kán-ša-iš nu-da-nu.ni ↳ba-ir-šá.an, "Men rendering accounts (in) the treasure storeroom of Parsa"; No. 21:5-7: PAB 10 mu-ši-in suk-ki-ip ak-ka<sub>4</sub>-be nu-da-nu-iš.ma, "Total: 10 account-renderers who are in the storeroom"; Fort. 11490:1-2: mu-ši-in hi BAN<sup>idg</sup> e-ul.na nu-tan-nu-ia.iš »iš-tin(?) -ka<sub>4</sub> da-man-na »pa-nu-uk-ka<sub>4</sub> šá-ra-man-na, "This accounting of . . . bows in the storeroom, Ishtinka(?) brought, Panukka being responsible."

A meaning "storeroom," for which the OP equivalent may well have been *ambara* (see Notes to No. 15:30-31), is of course a guess, but one which seems to fit all occurrences known at present.

## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*, (treasurer and) addressee: See No. 1.

*Tar-ka<sub>4</sub>-a-ú-iš*, addressor: See No. 10.

*Ú-ra-te-en-da*, scribe: See No. 3.

*Hi-ti-iš* and *Ap-ti-iš*, who deliver the receipt: The former may be merely a hypocoristicon of *Hi-ut-ti-be-ul-la* (see No. 3). The name *Ap-ti-iš* may also be shortened from some such name as *Ap-ta-ku-ši-ir*, which appears on a Hammurabi-period business document from Susa (*Mém.*, XXIII, No. 179:15); in any case the Elamite word *ap-te*, meaning "battle mace" and known from the DNd inscription, is probably involved.

## DATE

The services are said to have been performed during the months of Bagayadi (Tashritu) and Varkazana (Arah-samnu) of the fourth year (of Xerxes), or from September 28 through November 24, 482 B.C., but the tablet cannot have been written until on or after the latter date.

## SEAL

Type 1; see No. 10.

## 20 (Pl. XIII)

1	11 kur-šá-um <sup>18</sup> pan-su-kaš	11 karsha, 8 shekels,
2	KÛ.BABBAR <sup>idg</sup> kur-mín »šá-ak-ka <sub>4</sub> (!). <sup>1</sup> na <sup>1</sup>	silver, by the hand of Shakka, (which)
3	»kur-taš <sup>ciš</sup> GIŠ(!) <sup>idg</sup> še(!)-iš-ki-	the workmen laboring (on) the wood,

	4	<i>ip</i> »- <i>bat-ti-kur-ráš</i> <i>hu-ut-</i>	making sculptures
	5	<i>ti(!)-ip</i> »- <i>ba-ir-šá</i> »	at Parsa, (for whom)
	6	<i>ba-rad-ka<sub>4</sub>-ma</i> <i>šá-ra-man-na</i>	Baradkama is responsible,
Edge	7	<i>hu-pi-be du-iš</i>	these have received.
	8	UDU.NITÁ <sup>idg</sup> <i>šá-gi.ma</i>	Sheep (serve) for equivalent (of the money):
	9	1 KI.MIN 3 <i>pan-su-kaš</i>	1 (of) the same (for) 3 shekels.
Rev.	10	DINGIRITU <sup>idg</sup> <i>ba-gi-ia-ti-</i>	Months: from Bagayadi
	11	<i>iš.ik-ki</i> DINGIR <i>ha-na-ma-</i>	(to) Anamaka—
	12	<i>ak-kaš</i> PAB 4 DINGIRITU(sic) <i>ha-tu.ma</i>	within a total of 4 months
	13	»- <i>be-ul</i> 4- <i>um-me.na</i>	of the 4th year.
	14	10 »-RUḪ <sup>idg</sup> <i>un-ra</i> 1 <i>pan-su-kaš.na</i> < <i>a-ak</i> <i>pír-nu-ip.na</i> >	10 men, each, 1 of(!) a shekel <and of a half>.
	15	10 »-KI.MIN KI.MIN 3 <i>ša-dš-maš</i>	10 ditto (men), ditto (each), 3 fourths.
	16	14 »-KI.MIN [KI.MIN] [ <i>pír-nu-ip.na</i> ']	14 ditto (men), ditto (each), a half.

## CONTENTS

The sum of 11 karsha, 8 shekels of silver is said to have been received by woodworkers and relief or sculpture makers, for whom Baradkama (the treasurer) is responsible, at Persepolis, "by the hand of" Shakka. The payment is in sheep, not in cash, however, for work performed during the seventh to tenth months inclusive of the fourth year (of Xerxes). The scribal totals are correct only if his first listing be altered (on the basis of tablet No. 17) so that the computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
10	1½ (=1;30)	1	5
10	¾ (=0;45)		7;30
14	½		7
<hr/>		<hr/>	
Total 34		2	9;30 ×4 months
<hr/>		<hr/>	
		11	8

## NOTES

Line 1: The number of shekels could be either five or eight; since only the latter gives the correct total from the computations, it has been assumed to be correct.

Line 11: The scribe has omitted what seems to us quite necessary: the main elements of the expression "from . . . up to (and including)" as found on all other tablets; we expect the line to contain the full phrase *x.ik-ki.mar ku-iš y.*

Line 14: Seldom can we prove so adequately that a scribe has blundered. Tablet No. 17, naming the same individuals, clearly catalogs payments to the same group of workmen whose services had been performed some months earlier in this year. There the first item lists payment to ten men, each of whom receives 1½ shekels per month; here the first item enumerated is "ten men, each receives one shekel," yet the scribal totals as stated in line 1 are correct only if these men have each received 1½ shekels. Obviously the scribe has simply failed to add to "one shekel" the phrase "and a half."

The blunder is revealing; it may imply that the scribe did not himself compute the calculations which he enumerates, or he would at once have been aware of the error. He was, therefore, no more than his title implies: a "writer" who more or less carefully put down on his tablet what he saw or was told appeared on the original parchment.

The genitive *.na* in *1 pan-su-kaš.na* may be understood to mean "one of a shekel"; the same genitive following *pír-nu-ip*, "half," in line 16 (and restored in l. 14) is less understandable, although it is found in similar position in Nos. 26:16; 41:13 f.; and 53:18.

## PERSONNEL

*Šá-ak-ka<sub>4</sub>*, by whom the monies were paid: See No. 1.

*Ba-rad-ka<sub>4</sub>-ma*, the "responsible" party: See No. 1.



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## DATE

Payments are computed for services rendered from Bagayadi (Tashritu) through Anamaka (Tebetu) of the fourth year (of Xerxes), or from September 28, 482, through January 22, 481 B.C. The tablet was probably written subsequent to the latter date.

## SEAL

Type 26; see tablet No. 11.

## 21

	1	<i>ṭbar-rad-ka<sub>4</sub>-ma ṭ-ka<sub>4</sub>-ap-nu-iš-</i>	(To) Baradkama the treasurer
	2	<i>ki-ra tu<sub>4</sub>-ru-iš ṭ-ir-da-tak-</i>	speak, Artataxma
	3	<i>ma na-an-KI.MIN 2 kur-šá-um KÙ.BAB- BAR<sup>idg</sup></i>	says: 2 karsha, silver,
	4	<i>ap sī.sī-du 1 ṭ-na-pu-ik(?gi)-šur(?)<sup>1</sup></i>	give to them—(to) 1: Napukshur(?) (and)
	5	<i>9 ṭ-ak-ka<sub>4</sub>-ia-še PAB 10 mu-ši-in sùk-</i>	9 helpers—a total of 10 account-
	6	<i>ki-ip ak-ka<sub>4</sub>-be (ṭ-erased) nu-da-nu-iš.</i>	renderers who (are) in the storeroom.
	7	<i>ma KÙ.BABBAR<sup>idg</sup> ap-pa ap-pi pa-</i>	(It is) money which to them is
	8	<i>ri-man-na UDU.NITÁ<sup>idg</sup> šá-ag-gi-</i>	to go (is owed). Sheep (are) the equivalent
Edge	9	<i>me gal hu-pi-be.na DINGIR<sup>idg</sup>ITU<sup>idg</sup></i>	(of the money) as the wage of them. Months
	10	<i>DINGIR<sup>idg</sup>ha-ši-ia-ti.na a-ak ha-</i>	of Aciyadiya and
Rev.	11	<i>na-ma-kaš.na DINGIR<sup>idg</sup>sa-mi-man-da DINGIR<sup>idg</sup></i>	Anamaka, Samiamantash,
	12	<i>mi-kán-na PAB 4 DINGIR<sup>idg</sup>ITU<sup>idg</sup> ṭ-be-ul</i>	Viyaxna—a total (of) 4 months of the
	13	<i>4-me.na 10 ṭ-RUḪ<sup>idg</sup> un(!)-ra DINGIR<sup>idg</sup>ITU<sup>idg</sup>]</i>	4th year. 10 men, each, per month,
	14	<i>ian-na pír-na(sic)-šu pan-su-kaš KÙ. BABBAR<sup>idg</sup></i>	a half shekel, silver,
	15	<i>du-man-pi pír-ru-tak-šá-ka<sub>4</sub> 1 UDU.NITÁ</i>	they are to receive. (As the rate) has been set by
	16	<i>idg 3 pan-su-kaš KÙ.BABBAR<sup>idg</sup> 1 RUḪ<sup>idg</sup> (erasure)</i>	edict, 1 sheep (equals) 3 shekels, silver. (To) each (one) man
	17	<i>*ṭpa-ri-ma-ak DINGIR<sup>idg</sup>ITU<sup>idg</sup>.na 6 ir<sup>1</sup>*-ma-ki UDU.NITÁ<sup>idg</sup></i>	there is to go per month a sixth (of a) sheep.
	18	<i>DINGIR<sup>idg</sup>ITU<sup>idg</sup> DINGIR<sup>idg</sup>ha-na-ma-kaš.na ṭ-be-</i>	(In the) month of Anamaka of the
Edge	19	<i>ul ṭ<sup>1</sup>-me.na ṭ-hal-mi hi li-ka<sub>4</sub> ṭ-</i>	4th year this sealed order has been given.
	20	<i>ú-ni-ni tal-li-iš-da du-um-me ṭ<sup>1</sup>-ia<sup>1</sup>-</i>	Unini wrote (the document), the receipt from
	21	<i>u-na-a.ik-ka<sub>4</sub>.mar du-iš-da</i>	Iauna ("the Ionian") he received.

\* . . . \* Over erasure

## CONTENTS

Artataxma informs the treasurer Baradkama that the sum of two karsha of silver is to be paid to one named individual and nine helpers, all of whom are apparently engaged in "rendering accounts" in the storeroom (of the Persepolis Treasury). The monies owing to them are to be paid not in cash but in its equivalent in sheep at the official rate, as set by proclamation, of three shekels for one sheep. The payment is for the last four months of the fourth year (of Xerxes), and each individual is to receive the equivalent of one-half shekel per month—i.e., as the scribe specifically adds, one-sixth of a sheep per month. The tablet, which was accompanied by a sealed order, was written in the last month of the fourth year by Unini, who secured a receipt from Iauna, "the Ionian."

## NOTES

This text has suffered considerable damage since it left the hands of the excavator and was exceedingly difficult to read in Teheran. Fortunately, however, a cast made at Persepolis and brought to Chicago shows many of the signs which can no longer be made out on the original.

Line 6: For *nu-da-nu-iš*, "storeroom," see No. 19.

Lines 16–17: By official edict each sheep is valued at three shekels—i.e., one-third of a sheep equals one shekel; since each man is to receive only one-half shekel per month, he is therefore to receive only one-sixth of a sheep per month.

## PERSONNEL

*Bar-rad-ka<sub>4</sub>-ma*, the treasurer and addressee: See No. 1.

*Ir-da-tak-ma*, addressor: The name of this Persian, which first appears on this fourth-year tablet, recurs once in the sixth year (No. 22) and once in the twelfth year (No. 27); he is the most frequent writer of all tablets of the nineteenth and twentieth years. His name is always so written with one exception: *Ir-da-da-tak-ma* (No. 58:2, year 20), which is probably a scribal error. The name is clearly to be interpreted as OP *Arta-taxma*, “strong in Arta”; compare *Ātūrtaxmē*, “strong in Atar” (Justi, *NB*, p. 52), and the name of the Sagartian rebel in DB, *Ciçataxma*. Wherever he appears as addressor, the seal-type is always No. 2, which was apparently his seal.

*Na-pu-ik(gi?)*-*šu-ur(?)*: Part of the name, which does not reappear in any other Persepolis tablets examined to date, is written over an erasure.

*Ū-ni-ni*, scribe: There is a very faint possibility that the first sign is *ši*, not *ú*, and that the name is identical with a *Ši-ni-ni* which is found on several tablets from the Fortifications; but the first sign does indeed appear to be *ú*, and *Ū-ni-ni* appears in Hallock’s “List of Names.”

*Ia-u-na-a*, who delivers a receipt: “The Ionian,” perhaps a gentilic.

## DATE

The tablet was written in the tenth month, Anamaka (Tebetu), of a year number which, though written over an erasure and somewhat dubious, is probably the fourth year (of Xerxes)—between December 25, 482, and January 22, 481. The text computes payment for services rendered in the ninth, tenth, eleventh, and twelfth months of the fourth year, or between November 25, 482, through March 22, 481 B.C. Thus, contrary to the usual practice (see p. 35), this tablet was written before the work had been completed.

## SEAL

Type 2, always connected with Artataxma. A few impressions (notably on tablet No. 22) show the trilingual inscription beginning “I, Darius” of this type seal.

## 22 (Pl. XIV)

1	<i>Ūba-rad-ka<sub>4</sub>-ma kán-ša-bar-ra 𐎶ba-ir-šá.an</i>	(To) Baradkama the treasurer of Parsa
2	<i>tu<sub>4</sub>(!)-ru-iš Ÿir(!)-da-tak-ma na-an(!)-KI.MIN</i>	speak, Artataxma says:
3	<i>1 kur-šá-<sup>1</sup>um 8<sup>1</sup> pan-su-kaš a(!)-ak 2 ši-iš-maš</i>	1 karsha, 8 shekels, and 2 thirds
4	<i>a(!)-ak 2 nu-ma-u-maš pan-su-kaš.na (erasure) KÛ.BABBAR<sup>idg</sup> ap</i>	and 2 ninths of a shekel, silver, to them
5	<i>sì.sì-du 𐎶<sup>1</sup> RUH<sup>idg</sup>-ip.na 𐎶KUR<sup>idg</sup>(!) at-ti.<sup>1</sup>ip<sup>1</sup>.</i>	give, to(!) men (of) the land of the Hattians (Syrians)
6	<i>pan-na 𐎶ak-ka<sub>4</sub><sup>1</sup>-be 𐎶ma-u-iš šá-ra-man-</i>	(for) whom Vahush is responsible,
7	<i>na 𐎶ak-ka<sub>4</sub>-be ra-ab-ba-ab-ba a-ak ku-</i>	who were conscripted(?) and are
8	<i>ut-te <sup>am</sup> máš-te-ip šá-ag gal UDU.NITÁ<sup>idg</sup></i>	now released(?). The equivalent (of) the wage (is) sheep
9	<i>ku-ut-te <sup>GIS</sup>(!) GĒŠTIN<sup>idg</sup> <sup>ap</sup><sup>1</sup>-pa ap-pi pa-ri-</i>	and wine which (is) to go to them,
10	<i>ma-<sup>1</sup>na<sup>1</sup> 𐎶hu-pi-be.na <sup>ha</sup>(?)<sup>1</sup>-nu 𐎶i-ia-an(!).</i>	to those on(?) the . . . . of the columned hall
11	<i>na 𐎶ak-ka<sub>4</sub>-be te-um-pi-tin-na.at(?)<sup>1</sup>.pi(?)</i>	who the . . . .
12	<i>hu-ut-taš-da <sup>DINGIR</sup>ITU<sup>idg</sup> <sup>DINGIR</sup>(!)kar-ma-</i>	made. From the month of Garma-
13	<i>ba-<sup>1</sup>taš<sup>1</sup>.na.ik-ka<sub>4</sub>.mar ku-iš <sup>DINGIR</sup>(!)</i>	pada through

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Edge	14	ITU <sup>idg</sup> DINGIR(!)ka <sub>4</sub> -ir-pi-ši-iš.na	the month of Karbashiya,
	15	pu-un-ka <sub>4</sub> -ti(!).ma PAB <sup>1</sup> 3 DINGIR(!)ITU <sup>idg</sup> .	to its end—within a total of 3 months
	16	ha-tu.ma 𐎠-be-ul 6-um-me.na	of the 6th year.
Rev.	17	3 𐎠RUH <sup>idg</sup> 𐎠un-ra DINGIRITU <sup>idg</sup> 1 pan-su-kaš	3 men, each, (per) month, 1 shekel (and)
	18	3 ša-iš-šu-maš 𐎠pan <sup>1</sup> -su-kaš KÙ <sup>idg</sup> ap(!)-pi pa-	3 fourths (of) a shekel (of) money to them
	19	ri-ma-ak 1 𐎠RUH <sup>idg</sup> DINGIRITU <sup>idg</sup> .na 1 pan-	is to go. 1 man, per month, 1 shekel (of)
	20	su-kaš KÙ <sup>idg</sup> 𐎠du <sup>1</sup> -ma-ak PAB 4 𐎠RUH <sup>idg</sup> 𐎠ptr-ru <sup>1</sup> -	money is to receive. Total: 4 men. (As the rate has been) set
	21	mu-iš-šá-ak 1 UDU. <sup>1</sup> NITÁ <sup>idg</sup> .na 3 pan-su-kaš	by edict, for one sheep 3 shekels (of)
	22	KÙ <sup>idg</sup> 𐎠ni <sup>1</sup> -ma-ak 1 mar-ri-iš GĪGEŠTIN <sup>idg</sup>	money shall be; (for) 1 jar (of) wine,
	23	1 pan-su-kaš KÙ <sup>idg</sup> ni-ma-ak KÙ <sup>idg</sup> hi 𐎠pi-	1 shekel (of) money shall be. (For) this money
	24	ka <sub>4</sub> -da <sup>1</sup> -bar-ma a-ak <sup>1</sup> 𐎠ak-ka <sub>4</sub> -ia-še mu-iš-	Pikadabarma and the “helpers” have
	25	ši-in 𐎠hu <sup>1</sup> -ut- <sup>1</sup> ti-ip 𐎠hu <sup>1</sup> -pi-be ptr-ru-mu-	made an accounting (at the rate) set by edict (for?) them.
	26	iš-šá-iš-da DINGIRITU <sup>idg</sup> DINGIR!ha-iš-ši-	(In the) month of Açi-
	27	ia-ti-iš.na(!) 𐎠-be-ul 6-um-me.na	yadiya of the 6th year
Edge	28	𐎠hal-mi 𐎠li <sup>1</sup> -ka <sub>4</sub> 𐎠kar-ki-iš tal-iš	a sealed order has been given. Karkish wrote (the tablet),
	29	du-um-me 𐎠ir(?) -da(?) -ka <sub>4</sub> (?) -ia(?) <sup>1</sup> .ik. mar du-iš	the receipt from Irdakaia(?) he received.

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Artataxma informs the Persepolis treasurer, Baradkama, that the sum of 1 karsha, 8 $\frac{3}{8}$  shekels of silver is to be paid to Syrian men, for whom Vahush is responsible, who have perhaps been “drafted” for a specific but uncertain task (which might possibly have been the performance of libation ceremonies) and who are now released. Not the money, however, but its equivalent in sheep and wine is to be paid for services performed in the fourth, fifth, and sixth months, inclusive, of the sixth year (of Xerxes). Pikadabarma and his helpers made an accounting of the money specified and exchanged it for sheep and wine at the standard rate. The tablet was written in the ninth month (three months after the services had been performed) by Karkish, who secured a receipt from some other individual. A sealed (parchment) order once accompanied the document.

By the figures which the scribe was given the payments were to three men, each of whom was to obtain 1 $\frac{3}{4}$  shekels per month, and to one man who was to have one shekel per month, for a period of three months. This sums up to 1 karsha, 8 $\frac{3}{8}$  shekels (1 karsha, 8;45 shekels). His own total, in lines 3–4, reads “1 karsha, 8 $\frac{2}{8}$ + $\frac{3}{8}$  shekels” (1 karsha, 8;53,20), or  $\frac{3}{8}$  shekel too much. What the author of the computations intended to do with this fraction of a shekel is not stated.

## NOTES

This tablet, from the year made famous by Thermopylae and Salamis, is perhaps the most difficult of all those from the Treasury. Not only was it crushed while still moist, but it was still more severely damaged at the time of the burning of Persepolis: melted iron, now rusted and irremovable, has poured over many of the lines. Furthermore, the signs themselves do not seem to have been carefully fashioned originally; there are numerous erasures and corrections which appear to have been made when the tablet had already become almost dried out. For example, the *an* sign almost always seems to be written like *bar*, and from it the *na* sign is frequently indistinguishable; the *a* sign often consists of but two wedges, one above the other. Repeated examination, however, has insured the reading of nearly all save the last sign of line 11.

Line 3: The number of shekels appears actually to be 7, not 8, but since our acceptance of that figure would still further dislocate the already slightly inaccurate computations themselves (see above), I have assumed that the damaged numeral is probably 8.

Line 4: For *nu-ma-u-maš*, “one-ninth,” as the Elamite form of OP *navama*, compare page 38.

Line 5: The genitive *.na* seems to serve in place of a postpositional locative or ablative here and in line 10, as perhaps also in line 11.

Lines 7–8: *ak-ka<sub>4</sub>-be ra-ab-ba-ab-ba a-ak ku-ut-te am maš-te-ip*. Before undertaking an analysis of the phrase we should note the purpose which it serves. It does not indicate the work which the men now being paid have performed; that is specified in lines 10–12. Instead, it may describe the men themselves (note that according to ll. 5 f. they are Hattians [Syrians]). In DB, §§ 32 and 33, the singular *rāb-ba-ka<sub>4</sub>* is the Elamite translation of OP *basta*, “bound”; the corresponding Akkadian seems to telescope the translation so as to make the verb *šabātu* serve for both *marri-* and *rabba-*, “(to) seize” and “(to) bind,” as in § 17. The plural *rāb-ba-[ip]*, in DB, § 50, follows *mar-[ri-ba]*, and only for the latter word do the OP and the Akkadian have translations. There appears to be no question, however, that the Elamite verb *rabba-* means “(to) bind” or the like. The exact meaning of this verb in a few texts of the “classical” period is, however, obscured by the uncertainty of the meaning of other words in context (cf. the almost identical phraseology in *Mém.*, V, pp. 20 ff., Pl. 3 [No. 71], col. II:9 f., and *Mém.*, III, pp. 82 ff., Pl. 17 [No. 55], upper edge, ll. 3 f. [König, *MVAeG*, XXX, 1 (1925), p. 41, n. 117]; also *Mém.*, V, p. 33, Pl. 5[2] [No. 73], l. 8; *Mém.*, XI, pp. 21 ff., Pl. 9 [No. 92], rev., col. I:77, etc.). In form, *ra-ab-ba-ab-ba* may be a verbal adjective, with expanded ending as seen in *ur-pu-ub-ba*, *ur-pu-up-pi* (e.g., *Mém.*, V, pp. 39 ff., Pl. 7 [No. 77], col. V:8). In any case we have no right to go far afield from the idea that *rabba-* means “(to) bind”; in view of the probable meaning of the following verb I suggest that it means that the men designated have been obligated to perform some special task—that they have been “conscripted” or “drafted,” or perhaps “attached” to a unit which has been selected for that task.

The root *maš-te-* is also known. Its imperative occurs in DN<sub>a</sub>:48 (§ 6) as the equivalent of OP *avarada*, “forsake, abandon.” With the helping verb *-ma-* it appears in DB, § 35, as the translation of OP *avahar[da]* (Meillet-Benveniste, *Grammaire*, p. 78), with the same meaning; also in *Mém.*, XI, Nos. 302:5 f. and 303:8; in the latter occurrences, however, the context is such that I have been unable to obtain for it a satisfactory meaning, although I have ventured to translate it “(to) forfeit.” Perhaps the basic meaning is “(to) depart from”; hence, in our context, *maš-te-ip* may mean “they are leaving,” or perhaps even “they are dismissed.”

Line 8: NITÁ appears to be written as NAP here and in line 21.

Line 10: Compare No. 15:9, without which this line could scarcely have been read.

Line 11: Since *at-ti-ip-pan-na* in lines 5–6 appears to normalize as *attip.na*, it would seem that *te-um-pi-tin-na* should be normalized as *tempti.na*. Desirable as might be a reading of the last three signs of the line as *na-ap-pi*, “god,” and dubious as the last two are, the second from the end is almost certainly *at*, not *ap*; despite repeated examination I cannot read the final sign with assurance.

For a word *temti* (*tepti*) a translation “lord” has long found acceptance (cf. König, *op. cit.*, p. 39, n. 94), but our word can scarcely be intended to be the same, and such a translation would obviously be out of place in this context. With lines 11–12 of our text must obviously be compared Nos. 27:15–16 (and 10a:7 f.): *ḫi-ia-ma-ši-ka<sub>4</sub> te-um-ip-te ḫu-ut-taš-da*, as well as *Mém.*, IX, No. 150:12 f.: *te-um-pi a-a ḫu-ut-tak(?)*, “. . . here was made.”

The word may be nominal in form, and its corresponding “classical” Elamite verbal form appears to be extant in *tumba-* which occurs in such phrases as: <sup>d</sup>*In-šu-ši-na-ak na-ptr.ú-ri.ik-[ku] tu-um-ba-a*, “To Inshushinak my god I . . .” (Weissbach, “Anzanische Inschriften” [*ASGW*, XII, 2 (1891)], pp. 134 ff. [“Šutruknaḫunte C”], Pl. II:29; also: [*na-ap*]-*pi-ip ḫa-tām-ti-ip i tu-um-ba-a*, “To the Elamite gods I . . .” (Weissbach, “Neue Beiträge” [*ASGW*, XIV, 7 (1894)], pp. 740 f. [“Incertum I”], Pl. I:4). A translation such as “(to) make offering(s) (or) libation(s)” would seem to fit these as well as other contexts (see especially *Mém.*, V, pp. 39 ff., Pl. 6 [No. 77], col. IV:5 f.); a nominal derivative could, then, mean simply “offering(s),” or perhaps “libation(s),” and our word may be another Elamite equivalent of OP *dauca*, “libation” (see No. 10a, Notes).

I am inclined to discount this translation, however, for note that the men are Syrians, and it is most unlikely that they would be called upon to make libations or offerings at Persepolis—and be paid for so doing.

Line 15: Compare *pu-in-ki-te.ma* in DB, § 30, parallel to OP *jiyamnam patiy*, and tablet No. 75:14: *pu-un-kat<sub>6</sub>-te.ma*.

Line 18: Only in this tablet is KÙ.BABBAR<sup>id<sub>6</sub></sup> shortened to KÙ<sup>id<sub>6</sub></sup> (also in ll. 20, 22, 23 twice); but note the full form in line 4.

Line 22 (also l. 23): *Ni-ma-ak* appears twice in the XPh inscription (l. 46), as the translation of OP *bavatiy*, “becomes.”

## TRANSLITERATIONS AND TRANSLATIONS

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## PERSONNEL

*Ba-rad-ka<sub>4</sub>-ma*, treasurer and addressee: See No. 1.

*Ir-da-tak-ma*, addressor: See No. 21.

*Ma-u-iš*, "responsible": See No. 12.

*Pi-ka<sub>4</sub>-da-bar-ma*, who with the "helpers" (*ak-ka<sub>4</sub>-ia-še*; see No. 3) accounts for the exchange of money for sheep and wine: See No. 15.

*Kar-ki-iš*, scribe: The only occurrence of this name in extant Treasury tablets; it is, however, quite common in Fortification documents. The name is probably of Elamite origin in spite of OP *Karka*, El. *Kur-ka*, "Caria," of which it might conceivably, though improbably, be a gentilic.

*Ir-da-ka<sub>4</sub>-ia(?)*, who delivers a receipt: Repeated collation has failed to obtain a satisfactory reading of the name on line 29; since, however, it was assuredly written with but four signs, and since Irdakaia served in this capacity so frequently, it has been restored here. See No. 3a.

## DATE

The payments are computed for services rendered from the fourth month, Garmapada (Duzu), "to the end" of the sixth month, Karbashiya (Ululu), of the sixth year (of Xerxes), or from July 8 through October 4, 480 B.C. The tablet was not written until the ninth month, Aqiyadiya (Kislimu), between December 3–30, 480, at which time Xerxes the King was already returning to Asia after Thermopylae and Salamis.

## SEAL

Type 2; see tablet No. 21.

## 23 (Pl. XV)

	1	<i>3 kur-ša-um a-ak 6 pan-su-</i>	3 karsha and 6 shekels,
	2	<i>kaš KÙ.BABBAR<sup>idg</sup> kur-mīn » šá-ak(!)-</i> <i>ka<sub>4</sub>(!).</i>	silver, through the hand of Shakka,
	3	<i>na » kur-taš AN.BAR<sup>idg</sup> oīš(!)</i>	(which) the workmen (on) the iron
	4	<i>ši-ip » ba-ir-ša » ba-rad-</i>	door(s), (at) Parsa, (for whom) Barad-
	5	<i>ka<sub>4</sub>-ma šá-ra-man-na hu-pi-</i>	kama is responsible, they
	6	<i>be du-iš UDU.NITÁ<sup>idg</sup> šá-gi.</i>	have received. Sheep (serve) for the equivalent
	7	<i>ma 1 KI.MIN.na</i>	(of the money), 1 of the same
	8	<i>3 pan-su-kaš šá-gi.ma</i>	for the equivalent (of) 3 shekels.
Edge	9	<sup>DINGIR</sup> ITU <sup>idg</sup> <i>ha-du-kán-</i>	From the month of Adu-
	10	<i>nu-ia.na.ik-[ki].</i>	kanaisha
Rev.	11	<i>mar ku-iš</i> <sup>DINGIR</sup> [ITU <sup>idg</sup> ]	through the month of
	12	<i>mi-kán-na.na PAB 12</i> <sup>DINGIR</sup>	Viyaxna—within a total
	13	ITU <sup>idg</sup> <i>ha-tu.ma</i>	of 12 months
	14	<i>» be-ul 6-um-me.na</i>	of the 6th year.
	15	<i>2 » RUḪ<sup>idg</sup> un-ra</i>	2 men, each,
	16	<i>1 pan-su-kaš a-ak pīr-nu-</i>	1 shekel and a half
	17	<i>ip-su(sic) KI.MIN du-iš</i>	(of) the same have received
	18	<sup>DINGIR</sup> ITU <sup>idg</sup> <i>tan-na</i>	per month.

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A memorandum-type document which states that the sum of 3 karsha and 6 shekels of silver has been paid by Shakka to workmen upon the "iron door(s)" at Persepolis for whom is responsible Baradkama (the treasurer and presumably the author or originator of the document, since his seal is employed). Not the money, however, but sheep, constitute the medium of payment, at the customary rate of three shekels for a sheep. The period of time involved is the entire sixth year (of Xerxes), and two men are said to have received the equivalent of 1½ shekels each per month.

## NOTES

Line 2: The last two signs have superfluous wedges as the result of an inadequate erasure, and the final *ka<sub>4</sub>* resembles *na*.

Lines 3–4: The BAR sign is too widely spaced, and the final GIŠ is actually written as *ka*<sub>4</sub>; for the same phrase, however, see Nos. 18:4–5 and 74:6.

Lines 16–17: The extra vertical wedge which makes the final sign of the usual *pír-nu-ip-šu* into *su* is probably merely a scribal error.

## PERSONNEL

*Šá-ak-ka*<sub>4</sub>, by whom the “monies” were paid: See No. 1.

*Ba-rad-ka*<sub>4</sub>-*ma* (treasurer), “responsible” for the workmen and—since it is probably his seal that is employed—the originator of the tablet: See No. 1.

## DATE

The payments stipulated are for services performed during all twelve months of the sixth year (of Xerxes), or from April 11, 480, through March 30, 479 B.C.

## SEAL

Type 4; see tablet No. 1.

## 24 (Pl. XV)

	1	<i>5 kur-šá-um 3 pan-su-kaš a-ak</i>	5 karsha, 3 shekels, and a
	2	<i>pír-nu-ip-šu KI.MIN KÙ.BABBAR</i> <sup>idg</sup>	half (of) the same, silver,
	3	<i>kur-mín</i> » <i>šá-ak-ka</i> <sub>4</sub> . <i>na</i> » <i>kur-taš</i>	through the hand of Shakka, (which) workmen,
	4	» <i>sa-da-bat-ti-iš bat-ti-kur-ráš</i>	chiefs-of-hundreds,
	5	<i>ḪAR</i> <sup>idg</sup> . <i>na</i> <i>ḫu-ut-ti-ip</i>	making reliefs of stone
	6	<i>a-ak</i> <sup>aš</sup> GIŠ <sup>idg</sup> <i>še(!)-iš-ki-ip</i>	and working (on) wood,
	7	<i>bat-ti-kur-ráš ḫu-ut-ti-ip</i>	making reliefs
	8	» <i>ba-ir-šá</i> <sup>1</sup> » <i>ba-rad-ka</i> <sub>4</sub> - <i>ma</i>	at Parsa—Baradkama
	9	<i>šá-ra-man-na ḫu-pi-be</i>	being responsible—they
Edge	10	<i>du-iš UDU.NITÁ</i> <sup>idg</sup> <i>šá-gi.ma</i>	have received. Sheep (serve) as the equivalent (of the money):
Rev.	11	<i>1 UDU.NITÁ</i> <sup>idg</sup> . <i>na</i> <i>3 pan-su-</i>	for 1 sheep, 3 shekels.
	12	<i>kaš</i> <sup>DINGIR</sup> IT <sup>idg</sup> <i>ḫa-du-kán-</i>	Months (of) Adukanaisha (and)
	13	<i>nu-ia</i> <sup>DINGIR</sup> tu- <i>ru-ma-ráš.na</i>	of Thuravahara
	14	» <i>be-ul 7-um-me.na</i>	of the 7th year.
	15	<i>11</i> » <i>RUḪ</i> <sup>idg</sup> <i>un-ra 1 pan-[su]-kaš</i>	11 men, each, 1 shekel (and)
	16	<i>pír-nu-ip-šu du-iš</i>	a half have received.
	17	<i>7</i> » <i>RUḪ</i> <sup>idg</sup> <i>un-ra 3 sa-áš-<sup>1</sup>maš<sup>1</sup></i>	7 men, each, 3 fourths.
Edge	18	<i>10</i> » <i>KI.MIN KI.MIN pír(!)-nu-ip-</i>	10 ditto, ditto, a half
	19	<i>šu pan-su-kaš du-iš-<sup>1</sup>da(?)<sup>1</sup></i>	shekel have received.

## CONTENTS

A memorandum-type document which states that the sum of 5 karsha, 3½ shekels of silver has been paid by Shakka to workmen at Persepolis who bear the honorific title “centurions” and who are engaged in the production of stone and wood reliefs under the command of Baradkama. They do not receive their pay in money, however, but in sheep, at the (standard) rate of one sheep for three shekels. The pay is for the services of twenty-eight men rendered during the first and second months of the seventh year (of Xerxes). The wages were computed as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
11	1½	1	6;30
7	¾		5;15
10	½		5
<hr/>			
Total 28		2	6;45 ×2 months
<hr/>			
		5	3;30

## NOTES

Line 4: For *sa-da-bat-ti-iš* as OP \**satapati*, "centurion, chief-of-hundred," see p. 40, n. 3. Here we note that the men so designated are at the same time stone-relief makers and woodworkers making reliefs at Persepolis. There can scarcely be a possibility that each of these men is the actual foreman of a hundred men, for not only is it unlikely that a total of 2,800 workmen would be engaged in the cutting of reliefs, but also the pay which is here specified for each "chief-of-hundred" is not larger than that obtained by the average laborer. It is therefore very probable that this title, which assuredly was derived from the army, had lost its original significance and could be applied to a workman who was slightly more skilled than the average and hence was capable of cutting reliefs.

## PERSONNEL

*Sá-ak-ka*<sub>4</sub>, through whose hand the monies were paid: See No. 1.

*Ba-rad-ka*<sub>4</sub>-*ma* (treasurer), "responsible" for the workmen and—since his seal is employed on the document—the originator of the tablet: See No. 1. This is the last extant tablet in which Baradkama appears. Two months later a different treasurer, *Ba-ir-iš-šá*, is mentioned (see No. 25).

## DATE

The workmen are paid for services performed in the months Adukanaisha (Nisanu) and Thuravahara (Aiaru) of the seventh year (of Xerxes), or from March 31 through May 28 of 479 B.C., at which time Xerxes was still in Sardis and part of the army, under Mardonius, was just breaking up winter quarters in Thessaly to move down for the second occupation of Athens.

## SEAL

Type 4; see tablet No. 1. For a photograph of the seal impression on this tablet see Schmidt, *op. cit.*, Fig. 20, top.

## 25 (Pl. XVI)

	1	<i>ʾba-ir-iš-šá</i> ʾ- <i>ka</i> <sub>4</sub> - <i>ap-nu-iš-</i>	(To) Barishsha the treasurer
	2	<i>ki-ra</i> ʾ- <i>ba-ir-iš-šá.an</i>	of Parsa
	3	<i>tu</i> <sub>4</sub> - <i>ru-iš</i> ʾ- <i>mar-ri-ʾe</i> <sup>1</sup> - <i>iš-ša</i>	speak, Marrezza
	4	<i>na-an-ki.min</i> 4 <i>kur-šá-um</i>	says: 4 karsha,
	5	2 <i>ši-iš-maš</i> a- <i>ak</i> 6 <i>ir-ma-ki</i>	2 thirds (of a shekel), and a sixth
	6	<i>pan-su-kaš.na</i> KÙ.BABBAR <sup>idg</sup>	of a shekel, silver,
	7	<i>ap</i> šì.šì- <i>du</i> (!) <sup>oiš</sup> GIŠ <sup>idg</sup>	give to them—(to) wood-
	8	<i>še-iš-ki</i> ⟨- <i>ip</i> ⟩ ʾ- <i>ak</i> ši-ʾ <i>la</i> <sup>1</sup>	worker(s) and relief(?)
Edge	9	<i>hu-ut-ti-ip</i> ʾ- <i>mar</i> <sup>1</sup> -	makers (whom) Mar-
	10	<i>du-kán-na-šir</i> da- <i>ma</i>	duknasir sent (and for whom)
Rev.	11	ʾ- <i>nu</i> šá- <i>ra-man-na</i> šá- <i>gi</i>	you are responsible. The equivalent (of)
	12	2 <i>ši-iš-maš gal</i> GEŠTIN <sup>idg</sup> . <i>na</i>	2 thirds (of) the wage (is to be paid) in(!) wine
	13	<i>gal ap-pi-ni</i> <sup>DINGIR</sup> ITU <sup>idg</sup> <sup>DINGIR</sup>	(as) their wage. Months:
	14	<i>kar-ma-ba-taš.ik.mar</i> ku-ʾ <i>iš</i> <sup>1</sup>	from Garmapada through
	15	<sup>DINGIR</sup> ʾha- <i>na-ma-kaš</i> PAB 7 <sup>DINGIR</sup> I[TU <sup>idg</sup> ].	Anamaka, within a total of 7 months
	16	<i>ha-tu</i> ʾ- <i>be-ul</i> 7- <i>na.ma</i>	in the 7th year.
	17	5 ʾ- <i>RUḪ</i> <sup>idg</sup> <i>un-ra</i> <sup>DINGIR</sup> IT[U <sup>idg</sup> ].	5 men, each, per month,
Edge	18	<i>na</i> 2 <i>ši-iš-maš pan-su-kaš</i> .	2 thirds of a shekel
	19	<i>na du-man-ba</i> 3 ʾ- <i>RUḪ</i> <sup>idg</sup> <i>un-ʾra</i> <sup>1</sup>	are to receive. 3 men, each,
	20	<i>pir-nu-šu pan-su-kaš.na</i>	a half of a shekel.
Rt. end	21	(a) 3 ʾ- <i>RUḪ</i> <sup>idg</sup> (b) ʾ- <i>un-ra</i> <sup>1</sup> <i>ši-iš-maš pan-su-</i> <i>kaš.</i> (c) <i>na du-man-ba</i>	3 men, each, a third of a shekel are to receive.

## CONTENTS

Marrezza informs the Persepolis treasurer, Barishsha, that the sum of 4 karsha and  $\frac{2}{3}$  shekel of silver is to be given to "woodworkers and relief(?) makers" who have apparently been sent hither by Marduknasir and for whom the treasurer himself is responsible.

Two-thirds of the sum stipulated is to be paid in wine; the assumption is that the remaining one-third is to be paid in cash. The services were performed during the fourth to tenth months (inclusive) of the seventh year (of Xerxes), and the computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
5	$\frac{2}{3}$		3;20
3	$\frac{1}{2}$		1;30
3	$\frac{1}{3}$		1
Total 11			5;50
			×7 months
		4	0;50

or 4 karsha  $\frac{2}{3}$  (= 0;40) plus  $\frac{1}{3}$  (= 0;10).

## NOTES

Line 7: One vertical is missing in the first part of *sì.sì-du*.

Line 8: The reading *ši-la* is assured by the very similar phrase in No. 27:8 f., but aside from these two occurrences the word does not appear elsewhere in Elamite. There is a particle, written in identical fashion and meaning "so," but obviously the two words have nothing in common with each other save form. I do not believe that the oft-repeated *si-i-la* in the text *Mém.*, XI, pp. 21 ff., Pls. 4 ff. (No. 92), has any connection with our word, for there the meaning would appear to be "town, village" or the like. Hence the translation "relief(s)" is but a guess made by comparing our phrase with the almost identical lines in No. 20:3-5 (<sup>GIS</sup>*GIS*<sup>idg</sup> *še-iš-ki-ip bat-ti-kur-ráš hu-ut-ti-ip*) and No. 17:3-5.

Line 10: *da-ma*. The meaning ("sent") here given is somewhat problematical. It is based on an assumption that in the frequently occurring *ti-ib-be.da-aḥ* of DB, which translates OP *frā-iš-*, the prior *ti-ib-be* means "forward, forth," like the OP verbal prefix, and that the root *da-* means "(to) send." Indeed a meaning "(to) send forth" for the root *da-* alone would be proved if we could accept Weissbach's reading in DB, § 50: *ṭaš-šu-ṭip ṭba-pi-[li]-ib-be.da-aḥ*, parallel to OP *kāram frāišayam*. Bork's correction of this to *ṭaš-šu-ṭip ṭba-pi-[li]-ip mid(!)-da-aḥ* (*MAOG*, VII, 3 [1933], p. 11) is impossible because this could only mean "I sent forth a Babylonian army," which is not the meaning of the OP. Surely the correct reading of this particular passage is *ṭaš-su-ṭip ṭba-pi-[li] te(!)-ib-be.da-aḥ*, which brings both text and translation ("I sent forth an army to Babylon") into exact harmony with all other similar passages.

A reading of DB, § 10, in which there appears to be a verb *taš-da-ma* parallel to OP *āha*, "was," is suspect because of a preceding lacuna, and cannot help us determine a meaning for our *da-ma*.

Likewise questionable is a reading in DB, § 19: *ṣa-iš-ša-an ḥi-še ṣ-u-ip-ra-<sup>1</sup>du<sup>1</sup>-iš da-ma-da-ak*, parallel to OP *Zāzāna nāma vardanam anuv Ufrātuwā*, "Zazana, by name, a town along the Euphrates," which Akkadian renders by <sup>alu</sup>*Za-za-an-nu šumi-šu ša kišda* (<sup>nar</sup>*Puratti [nadū(?)]*). Here the first *da-* of the Elamite may be all or a part of a word meaning "bank" or the like, as in Akkadian, with *ma* being a postposition; in that case *da-ak* would be the verb proper, with a meaning "is situated, is placed." Such a verb *da-* (reduplicated *dadda-*, *tatta-*) with that meaning is adequately proved in "classical" Elamite (see also in No. 83), but the meaning does not well fit our context, unless the meaning of lines 9-10 is "whom Marduknasir put (in this place)."

Line 12: Excepting only the tablets numbered 4-8, inclusive, which are outright grants of money at the order of the king, all documents examined so far bear a clause stipulating that the "equivalent" of the silver specified is to be paid in sheep or wine at a standard rate—in other words, money itself has so far not changed hands; the full amount owed the laborers for their services has been paid in kind, not in cash. With this seventh-year tablet we come upon that new phase in the transition of the economy which has been described in chapter i.



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## PERSONNEL

- Ba-ir-iš-šá*, treasurer and addressee: The same name is borne by an individual some seventeen years later than the date of this tablet (third year of Artaxerxes I) who was at that time "responsible" for workmen who had come from Susa to Persepolis (No. 78). Only here, however, is a man so named designated as treasurer, a title which, so far as we know, had been applicable only to Shakka and Baradkama. In two other tablets, Nos. 34:4 f. (cf. l. 3) and 35:5 (but cf. ll. 2-3!), what appears to be a personal name *Ba-ir-iš-šá*, though preceded by the "personal" wedges, is but a scribal lapsus for *ba-ir-šá*, "Parsa, Persepolis." It is improbable that this writing is a hypocoristic for *Ba-rad-ka<sub>4</sub>-ma*. Rather the name may be interpreted as "the Persian." Hence we must conclude that *Ba-ir-iš-šá* became in truth the treasurer some time after the second month of the seventh year (No. 24), and yielded the post before the seventh month of the tenth year (No. 26).
- Mar-ri-e-iš-ša*, addressor: There is a very faint possibility that the scribe intended to write *Mar-ri-kar-šá*—i.e., that we should read *kar* for *e-iš* and *šá* for *ša*—in which case the name would be almost identical with *Mar-ia-kar-šá* in No. 4:5. The *kar* sign is very clear in line 14, however, and in view of the many apparently hypocoristic names ending in *-iš-ša* (see No. 4, s.v. *Ba-gi-iš-ša*), it is quite possible that our name here is but a brief form of *Mar(-ri)-ia-kar-šá*.
- Mar-du-kán-na-šir*, who "sent" the workmen to their task: One of the very few Semitic names identifiable in the Treasury tablets; compare *Mar-du-uk-ka<sub>4</sub>*, No. 1.

## DATE

The workmen are paid for services rendered from the fourth month, Garmapada (Duzu), through the tenth month, Anamaka (Tebetu), of the seventh year (of Xerxes), or from June 27, 479, through January 19, 478 B.C. At the very time of their employment the Persian war in the West was lost: although the army had reoccupied Athens in July of this year, it suffered a defeat at Plataea, and the navy was forced into hiding after the losses at Mycale in August.

## SEAL

Type 25, with no inscription visible on the tablet. This is the only extant tablet with this type seal.

## 26 (Pl. XVII)

	1	'š <sup>1</sup> [kur-š]á-um [2 pa]n-su-kaš	5 karsha, 2 shekels,
	2	KÛ.BABBAR <sup>idg</sup> 'kur-mín » 'šá-ak-[ka <sub>4</sub> ].na	silver, through the hand of Shakka,
	3	' » 'kur-taš bat-'ti-kur <sup>1</sup> -ráš [hu]-	(which) the workmen making sculptures
	4	ut-ti-ip » HAR <sup>idg</sup> [a-ak?]	(of) stone and
	5	aišGIŠ <sup>idg</sup> .na » ba-ir-šá	of wood at Parsa,
	6	» ma-u-iš šá-ra-man-na	(for whom) Vahush is responsible,
	7	hu-pi-be du-iš	they have received.
Edge	8	UDU.NITÁ <sup>idg</sup> šá-gi.ma	Sheep (serve) as the equivalent (of cash):
	9	1 KI.MIN.na 3 pan-	1 of the same (for) 3 shekels
	10	su-kaš pí-r-ru-mu-si	(as the rate has been) set by edict.
Rev.	11	DINGIRITU <sup>idg</sup> ba-gi-ia-	Months: Bagayadi,
	12	ti-iš DINGIRmar-ka <sub>4</sub> -šá-na	Varkazana,
	13	DINGIRha-ši-ia-ti-iš »	Açiyadiya,
	14	be-ul 10-um-me.na	of the 10th year.
	15	7 » RUḪ <sup>idg</sup> un-ra 1 pan-su-	7 men, each, 1 shekel
	16	kaš a-ak pí-r-nu-'ip-šu <sup>1</sup> .na	and a half.
	17	5 » RUḪ <sup>idg</sup> 'un <sup>1</sup> -ra 3	5 men, each, 3
	18	ša-dš-'maš <sup>1</sup> pan-su-kaš.na	fourths of a shekel.
	19	6 » RUḪ <sup>idg</sup> 'un-ra <sup>1</sup> pí-r-	6 men, each, a half
	20	nu-'ip-šu <sup>1</sup> pan-su-[kaš.na <sup>1</sup> ]	of a shekel.

## CONTENTS

A memorandum-type document which states that the sum of 5 karsha, 2 shekels of silver has been paid by Shakka to workmen making reliefs in stone and in wood at Persepolis and for whom Vahush, who was probably the treasurer, is responsible. The medium of payment is not the money, however, but sheep, at the rate

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as promulgated of three shekels for each sheep. The work was performed during the seventh, eighth, and ninth months of the tenth year (of Xerxes), and the computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
7	1½ (=1;30)	1	0;30
5	¾ (=0;45)		3;45
6	½ (=0;30)		3
<hr/> Total 18		<hr/> 1	<hr/> 7;15 ×3 months
		<hr/> 5	<hr/> 1;45

This total, 5 karsha, 1¾ shekels, seems to have been approximated by the scribe's total in line 1 of "5 karsha, 2 shekels."

## NOTES

The opening lines of the tablet have been severely damaged, but most of the inscription is certain. For the view that the scribe has approximated the actual total of 5 karsha, 1¾ shekels by "5 karsha, 2 shekels," see under Contents.

## PERSONNEL

Šá-ak-ka<sub>4</sub>, by whose hand the monies were paid: See No. 1.

Ma-u-iš, the individual "responsible" for the workmen: See No. 12.

## DATE

The payments are computed for services performed through the months of Bagayadi (Tashritu), Varkazana (Arahsamnu), and Açıyadiya (Kislimu) of the tenth year (of Xerxes), or from September 21 through December 17, 476 B.C.

## SEAL

Type 26; see tablet No. 11.

## 27 (Pl. XVIII)

	1	Yma-u-iš 𐎶-ka <sub>4</sub> -ap-nu-iš-ki-ra	(To) Vahush the treasurer
	2	𐎶-ba-ir-šá.iš tu <sub>4</sub> -ru-iš	at Parsa speak,
	3	Yir-da-tak-ma na-an-KI.MIN	Artataxma says:
	4	3 kur-šá-um 6 pan-su-kaš(!) a-ak 3.4	3 karsha, 6 shekels, and 3
	5	ir-mat-ki ki-EL.na KÛ.BABBAR <sup>idg</sup>	fourths of a shekel(!), silver,
		𐎶-ka <sub>4</sub> -	
	6	ap-nu-iš-gi(!) 𐎶sunki.na.ma.mar	from the Treasury of the king,
	7	ap si.sì-du is-ma-lu šá-iš-ki-ip	give to them—(to) fashioners of inlay(s),
	8	𐎶-ši-la hu-ut-ti-ip 𐎶(sic) ak-ka <sub>4</sub> -be	makers of reliefs(?), (for) whom
	9	𐎶nu šá-ra-man-na 𐎶(sic) KÛ.	you are responsible, (as) the silver which
		BABBAR <sup>idg</sup> ap-pa	
	10	ap-pi pa-ri-ma-na šá-ag gal UDU.	is to go to them. The equivalent (of) the wage (in money)
	11	NITÁ <sup>idg</sup> .na gal-li DINGIR <sup>ITU</sup> <sup>idg</sup> DINGIR <sup>šá</sup> .	(is) in sheep (as the) wage of the months
Edge	12	mi-man-da.na 1 DINGIR <sup>mi-kán</sup> -na ir-	of Samiamantash (i.e.): 1; Viyaxna
	13	ip.na 1 DINGIR <sup>mi-kán</sup> -na me-šá.na <sup>1</sup>	the former: 1; Viyaxna the later (intercalated):
Rev.	14	1 PAB 3 DINGIR <sup>ITU</sup> <sup>idg</sup> .na be-ul 12-na.ma	1—a total of 3 months in the 12th year.
	15	𐎶-hi-ia-ma-ši-ka <sub>4</sub> te-um-ip-te hu- <sup>1</sup> ul?]-	In Hiamasika(?) they made . . .
	16	taš-da 1 𐎶RU <sup>idg</sup> DINGIR <sup>ITU</sup> <sup>idg</sup> .na 1 pan-	1 man, per month, 1 shekel
	17	su-kaš a-ak pír-nu-šu pan-su-kaš du-	and a half shekel is to receive.
		man-ra	
	18	5 𐎶RU <sup>idg</sup> DINGIR <sup>ITU</sup> <sup>idg</sup> .na un-ra 3.4 ir-	5 men, per month, each, 3 fourths

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	19	<i>mat-ki pan-<sup>1</sup>su-kaš<sup>1</sup>.na du-man-ba 14</i> » <sup>1</sup> RUG]	of a shekel are to receive. 14 men,
	20	<i>id<sup>z</sup> un-r[a<sup>DIN</sup>]GIRITU<sup>idz</sup>-man-na pīr-nu- šū</i>	each, per month, a half
	21	<i>pan-su-kaš.na<sup>1</sup> du<sup>1</sup>-man-ba PAB 20</i> » R[U <sup>H</sup> id <sup>z</sup> ]	of a shekel are to receive. Total: 20 men.
	22	<i>pīr-ma-mu-šā-gi(?) 1 UDU.NITÁ<sup>idz</sup> šā- ag-[gi(?)]</i>	As set by edict, 1 sheep (is the) equivalent
	23	<i>3 pan-su-kaš KÙ.BABBAR<sup>idz</sup> 𐎠-KÙ. BABBAR<sup>idz</sup> ḫi</i>	(of) 3 shekels, silver. (For) this silver
Edge	24	<i>»pi-pi(sic)-ka<sub>4</sub>-da-bar-ma »ak-ka<sub>4</sub>- ia-</i>	Pi(pi)kadabarma (sic) (and) the "helpers"
	25	<i>še mu-ši-in sik-ip 𐎠-taš-šu-tb<sup>idz</sup>-</i>	have rendered an accounting (for) the people
	26	<i>be.na pīr-ma-mu-šā-iš<sup>DINGIRITU<sup>idz</sup></sup></i>	(as required) by the edict. (In the) month
End	27	<i><sup>DINGIR</sup>ka<sub>4</sub>-[ḫar(?)]-ba]-[ši-ia<sup>1</sup>].</i>	of Karbashiya
	28	<i>na be-ul 13-na.ma</i>	in the 13th year
Left edge	29	<i>𐎠-ḫal-mi li-ka<sub>4</sub> »te-tuk-ka<sub>4</sub> tal-li-iš-da »ak-ku-šu(?) -na.mar</i>	a sealed order has been given. Tetukka wrote (the tablet), from Akkushuna(?) (he secured a receipt).

## CONTENTS

Artataxma informs the Persepolis treasurer, Vahush, that the sum of 3 karsha,  $6\frac{3}{4}$  shekels of silver from the royal Treasury should be paid to men whose apparent task has been to apply inlays to the reliefs and for whom Vahush himself is responsible. Not the money, however, but sheep, constitute the medium of payment, at the standard rate of one sheep for three shekels owed. The payment is for services performed during the eleventh, the twelfth, and the intercalated twelfth month of the twelfth year (of Xerxes). Pikadabarma and his helpers have accounted for the exchange between the monies owed and the sheep paid, and the document, once accompanied by a sealed (parchment) order, was drawn up by the scribe Tetukka, who secured a receipt from Akkushuna(?), apparently six months later in the sixth month (of Xerxes' thirteenth year).

The computations involved are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
1	$1\frac{3}{4}$		1;30
5	$\frac{3}{4}$		3;45
14	$\frac{1}{2}$		7
<hr/>			
Total 20		1	2;15 ×3 months
		<hr/>	
		3	6;45

## NOTES

Line 4: The *kaš* sign lacks two of the four essential wedges.

Line 5: For *ir-mat-ki* (also in ll. 18 f.), more normally *ir-ma-ki*, as indicating a fraction, see pages 38-39.

Admittedly, in view of such lines as No. 11:1-2: *5 pan-su-kaš a-ak ša-dš-maš* K1.MIN KÙ.BABBAR<sup>idz</sup>, or No.

24:1-2: *5 kur-šā-um 3 pan-su-kaš a-ak pīr-nu-ip-šu* K1.MIN KÙ.BABBAR<sup>idz</sup>, what here appears as *ki-EL.na* should likewise be K1.MIN.na; but that there is a word *ki-EL* meaning "shekels" is proved by Nos. 7:2 and 8:2. It is unfortunate that a determination of the certain value of the sign here read as EL must await further texts (see above, pp. 80 f.); a value *min* is impossible.

Line 6: For *gi* the scribe has written *ik*, perhaps intentionally in line 22.

Line 7: *Is-ma-lu* had already occurred in the Elamite version of DSf:43: "The goldsmiths who wrought the gold, these were Medes and Egyptians; and the men who made the *is-ma-lu*, these were Sardians and Egyptians." The corresponding OP word (l. 51) has been restored as [*išmar*]uv, and J. A. Montgomery has properly suggested a connection with Hebrew *ḥašmal*, Akk. *ešmarū* (*apud* Kent, "The Present Status of Old Persian Studies," *JAOS*, LVI [1936], 220). Unfortunately the meaning of both the Hebrew and the Akkadian words has hitherto been uncertain. In Hebrew (Ezek. 1:4, 27; 8:2) it is preceded by *ʿēn*, "eye," which has (I believe erroneously) been understood figuratively and translated "the luster of shining metal"; the Septuagint trans-

lates it by "electrum." The Akkadian passages are all comparatively late. In Esarhaddon, three talents of *ešmarū* are used with baked brick in the rebuilding of a temple (*KAH*, 75, rev., l. 3). Ashurbanipal carries off from Elam "shining *ešmarū*" (V R, 6:11). Both Ashurbanipal and Nabunaid employ *ešmarū* in the erection of colossi (R. C. Thompson, *The Prisms of Esarhaddon and Ashurbanipal* [London, 1931], Pl. XV, col. iii:8; V R, 64, col. ii:16). Nebuchadnezzar speaks of it in connection with baked brick (I R, 54, col. iii:56); and Nabunaid, using the verb *aḥāzu*, which frequently means "(to) inlay," employs the term in describing new leaves for his doors (*RT*, XVIII [1896], 15 ff., col. viii:49). Unnoticed, the word *is-ma-lu* also occurs in the records of *Mém.*, IX, Nos. 7:5; 12:11; 110:7; 121:14; 145:14; 213:2.

All references combine to the conclusion that the word means "inlay" or "overlay"; our present text states that the men who were fashioning *ismalu* were at the same time "making the reliefs(?)," and the numerous holes in the garments, crowns, etc., of the king in the Persepolis and Pasargadae reliefs (cf. Herzfeld, *Iran in the Ancient East* [London and New York, 1941], pp. 255 f.) would seem to provide for us an answer to the question as to where these "inlays" were applied. When we note that in the DSf inscription the "men who made the *ismalu*" are mentioned immediately after "the men who wrought the gold," the inference could be that gold was the normal "inlay" although, of course, it need not be limited to that substance; lapis lazuli too could be used.

Unquestionably *šá-iš-ki-ip* is identical with the more usual *še-iš-ki-ip*.

Line 8: For *ši-la*, "relief(s)," see No. 25.

Line 11: The last sign in *gal-li* is practically certain; compare the excellent *li* in line 29 with the *la* of line 8. This is the only occurrence of the expanded *gal* in the Treasury tablets, but both *gal-li* and *gal-la* appear in Fortification texts as observed above, page 51.

Lines 12-13: With *ir-ip.na* compare No. 10, rev., l. 2.

Line 15: Discussion of *ḫi-ia-ma-ši-ka<sub>4</sub>* in No. 10a was there deferred to this place where we have a complete reading. Little can be said about it with assurance, however, and one may wonder if the scribe did not intend to write *ḫi-ia-an ma-ši-ka<sub>4</sub>*, in which case *ma-ši-ka<sub>4</sub>* would be identical with the root more commonly written *máš-ši-*, meaning "(to) cut off, take out, withdraw," which appears in DB, DSf, and frequently in the Fortification texts. But even so its occurrence in this text with an assumed *ḫi-ia-an*, for which a translation such as "columned hall" seems most applicable, would not make too much sense. The word may after all be a place name.

For suggestions regarding the meaning of *te-um-ip-te* see No. 22. At the end of the line traces of *ut* are exceedingly faint, if indeed the sign was ever written there.

Line 22: See above, line 6.

Line 24: For the reading of the personal name see under "Personnel."

Line 25: See No. 15 for an interpretation of *mu-ši-in sik-ip*. I would understand this and the following phrase in the present context to mean that Pikadabarma and his helpers had accounted for the exchange of sheep for the money owed to the persons (*taš-šu-ib-be.na*) concerned, an exchange which was made at the standard (promulgated) rate of three shekels for each sheep.

Line 27: For the month name, see under "Date."

#### PERSONNEL

*Ma-u-iš*, treasurer and addressee: See No. 12.

*Ir-da-tak-ma*, addressor: See No. 21.

*Pi-pi-ka<sub>4</sub>-da-bar-ma*, who with his "helpers" (*ak-ka<sub>4</sub>-ia-še*; see No. 3) accounts for the monies: The repeated *pi* is surely but a scribal slip; see No. 15.

*Te-tuk-ka<sub>4</sub>*, scribe: Doubtless Elamite in origin, the name is in Hallock's "List of Names" from Fortification tablets, but does not seem to occur elsewhere up to the present.

*Ak-ku-šu(?) -na*, from whom—although the phrase has been shortened for want of space—the scribe secured a receipt: A reading *Ak-ku-ba-na* would be also possible; either reading would give a name which would probably be of Elamite origin, but one which has not recurred to date in any Persepolis texts.

#### DATE

The payments are for services performed during the eleventh month, Samiamantash (Shabatu), the twelfth month, Viyaxna (Addaru), and the intercalated twelfth month of the twelfth year (of Xerxes), or from January 25 through April 21, 473 B.C. The tablet itself was not drawn up—which means that the payments were not

## TRANSLITERATIONS AND TRANSLATIONS

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made—until six months later, in the month of Karbashiya (Ululu; of course of the thirteenth year), or between September 17 and October 16, 473.

Damage to the text makes the reading of the month name difficult, although I believe *Ka<sub>4</sub>-har-ba-ši-ia* to be all but certain. The normal writing of this month name is, of course, *Ka<sub>4</sub>-ir-ba-*, etc.; for the writing as here see the tablet cited by Hallock, "Darius I, the King of the Persepolis Tablets," *JNES*, I (1942), p. 231, n. 5 (two occurrences). Like the writing with *-ir-*, this writing with *-har-* should indicate a vocalic *r* which the Elamites heard in the OP name.

## SEAL

Type 2; see tablet No. 21.

## 28 (Pl. XIX)

	1	<i>Yma-u-iš ka<sub>4</sub>-ap-nu-iš-ki-ra</i>	(To) Vahush the treasurer
	2	<i>tu<sub>4</sub>-ru-iš » ši-iš-šá-ú-ma-</i>	speak, Ciçavahush
	3	<i>iš na-an-KI.MIN 8 kur-šá-um 7 pan-</i>	says: 8 karsha, 7 shekels,
	4	<i>su-kaš a-ak pír-nu-šu pan-su-kaš.na</i>	and a half of a shekel,
	5	<i>KÛ.BABBAR<sup>idg</sup> » nu.ik-ka<sub>4</sub>.na hu-be.ma.</i>	silver, from that which is in your control,
	6	<i>mar ap(!) si.sî-du » kur-taš ka<sub>4</sub>-ap-</i>	give to them, (to) Treasury workmen,
	7	<i>nu-iš-ki-ip mar-ri-ip hu-</i>	artisans—(that is, to all) those
	8	<i>pi-be ap pa-ri-ma-ak KÛ.BABBAR<sup>idg</sup></i>	to whom it is owing. (As for the) silver,
	9	<i>šá-ag-gi UDU.NITÁ<sup>idg</sup>.na pír-ru-</i>	the equivalent (is) in sheep in conformity with
	10	<i>mu-šá-ka<sub>4</sub> 1 KI.MIN<sup>idg</sup> 3 pan-su-</i>	the edict: 1 (of) the same (for) 3 shekels,
	11	<i>kaš KÛ.BABBAR<sup>idg</sup> du-man-ba<sup>DINGIRITU<sup>idg</sup></sup></i>	silver, they are to receive. Month
Edge	12	<i><sup>DINGIR</sup>ha-ši-[ia]-ti-iš.na</i>	of Açıyadiya
	13	<i>» be-ul '15'-na.ma</i>	in the 15th year.
	14	<i>2 » RUḪ<sup>idg</sup> un-ra 2 pan-</i>	2 men, each, 2 shekels.
Rev.	15	<i>su-kaš.na 22 » RUḪ<sup>idg</sup> un-ra</i>	22 men, each,
	16	<i>1 pan-su-kaš.na 14 » RUḪ<sup>idg</sup></i>	1 shekel. 14 men,
	17	<i>un-ra pír-nu-šu pan-su-kaš.na</i>	each, a half of a shekel.
	18	<i>27 » RUḪ<sup>idg</sup> un-ra 1 ši-šu-</i>	27 men, each, 1 third
	19	<i>maš pan-<sup>[su]</sup>-kaš.na 1 ME 50 9 » RUḪ(sic)</i>	of a shekel. 159 men,
	20	<i>un-ra 4 ir-ma-ak pan-su-kaš.na</i>	each, a fourth of a shekel.
	21	<i>9 » <sup>[RUḪ<sup>idg</sup>]</sup> un-ra 2 ši-šu-maš</i>	9 men, each, 2 thirds
	22	<i>da-na-kaš.na du-man-ba 5 <sup>MUNUS</sup>MUNUS</i>	of one-eighth shekel they are to receive. 5 women
		(sic)	
	23	<i>un-ra 1 pan-su-kaš.na PAB 2 ME</i>	each, 1 shekel. Total: 238
	24	<i>38 » kur-taš » in-da-</i>	work people. Inda-
Edge	25	<i>pi-ša tal-li-iš du-me</i>	piza wrote, the receipt
	26	<i>» muš-mar-du.ik.mar</i>	from Mushmardu(?)
	27	<i>du-iš-da</i>	he received.

## CONTENTS, PERSONNEL, DATE, AND SEAL

See No. 29, an almost identical text dealing with payments to the same workmen for the following month of the year.

## NOTES

Line 5: Translated literally, "silver of to you, from (with)in that," which should be interpreted as "silver from the Treasury of the king over which you as treasurer have the disposition"; No. 27, likewise addressed to the treasurer, says simply "silver from the Treasury of the king."

Lines 6–7: Just what "Treasury workmen" are is not clear. They may be workmen *upon* the Treasury, i.e., the additions which Xerxes made to the original structure of Darius may now be under construction. Or the phrase may mean rather that these workmen are neither soldiers, slaves, nor mere civilians, but are actually men for whose upkeep the Treasury is responsible.

Lines 21–22: “2 thirds of *da-na-kaš*” was long baffling. It occurs only in this text; though it is here clearly written, it does not reappear in the near-duplicate No. 29, which reads merely “2 thirds” and where the scribe surely intended us to understand “2 thirds of a shekel.” At first sight, therefore, *da-na-kaš* would seem to be another word for *pan-su-kaš*, “shekel,” a variant pronunciation of that word, or perhaps merely a slip of the scribe. We note, however, that if this word is understood as “shekel” our computations (see the Notes to No. 29) exceed those of the scribe by  $5\frac{1}{2}$  shekels. It is only when “2 thirds of *da-na-kaš*” is understood as “ $\frac{2}{3}$  of an eighth,” i.e., when the word itself is viewed as a word for “one-eighth (of a shekel),” that our computations agree with those of the scribe.

Fortunately, there can be no doubt that the Elamite *da-na-kaš* represents the hitherto undocumented OP *dānaka* (cf. Paul Horn, *Grundriss der neupersischen Etymologie*, Nos. 535–36) which, under the form *δανάκη(ς)*, is described by late Greek authors as a “barbarian” coin worth a little more than an (Attic) obol (thus Pollux [second century of our era] *Onomasticon* ix. 82; Hesychius [fifth century]; and Heraclides of Cyme in the *Etymologicum magnum* 247.41 ff.) or as the coin buried with a corpse as Charon’s fee (so Callimachus [ca. 260 B.C.], Frag. 110). Since Xenophon (*Anabasis*, i. 5.6) tells us that a Persian siglos (shekel) was equivalent to  $7\frac{1}{2}$  Attic obols, we may assume that about 8 *dānaka* would equal one shekel—i.e., that one *dānaka* would be worth about  $\frac{1}{8}$  shekel. The phrase “2 thirds of (a) *da-na-kaš*,” therefore, is in truth an equivalent way of saying “2 thirds of  $\frac{1}{8}$  shekel.” Numismatists, however, will note that according to our text the OP *dānaka* was a coin of silver (cf. ll. 5 and 8) and not of gold as assumed by Hultsch in Pauly-Wissowa (eds.), *Real-Encyclopädie der classischen Altertumswissenschaft*, VIII (1901), s.v. “Danake”; cf. also George F. Hill, *Catalogue of the Greek Coins of Arabia, Mesopotamia, and Persia* (London: British Museum, 1922), p. cxxiv.

## 29

	1	Yma-u-iš ka <sub>4</sub> -ap-nu-iš-ki-ra	(To) Vahush the treasurer
	2	↳ba-ir-šá.[iš] tu <sub>4</sub> -ru-iš	at Parsa speak,
	3	↳↳š <sub>1</sub> -iš-šá-ú-↳ma-iš 'na <sup>1</sup> -an-KI.MIN	Ciçavahush says:
	4	8 kur-šá-um 7 pan-su-kaš a-ak	8 karsha, 7 shekels, and a
	5	pír-nu-šu pan-su-kaš [KÛ.BABBAR <sup>idg</sup>	half shekel, silver,
	6	↳nu.ik-ka <sub>4</sub> .na hu-be.ma.mar	from that which is under your control,
	7	ap si.si-du ↳kur-taš ka <sub>4</sub> -ap	give to them—(to) Treasury work-
	8	nu-iš-ki-ip 'a-ak(?) <sup>1</sup> mar-ri-	men and(?) artisans
	9	ip ↳ma-u-iš ka <sub>4</sub> -ap-nu-iš-	(for whom) Vahush the treasurer
	10	ki-ra šá-ra-man-na gal ma-	is responsible (and who) are earning
Edge	11	ki-ip hu-pi-be ap pa-ri-	wages—(to all) those to whom it is
	12	ma-ak KÛ.BABBAR <sup>idg</sup> šá-gi.ma	owing. The silver (specified) has for equivalent
Rev.	13	UDU.NITÁ <sup>idg</sup> .na pír-ru-mu-šá-↳ka <sub>4</sub> <sup>1</sup>	sheep (at the rate) fixed by edict:
	14	1 KI.MIN <sup>idg</sup> 3 pan-su-kaš [KÛ.BABBAR <sup>idg</sup>	1 (of) the same (for) 3 shekels, silver,
	15	du-man-ba DINGIRITU <sup>idg</sup> DINGIRha-na-	they are to receive. Month of Ana-
	16	ma-kaš.na ↳be-ul 15-na.ma	maka in the 15th year.
	17	2 ↳RUḪ <sup>idg</sup> un-ra 2 pan-su-kaš	(By) 2 men, each, 2 shekels
	18	du-ma-ak(sic) 22 ↳RUḪ <sup>idg</sup> un-ra	are to be received. (By) 22 men, each,
	19	1 pan-su-kaš du-ma-ak '14 <sup>1</sup> ↳RUḪ <sup>idg</sup>	1 shekel is to be received. (By) 14 men,
	20	un-ra pír-nu-šu <sup>idg</sup> (sic) pan-su-kaš.	each, a half of a shekel
	21	na du-ma-ak '27 <sup>1</sup> ↳RUḪ <sup>idg</sup>	is to be received. (By) 27 men,
	22	un-ra 1 ši-šu-maš pan-su-↳kaš <sup>1</sup> .	each, 1 third of a shekel
	23	na du-ma-ak 1 ME 50 9 ↳RUḪ(sic)	is to be received. 159 men,
Edge	24	un-ra 4 ir-ma-ak pan-su-kaš.na	each, a fourth of a shekel.
	25	9 ↳RUḪ <sup>idg</sup> un-ra 2 ši-šu-maš	9 men, each, 2 thirds (of an eighth!).
Rt. end	26	'5 <sup>1</sup> MUNUSMUNUS(sic) un-ra 1 pan-su-	5 women, each, 1 shekel.
		kaš.na	
	27	PAB 2 ME 30 8 ↳kur-taš ↳in-da-	Total: 238 workmen. Indapi(za) <wrote>.
		pi(sic)	

## TRANSLITERATIONS AND TRANSLATIONS

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## CONTENTS OF NOS. 28-29

Çiçavahush informs the Persepolis treasurer, Vahush, that the sum of 8 karsha,  $7\frac{1}{2}$  shekels, silver (an incorrect total on both tablets unless we make a rather drastic emendation in l. 22 of No. 28, l. 25 of No. 29!), which is at his disposal, is to be paid to Treasury workmen for whom Vahush himself is responsible, who are entitled to receive wages at Persepolis, and to whom the monies are owing. The 238 workmen involved are not to be paid in cash, however, but in sheep at the proclaimed rate of one sheep for three shekels. Tablet No. 28 computes payments for the ninth month, tablet No. 29 for the tenth month of the fifteenth year (of Xerxes). The scribe was Indapiza, who secured a receipt from Mushmardu(?).

The scribe's figures demand the following computations:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
2	2		4
22	1	2	2
14			7
27			9
159		3	9;45
9	of $\frac{1}{2}$ (!) = $\frac{1}{2}$		0;45
5	1		5
<hr/> Total 238		<hr/> 8	<hr/> 7;30

## NOTES

This tablet ceases abruptly not only in the middle of a sentence but actually in the middle of a word. It can, of course, be completed by comparing its near-duplicate No. 28, which deals with payments to the identical number of individuals for services performed one month earlier, but that comparison clearly indicates that both tablets were written on the same day. From the fact that No. 29 ends so far from the real conclusion of the text, and yet has used up all the available space on the tablet itself (the right end was utilized for the last two lines extant, and the scribe failed to leave a margin on the left edge), we might possibly conclude that No. 29 was itself a first draft which was later rewritten and discarded. We could not conclude, however, that No. 29 was the first draft, No. 28 the final draft, for not only are the payments for different months, but there are certain small but significant additions in No. 29 which are not included in No. 28, particularly in lines 9-11.

The computations are in themselves interesting; they confirm our suspicion that the scribe himself never bothered to check the calculations which he was told to put down in writing, and they lead us to suspect that he was turning out *en masse* tablets of similar nature dealing with various payments for differing months at one and the same time.

Line 2: Note the addition to No. 28: "(treasurer) at Parsa."

Lines 9-11: In No. 28 we miss this usual stipulation that someone "is responsible for" the workmen; here Vahush the treasurer is specifically designated, and there is the additional clause that the workmen are entitled to "earn wages."

## PERSONNEL OF NOS. 28-29

*Ma-u-iš*, the Persepolis treasurer and addressee: See No. 12.

*Ši-iš-šá-ú-ma-iš*, addressor (also in Nos. 31 and 33 [years 16 and 18] where it is written *Ši-iš-šá-u-ú-iš*): The name is fairly common also in Fortification tablets, where it is usually written *Ši-iš-šá-ú-iš* and *Ši-iš-šá-u-iš*. It is the name of the addressor of Fort. 3566 (year 23 of Darius) and 1016 (year 24), of one who brings a sealed order for two tablets written in the twenty-third year (Fort. 1637 and 6833), and of one who receives wages in year 26(?) (Fort. 3678). Obviously the same name is that of *Ši-iš-šá-ḫu-iš* who brings a sealed order in the twenty-third year (Fort. 1019); in Hallock's "List" the name appears as *Ši-iš-šá-ḫu-maš*.

Clearly the name is OP \**Čiça-vahu-*, "of good lineage," intimately connected with *Čiça-vahišta*, Greek *τιθαύστης* (Justi, *NB*, p. 164).

*In-da-pi-ša*, the scribe: This name, which appears only here, would seem to be Elamite, and resembles the name of a New Elamite king in the time of Ashurbanipal, Indabigash (cf. Cameron, *History of Early Iran*, pp. 193 ff.). However, we may also compare the OP names *Vinda-farnā* (Intaphernes) and *Ratīn-inda* (see No. 49).

*Muš-mar-du*, who delivered the receipt: The postpositions following a personal name and meaning something like "from (that which was or belonged) to (someone)" are written *ikka.mar* 10 times, *ikki.mar* 9 times,

*.ik.mar* 9 times, *.ak.ka<sub>4</sub>.mar* 4 times, *.ku.mar* once, and (erroneously?) *mar.mar* once; apparently the essential features can be normalized as *.k.mar*. Three times in our texts, however, *.mar* alone is sufficient: Nos. 13:32, 16:20, and 27:29. Perhaps our name is actually to be read as *Muš-mar-du-ik* (although this is unlikely), i.e., as one involving the name of the Babylonian deity Marduk; compare Nos. 1 (*Mar-du-uk-ka<sub>4</sub>*), 84 (*Mar-duk-ka<sub>4</sub>*), and 25 (*Mar-du-kán-na-šir*).

## DATE OF NOS. 28-29

Tablet No. 28 computes payments for the month Ačiyadiya (Kislimu) of the fifteenth year (of Xerxes), or from November 24 through December 22, 471 B.C. Tablet No. 29 computes payments for the succeeding month Anamaka (Tebetu) of the same year, or from December 23, 471, through January 21, 470. Both tablets must have been written at one sitting, however, and hence cannot have been compiled much before the latter date.

## SEAL OF NOS. 28-29

Type 6, bearing a two-line OP inscription of Xerxes reading "I, Xerxes, King . . . ."

## 30 (Pl. XX)

	1	<i>6 pan-su-kaš a-ak 1 [ir-ma-ki]</i>	6 shekels and 1 third(!)
	2	<i>KI.MIN KÙ.BABBAR<sup>idg</sup> k[a<sub>4</sub>-ap-nu]-</i>	(of) the same, silver, from the
	3	<i>iš-ki-ip ṽba-<sup>1</sup>ir-šá.ma<sup>1</sup>.mar</i>	treasurers(!) in Parsa,
	4	<i>gal ṽkur-taš mar-ri-ip ṽbe-</i>	(as the) wages of workmen, artisans,
	5	<i>a-ši-iš-kur-ra-iš-be ṽman-</i>	ornament makers, (whom) Man-
	6	<i>na-an-da da-ma ṽba-ir-šá</i>	nanda sent (to) Parsa
	7	<i>ṽma-u-iš šá-ra-man-na</i>	(and for whom) Vahush is responsible—
	8	<i>ḫu-pi-be ap pa-ri-ma-ak</i>	(to) those to whom it was owing (the monies have been given).
	9	<i>GEŠTIN<sup>idg</sup> šá-ag-gi.ma 1 mar-</i>	Wine (serves) as the equivalent (of the money): 1 jar
Edge	10	<i>ri-iš GEŠTIN<sup>idg</sup> 1(!) pan-</i>	(of) wine (for) 1 shekel,
	11	<i>su-kaš KÙ.BABBAR<sup>idg</sup> pīr-ru-uk-</i>	silver, (according to the rate as) fixed by edict,
Rev.	12	<i>ku gal 2 ir-ma-ki<sup>DINGIR</sup></i>	(and is to serve for) 2 thirds(!) (of) the wage.
	13	<i>ITU<sup>idg</sup> [DINGIR]sa-a-kur-ri-ši-</i>	Months: Thaugarci
	14	<i>iš a-<sup>1</sup>ak<sup>1</sup> [DINGIR]kar-ma-ba-taš</i>	and Garmapada,
	15	<i>ṽbe-ul 16-na</i>	16th year.
	16	<i>3 ṽRUḪ<sup>idg</sup> un-ra 2 ir-</i>	3 men, each, 2 thirds(!)
	17	<i>ma-ki pan-su-kaš KÙ.BABBAR<sup>idg</sup></i>	(of) a shekel, silver, (and)
	18	<i>1 ṽRUḪ<sup>idg</sup> pīr-nu-ba-ak</i>	1 man, a half
	19	<i>pan-su-kaš KÙ.BABBAR<sup>idg</sup> du-man-ba</i>	shekel, silver, they are to receive.
	20	<i>2 ṽRUḪ<sup>idg</sup> un-ra 1 ir-</i>	2 men, each, 1 third(!)
	21	<i>ma-ki pan-su-<sup>1</sup>kaš<sup>1</sup></i>	(of) a shekel.
	22	<i>PAB 6 ṽRUḪ<sup>idg</sup> ṽbe-</i>	Total: 6 men.
End	23	<i>ul 16-un-me-man-na</i>	(Payment) of the 16th year.

## CONTENTS

A memorandum-type document which declares that the sum of  $6\frac{1}{3}$  shekels of silver has been paid by the treasurers (*sic*) of Persepolis to artisans who were adorning the buildings, who were brought hither by Mananda, and for whom (the treasurer) Vahush is responsible. For two-thirds of the sum due them they have received, however, not money but wine at the standard rate as set by edict of one jar of wine for each shekel.



## TRANSLITERATIONS AND TRANSLATIONS

135

Six artisans are enumerated, and their services were performed during the third and fourth months of the sixteenth year (of Xerxes). The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL SHEKELS
3	2	2
1	30	0;30
2	20	0;40
Total 6		3;10
		× 2 months
		6;20

## NOTES

Line 1: *Ir-ma-ki* has been restored because of its occurrences in lines 12, 16–17, and 20–21. Contrary to the evidence of all other tablets the word here means “third(s)”; see, for example, lines 16–17, where 2 *ir-ma-ki* cannot mean “one-half,” which is correctly expressed by *pír-nu-ba-ak* in line 18. Further, the computations are correct only if, throughout, the word is understood to mean “third(s).” Thus the scribe has mistakenly used *ir-ma-ki* for *ši-iš-maš*; if this indicates that he understood neither the word nor its meaning, it may suggest that it is not an Elamite word at all in spite of the explanation given above on p. 38, n. 25.

Lines 4–5: The latter part of the word *be-a-ši-iš-kur-ra-iš-be* (which seems to reappear in No. 62:4–5 as *be-ši-iš-kur-ráš-be*), of course involves OP *-kara*, followed by the Elamite terminations *-š* and (the personal plural) *-be*. The prior element, in spite of the fact that the word is preceded by *ᵛ*, is hardly a place name but surely represents OP *paiš*, *piš*, Av. *paēs-* (*BAiW*, col. 817; Tolman, *op. cit.*, p. 111), meaning originally “(to) cut, trim” (cf. OP *nīy + piš*, “(to) write an inscription”), then “(to) adorn, ornament.” Our word is perhaps better translated “ornament maker” than “inscription maker,” although we may with right compare the assumed OP *nipišta* in No. 9:9. The exact OP form is of course dubious, but it might well be *pisa-s-kara* or *piša-s-kara* (with intrusive *-s-*).

Some support for our derivation may be secured by comparing *ša-ir-nu-pa-sa-iš* in No. 63:9–10, which I have suggested represents an OP compound similar to Av. *zaranyō-paēsa-* (“with gold ornaments”). Agianst this it may be argued that, since OP *p* is nearly always represented by El. *b*, the two transliterations *be-a-ši-iš* and *pa-sa-iš* must indicate different words; this is inconclusive, however (see No. 63).

It is improbable that the Elamite scribe was here attempting to render the same word as *ba-ši-ka-ra(-iš)* which appears in similar context in Nos. 41:5 and 54:6.

## PERSONNEL

*Man-na-an-da*, who “sent” the workmen (see No. 25): Doubtless the same individual performs the same function in Nos. 33 (year 18) where his name is written *Ma-na-an-da*, 34–35, and 42b (all year 19); he is “responsible” for the workmen in No. 31 (year 16). Perhaps the same name is written *Man-nu-un-da* in Fort. 5899 (Darius, year 19; also in Hallock’s “List of Names”). The name *Ma-na-an-da* also appears in the documents from Susa in *Mém.*, IX, Nos. 101:6 and 142:2.

*Ma-u-iš* (doubtless the treasurer), who is responsible for the workmen: See No. 12.

## DATE

The text computes payments for the months *Thaigarci* (*Simanu*) and *Garmapada* (*Duzu*) of the sixteenth year (of Xerxes), or from June 19 through August 16, 470 B.C.

## SEAL

Type 30, present only on this tablet and No. 32. A photograph of the impression on this tablet appears in Schmidt, *op. cit.*, p. 40 (top).

## 31

- 1 *ᵛ ma-u-ú-iš kán-ša-bar-ra*
- 2 *ᵛ ba-ir-šá.iš tu₄-ru-iš ᵛ ši-*
- 3 *iš-šá-u-ú-iš ʹna¹-an-KI.MIN*
- 4 7 *pan-su-kaš KÙ.BABBAR*<sup>idg</sup> *sì.sì-du gal*

(To) Vahush the treasurer  
at Parsa speak, *Çiça-*  
*vahush* says:  
7 shekels, silver, give (as) the wage

## PERSEPOLIS TREASURY TABLETS

	5	RUḪ <sup>idg</sup> kur-šī(?)-kaš <sup>1</sup> ap-pa » man-na-	(of) men, "cultivators," (for) whom Man-
	6	an-da šá-ra-man-na ša-ik 2 ir-ma-ki	nanda is responsible—the equivalent (of) one-half
	7	gal UDÚ.NITÁ <sup>idg</sup> .na » ap-pi 'pa <sup>1</sup> -ri-	the wage (is) in sheep—(the wage which) to them
	8	ma-ak <sup>DINGIRITU<sup>idg</sup></sup> tur-na-ba-ši-	is owing. Months of Darnabaji
	9	iš.na a-ak <sup>DINGIRITU<sup>idg</sup></sup> ir-pi-ši-	and of Karbashiya—
Edge	10	ia-iš.na FAB 2 <sup>DINGIRITU<sup>idg</sup></sup> ḫa-	within a total of 2 months
	11	tu.ma ṽ-be-ul 16-um-me-man-na	of the 16th year.
Rev.	12	2 » RUḪ(sic) un-ra 1 pan-su-kaš	2 men, each, 1 shekel,
	13	KÙ.BABBAR <sup>idg</sup> du-man-pi 1 » RUḪ <sup>idg</sup> pír- nu- <sup>1</sup> ba <sup>1</sup> -	silver, are to receive. 1 man, a half
	14	ak pan-su-kaš KÙ.BABBAR <sup>idg</sup> du-man-ri 3	shekel, silver, is to receive. 3
	15	» RUḪ <sup>idg</sup> un-ra 3 ir-ma-ki pan-su-kaš	men, each, a third (of) a shekel,
	16	[KÙ.BABBAR <sup>idg</sup> d]u- <sup>1</sup> man-pi <sup>1</sup> <sup>DINGIRITU<sup>idg</sup></sup> ba-gi-	silver, are to receive. (In the) month of Baga-
	17	ia-ti-iš.na ṽ-be-ul 16-[um]-	yadi of the 16th year
	18	me-man-na ṽ-ḫal-mi ḫi li-ka <sup>4</sup> »	this sealed order has been given.
	19	at-te-ba-du-iš tal-li-iš	Attepatush wrote (the tablet),
	20	du-me » u-ra.ik.mar	the receipt (was) from Ura.

## CONTENTS

Çiçavahush informs the Persepolis treasurer Vahush that the sum of seven shekels of silver is to be paid to six cultivators as their wages for the fifth and sixth months of the sixteenth year (of Xerxes). Half of the sum specified is to be paid in sheep. A sealed order once accompanied the document, which was written by Attepatush (who secured a receipt from Ura) in the seventh month of the same year. The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL SHEKELS
2	1	2
1	$\frac{1}{2}$	0;30
3	$\frac{1}{3}$	1
<hr/>		<hr/>
Total 6		3;30
		×2 months
		<hr/>
		7

## NOTES

Line 5: Compare *kur-šī-ik-kaš-be* in No. 14.

## PERSONNEL

*Ma-u-ú-iš*, treasurer and addressee: See No. 12.

*Ši-iš-šá-u-ú-iš*, addressor: See Nos. 28–29.

*Man-na-an-da*, "responsible": See No. 30.

*At-te-ba-du-iš*, scribe: The name appears only here and in the fragmentary No. 31a; its origin is unquestionably Elamite.

*U-ra*, who delivers a receipt: The first sign is *u* in view of the name also in No. 31a, but my notes concerning it at Teheran read: "The sign does not look like *u* but appears as if made by a knife-blade rather than a stylus."

Note, however, that OP *Ahura* appears as *U-ra* in Elamite. The same question as to whether *ik* was a part of the name may be raised as with *Muš-mar-du* in Nos. 28–29, *q.v.*

## DATE

Payments are computed for services rendered during Darnabaji (Abu) and Karbashiya (Ululu) of the sixteenth year (of Xerxes), or from August 17 through October 14, 470 B.C. The tablet was not compiled until Bagayadi (Tashritu) of the same year, however, or some time between October 15 and November 13.

## SEAL

Type 6; see tablet No. 29.

## TRANSLITERATIONS AND TRANSLATIONS

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## 31a

This tiny fragment, copied at Persepolis in 1939, is given in transcription solely because the preserved lines duplicate exactly the readings of No. 31:17-20. The only lines which remain read:

*x+1* [. . . ] *be-ul* 16-um-me-man-na  
*x+2* [ *hal-mi hi li-ka* ] *at-te-ba-du-iš tal-*  
*x+3* [*li-iš du-me*] *u-ra.ik.mar* [. . . ]

## 32

	1	<i>kur-šá-um 2 pan-su-</i>	7 karsha, 2 shekels,
	2	<i>kaš KÜ.BABBAR<sup>idg</sup> ka<sub>4</sub>-ap-nu-iš-</i>	silver, from the Treasury
	3	<i>ki ba-ir-šá.na.ma.mar</i>	of Parsa, (which)
	4	<i>kur-taš GIŠ<sup>idg</sup> GIŠ<sup>idg</sup> še-</i>	the workmen, wood-
	5	<i>iš-ki-ip ba-ir-šá</i>	workers (at) Parsa
	6	<i>ma-u-iš šá-ra-</i>	(for whom) Vahush is responsible (have received).
	7	<i>man-na be-ul 16-na</i>	(It is wages) of the 16th year.
Edge	8	<sup>DINGIRIRU<sup>idg</sup></sup> <i>ha-šá-ia<sup>1</sup>-[ti]-</i>	Months: Açıyadiya
	9	<i>iš ku-iš<sup>DINGIR</sup> sa-mi-man-taš</i>	through Samiamantash.
Rev.	10	<i>10 RUH<sup>idg</sup> un-ra</i>	10 men, each,
	11	<i>2 ši-iš-maš</i>	2 thirds
	12	<i>pan-su-kaš.na</i>	of a shekel.
	13	<i>6 RUH<sup>idg</sup> un-ra</i>	6 men, each,
	14	<i>pir-nu-ip-šu pan-su-kaš.na</i>	a half of a shekel.
	15	<i>7 RUH<sup>idg</sup> un-ra</i>	7 men, each,
	16	<i>ši-iš-maš.na</i>	a third.

## CONTENTS

A memorandum-type tablet which states that the sum of 7 karsha, 2 shekels of silver from the Persepolis Treasury has been paid to twenty-three woodworkers at Persepolis for whom Vahush (the treasurer) is responsible. The payments, originally computed for a six-month period, from the sixth to the eleventh month (inclusive) of the sixteenth year (of Xerxes), have later been altered to include only the ninth, tenth, and eleventh months of this year. No medium of payment other than the money itself is specified, and the original wage scale was as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
10	$\frac{2}{3}$		6;40
6	$\frac{1}{2}$		3
7	$\frac{1}{3}$		2;20
<hr/>			
Total 23		1	2
			×6 months
		<hr/>	<hr/>
		7	2

## NOTES

Lines 8-9: These two lines on the edge seem to have been written after the tablet was almost hard and with a totally different stylus.

## PERSONNEL

*Ma-u-iš* (treasurer), responsible for the workmen: See No. 12.

## DATE

The tablet seems originally to have computed payment for services performed from Karbashiya (Ululu) through Samiamantash (Shabatu) of the sixteenth year (of Xerxes), or from June 15, 470, through March 9, 469 B.C. This period has later been altered to read Açıyadiya (Kislimu) through Samiamantash, or from December 13, 470, through March 9, 469.

## SEAL

Type 30; see tablet No. 30.

## 33 (Pl. XXI)

	1	ʿ <i>ma-u-iš</i> <i>ka<sub>4</sub>-an<sup>1</sup>-ša-ba-ra</i> ʾ-	(To) Vahush the treasurer
	2	<i>ba-ir</i> (!)-šá.an <i>tu<sub>4</sub>-ru-iš</i>	of Parsa speak,
	3	ʿ <i>ši-iš-šá-u-ú-iš</i> na-an-KI.MIN	Çiçavahush says:
	4	4 <i>pan-su-kaš</i> <i>pír-nu-šu</i> <i>pan-su-</i>	4 shekels (and) a half of a shekel,
	5	ʿ <i>kaš.na<sup>1</sup></i> KÙ.BABBAR <sup>idg</sup> <i>ap</i> sî.sî(sic) <i>gal</i>	silver, give to them (for) wages—
	6	» <i>kur-taš</i> <i>mar-ri-íp</i> » <i>ma-</i>	(to) workmen, artisans, whom
	7	ʿ <i>na<sup>1</sup>-an-da</i> <da>- <i>ma šá-gi-me</i>	Mannanda “sent.” The equivalent
	8	2 <i>ši-iš-maš</i> <i>gal</i> UDU.	(of) 2 thirds (of) the wage (payment)
Edge	9	NITÁ <sup>idg</sup> <i>gal</i> <i>ap-pi-ni</i>	(is) sheep, (as) their wage.
	10	DINGIRITU <sup>idg</sup> <i>mi-kán-na-iš</i>	Month (of) Viyaxna
Rev.	11	ʾ- <i>be-ul</i> 18- <i>um-me.na</i>	of the 18th year.
	12	3 » RUḪ <sup>idg</sup> <i>un-ra</i> DINGIRITU <sup>idg</sup> .	3 men, each, per month,
	13	<i>na</i> 1 <i>pan-su-kaš</i> 1 » RUḪ <sup>idg</sup>	1 shekel. 1 man,
	14	DINGIRITU <sup>idg</sup> <i>pír-nu-šu</i> <i>pan-su-kaš</i>	per month, a half shekel.
	15	3 » RUḪ <sup>idg</sup> <i>un-ra</i> DINGIR	3 men, each,
	16	ITU <sup>idg</sup> . <i>na</i> <i>ši-iš-maš</i>	per month, a third
	17	<i>pan-su-kaš.na</i>	of a shekel.
Edge	18	ʾ- <i>ḫal-ḫi-mi</i> (!) <i>li-ka<sub>4</sub></i>	This-sealed-order has been given.

## CONTENTS

Çiçavahush informs the Persepolis treasurer Vahush that the sum of 4½ shekels of silver should be given to seven artisans who were brought by Mannanda. Two-thirds of the sum stipulated is to be paid not in cash but in sheep. The document, once accompanied by a sealed order, computes payments for services rendered during the last month of the eighteenth year (of Xerxes), and the computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL SHEKELS
3	1	3
1	$\frac{1}{2}$	0;30
3	$\frac{1}{3}$	1
<hr/>		<hr/>
Total 7		4;30

## NOTES

Line 18: The usual *ḫal-mi ḫi* has here been mistakenly expressed.

## PERSONNEL

*Ma-u-iš*, treasurer, addressee: See No. 12.

*Ši-iš-šá-u-ú-iš*, addressor: See Nos. 28–29.

*Ma-na-an-da*, who “sent” the workmen: See No. 30.

## DATE

The document computes payments for the month Viyaxna (Addaru) of the eighteenth year (of Xerxes). According to the tables compiled by Parker and Dubberstein, *Babylonian Chronology* (p. 30), the eighteenth year should have an intercalated Viyaxna, and it is surprising that the scribe or the author of our text did not specify which Viyaxna was meant. Presumably the first would be intended, however, and so the payments were for services rendered from February 17 through March 17, 468 B.C.

## SEAL

Type 6; see tablet No. 29.

## TRANSLITERATIONS AND TRANSLATIONS

139

## 34

	1	<i>4 pan-su-kaš KÙ.BABBAR<sup>idg</sup></i>	4 shekels of silver
	2	<i>na ka<sub>4</sub>-ap-nu-iš-ki 𐎠</i>	from the Treasury
	3	<i>ba-ir-šá.na.mar 𐎠kur-</i>	of Parsa,
	4	<i>taš mar-ri-ip 𐎠ba-ir-</i>	(which) the workmen, artisans
	5	<i>iš-šá 𐎠man-na-an-da</i>	at Parsa, (whom) Mannanda
	6	<i>da-ma 𐎠ma-u-iš šá-ra-</i>	"sent" (and for whom) Vahush is responsible,
	7	<i>man-na hu-pi-be du-</i>	they are receiving.
Edge	8	<i>ma-iš DINGIR<sub>1</sub>TU<sup>idg</sup></i>	Month
	9	<i>mar-ka<sub>4</sub>-šá-na.na</i>	of Varkazana
Rev.	10	<i>𐎠be-ul 19-um-me.na</i>	of the 19th year.
	11	<i>4 𐎠RUḪ<sup>idg</sup> un-ra 𐎠</i>	4 men, each, 2
	12	<i>ši-iš-maš pan-su-kaš.na</i>	thirds of a shekel.
	13	<i>2 𐎠RUḪ<sup>idg</sup> un-ra pír-</i>	2 men, each,
	14	<i>nu-šu pan-su-kaš.na</i>	a half of a shekel.
	15	<i>1 𐎠RUḪ<sup>idg</sup> ši-iš-</i>	1 man, a third
	16	<i>maš pan-su-kaš.na GEŠTIN</i>	of a shekel. Wine
	17	<i><sup>idg</sup> šá-gi.ma 2 ši-iš-maš</i>	(serves) for the equivalent (of) 2 thirds (of the wage).

## CONTENTS, PERSONNEL, DATE, AND SEAL

See No. 35.

## NOTES

This text and the following (No. 35) were obviously written by the same scribe at one sitting and deal with payments to the same individuals but in successive months of the year. A cast of No. 34, prepared at Persepolis, substantiates the readings made in Teheran.

No. 34 once spells "Parsa, Persepolis," correctly (l. 3), once incorrectly (ll. 4–5), whereas No. 35 twice spells it *Ba-ir-iš-šá*. No. 34:3 also omits the word *gal*, "wages," which occurs in the corresponding passage of No. 35, and slightly rearranges the order of the phrases which appear in the more normal order in No. 35. Otherwise there is no essential difference between the two texts aside from the fact that they deal with payments for different months.

## 35

	1	<i>4 pan-su-kaš KÙ.BABBAR<sup>idg</sup></i>	4 shekels, silver,
	2	<i>ka<sub>4</sub>-ap-nu-iš-ki 𐎠ba-</i>	from the Treasury
	3	<i>ir-iš-šá.na.mar gal</i>	of Parsa, (as the) wage
	4	<i>𐎠kur-taš mar-ri-</i>	(of) workmen, (which the) artisans
	5	<i>ip 𐎠(sic) ba-ir-iš-šá</i>	at Parsa
	6	<i>𐎠<sup>1</sup> man-na-an-da</i>	(whom) Mannanda
Edge	7	<i>da-ma 𐎠ma-u-iš</i>	"sent" (and for whom) Vahush
Rev.	8	<i>šá-ra-man-na hu-pi-</i>	is responsible, they are
	9	<i>be du(!)-ma-iš 2 ši-iš-</i>	receiving. (For) two-thirds (of the wage)
	10	<i>maš GEŠTIN<sup>idg</sup> šá-gi.ma</i>	wine (serves) as the equivalent.
	11	<i>DINGIR<sub>1</sub>TU<sup>idg</sup> ha-ši-ia-</i>	Month of Açiya-
	12	<i>ti-iš.na 𐎠be-ul</i>	diya
	13	<i>19-um-me.na</i>	of the 19th year.
	14	<i>4 𐎠RUḪ<sup>idg</sup> un-ra</i>	4 men, each,
	15	<i>2 ši-iš-maš pan-su-kaš.na</i>	2 thirds of a shekel.
Edge	16	<i>2 𐎠RUḪ<sup>idg</sup> un-ra pír-nu-šu pan-su-kaš</i>	2 men, each, a half (of) a shekel.
On left margin of reverse:	17	<i>1 𐎠RUḪ<sup>idg</sup> ši-iš-maš pan-su-kaš.na</i>	1 man, a third of a shekel.

## PERSEPOLIS TREASURY TABLETS

## CONTENTS OF NOS. 34-35

These two memorandum-type tablets record the payment of four shekels of silver from the Persepolis Treasury as wages to seven artisans who were brought to the site by Mannanda and for whom Vahush (the treasurer) is responsible. Two-thirds of the sum specified is to be paid in wine; presumably the remaining third was to be paid in cash. No. 34 records the payment for the eighth month, No. 35 for the ninth month of the nineteenth year (of Xerxes), and the computations of both texts are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL SHEKELS
4	$\frac{2}{3}$	2;40
2	$\frac{1}{3}$	1
1	$\frac{1}{3}$	0;20
<hr/>		<hr/>
Total 7		4

## NOTES

See notes on No. 34, of which this is a near-duplicate, though for one month later.

Line 5: The "personal wedges" before *Ba-ir-iš-šá* are clear but are obviously a mistake of the scribe.

Line 17: Written on the left margin of the reverse and over an erasure, this line is all but illegible.

## PERSONNEL OF NOS. 34-35

*Man-na-an-da*, who "sent" the workmen to Persepolis: See No. 30.

*Ma-u-iš* (treasurer), responsible for the workmen: See No. 12.

## DATES OF NOS. 34-35

No. 34 records payments for services rendered during the month Varkazana (Arahsamnu) of the nineteenth year (of Xerxes), or from November 10 through December 8, 467 B.C. No. 35 does the same for the next month, Ačiyadiya (Kislimu), of the same regnal year, or from December 9, 467, through January 7, 466 B.C.

## SEAL OF NOS. 34-35

Type 5, bearing a two-line OP inscription reading "Xerxes, Great King." This seal is used also on Nos. 39 (dealing with payments for the tenth month of year 19) and 40 (months 10-11), in both of which the individual "responsible" for the workmen is likewise Vahush (the treasurer). In No. 45, however, a tablet dealing with payments for the eleventh and twelfth months of this year, it is employed when Uratinda is "responsible," and throughout the twentieth year it is used on the vast majority of memorandum-type tablets, in most of which the name of Uratinda is present, as also on the tablets from the first year (of Artaxerxes), Nos. 76-77, in which he appears. In the third year (of Artaxerxes), *Ba-ir-iš-šá* is named as the "responsible" party, and perhaps his name should be restored in the sole fifth-year document, No. 79, where this seal is used. It is somewhat notable that this type 5 seal is never used on any of the letter-type documents.

## 36 (Pl. XXII)

1	<i>Ṭma-u-iš tu<sub>4</sub>-ru-iš</i>	(To) Vahush speak
2	<i>» (!) pír-ra-tam<sub>4</sub>-ma » ba-ka<sub>4</sub>-da-</i>	in the fortress, Megadates
3	<i>ad-da (!) na-an-KI.MIN 9 kur-šá-um</i>	says: 9 karsha,
4	<i>3 pan-su-kaš ši-iš-maš KÜ.BABBAR<sup>idg</sup></i>	3 shekels, (and) a third (of a shekel), silver,
5	<i>ša-ak pír-nu-ip gal gal » R[UḤ<sup>idg</sup>(?)]</i>	(give as) the equivalent (of) half the wage, (namely), the wage (of)
6	<i>aiš(!)GEŠTIN<sup>idg</sup> ú-ut(!)-ti(!)-ip</i>	wine makers
7	<i>» an-kur-rák-kaš » ú-da-</i>	(in the place?) Ankurraka, (whom) Otanes
Edge	8 <i>na<sup>1</sup>aiš(!)GEŠTIN<sup>idg</sup> 'ku(?))-ti-ra(?)<sup>1</sup></i> <i>[da-ma]</i>	the wine bearer(?) "sent."
9	<i>ḥu-pi-be DINGIRITU<sup>idg</sup> ḥa-</i>	These (have worked in) the month
Rev.	10 <i>ši-ia-ti-iš » be-</i>	Ačiyadiya

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11	<sup>1</sup> ul <sup>1</sup> 19-um-me.na	of the 19th year.
12	12 » ruḥ <sup>ids</sup> un-ra 2 pan-[su-kaš]	12 men, each, 2 shekels
13	pír-nu-ip-šu	(and) a half.
14	9 » pu-ḥu un-ra 1 pan-s[u-kaš]	9 boys, each, 1 shekel
15	2 ši-iš-maš	(and) 2 thirds.
16	9 » pu-ḥu un-ra 1 KI.MIN	9 boys, each, 1 (of) the same
17	ša-aš-maš	(and) a fourth.
18	14 <sup>MUNUS</sup> MUNUS <sup>ids</sup> un-ra 1 pan-[su-kaš]	14 women, each, 1 shekel.
19	11 <sup>MUNUS</sup> pu-ḥu KI.MIN 2 ši-i[š-maš]	11 girls, ditto, 2 thirds.

## CONTENTS

Megadates informs (the treasurer) Vahush "in the fortress" that the sum of 9 karsha,  $3\frac{1}{2}$  shekels of silver represents half the wages of wine makers in the place(?) Ankurraka who have perhaps been "sent" to Persepolis by the wine bearer Otanes. The services of these people—men, boys, women, and girls are enumerated—have been performed in the ninth month of the nineteenth year (of Xerxes). The scribe's figures yield the following computations:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
12 men	$2\frac{1}{2}$ (=2;30)	3	
9 boys	$1\frac{2}{3}$ (=1;40)	1	5
9 boys	$1\frac{1}{4}$ (=1;15)	1	1;15
14 women	1	1	4
11 girls	$\frac{2}{3}$		7;20
<hr/> Total 55		<hr/> 7	<hr/> 7;35

The total is short 1 karsha,  $5\frac{1}{4}$  shekels. Perhaps the scribe has inadvertently omitted a listing such as "21 girls (or boys), each, 3 fourths of a shekel," which would make up the required total.

## NOTES

There are numerous erasures on this carelessly written tablet, which is incorrect in its computations and which has suffered considerable damage since it was inscribed.

Line 2: *Pír-ra-tam<sub>4</sub>-ma* can be normalized as *birta.ma*, "in the *birta*," with the latter word, which replaces the far more usual *Ba-ir-šá*, "Persepolis," being a loan word from Aramaic 𐤁𐤓𐤕𐤍, as it is found written on mortars, bowls, and pestles from the Treasury. The word occurs also in Nos. 44–44a; the insistence on *pír-ra* superficially would seem to indicate normalization as *birāta*, in the plural, but this is unlikely.

Line 3: The second sign is actually *iš*.

Line 5: Although the scribe may have intended to write *pír-nu-ip-šu*, as in line 13, his signs as formed read as given, and make very good sense indeed.

For ruḥ<sup>ids</sup> perhaps we should read *k[ur-taš]*, but that portion of the last visible sign does not seem to be *kur*.

Lines 6–7: Most of the signs in these lines seem to be written over an inadequate erasure. I consider *ú-ut-ti-ip*, though long puzzling, to be certain; the word stands for the more normal *ḥu-ut-ti-ip* in these and other Elamite texts but with that change in the initial syllable such as is found in the Elamite version of XV:7, where *ú-ut-taš-da* replaces *ḥu-ut-taš-da* elsewhere.

In line 7 *an-kur-rák-kaš*, which reappears in the genitive as *ḥa-an-kur-ra-ka<sub>4</sub>.an* in No. 52:6 together with Otanes (*Ū-da-na*), may be some such designation as "wine press" rather than a place name.

Line 8: Following the signs for "wine," the first sign would seem to be *tuk/ráš* rather than *ku*, and the last visible sign is truly dubious as *ra*; the restoration is based on the opening line of a letter addressed by Pharnaces in the twenty-second year of Darius to *Ū-šá-ia* <sup>ois</sup>GEŠTIN<sup>ids</sup> *ku-ti-ra* ("[To] Ushaia, the wine bearer"), requesting the delivery of wine to libation priests (Fort. 6415; see above under No. 10b). Because of the length of the line at present, we can scarcely restore *šá-ra-man-na* at the end.

## PERSONNEL

*Ma-u-iš* (treasurer), addressee: See No. 12.

*Ba-ka<sub>4</sub>-da-ad-da*, addressor: The same man is clearly the author of Nos. 44–44a. The same name (but hardly the same individual) is common in Fortification tablets, and is already familiar from Greek Βαγαδάτης, Μεγαδάτης, etc. (cf. Justi, *NB*, p. 57; Stonecipher, *GPN*, p. 32), as OP *baga-dāta*, “god-given.”

*Ū-da-na*, “wine bearer.” The name is certain in No. 52:6 f., where it follows the same place name as here; there is no reason to read *Ū(-iš)-da-na* (although the latter is far more common in Fortification tablets), for the name is, of course, OP *Utiāna*, Otanes, written *Ḫu-ud-da-na* in the Elamite version of DB.

## DATE

The sum specified represents half of the wages to be paid for services rendered by wine makers in the month Aciyadiya (Kislimu) of the nineteenth year (of Xerxes), or from December 9, 467, through January 7, 466 B.C.

## SEAL

Type 16, apparently belonging to Megadates and employed elsewhere only on Nos. 44–44a, in both of which he appears as the addressor.

## 37 (Pl. XXIII)

	1	» <i>ma-u-ū-iš kán-ša-bar-ra tu<sub>4</sub>-ru-iš</i>	(To) Vahush the treasurer speak,
	2	» <i>ir-da-tak-ma na-an-KI.MIN 12 kur-šá-am</i>	Artataxma says: 12 karsha,
	3	9 <i>pan-su-kaš KÙ.BABBAR<sup>idg</sup> ša-ik pír-nu-ba-ik gal.na</i>	9 shekels, silver, the equivalent (of) half of the wage,
	4	<i>sì.sì-du gal</i> » <i>kur-taš</i> » <i>kur-kaš</i> » <i>la-áš-tuk-ki-</i>	give (as) the wage (to) workmen, Carians, goldworkers
	5	<i>ip</i> » <i>nu šá-ra-man-na gal</i> <sup>DINGIRITU(!)<sup>idg</sup></sup> <i>ša-ši-ia-</i>	(for whom) you are responsible, (as) the wage of the month Aciya-
	6	<i>tí-iš.na</i> » <i>be-ul 19-um-me-man-na 1</i> » <i>RUḪ<sup>idg</sup></i>	diya of the 19th year. 1 man,
	7	4 <i>pan-su-kaš a-ak 6 ir-ma-ki du-man-pi 26</i>	4 shekels and a sixth they(!) are to receive. 26
	8	» <i>RUḪ<sup>idg</sup> un-ra 2 pan-su-kaš a-ak pír-nu-ba-ik</i>	men, each, 2 shekels and a half
	9	<i>du-man-pi 4</i> » <i>pu-ḫu un-ra 2 ši-iš-maš</i>	they are to receive. 4 boys, each, 2 thirds
	10	<i>a-ak 6 ir-ma-ki du-man-pi 1</i> » <i>pu-ḫu</i>	and a sixth they are to receive. 1 boy,
Edge	11	<i>ši-iš-maš a-ak 12 ir-ma-ki du-man-pi</i>	a third and a twelfth they are to receive.
	12	27 <sup>MUNUS</sup> <i>MUNUS<sup>idg</sup> un-ra 1</i> <sup>pan<sup>1</sup>-su-kaš</sup>	27 women, each, 1 shekel
Rev.	13	<i>a-ak 2 ši-iš-maš du-man-pi 5</i> <sup>MUNUS</sup> <i>pu-</i>	and 2 thirds they are to receive. 5 girls,
	14	<i>ḫu un-ra 1 pan-su-kaš a-ak 4 ir-ma-ki</i>	each, 1 shekel and a fourth
	15	<i>du-man-pi 4</i> <sup>MUNUS</sup> <i>pu-ḫu un<sup>1</sup>-ra 2 ši-iš-maš</i>	they are to receive. 4 girls, each, 2 thirds
	16	<i>a-ak 6 ir-ma-ki [pan-su<sup>1</sup>-kaš.na KÙ.BABBAR<sup>idg</sup></i>	and a sixth of a shekel, silver,
	17	<i>du-man-pi 4</i> <sup>MUNUS</sup> <i>pu<sup>1</sup>-ḫu un-ra ši-iš-maš</i>	they are to receive. 4 girls, each, a third (and)
	18	<i>12 ir-ma-ki du-man-pi</i> <sup>DINGIRITU<sup>idg</sup></sup> <i>sa-</i>	a twelfth they are to receive. (In the) month
	19	<i>mi-ia-man-taš.na</i> » <i>be-ul 19-um-</i>	of Samiamantash of the 19th year
	20	<i>me-man-na</i> » <i>ḫal-mi ḫi li-ka<sub>4</sub> du-me</i> »	this sealed order has been given. The receipt
	21	<i>ba-ka<sub>4</sub>-pu-uk-šá.ik-ki.mar du-</i>	from Megabyzus
	22	<i>iš-da</i> » <i>ba-ir-šá</i>	he received (at) Parsa.

## CONTENTS

Artataxma informs the treasurer Vahush that the sum of 12 karsha, 9 shekels of silver, representing half of the wages to be paid, should be given to Carian goldworkers for whom Vahush himself is responsible, for their services in the ninth month of the nineteenth year (of Xerxes). The scribe, who wrote the document in the eleventh month of the same regnal year but who failed to record his own name, declares that a sealed order ac-



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accompanied the tablet, and that a receipt was secured from Megabyzus at Persepolis. His computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
1 man	$4\frac{1}{6}$ (=4;10)		4;10
26 men	$2\frac{1}{2}$ (=2;30)	6	5
4 boys	$\frac{2}{3} + \frac{1}{6}$ (=0;50)		3;20
1 boy	$\frac{1}{3} + \frac{1}{2}$ (=0;25)		0;25
27 women	$1\frac{2}{3}$ (=1;40)	4	5
5 girls	$1\frac{1}{4}$ (=1;15)		6;15
4 girls	$\frac{2}{3} + \frac{1}{6}$ (=0;50)		3;20
4 girls	$\frac{1}{3} + \frac{1}{2}$ (=0;25)		1;40
<hr/> Total 72		<hr/> 12	<hr/> 9;10

making a total of 12 karsha,  $9\frac{1}{6}$  shekels; in his own summary (ll. 2-3) the scribe has ignored the fraction of a shekel.

## NOTES

Line 4: That OP *Karka*, El. *Kur-ka(-ap)*, was Caria was first suggested by Herzfeld, *AMI*, III (1931), pp. 59 ff., and subsequently proved by W. Eilers, "Das Volk der *karkā* in den Achämenideninschriften," *OLZ*, XXXVIII (1935), cols. 201-13; cf. Kent, *JAOS*, LVI (1936), 219; Weissbach in *Symbolae . . . Paulo Koschaker Dedicatae* (Leiden, 1939), p. 195. In DSf the Carians and Ionians bring Lebanon cedar timber from Babylonia to Susa.

Probably we are to analyze *la-dš-tuk-ki-ip* as *lašda.ukki.ip*, "(those) over (upon) the gold"; for *la-dš-da*, "gold," see the Elamite version of DSf, lines 30 and 42, in which text the "goldsmiths" are Medes and Egyptians.

## PERSONNEL

*Ma-u-ú-iš*, treasurer and addressee: See No. 12.

*Ir-da-tak-ma*, addressor: See No. 21.

*Ba-ka-pu-uk-šá*, who delivered a receipt: The same individual functions in the same capacity in many of the subsequent tablets dating from the nineteenth and twentieth years. The name itself was already known from DB, § 68, as that borne by one of Darius' conspirators, and usually appears in Greek sources as *Μεγάβυζος* (Justi, *NB*, pp. 56 f.; Stonecipher, *GPN*, p. 46).

## DATES

The services for which payment is herewith ordered were performed in the month Aqiyadiya (Kislimu) of the nineteenth year (of Xerxes), or from December 9, 467, through January 7, 466 B.C. The tablet itself was not compiled until the second month following (Samiamantash; Shabatu), or some time between February 6 and March 7 (inclusive), 466 B.C. Noteworthy is the fact that in this text we have mention of Carian goldsmiths at Persepolis a year or two after the time when the Athenian Cimon sailed with two hundred ships to Caria, induced a number of Greek cities there to revolt and accept Athenian garrisons, and reduced others by force. The Persian reaction to this and to continuing Athenian encroachments on the nominally Persian areas on the southern coast of Asia Minor ended with the Persian debacle at Eurymedon which must have been almost simultaneous with the date of this document.

## SEAL

Type 2; see tablet No. 21.

## 38 (Pl. XXIV)

1	» <i>ma-u-ú-iš kán-ša-bar-ra</i> »	(To) Vahush the treasurer
2	<i>ba-ir-šá.iš tu<sub>4</sub>-ru-iš</i> »	at Parsa speak,
3	<i>ir-da-tak-ma na-an-KI.MIN 1 kur-</i>	Artataxma says: 1 karsha,
4	<i>šá-am 6 pan-su-kaš a-ak 3.4 ir-</i>	6 shekels, and 3 fourths
5	<i>ma-ki a-ak 8 ir-ma-ki pan-su-kaš.</i>	and an eighth of a shekel,
6	<i>na</i> » KÜ.BABBAR <sup>idg</sup> si.si-du(!) <i>ša-ik</i>	silver, give. (It is) the equivalent
7	<i>pír-nu-ba gal.na</i> » <i>kur-taš</i>	(of) half of the wage (of) workmen,

	8	GIŠ.Ú.SA-nu-iš-ki-	beer tenders,
Edge	9	ip » še-ud-da šá-ra-	(for whom) Shedda is responsible—
Rev.	10	man-na gal DINGIRITU <sup>idg</sup> ha-na-ma-	the wage of the month Anamaka
	11	kaš.na »-be-ul 19-na.ma 4 »	in the 19th year. 4
	12	RUH <sup>idg</sup> un-ra DINGIRITU <sup>idg</sup> na 3	men, each, per month, 3
	13	pan-su-kaš a-ak 3.4 ir-ma-ki pan-	shekels and 3 fourths of
	14	su-kaš.na KÙ.BABBAR <sup>idg</sup> du(!)-man-pi	a shekel, silver, they are to receive.
	15	1 » pu-ḫu DINGIRITU <sup>idg</sup> 1 pan-su(!)-kaš	1 boy, (per) month, 1 shekel
	16	a(!)-ak 3.4 a-ak 8(sic) pan-su-kaš.na	and 3 fourths and an eighth(!) of a shekel,
Edge	17	KÙ.BABBAR <sup>idg</sup> du(!)-man-ri(!) PAB 5 »	silver, he is to receive. Total: 5
	18	kur-taš DINGIRITU <sup>idg</sup> ha-na-	workmen. (In the) month of Ana-
	19	ma-kaš.na »-be-ul	maka
Side	20	19-um-me-man-na »-ḫal-mi 'ḫi(?) <sup>1</sup>	of the 19th year this sealed order
	21	li-ka <sub>4</sub> du-me »-ba-ka <sub>4</sub> -pu-uk-šá.ik.mar	has been given. The receipt (is) from Megabyzus.

## CONTENTS

Artataxma informs the Persepolis treasurer Vahush that the sum of 1 karsha,  $6\frac{1}{2}$  shekels of silver, representing half of the wages owing, should be paid to five handlers of beer (for whom Shedda is responsible) whose services were rendered in the tenth month of the nineteenth year (of Xerxes). A "sealed order" once accompanied the tablet, for which a receipt was secured from Megabyzus.

The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
4 men	$3\frac{1}{2}$ (=3;45)	1	5
1 boy	$1\frac{1}{4} + \frac{1}{8}$ (=1;52,30)		1;52,30
<hr/> Total 5		<hr/> 1	<hr/> 6;52,30

## NOTES

Line 6: KÙ.BABBAR is written over an erasure; the preceding wedge, which is omitted in lines 14 and 17 before this group, is probably a remnant of the erased signs. See, however, No. 27, lines 9 and 23 (but cf. l. 5!).

Lines 8–9: GIŠ.Ú.SA-nu-iš-ki-ip. In the light of *ki-iš-nu-iš-ki-ip* in No. 46:6 which, thanks to a suggestion of T. Jacobsen, I interpret as a phonetic writing of *KAŠ-nu-iš-ki-ip*, i.e., "beer tenders," I believe this group to be a quasi-phonetic rendering of *KAŠ.Ú.SA-nu-iš-ki-ip*, with the *KAŠ* (written *ki-iš* in No. 46) here replaced by *GIŠ*. For *KAŠ.Ú.SA* (= *billitu*, "mixed beer") see Deimel, *ŠL*, No. 214:85 ff. This explanation seems preferable to one which would view the *GIŠ* sign as a determinative in an erroneous writing of the group *KAŠ.Ú.SA*. Phrases somewhat similar to that used here are <sup>018</sup>GEŠTIN<sup>idg</sup> *ú-ut-ti-ip*, "wine makers," and <sup>018</sup>GEŠTIN<sup>idg</sup> *ku-ti-ra*, "wine bearer"; for these see No. 36 and, for the interpretation of *nu-iš-ki* as "(to) tend, guard," No. 10b.

## PERSONNEL

*Ma-u-ú-iš*, treasurer and addressee: See No. 12.

*Ir-da-tak-ma*, addressor: See No. 21.

*Še-ud-da*, responsible for the workmen: The name has not yet reappeared in precisely this form; perhaps it is a hypocoristic of a name like *Šu-ud-da-ia-u-da*, which is very common in Fortification tablets.

*Ba-ka<sub>4</sub>-pu-uk-šá*, who delivered a receipt: See No. 37.

## DATE

The services for which payment is here ordered, and the writing of the tablet itself, occurred in the month Anamaka (Tebetu) of the nineteenth year (of Xerxes), or between January 8 and February 5 (inclusive), 466 B.C.

## SEAL

Type 2 (seal of Artataxma); see No. 21.

## 38a

The following tablets could not be fully copied during my stay at Teheran chiefly because most of them were in very fragmentary condition. Like the preceding, however, all were written to Vahush, the Persepolis treasurer, by Artataxma, and deal with payments for services performed in the month Anamaka of the nineteenth year; all seem to have noted that a receipt was secured from Megabyzus, and all bear the same type 2 seal.

1. PT 4 552a, beginning <sup>1</sup>»*ma-u-ú-iš kán-ša-bar-ra 𐎠ba-ir-šá.iš tu<sub>4</sub>-ru-iš* <sup>2</sup>»*ir-da-tak-ma na-an-KI.MIN*, with the date given as <sup>DINGIR</sup><sup>ITU</sup><sup>idg</sup> *ha-na-ma-kaš.na 𐎠be-ul 19-um-me.na*.
  2. PT 4 897, beginning <sup>1</sup>»*ma-u-ú-iš kán-ša-bar-ra tu<sub>4</sub>-ru-iš* <sup>2</sup>»*ir-da-tak-ma na-an-KI.MIN*, with the date given exactly as in the preceding.
  3. PT 4 684
  4. PT 4 826
  5. PT 4 394
  6. PT 4 646
- In all of these the introductory lines reproduced exactly (so far as could be determined by the degree of legibility) the lines of PT 4 897 immediately preceding.
7. PT 4 700, beginning <sup>1</sup>»*ma-u-ú-iš kán-ša-bar-ra tu<sub>4</sub>-ru-iš* <sup>2</sup>»*ir-da-tak-ma na-an-KI.MIN*, with the date given as <sup>DINGIR</sup><sup>ITU</sup><sup>idg</sup> *ha-na-ma-kaš.na a-ak* <sup>DINGIR</sup><sup>sa-mi-[ia-man-taš].na 𐎠be-ul 19-um-me.na. Similar to the preceding, this text specifies payments for services rendered in the tenth and eleventh months of year 19.</sup>

## 39

	1	4 ME <sup>1</sup> 26(?) <sup>1</sup> <i>kur-šá-um 5(?) pan-su-[kaš]</i>	426(?) karsha, 5(?) shekels,
	2	KÜ.BABBAR <sup>idg</sup> <i>ka<sub>4</sub>-ap-nu-iš-ki 𐎠ba-[ir-šá].</i>	silver, from the Treasury of Parsa,
	3	<i>na.ma.mar</i> » <i>kur-taš ka<sub>4</sub>-ap-nu-iš-ki-</i>	(which) the Treasury workmen
	4	<i>ip 𐎠ba-ir-šá</i> » <i>ma-u-iš šá-ra-man-</i>	(at) Parsa, (for whom) Vahush is responsible,
	5	<i>na hu-pi-be</i> <sup>1</sup> <i>pír<sup>1</sup>-nu-ip-šu gal</i> GEŠTIN(?) <sup>idg</sup>	these (have received). Half the wage (is in) wine(?).
	6	<sup>DINGIR</sup> <sup>ITU</sup> <sup>idg</sup> <i>ha-na-ma-ak-kaš.na</i>	Month of Anamaka
	7	<i>𐎠be-ul 19-um-me.na</i>	of the 19th year.
	8	4 »RUḪ <sup>idg</sup> <i>un-ra 7 pan-su-[kaš]</i>	4 men, each, 7 shekels
	9	<i>pír-nu-ip<sup>1</sup>-šu<sup>1</sup></i>	(and) a half.
	10	8(?) »RUḪ <sup>idg</sup> <i>un-ra 6 pan-su-[kaš]</i>	8(?) men, each, 6 shekels.
Edge	11	2 ME 76 »KI.MIN KI.MIN 5 KI.MIN	276 ditto, ditto, 5 ditto.
	12	15 »KI.MIN KI.MIN 4 KI.MIN	15 ditto, ditto, 4 ditto, (and)
	13	<i>ši-iš-maš pír-nu-ip-šu</i>	a third (of?) a half.
Rev.	14	1 ME 50 <sup>MUNUS</sup> <sup>MUNUS</sup> <sup>idg</sup> <i>un-ra 3 pan-su-kaš</i>	150 women, each, 3 shekels (and) three-fourths.
		3 <i>[ša-dš-maš]</i>	
	15	4 »RUḪ <sup>idg</sup> KI.MIN 2 <i>pan-su-kaš pír-nu-ip-</i>	4 men, ditto, 2 shekels, a half . . . .
		<i>[šu . . . .]</i>	
	16	9 » <i>pu-hu</i> KI.MIN 3 KI.MIN (erasure) <sup>1</sup> <i>dš-</i>	9 boys, ditto, 3 ditto, an eighth.
		<i>du-maš<sup>1</sup></i>	
	17	PAB(sic) 49 »KI.MIN KI.MIN 2 KI.MIN <i>pír-</i>	A total of 49 ditto, ditto, 2 ditto, a half.
		<i>nu-ip-šu</i>	
	18	85 »KI.MIN KI.MIN 1 KI.MIN 3 <i>ša-dš-maš</i>	85 ditto, ditto, 1 ditto, 3 fourths, an eighth.
		8 <i>ir-[ma-ki]</i>	
	19	75 »KI.MIN KI.MIN 1 KI.MIN KI.MIN	75 ditto, ditto, 1 ditto, ditto.
	20	38 »KI.MIN KI.MIN 20 <i>kur(sic)-ma-ki dš-</i>	38 ditto, ditto, a half(?) (and) an eighth.
		<i>du-maš</i>	
	21	5 <sup>MUNUS</sup> <sup>MUNUS</sup> <sup>idg</sup> KI.MIN 6 <i>pan-su-kaš ša-</i>	5 women, ditto, 6 shekels, a fourth.
		<i>dš(sic)</i>	
	22	3 ME 3 <sup>MUNUS</sup> KI.MIN KI.MIN 5 KI.MIN	303 ditto, ditto, 5 ditto.
	23	38 <sup>MUNUS</sup> KI.MIN KI.MIN 3 KI.MIN	38 ditto, ditto, 3 ditto.
Edge	24	56 <sup>MUNUS</sup> KI.MIN KI.MIN 2 KI.MIN <sup>1</sup> KI.MIN <sup>1</sup>	56 ditto, ditto, 2 ditto, ditto(!).
	25	<sup>1</sup> 1 ME 20 <sup>MUNUS</sup> <i>pu-hu</i> KI.MIN 1 KI.MIN 2	120 girls, ditto, 1 ditto, 2 thirds.
		<i>š[i-iš-maš]</i>	

## PERSEPOLIS TREASURY TABLETS

On left margin, beginning at bottom of reverse:

26	MA 9	MUNUS KI.MIN 1	pan-su-kaš ša-dš(sic)	69 ditto, 1 shekel, a fourth.
27	44	MUNUS KI.MIN	pīr-nu-ip-[šu] pan-su-kaš dš-du-maš	44 ditto, a half shekel, an eighth.

## CONTENTS

A memorandum-type document which states that the sum of more than 400 karsha of silver from the Persepolis Treasury has been given to "Treasury workmen," for whom Vahush (the treasurer) is responsible and who have received half the sum stipulated in (probably) wine; presumably the balance of the pay was in cash. The document was intended to record pay for services performed in the tenth month of the nineteenth year (of Xerxes), and the computations (so far as they can be determined) appear to have been as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
4 men	$7\frac{1}{2}$ (=7;30)	3	
8 "	6	4	8
276 "	5	138	
15 "	$4\frac{1}{6}$ (=4;10)	6	2;30
150 women	$3\frac{1}{2}$ (=3;45)	56	2;30
4 men	$2\frac{1}{2}$	1	
9 boys	$3\frac{1}{3}$ (=3; 7,30)	2	8; 7,30
49 "	$2\frac{1}{2}$	12	2;30
85 "	$1\frac{3}{4} + \frac{1}{8}$ (=1;52,30)	15	9;22,30
75 "	$1\frac{1}{4}$ (=1;15)	9	3;45
38 "	$\frac{1}{2} + \frac{1}{8}$ (=0;37,30)	2	3;45
5 women	$6\frac{1}{4}$	3	1;15
303 "	5	151	5
38 "	3	11	4
56 "	2	11	2
120 girls	$1\frac{2}{3}$	20	
69 "	$1\frac{1}{4}$ (=1;15)	8	6;15
44 "	$\frac{1}{2} + \frac{1}{8}$ (=0;37,30)	2	7;30
Total 1,348		460	0;30

The totals acquired by the above calculations exceed the apparent totals of the scribe in line 1 by upwards of thirty-three karsha, but it is difficult to see where the error lies; it should not be forgotten, however, that the scribe's totals were written over an erasure and were difficult to make out with any degree of accuracy.

## NOTES

Despite its fragmentary nature, the text is of considerable significance in that it demonstrates that the equivalent of over a talent of silver is here distributed to more than 1,340 individuals: 307 men, 552 women, 256 boys, and 233 girls.

Line 5: Whether the last two signs were GEŠTIN<sup>idg</sup> or ŠE.BAR<sup>idg</sup> could not be determined; the same problem exists in No. 69:7, but since wine is the medium of payment in the overwhelming number of Persepolis Treasury texts, presumably we should read the former here.

Line 13: Elsewhere the fraction "one-sixth" is always written "a half of a third," similar to "one-half of a ninth" for "one-eighteenth," etc. But elsewhere also the larger fraction precedes the smaller, and so this line should not mean "a third (plus) a half."

Lines 19-20: When it is noted that the same wage scale appears to be repeated in lines 26-27, then the last KI.MIN of line 19 is seen to refer merely to ša-dš-maš in line 18, and what appeared to be clearly 20 kur-ma-ki in line 20 is probably 2 ir-ma-ki, i.e., "one-half," a fraction which is better expressed elsewhere in this text as pīr-nu-ip-šu.

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## PERSONNEL

*Ma-u-iš*, responsible for the workmen: See No. 12.

## DATE

The sum stipulated is payment for services rendered in—and perhaps the tablet was compiled in—the month Anamaka (Tebetu) of the nineteenth year (of Xerxes), or from January 8 through February 5, 466 B.C.

## SEAL

Type 5; see above, tablets 34–35.

## 40 (Pl. XXV)

	1	60 10 8 kur-šá-um 3 pan-su-kaš ša- dš-maš	78 karsha, 3 shekels, (and) a fourth,
	2	KÙ.BABBAR <sup>idg</sup> ka <sub>4</sub> -ap-nu-iš-ki 𐎶-ba- [ir-š]d.	silver, from the Treasury of Parsa,
	3	na.ma.mar 𐎶kur-taš ka <sub>4</sub> -ap-nu-[iš]-ki-	(which) the Treasury workmen
	4	ip 𐎶ka <sub>4</sub> -me-nu-iš 𐎶ma-u-iš 'šá'-ra-	in Kameni (for whom) Vahush is
	5	man-na hu-pi-be du-iš 'pír-nu'-	responsible, they have received. (It is) half
	6	ip-šu gal <sup>DINGIRITU<sup>idg</sup></sup> 'ha-na-ma-kaš'	the wages (for the) months Anamaka (and)
	7	'sa-mi-ia' 𐎶be-ul 19-'na.ma]	Samia(mantash) in the 19th year.
	8	1 𐎶RUḪ <sup>idg</sup> 8(!) pan-su-'kaš]	1 man, 8 shekels.
	9	12 𐎶KI.MIN 'un-ra' 3 'pan-su'-	12 ditto, each, 3 shekels
Edge	10	kaš 3 ša-dš-maš.na	(and) 3 fourths.
	11	4 𐎶pu-ḫu un-ra 2 pan-su-kaš	4 boys, each, 2 shekels
	12	pír-nu-ip-šu pan-su-kaš	(and) a half shekel.
Rev.	13	10 𐎶pu-ḫu un-ra 1 pan-su-kaš 3 'ša'- [dš]-maš 12 'ir-ma-ki'	10 boys, each, 1 shekel, 3 fourths, a twelfth.
	14	3 𐎶KI.MIN KI.MIN 1 'KI.MIN' ša-dš- maš	3 ditto, ditto, 1 ditto, a fourth.
	15	1 𐎶KI.MIN pír-nu-ip pan-'su-kaš 8' ir-ma-[ki]	1 ditto, a half shekel, an eighth.
	16	3 <sup>MUNUS</sup> un-ra 6 pan-su-kaš ša-dš-maš	3 women, each, 6 shekels, a fourth.
	17	40 8 <sup>MUNUS</sup> KI.MIN KI.MIN 5 pan-su-kaš	48 ditto, ditto, 5 shekels.
	18	2(!) <sup>MUNUS</sup> KI.MIN KI.MIN 3 KI.MIN ša-dš- maš	2 ditto, ditto, 3 ditto, a fourth.
	19	9 <sup>MUNUS</sup> KI.MIN KI.MIN 2 pan-su-kaš pír-nu-ip-'šu'	9 ditto, ditto, 2 shekels, a half
	20	(erased) . . . . . KI.MIN.[na]	(erased) . . . . of the same.
	21	6 <sup>MUNUS</sup> KI.MIN KI.MIN 1 KI.MIN ša-dš- maš 8 [ir-m]a-ki	6 ditto, ditto, 1 ditto, a fourth, an eighth.
	22	6 <sup>MUNUS</sup> KI.MIN KI.MIN 1 KI.MIN ša-dš- maš	6 ditto, ditto, 1 ditto, a fourth.
	23	4 <sup>MUNUS</sup> KI.MIN KI.MIN pír-nu-ip-šu	4 ditto, ditto, a half,
Left margin	24	8 ir-ma-ki.na	an eighth.

## CONTENTS

A memorandum-type document which states that the sum of 78 karsha,  $3\frac{1}{4}$  shekels of silver from the Persepolis Treasury has been given to 109 "Treasury workmen" in Kameni. The sum constitutes half of the wages

## PERSEPOLIS TREASURY TABLETS

of the workers for services performed during the tenth and eleventh months of the nineteenth year (of Xerxes). The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
1 man	8		8
12 men	$3\frac{3}{4}$	4	5
4 boys	$2\frac{1}{2}$	1	
10 "	$1\frac{3}{4} + \frac{1}{2}$ (= 1;50)	1	8;20
3 "	$1\frac{1}{4}$		3;45
1 boy	$\frac{1}{2} + \frac{1}{8}$ (= 0;37,30)		0;37,30
3 women	$6\frac{1}{2}$	1	8;45
48 "	5	24	
2 "	$3\frac{1}{4}$		6;30
9 "	$2\frac{1}{2}$	2	2;30
6 "	$1\frac{1}{4} + \frac{1}{8}$ (= 1;22,30)		8;15
6 "	$1\frac{1}{4}$		7;30
4 "	$\frac{1}{2} + \frac{1}{8}$ (= 0;37,30)		2;30
Total 109		39	1;42,30
			×2 months
		78	3;25

The total thus secured is  $\frac{1}{8}$  shekel more than the scribe's total in line 1; perhaps he ignored the fraction as too infinitesimal.

## NOTES

Line 1: Comparison of the *maš* sign here and in line 10 shows how variable the scribes were in the writing of such signs.

Line 4: On *ka-me-nu-iš* compare No. 64:4: *ka-ma-a-nu-iš* in identical context; pronunciation probably resembled *G/Kamaini*, *G/Kavaini*, or the like. Is it a place name, or a name for a building (or a section of one) on or near the Persepolis Terrace? It is not impossible that this is the *Guwain* of Ibn Ḥordādhbih, the *Guwaim* of Ištakhri, modern Goyum, about seventeen airline miles northwest of Shiraz on the direct route between Shiraz and Susa (cf. Schwarz, *Iran im Mittelalter*, pp. 44 and 173).

Lines 6-8: Both month names were written over an erasure after the tablet was almost dry and hard. In line 8 the numeral 8 has replaced an *un* sign (from *un-ra*, "each," which was unnecessary since only one man was enumerated).

Line 18: The first numeral, 2, appears to have replaced the numeral 3.

Line 20: The last part of the line was not erased, although the scribe undoubtedly intended to do so.

## PERSONNEL

*Ma-u-iš*, (treasurer and) responsible for the workmen: See No. 12.

## DATE

The payment is for services performed during the months of Anamaka (Tebetu) and Samiamantash (Shabatu) of the nineteenth year (of Xerxes), or from January 8 through March 7, 466 B.C.

## SEAL

Type 5; see tablets 34-35. A photograph of the seal as it appears on this tablet has already been published in Schmidt, *op. cit.*, p. 39 (lower left).

## 41 (Pl. XXVI)

1	» <i>ma-u-ú-iš kán-ša-bar-ra</i>	(To) Vahush the treasurer
2	<i>tu<sub>4</sub>-ru-iš</i> » <i>ir-da-tak-ma</i>	speak, Artataxma
3	<i>na-an-KI.MIN 1 kur-šá-am KÙ.BABBAR<sup>idg</sup></i>	says: 1 karsha, silver,
4	<i>ša-ik pír-nu-ba-ik.na šì.šì-du</i>	the equivalent of half (the wage), give
5	<i>gal</i> » <i>kur-taš ba-ši-ka<sub>4</sub>-ra-iš</i>	(as the) wage to workmen, tribute (or tax) handler(s),
6	» <i>ḥar-ka<sub>4</sub>-du(?) -šú-iš</i> » <i>ú-</i>	in Harkadushi(?)
7	<i>šá-ka<sub>4</sub>-ia šá-ra-man-na gal<sup>DINGIR</sup></i>	(for whom) Ushakaia is responsible. (It is) the wage of

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	8	ITU <sup>idg</sup> <i>sa-mi-ia-man-taš</i> .	the month Samiamantash
Edge	9	<i>na 𐎠-be-ul 19-um-me-man-na</i>	of the 19th year.
Rev.	10	𐎠 𐎠RUḪ <sup>idg</sup> <i>un-ra</i> DINGIR-ITU <sup>idg</sup> .	2 men, each, per month,
	11	<i>na 3 pan-su-kaš a-ak 3.4 ir-</i>	3 shekels and 3 fourths
	12	<i>ma-ki</i> (erasure) KI.MIN <i>du-man-pi 1</i> MUNUS	(of) the same they are to receive. 1
	13	MUNUS <sup>idg</sup> <i>un-ra 2 pan-su-kaš a-ak pīr-</i>	woman, each(!), 2 shekels and a
	14	<i>nu-ba-ik.na</i> DINGIR-ITU <sup>idg</sup> <i>sa-mi-</i>	half. (In the) month of Samia-
	15	<i>ia-man-taš.na 𐎠-be-ul 19-um-</i>	mantash of the 19th year
	16	<i>me-man-na 𐎠ḫal-mi ḫi li-ka<sub>4</sub></i>	this sealed order has been given;
	17	<i>du-me 𐎠ba-ka<sub>4</sub>-pu-uk-</i>	the receipt (is) from Mega-
	18	<i>šá.ik.mar</i>	byzus.

## CONTENTS

Artataxma informs the treasurer Vahush that the sum of one karsha of silver represents half of the wages to be paid to three individuals who have been handling taxes in (apparently) the place Harkadushi and for whom Ushakaia is responsible. The period of their service is the eleventh month of the nineteenth year (of Xerxes); the tablet, which was once accompanied by a sealed order, was written in the same month, and a receipt was secured from Megabyzus. The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
2 men	3½		7;30
1 woman	2½		2;30
<hr/> Total 3		<hr/> 1	

## NOTES

Line 4: Presumably *gal*, "wages," has been accidentally omitted from the formula preceding the verb; it is present in all other similar cases.

Line 5: *Ba-ši-ka<sub>4</sub>-ra* appears to be the title or profession of Hystanes in No. 54:6; the uniformity with which OP *bāji*, "tax, tribute," is rendered in Elamite as *ba-ši* (in XPh: 13; in the OP month name *Darnabāji*; and to be restored in DB, § 7) would seem to make it imperative that this word be understood as OP *\*bāji-kara*. The meaning cannot be "tax collector," however, for that should be reserved for OP *\*bāji-grab*, which is known from the βασιγράβαν of Isidore of Charax (see Weissbach in Pauly-Wissowa [eds.], *Real-Encyclopädie*, V [1897], col. 177) and which is listed in modern Persian lexicons as *bājjīr* and *bāzgīr*. Even if "tax farmer, tax assessor," were applicable to the word in No. 54, such a translation lacks plausibility here where two men and one woman seem to bear the title. Perhaps, therefore, we may interpret the word in the sense of "tax handler." Still less plausible would seem to be a derivation of the prior element from the root which appears in Avestan as *pak-* (present stem, *pač-*; modern Persian *pukhtān*, *paž*), meaning "(to) cook" (*BAiW*, col. 819), with which a compound with *-kara* would be applicable.

Line 6: The first sign of the place(?) name is written over an erasure but is certainly *ḫar*; what is here read *du* might possibly be *ap* (but compare the *du* in ll. 4 and 12); the top horizontal of *šu* may be only a scratch; hence the proper reading of the name is somewhat in doubt. If the reading is as given above, however, the name strongly resembles OP *Ar(a)kadriš*, the name of the mountain from which Gaumata is said to have revolted in DB, § 11, where the Elamite rendering is *Ḫar-rāk-ka<sub>4</sub>-tar-ri-iš*. It is hardly likely that the two names are the same, however, for the *šu* sign (which up to the present renders only OP *su*, *θu*, and *çu*) could scarcely be used to reproduce the syllable *dri* in OP.

## PERSONNEL

*Ma-u-ú-iš*, treasurer and addressee: See No. 12.

*Ir-da-tak-ma*, addressor: See No. 21.

*Ū-šá-ka<sub>4</sub>-ia*, responsible for the workmen: This is the only occurrence of this name, which, however, may be compared with *Ū-šá-ia* which appears several times in Fortification documents. Derivation from OP *uška*, "dry (land)," Av. *huška-*, or perhaps better from Av. *huš-hazay-*, "gut freund" (*BAiW*, cols. 1840-41), is possible.

*Ba-ka<sub>4</sub>-pu-uk-šá*, who delivered a receipt: See No. 37.

## DATE

The tablet computed payments for and was written in the month Samiamantash (Shabatu) of the nineteenth year of Xerxes, or from February 6 through March 7, 466 B.C.

## SEAL

Type 2; see tablet No. 21.

## 42 (Pl. XXVII)

	1	» <i>ma-u-ú-iš kán-ša-bar-ra ʔ-ba-ir-šá.iš</i>	(To) Vahush the treasurer at Parsa
	2	<i>tu<sub>4</sub>-ru-iš »ir-da-tak-ma na-an-KI.MIN</i>	speak, Artataxma says:
	3	<i>37 kur-šá-am 1 pan-su-kaš a-ak 4 ir-ma-ki pan-</i>	37 karsha, 1 shekel, and a fourth (of) a
	4	<i>su-kaš KÙ.BABBAR<sup>ids</sup> ša-ik pír-nu-ba-ik gal.na šì.šì-du</i>	shekel, silver, the equivalent (of) half of the wage, give
	5	<i>gal »kur-taš »ba-<sup>l</sup>ku<sup>l</sup>-ra-da »sad-da-bat-ti-iš</i>	(as) wages (to) workmen (for whom) Bakurada, the centurion
	6	<i>ʔ-ti-ra-ši-iš šá-ra-man-na gal DINGIR<sup>ids</sup>ITU<sup>ids</sup> sa-mi-</i>	in Shiraz, is responsible; (it is) wages of the month Samia-
	7	<i>ia-man-taš.na ʔ-be-ul 19-um-me-man-na 12 »RUḪ<sup>ids</sup></i>	mantash of the 19th year. 12 men,
	8	<i>[un-r]a DINGIR<sup>ids</sup>ITU<sup>ids</sup> 3 pan-su-kaš a-ak 3.4 ir-ma-ki</i>	each, (per) month, 3 shekels and 3 fourths
	9	<i>[KI.MIN d]u-man-pi 11 »pu-ḫu un-ra 2 pan-su-kaš</i>	(of) the same they are to receive. 11 boys, each, 2 shekels
	10	<i>[a-ak pír]-nu-ba-ak(sic) pan-su-kaš.na du-man-pi 11(?) »</i>	and a half of a shekel they are to receive. 11(?)
	11	<i>[pu-ḫu] un-ra 1 pan-su-kaš 3.4 ir-ma-ki</i>	boys, each, 1 shekel, 3 fourths,
	12	<i>[a-ak] <sup>1</sup>8<sup>1</sup> ir-ma-ki pan-su-kaš.na du-man-pi</i>	and an eighth of a shekel they are to receive.
Edge	13	<i>13 »pu-ḫu un-ra 1 pan-su-kaš a-ak</i>	13 boys, each, 1 shekel and
	14	<i>4 ir-ma-ki du-man-pi 15 »pu-ḫu un-ra</i>	a fourth they are to receive. 15 boys, each,
Rev.	15	<i>un-ra(sic) pír-nu-ba-ik a-ak 8(!) ir-ma-ki pan-</i>	each (sic), a half and an eighth of a
	16	<i>su-kaš.na du-man-pi 78 MUNUS<sup>ids</sup>MUNUS<sup>ids</sup> un-ra</i>	shekel they are to receive. 78 women, each,
	17	<i>2 pan-su-kaš a-ak pír-nu-ba-ik pan-su-kaš du-man-pi</i>	2 shekels and a half shekel they are to receive.
	18	<i>12 MUNUS<sup>ids</sup>pu-ḫu un-ra 1 pan-su-kaš 3.4 ir-ma-ki a-ak</i>	12 girls, each, 1 shekel, 3 fourths, and
	19	<i>8 ir-ma-ki pan-su-kaš.na du-man-pi 18 MUNUS<sup>ids</sup>pu-ḫu</i>	an eighth of a shekel they are to receive. 18 girls,
	20	<i>un-ra 1 pan-su-kaš a-ak 4 ir-ma-ki pan-su-kaš.na</i>	each, 1 shekel and a fourth of a shekel
	21	<i>du-man-pi 20 MUNUS<sup>ids</sup>pu-ḫu un-ra pír-nu-ba-ik a-ak 8</i>	they are to receive. 20 girls, each, a half and an
	22	<i>ir-ma-ki pan-su-kaš.na KÙ.BABBAR<sup>ids</sup> du-man-pi DINGIR</i>	eighth of a shekel, silver, they are to receive.
	23	<i>ITU<sup>ids</sup> DINGIR<sup>ids</sup>sa-mi-ia-man-taš.na ʔ-be-ul</i>	(In the) month of Samiamantash of the
	24	<i>19-um-me-man-na ʔ-ḫal-mi ḫi li-ka<sub>4</sub></i>	19th year this sealed order has been given;
	25	<i>du-me »ba-ka<sub>4</sub>-pu-uk-šá.ik-ki.mar</i>	the receipt from Megabyzus
	26	<i>du-iš-da ʔ-ba-ir-šá.iš</i>	he received at Parsa.



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Artataxma informs the Persepolis treasurer Vahush that the sum of 37 karsha,  $1\frac{1}{8}$  shekels of silver, represents half of the wages to be paid to workmen for whom the "centurion" of Shiraz, Bakurada, is responsible. The services had been performed in the eleventh month of the nineteenth year (of Xerxes), at which time also the document was written. It is said that a sealed order once accompanied the tablet, for which a receipt was secured from Megabyzus at Persepolis. The task upon which the workmen were engaged is not specified, but the computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
12 men	$3\frac{3}{4}$ (=3;45)	4	5
11 boys	$2\frac{1}{2}$ (=2;30)	2	7;30
11 "	$1\frac{3}{4} + \frac{1}{8}$ (=1;52,30)	2	0;37,30
13 "	$1\frac{1}{2}$ (=1;15)	1	6;15
15 "	$\frac{3}{8} + \frac{1}{8}$ (=0;37,30)		9;15
78 women	$2\frac{1}{2}$	19	5
12 girls	$1\frac{3}{4} + \frac{1}{8}$ (=1;52,30)	2	2;30
18 "	$1\frac{1}{2}$	2	2;30
20 "	$\frac{1}{2} + \frac{1}{8}$ (=0;37,30)	1	2;30
Total 190		37	1; 7,30

The total thus computed as 37 karsha,  $1\frac{1}{8}$  shekels, is short of the scribe's totals in lines 3-4 by  $\frac{1}{8}$  shekel.

## NOTES

So far as can be ascertained from the damaged text No. 60, it and the present document deal with payments to the same individuals at the same wage scale. In that sense the two texts are near-duplicates. No. 60, however, records payment for services performed three months later, by which time, in all probability, a new treasurer had assumed office. There are also minor differences in terminology which make it improbable that the same scribe wrote both texts at one sitting.

Line 6: The same place name undoubtedly appears in Nos. 60 and 42a (both damaged); as here written it appears in Fort. 3569 and 1494 and, written *Ti-ra-iš-ši-iš*, in Fort. 5206 and 6662; clearly the same place name is written *Ši-ra-iš-ši-iš* in Fort. 5234 and *Šir-ši-iš* in Fort. 6830. There is little question that this is the name of a site of which the modern form is Shiraz (*Širāz*). Shiraz, to be sure, was considered by most Arabic geographers as essentially an Arab foundation, although earlier fire temples and a citadel were known there and recorded; so Ištakhri, Muqaddasi (Schwarz, *op. cit.*, pp. 43 ff.) and Ibn al-Balkhī (G. Le Strange, *Description of the Province of Fars*, "Asiatic Society Monographs," XIV [1912], pp. 35 ff.). Early travelers had noted a limestone doorway with figures carved in the style of Persepolis at Qasr-i-Abu Nasr, four miles southeast of Shiraz, but subsequent excavation determined the fact that the object had been brought from another site; see Walter Hauser in *Metropolitan Museum of Art, Bulletin*, November, 1933, Section II, pp. 39 ff.; *ibid.*, December, 1934, Section II, pp. 3 ff.

Line 10: At Persepolis I copied the number at the end of the line as 19, i.e., as an angle wedge followed by three vertical strokes, one above another, and a photo brought to Chicago by Schmidt does indeed seem to bear out this figure. In the near-duplicate No. 60, however, also copied at Persepolis, this numeral seemed to be 11, which must be correct; otherwise the computations (see above) would be wide of the mark given to the scribe for his totals in lines 3-4.

## PERSONNEL

*Ma-u-ú-iš*, treasurer and addressee: See No. 12.

*Ir-da-tak-ma*, addressor: See No. 21.

*Ba-ku-ra-da*, the "centurion" of Shiraz: The reading of the name is assured by its occurrence in the near-duplicate, No. 60, and also in No. 42a in similar context. For comparison there is also the name of a priest (*šá-tin*) *Ba-ka-u-ra-da*, in Fort. 8866, and *Ba-ku-mar-da* in Hallock's "List of Names." These are clearly Elamite renderings of the OP name which is represented by Greek βαγόρατος (Justi, *NB*, p. 60).

*Ba-ka-pu-uk-šá*, who delivered a receipt: See No. 37.

## DATE

The payment here ordered is for services performed during the month of Samiamantash (Shabatu) of the nineteenth year (of Xerxes), or from February 6 through March 7, 466 B.C.

## SEAL

Type 2; see tablet No. 21.

## 42a

This tablet, copied at Persepolis, may have been a near-duplicate of the preceding, or may have come from a totally different month. It was poorly preserved, and, although the date is given twice, neither the month nor the year could be ascertained. In all major respects it resembles the preceding; the seal impression was doubtless type 2.

- 1 [»ma]-u-ú-iš 'kán<sup>1</sup>-ša-bar-ra »ba-ir-šá
- 2 [tu<sub>4</sub>]-ru-iš [»] ir-da-tak-ma na-an-[KI.MIN]
- 3 [x] kur-šá-am [x pa]n-su-kaš a-ak pí-r-nu-b[a pan-su]-
- 4 [kaš] KÙ.BABBAR<sup>idg</sup> ša-[ik pí-r-n]u-ba gal.na sî.sî-<sup>1</sup>du<sup>1</sup>
- 5 [gal] »kur-taš] »ba-ku-r[a-da] »sad-da-bat-[ti-iš]
- 6 [»ti]-ra-ši-i[š š]á-ra-man-na gal [DINGIR<sup>idg</sup>ITU<sup>idg</sup> sa-mi]-
- 7 [ia-man-ta]š(?)<sup>1</sup>.na »be-ul 19(?)<sup>1</sup>-um-me-man-na . . . .]

Remainder of obverse totally destroyed.

Rev.: Top lines destroyed.

- x+1 [. . . ] 2 šî-iš-maš a-ak [. . . ]
- x+2 [x] MUNUS<sup>idg</sup>pu-ḫu un-r[a . . . ]
- x+3 [. . . ] KÙ.BABBAR<sup>idg</sup> du-man-p[i DINGIR<sup>idg</sup>ITU<sup>idg</sup> DINGIR<sup>idg</sup>]
- x+4 [sa-mi-ia-man-taš(?)<sup>1</sup>].na »be-ul 19(?)<sup>1</sup>-um-me-man-na]
- x+5 [»ḫal]-mi ḫi li-[ka<sub>4</sub>] du-me
- x+6 [»] ba-ka<sub>4</sub>-pu-uk-šá.ku(sic).mar

## 42b

At Teheran I was unable to copy in full the following fragmentary text. It is a letter addressed by Artataxma to the treasurer Vahush regarding payment to workmen whom Mannanda "sent" (to Persepolis) and for whom Vahush himself was responsible. The payment is for services performed from the eighth month Varkazana (Arah-samnu) through the twelfth month Viyaxna (Addaru) of the nineteenth year (of Xerxes), or from November 10, 467, through April 5, 466 B.C. For the names of addressor and addressee, see the preceding tablet; for the restored name *Man-na-an-da*, see No. 30. The seal is type 2 (see tablet No. 21).

- 1 »ma-u-iš kán-ša-[bar-ra] tu<sub>4</sub>-ru-iš
- 2 »ir-da-tak-[ma na-an-KI.MIN]

The date, given as DINGIR<sup>idg</sup>ITU<sup>idg</sup> mar-ka<sub>4</sub>-šá-na-iš ku-iš DINGIR<sup>idg</sup>mi-kán-na-iš.na PAB 5 DINGIR<sup>idg</sup>ITU<sup>idg</sup> »be-ul 19-um-me.na, curiously omits *ik-ki.mar*; later appeared the line [»man-na]-an-da da-man-na »nu šá-ra-man-na.

## 43

- 1 1 kur-šá-um 2 pan-su-kaš
- 2 KÙ.BABBAR<sup>idg</sup> ka<sub>4</sub>-ap-nu-iš-ki »
- 3 ba-ir-šá.na.mar »kur-taš
- 4 mar-ri-ip »ba-ir-šá
- 5 »bar-na-da-ud-da da-
- 6 ma »ma-u-iš šá-ra-man-na

1 karsha, 2 shekels,  
silver, from the Treasury  
of Parsa, (which) the workmen,  
artisans (at) Parsa  
(whom) Pharnadates "sent"  
(and for whom) Vahush is responsible,

## TRANSLITERATIONS AND TRANSLATIONS

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	7	<i>hu-pi-be du-ma-iš</i>	they are receiving.
Edge	8	<i>2 ši-iš-maš</i> GĒŠTIN <sup>idz</sup>	(For) 2 thirds (of the payment) wine
	9	<i>šá-gi.ma</i> DINGIR <sup>ITU</sup> (sic)	(serves) as the equivalent. Months:
Rev.	10	<i>ha-na-ma-kaš.ik-ka<sub>4</sub>.mar</i>	from Anamaka
	11	<i>ku-iš</i> DINGIR <sup>mi-kán-na</sup>	through Viyaxna—
	12	PAB 3 DINGIR <sup>ITU</sup> <sup>idz</sup> . <i>ha-tu.ma</i>	within a total of 3 months
	13	<i>↳be-ul 19-me.<sup>1</sup>na]</i>	of the 19th year.
	14	<i>4 »RUḪ<sup>idz</sup> un-ra 2 ši-iš-maš</i>	4 men, each, 2 thirds (of a shekel).
	15	<i>2 »KI.MIN KI.MIN pír-nu-šu</i>	2 ditto, ditto, a half
	16	<i>pan-su-kaš.na</i>	of a shekel.
Edge	17	<i>1 »RUḪ<sup>idz</sup> un-ra</i>	1 man, each,
	18	<i>ši-iš-maš pan-su-kaš.na</i>	a third of a shekel.

## CONTENTS

A memorandum-type tablet which states that the sum of 1 karsha and 2 shekels of silver from the Persepolis Treasury has been paid to Persepolis artisans brought hither by Pharnadates and for whom Vahush (the treasurer) is responsible. Two-thirds of the sum specified, which is being given to seven men, has been paid in wine, presumably at the prevailing rate of one jar of wine for one shekel. The services rendered were performed during the last three months of the nineteenth year (of Xerxes), and the wage scale was as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
4 men	2 (=0;40)		2;40
2 "	1		1
1 man	1/3		0;20
<hr/>			<hr/>
Total 7			4
			×3 months
		<hr/>	<hr/>
		1	2

## NOTES

This tablet presents no problems beyond those examined hitherto. A cast prepared at Persepolis and brought to Chicago by Schmidt substantiated in every respect the readings secured at Teheran.

## PERSONNEL

*Bar-na-da-ud-da*, who "sent" the workmen: So written, the name appears in Fort. 7864 (year 19, Darius); it occurs also as *Bar-na-da-ad-da* in No. 70, *Pa-ir-na-da-da* in Fort. 1706 (year 23, Darius), and as *Bar-in-da-ad-da* in No. 62. The name is well known from Greek sources as Φαρανδάτης and as Φερενδάτης (cf. Justi, *NB*, p. 91). The Treasury tablets bearing this name were written almost simultaneously with the battle of Eurymedon, at which a nephew of Xerxes bearing the same name led the infantry and was himself slain (cf. Plutarch *Cimon* 12; Diodorus xi. 61.3).

*Ma-u-iš*, responsible for the workmen: See No. 12.

## DATE

The artisans were employed from the month Anamaka (Tebetu) through Viyaxna (Addaru) of the nineteenth year (of Xerxes), or from January 8 through April 5, 466 B.C.

## SEAL

Type 5(?); see tablets 34-35.

## 44 (Pl. XXVIII)

1	<i>Yma-<sup>1</sup>u-iš<sup>1</sup> tu<sub>4</sub>-ru-iš</i>	(To) Vahush speak
2	<i>↳pír-ra-tam<sub>4</sub>-ma »ba(!)-ka<sub>4</sub></i>	in the fortress, Megadates says:
3	<i>da-ad-da na-an-KI.MIN</i>	

	4	<i>6 pan-su-kaš 2 ši-iš-⟨maš⟩</i>	6 shekels (and) 2 thirds (of a shekel),
	5	<i>KÙ.BABBAR<sup>idz</sup> šd-gi UDU.NITÁ<sup>idz</sup></i>	silver—the equivalent (is) in sheep
	6	<i>GEŠTIN<sup>idz</sup>.na ap sî.sî-</i>	(and) wine—give to them,
	7	<i>du »RUḪ<sup>idz</sup> pîr-</i>	(namely, to) men, fore-
Edge	8	<i>ra-ma-na-kur-ráš-be</i>	men
Rev.	9	<i>oiš GIŠ(?)<sup>idz</sup> še-iš-ki-</i>	of the woodworkers
	10	<i>ip.na »ba-ir-šd »</i>	(at) Parsa
	11	<i>ma-u-iš šd-ra-man-na</i>	(for whom) Vahush is responsible.
	12	<i>gal<sup>1</sup> 2 ši-iš-maš<sup>DINGIR</sup></i>	The wages (here ordered are) 2 thirds (of the amount owing)
	13a	<i>ITU<sup>idz(!)</sup> sa-mi-ia<sup>DINGIR</sup>mi-</i>	(for the) months Samia(mantash)
	13b	<i>kán(!)-na</i>	(and) Viyaxna
	14	<i>»be<sup>1</sup>-ul<sup>1</sup> »19<sup>1</sup>-um-me.na</i>	of the 19th year.
	15	<i>[2 »R]UḪ<sup>idz</sup> un-ra</i>	2 men, each,
	16	<i>[1 pan-s]u-kaš 2 ši-iš-maš</i>	1 shekel (and) 2 thirds
	17	<i>[du-man]-ra</i>	he(!) is to receive.

## CONTENTS

Megadates informs (the treasurer) Vahush "in the fortress" (Persepolis) that the sum of 6 $\frac{2}{3}$  shekels of silver should be given to two "foremen of the woodworkers" at Persepolis for whom Vahush is responsible. The sum specified represents only two-thirds of the amount owing, and is to be paid not in cash but in sheep and wine, doubtless at the prevailing rate of three shekels for one sheep, one shekel for a jar of wine; presumably the remaining third of the wages was to be paid in cash and for it another order would be entered. Payment is here stipulated for services performed during the eleventh and twelfth months of the nineteenth year (of Xerxes), and each of the two men was to receive 1 $\frac{2}{3}$  shekels per month.

## NOTES

Lines 7-8: For the OP loan word *\*framāna-kara* see page 43.

Line 12: In lines 5-6 the scribe has stipulated that for the total sum specified sheep and wine serve as the equivalent. By this line he does not seem to be correcting that statement and saying that for only two-thirds of the amount are sheep and wine to be given, but rather is declaring that the amount specified represents only two-thirds of the wages to be paid these men.

Lines 13a-b: The month names are written over an erasure.

Lines 15-16: The damaged or destroyed numerals must be restored as indicated to secure the totals of line 4.

## PERSONNEL

*Ma-u-iš*, (treasurer) in the "fortress" (of Persepolis), addressee, and responsible for the workmen: See No. 12.

*Ba-ka<sub>4</sub>-da-ad-da*, addressor: See No. 36.

## DATE

Payment is herewith ordered for services rendered during the months of Samia(mantash) (Shabatu) and Viyaxna (Addaru) of the nineteenth year (of Xerxes), or from February 6 through April 5, 466 B.C.

## SEAL

Type 16; see tablet No. 36.

## 44a

The following tablet could not be copied in full at Teheran. Like the preceding, it is a letter of Megadates to Vahush "in the fortress," and while the year was determined as "year 19" the month or months could not be ascertained. The seal employed was, like the preceding, type 16. Only the following lines were read:

- 1 *Ma-u-iš tu<sub>4</sub>-ru-iš*
- 2 *»pîr-ra-tam<sub>4</sub>-ma »ba-ka<sub>4</sub><sup>1</sup>-da-[ad]-*
- 3 *da<sup>1</sup> na-an-KI.MIN . . . .*

## 45 (Pl. XXVIII)

1	<sup>40</sup> 6 kur-šá-um 4 <sup>KA</sup> <sub>1</sub> <sup>idg</sup> ši-iš-maš	46 karsha, 4 shekels(!), (and) a third,
2	<sup>KÛ.BABBAR</sup> <sup>idg</sup> ka <sub>1</sub> -ap-nu-iš-ki 𐎠-ba-ir-šá.na.	silver, from the Treasury of Parsa,
3	ma.mar 𐎠kur-taš ka <sub>1</sub> -ap-nu-iš-ki-ip	(which) the Treasury workmen
4	𐎠-ba-ir-šá 𐎠ú-ra-tin-da šá-ra-	(at) Parsa (for whom) Uratinda
5	man-na 𐎠u-pi-be du-iš <sup>GEŠTIN</sup> <sup>idg</sup>	is responsible have received. Wine (serves)
6	šá-gi.ma ši-iš-maš <sup>DINGIR</sup> <sup>ITU</sup> <sup>idg</sup>	for equivalent (of) a third (of the wages). Months:
7	sa-mi-ia-maš <sup>DINGIR</sup> <sup>mi-kán-na-iš</sup>	Samiamantash (and) Viyaxna
8	𐎠-be-ul 19-um-me.na	of the 19th year.
9	2 𐎠RUḪ <sup>idg</sup> un-ra 3 pan-su- <sup>kaš</sup> <sup>1</sup>	2 men, each, 3 shekels
10	ši-iš-maš pan-su-kaš	(and) a third (of a) shekel.
11	1 ME 4 (sic)RUḪ <sup>idg</sup> un-ra 2 ši-iš-maš	104 men, each, 2 thirds.
12	16 𐎠KI.MIN KI.MIN <sup>pir</sup> <sup>1</sup> -nu-ip-šu pan-su-[kaš]	16 ditto, ditto, a half shekel.
13	2 ME 7 𐎠KI.MIN KI.MIN ši-iš-maš KI.MIN	207 ditto, ditto, a third ditto.
14	6 <sup>MUNUS</sup> <sup>MUNUS</sup> <sup>idg</sup> KI.MIN 2 KI.MIN	6 women, ditto, 2 ditto.
15	[1 ME] 40 3(?) <sup>MUNUS</sup> <sup>KI.MIN</sup> KI.MIN 1 ši-[iš-maš]	143(?) ditto, ditto, 1 third.
16	[117(?)] <sup>MUNUS</sup> <sup>KI.MIN</sup> KI.MIN 6	117(?) ditto, ditto, a sixth
17	[ir]-ma-ki pan-su-kaš	(of) a shekel.
18	[PAB 590 +] 5(?) 𐎠kur-taš	Total: 595(?) workmen.
19	[ <sup>DINGIR</sup> <sup>ITU</sup> <sup>idg</sup> s]a-mi-ia-maš <sup>DINGIR</sup>	Months: Samiamantash (and)
20	[mi-kán-na-iš] PAB 2 <sup>DINGIR</sup>	Viyaxna—within a total of 2
21	[ITU <sup>idg</sup> ḫ]a-tu.ma	months
22	[𐎠-] be- <sup>ul</sup> 19 <sup>1</sup> -um-me.na	of the 19th year.

## CONTENTS

This fragmentary memorandum-type document states that the sum of at least 46 karsha, 4½ shekels of silver from the Persepolis Treasury has been given to "Treasury workmen" at Persepolis for whom Uratinda is responsible, for services performed in the eleventh and twelfth months of the nineteenth year (of Xerxes). Wine served as the equivalent of one-third of the amount specified; presumably the balance was paid in cash.

Although the numerals are in large part damaged, the following computations cannot be wide of the original:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
2 men	3½ (=3;20)		6;40
104 "	½ (=0;40)	6	9;20
16 "	½		8
207 "	½ (=9;20)	6	9
6 women	2	1	2
143 "	½ (=0;20)	4	7;40
117 "	½ (=0;10)	1	9;30
<hr/> Total 595		<hr/> 23	<hr/> 2;10 ×2 months
		<hr/> 46	<hr/> 4;20

## NOTES

Since even the total in line 1 could not be read without doubt at Persepolis, the many restorations in the numerals of lines 15–18 may not be altogether accurate, but they cannot be far wrong.

Line 1: For the use of <sup>KA</sup><sub>1</sub><sup>idg</sup> as "shekel" (i.e., the equivalent of *pan-su-kaš*, itself employed elsewhere in this text) see above, page 37.

## PERSONNEL

*Ū-ra-tin-da*, responsible for the workmen: See No. 3.

## DATE

The services were rendered during the last two months of the nineteenth year (of Xerxes), as in No. 44, or from February 6 through April 5, 466 B.C.

## SEAL

Type 5; see tablets 34-35.

## 46 (Pl. XXIX)

	1	» <i>ma-u-ú-iš kán-ša-bar-ra tu<sub>4</sub>-ru-</i>	(To) Vahush the treasurer speak,
	2	<i>iš » ir-da-tak-ma na-an-KI.MIN</i>	Artataxma says:
	3	9 <i>kur-šá-am 9 pan-su-kaš 2 ši-iš-maš a-ak</i>	9 karsha, 9 shekels, 2 thirds and
	4	9 <i>ir-ma-ki pan-su-kaš.na KÛ.BABBAR<sup>idg</sup></i> <i>ša-ik</i>	a ninth of a shekel, silver, equivalent
	5	<i>ptr-nu-ba-ik gal.na si.si-du gal »</i>	(to) half of the wage, give (as) wages
	6	<i>kur-taš » ki-iš-nu-iš-ki-ip » ba-ir-</i>	(to) workmen, beer tenders at Parsa
	7	<i>šá.iš » be-ul-pa-ik-ka<sub>4</sub> šá-ra-man-na</i>	(for whom) Pelpakka is responsible.
	8	<i>gal<sup>DINGIRITU<sup>idg</sup></sup> mi-kán-na-iš.na</i>	(It is) the wage of the month Viyaxna
	9	<i>» be-ul 19-um-me-man-na 19</i>	of the 19th year. 19
Edge	10	» <i>RUḪ<sup>idg</sup> un-ra 3 pan-su-</i>	men, each, 3 shekels
Rev.	11	<i>kaš a-ak ši-iš-maš du-man-pi</i>	and a third they are to receive.
	12	2 » <i>pu-ḫu un-ra 1 pan-su-kaš a-ak</i>	2 boys, each, 1 shekel and
	13	2 <i>ši-iš-maš du-man-pi 3 » pu-ḫu</i>	2 thirds they are to receive. 3 boys,
	14	<i>un-ra ptr-nu-ba-ik a-ak ptr-nu-ba-ik 9</i> <i>ir-ma-</i>	each, a half and a half (of) a ninth
	15	<i>ki pan-su-kaš.na du-man-pi 9</i> <i>MUNUSMUNUS<sup>idg</sup></i>	of a shekel they are to receive. 9 women,
	16	<i>un-ra 2 pan-su-kaš a-ak ptr-nu-ba-ik</i> <i>&lt;a-ak&gt; 9 ir-</i>	each, 2 shekels and a half (and!) a ninth
	17	<i>ma-ki du-man-pi 5<sup>MUNUS</sup> pu-ḫu un-ra</i> <i>1 pan-</i>	they are to receive. 5 girls, each, 1
	18	<i>su-kaš a-ak 9 ir-ma-ki du-man-pi 4</i>	shekel and a ninth they are to receive. 4
	19	<i>MUNUS<sup>idg</sup> pu-ḫu un-ra ptr-nu-ba-ik a-ak ptr-</i>	girls, each, a half and a half
	20	<i>nu-ba-ik 9 ir-ma-ki du-man-pi</i>	(of) a ninth they are to receive.
Edge	21	<i>» ḫal-mi ḫi li-ka<sub>4</sub></i>	This sealed order has been given.

## CONTENTS

Artataxma informs the treasurer Vahush that the sum of 9 karsha, 9 $\frac{7}{8}$  shekels of silver, equal to half the total wage, should be given to forty-two individuals who have been preparing beer at Persepolis and for whom Pelpakka is responsible. The sum specified represents half their wages for the twelfth month of the nineteenth year (of Xerxes). The document, which was once accompanied by a sealed order, contains the following computations:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
19 men	3 $\frac{1}{8}$ (=3;20)	6	3;20
2 boys	1 $\frac{2}{3}$ (=1;40)		3;20
3 "	$\frac{1}{2} + \frac{1}{8}$ (=0;33,20)		1;40
9 women	2 $\frac{1}{2} + \frac{1}{8}$ (=2;36,40)	2	3;30
5 girls	1 $\frac{1}{8}$ (=1; 6,40)		5;33,20
4 "	$\frac{1}{2} + \frac{1}{8}$ (=0;33,20)		2;13,20
<hr/> Total 42		9	9;36,40

The scribe added his computations incorrectly to secure 9 karsha, 9;46,40 shekels, or one-sixth of a shekel too much, which total, however, he then correctly expressed as "9 karsha, 9 shekels, 2 thirds and a ninth."

## NOTES

Line 6: *Ki-iš-nu-iš-ki-ip*, "beer tenders." As noted above in the Notes to No. 38:8-9, T. Jacobsen suggested that this might be a phonetic rendering of *kaš-nu-iš-ki-ip*, and hence embody Sum. *kaš* (Akk. *šikaru*; Deimel, *ŠL*, No. 214:36). The suggestion becomes extremely plausible in view of the occurrence in No. 38 of *giš.ú.sa-nu-iš-ki-ip*, which would seem to be none other than *kaš.ú.sa-nu-iš-ki-ip*. For *nu-iš-ki-* as "(to) tend, guard," see No. 10b. The employment of adults and children of all ages in the mixing, straining, and general preparation of beer is quite understandable.

Line 16: In order to come even close to the scribal totals, one must understand that the scribe meant "one-half plus one-ninth," not "one-half of one-ninth"; hence the insertion of *a-ak* before *9 ir-ma-ki*.

## PERSONNEL

*Ma-u-ú-iš*, treasurer and addressee: See No. 12.

*Ir-da-tak-ma*, addressor: See No. 21.

*Be-ul-pa-ik-ka<sub>4</sub>*, responsible for the workmen: So written, the name of this individual appears also in No. 47 and, written *Be-ul-pa-ak-ka<sub>4</sub>*, in No. 58; in both occurrences he performs the same function as here. The name is probably of Elamite origin; if so, one may compare *be-ul*, "year," and the name *Pa-ak-ka<sub>4</sub>* (*Mém.*, IX, No. 208:2).

## DATE

The payment is for work performed in the month *Viyaxna* (Addaru) of the nineteenth year (of Xerxes), or from March 8 through April 5, 466 B.C.

## SEAL

Type 2; see tablet No. 21.

## 47

	1	[Y] <i>ma-u-ú-iš kán-ša-bar-ra tu<sub>4</sub></i>	(To) Vahush the treasurer
	2	<sup>1</sup> <i>ru</i> <sup>1</sup> <i>iš</i> » <i>ir-da-tak-ma na-an-ki.min</i>	speak, Artataxma says:
	3	3 <i>kur-šá-am 6 pan-su-kaš a-ak 2 ši-</i>	3 karsha, 6 shekels, and 2 thirds
	4	<i>iš-maš pan-su-kaš.na KÙ.BABBAR<sup>idz</sup> ša-ik</i>	of a shekel, silver, the equivalent
	5	<i>pir-nu-ba-ik.na si.si-du gal » pu-ḫu</i>	of half (the wage), give (as) the wage (to) boys
	6	<i>ba-ti-ma-nu-iš ka<sub>4</sub>-ra-bat-ti-iš</i>	attached to the (royal) estate, ass driver(s)(?),
	7	» <i>be-<sup>1</sup>ul-pa<sup>1</sup>-ik-<sup>1</sup>ka<sub>4</sub><sup>1</sup> šá-ra-man-na</i>	(for whom) Pelpakka is responsible.
	8	(erasure) <sup>DINGIRITU<sup>idz</sup></sup> <i>mi-kán-na-iš.na</i>	Month of <i>Viyaxna</i>
Edge	9	» <i>be-ul 19-um-me-man-na</i>	of the 19th year.
	10	11 » <i>pu-ḫu un-ra 3 pan-</i>	11 boys, each, 3 shekels
Rev.	11	<i>su-kaš a-ak ši-iš-maš pan-</i>	and a third of
	12	<i>su-kaš.na KÙ.BABBAR<sup>idz</sup> du-man-pi</i>	a shekel, silver, they are to receive.
	13	<sup>DINGIRITU<sup>idz</sup></sup> <i>mi-kán-na-iš.na</i>	(In) the month of <i>Viyaxna</i>
	14	» <i>be-ul 19-um-me-man-na</i>	of the 19th year
	15	» <i>ḫal-mi ḫi li-ka<sub>4</sub> du-me »</i>	this sealed order has been given. The receipt
	16	<i>ba-ka<sub>4</sub>-pu-uk-šá.ik-ki.</i>	from Megabyzus
	17	<sup>1</sup> <i>mar</i> <sup>1</sup> <i>du-iš-da » ba-</i>	he received
	18	<i>ir-šá.iš</i>	at Parsa.

## CONTENTS

Artataxma informs the treasurer Vahush that the sum of 3 karsha, 6 $\frac{2}{3}$  shekels of silver should be paid to eleven boys for whom Pelpakka was responsible and who were "ass drivers" attached to the (royal) estate. The money, which represents half the boys' wages, is to be paid for services rendered in the twelfth month of the nineteenth year (of Xerxes). There is mention of a "sealed order" and of a receipt secured from Megabyzus at Persepolis in the same month. The computation, according to which each boy was to receive 3 $\frac{1}{3}$  shekels, is correct.

## NOTES

This tablet is a near-duplicate of No. 58, which prescribes payments for the same number of the same kind of workers two months later but at a slightly different wage scale.

Lines 5 f.: Compare the following phrases:

1. \**pu-ḫu ba-ti-ma-nu-iš ka-ra-bat-ti-iš* (here)
2. \**pu-ḫu<sup>id</sup> ba-ti-ma-nu-iš ka-ra-bat-ti-iš* (No. 58:5 f.)
3. \**pu-ḫu ba-ti(?) -ma-nu kur-ri-iš<sup>an</sup>šip(?) .na* (No. 59:5 f.)
4. \**pu-ḫu ba-ti-ma-nu-iš ap-pa mu-šá-ip ṽ-bar(?) -te(?) -taš* (No. 48:5 f.)
5. \**pu-ḫu<sup>id</sup> ba-ti-ma-nu-iš ak-ka-be gal nu-iš-ki-ip* (No. 63:6 ff.)
6. \**pu-ḫu ṽ-ba-ti-ma-nu ap-pa ab(?) -ba-ir ku-ti-ip* (No. 72:3 ff.)
7. *ba-ti-ma(?) -nu(?) -iš* (in uncertain context [No. 81:8])

To complete the record it should be noted that a word(?) *ba-ti-ma-na* appears in uncertain context in *Mém.*, IX, No. 165:6.

Examples 4–7 rule out the otherwise tempting division so as to secure a reading *ba-ti-ma nu-iš-ka-ra*; hence *ba-ti-ma-nu(-iš)* must be a single or compound word or a phrase. Since *ka-ra-bat-ti-iš* in examples 1–2 appears to represent an OP \**xara-pati*, “ass master, ass driver” (see below), a translation “herdsman” for *ba-ti-ma-nu(-iš)* at first seemed plausible. It is very likely, however, that this word too represents an OP word or word-group. The most plausible interpretation is that it stands for OP *patiy māniy(a)*, “attached to the royal house (estate).” It is possible that this interpretation will throw some much needed light on Darius’ use of *māniyam* (“possessions in the house[?]”) in DB, § 14; in any event, as Professor Kent points out to me, one is justified in comparing the assumed OP group with Greek *πρῶοικεῖος* and its relatives, most of which carry such a meaning as “associated with, neighboring.” Thus the writing *ba-ti-ma-nu(-iš)* in its various contexts would state that the “boys” in question were “attached to the (royal) house.” Some of the boys are further described as “ass drivers” (examples 1–2); others as being stationed “at the gate(?)” or “accounted to (the place) Partetash” (examples 3–4); and still others as “tending” or “guarding” (animals?) “for wages” (examples 5–6).

Since there seemed little likelihood of adding the Persian composition form *-kara* to *ba-ti-ma-nu-iš* in this text and in No. 58, the assumption is that *ka-ra-bat-ti-iš* is another single or compound word. Comparison with the OP loan words written *da-sa-bat-ti-iš* and *sa-da-bat-ti-iš* then led to the belief that this word also was of similar formation. Hence I suggest that the prior element is OP \**xara*, Av. *xara-*, “ass” (*BAiW*, col. 532). The first consonant of Av. *xara-* would also be *x* in OP (cf. H. Hübschmann, *Persische Studien* [Strassburg, 1895], p. 250, § 144) exactly as in OP *xauda*, which is rendered in Elamite by *ka-u-da*; the Elamites, consequently, would write OP \**xara* by *ka-ra* (perhaps also, as in example 3 above, by *kur-ri(-iš)*). An Avestan or modern Persian \**xar(a)-pat* does not appear in the lexicons, but modern Persian has the analogous *kharbān* (خَرَبَان), “a driver of asses.” The appropriateness of the assumed OP word in the above contexts is at once apparent.

## PERSONNEL

*Ma-u-ú-iš*, treasurer and addressee: See No. 12.

*Ir-da-tak-ma*, addressor: See No. 21.

*Be-ul-pa-ik-ka*, responsible for the boys: See No. 46.

*Ba-ka-pu-uk-šá*, who delivered the receipt: See No. 37.

## DATE

The tablet computes payment for services performed (and was written) in the month Viyaxna (Addaru) of the nineteenth year (of Xerxes), from March 8 through April 5, 466 B.C.

## SEAL

The seal end was missing, but the seal was doubtless type 2; see tablet No. 21.



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	1	» <i>ma-u-ú-iš kán-ša-bar-ra</i>	(To) Vahush the treasurer
	2	<i>tu<sub>4</sub>-ru-iš</i> » <i>ir-da-tak-ma</i>	speak, Artataxma
	3	<i>na-an-KI.MIN 2 kur-šá-am KÙ.BABBAR<sup>idz</sup></i>	says: 2 karsha, silver,
	4	<i>ša-ik pír-nu-ba-ik gal.na 'sì.sì<sup>l</sup>-</i>	equivalent (to) half of the wage, give
	5	<i>du 'gal' » pu-ḫu ba-ti-[ma]-</i>	(as) the wage (of) boy(s) attached to the (royal)
	6	<i>'nu<sup>l</sup>-iš ap-pa mu-šá-ip ṽ-<sup>l</sup>bar(?)<sup>l</sup>-</i>	house, (and) who are accountable(?) (at) Par-
	7	<i>'te(?)]-taš<sup>MUNUS</sup> am-ma-ši-</i>	tetash(?) to the woman Amma-
Edge	8	<i>iš-na.ma ṽ-kin-da-</i>	shishna of (the place) Kinda-
Rev.	9	<i>ri-iš-ša.an gal<sup>DINGIRITU<sup>idz</sup></sup></i>	rizza, (as) the wage of the month
	10	<i>mi-kán-na-iš.na ṽ-be-ul</i>	Viyaxna of the
	11	<i>19-um-me-man-na 6 » pu-ḫu</i>	19th year. 6 boys,
	12	<i>un-ra 3 pan-su-kaš a-ak ši-</i>	each, 3 shekels and a
	13	<i>iš-maš du-man-pi<sup>DINGIRITU<sup>idz</sup></sup></i>	third they are to receive. (In) the month
	14	<i>mi-kán-na-iš.na ṽ-be-</i>	of Viyaxna of the
	15	<i>ul 19-um-me-man-na ṽ-</i>	19th year
	16	<i>ḫal-mi ḫi li-ka<sub>4</sub> du-me</i>	this sealed order has been given. The receipt
	17	<i>» ba-<sup>l</sup>ka<sub>4</sub>-pu-uk-šá.ik-ki.mar<sup>l</sup></i>	(is) from Megabyzus.

## CONTENTS

Artataxma informs the treasurer Vahush that the sum of two karsha of silver represents half of the wages to be paid to six boys attached to the royal house who in the "place" Partetash are accountable to the woman Ammashishna of Kindarizza. The payment is for services rendered in the twelfth month of the nineteenth year (of Xerxes), in which month also the document (accompanied by a sealed order for which a receipt was secured from Megabyzus) was written. Each of the six boys was to receive  $3\frac{1}{3}$  shekels.

## NOTES

Comparison of this text in Chicago with others of similar nature (especially with No. 47) led at first to the belief that I had badly miscopied it at Teheran, for the phraseology of lines 7–9 was so near, yet so strikingly different. Fortunately, however, Schmidt brought to Chicago a cast of lines 7–16 which proved the Teheran readings correct in every detail.

Lines 5–6: For the meaning of *ba-ti-ma-nu-iš*, see No. 47. The translation assumes that the "verb" *mu-šá-ip*, which appears also in Nos. 52 and 53, is derived from the same stem as the noun *mu-ši-in*, "accounting, record" (see No. 15), but it is not easy to determine whether the meaning is that the boys "were accountable to" someone or were themselves required to "render an account to" someone; perhaps the former is preferable because the phrase then becomes merely a variant way of saying that someone is responsible for them—i.e., it may replace the common N *šá-ra-man-na*.

Lines 6–7: The "place" name *Bar-te-taš* occurs also in Nos. 49:6 and 59:8, and there we have suggested that this was the name of a gate; the signs are here written over a carelessly executed erasure.

Lines 8–9: For a discussion of the place name *Kin-da-ri-iš-ša* which here yields the value *kin* for the sign hitherto known only as *ḫar/mur*, see above, page 62.

## PERSONNEL

*Ma-u-ú-iš*, treasurer and addressee: See No. 12.

*Ir-da-tak-ma*, addressor: See No. 21.

<sup>MUNUS</sup>*Am-ma-ši-iš-na*, to whom the boys were accountable (i.e., who was responsible for them): The name, which has not appeared elsewhere to date, is obviously of Elamite origin. *Am-ma*, "mother," is well known from classical Elamite texts; it surely occurs also in DB, § 10, col. I:24, where we should read <sup>MUNUS</sup>*am-ma(!) ad-da*,

(“[the same] mother [and] father”) for King and Thompson’s <sup>MUNUS</sup>*am-la-ad-da*. The second element of our name appears as *ši-iš-ni* in the Achaemenid texts, where its OP parallel is *naibam* (Akk. *babbannū*), “beauty, beautiful.”

*Ba-ka<sub>4</sub>-pu-uk-šá*, who delivers a receipt: See No. 37.

## DATE

Identical with No. 47.

## SEAL

The seal end was missing but it doubtless bore an impression of seal-type 2; see tablet No. 21.

## 48a

Only the following lines of this poorly preserved tablet were transcribed at Teheran:

1	» <i>ma-u-ú-iš kán-ša-bar-ra</i> <sup>1</sup> <i>tu<sub>4</sub>-ru-iš</i> <sup>1</sup>	(To) Vahush the treasurer speak,
2	» <i>ir-da-tak-ma na-[an-KI.MIN]</i>	Artataxma says:
<hr/>		
x+1	[» <i>RUḪ</i> <sup>idg</sup> <i>m</i> ]» <i>u-ši-in sùk-ki-ip</i> »- <i>i-</i>	(monies to) men, account makers
x+2	<i>ia-an.uk-ku.ma</i> » <i>ma-</i>	in the columned hall, (whom)
x+3	<i>u-ú-iš da-ma</i> <sup>DINGIRITŪ</sup> [ <sup>idg</sup> . . . .]	Vahush sent. Month(s) . . . .

## 49

1	<i>Yra-tin-in-da kán-ša-bar-ra</i> »	(To) Ratininda the treasurer
2	<i>ba-ir-šá.na tu<sub>4</sub>-ru-iš</i>	of Parsa speak,
3	<i>Yir-da-tak-ma na-an-KI.MIN</i> 6 <i>kur-</i>	Artataxma says: 6 karsha,
4	<i>šá-um</i> 6 <i>pan-su-kaš</i> <sup>KÙ.BABBAR</sup> <sup>idg</sup> <i>ap</i>	6 shekels, silver,
5	<i>sì.sì-du gal</i> » <i>kur-taš ku-pír-</i>	give to them (as) wages, (namely, to) workmen, cop-
		perers(?)
6	<i>ri-iš</i> »- <i>bar-te-taš maš.du.ku.</i>	(at) Partetash and(?)
7	<i>ip(?)</i> »- <i>mí-iš-ba-ši-ia-ti-iš</i>	(at the gateway named?) Vispashiyatish (“All Pros-
		perity”)
8	» <i>nu in šá-lra<sup>1</sup>-ma ša-ak pí-</i>	(for whom) you are responsible. (It is) the equivalent
Edge 9	<i>nu-šu gal</i> <sup>DINGIRITŪ</sup> <sup>idg</sup> <i>ha-du-</i>	(of) half the wages (for) the month Adu-
10	<i>kán-na-iš</i> »- <i>be-ul</i> 20- <i>na.ma</i>	kanaisha in the 20th year.
Rev. 11	9 » <i>RUḪ</i> <sup>idg</sup> <i>un-ra</i> 3 <i>pan-su-kaš</i>	9 men, each, 3 shekels (and)
12	<i>ši-iš-maš</i> 2 » <i>pu-ḫu</i> <sup>idg</sup> <i>un-ra</i>	a third. 2 boys, each,
13	1 <i>pan-su-kaš</i> 9 <i>ir-ma-ki.na</i>	1 shekel (and) a ninth.
14	11 <sup>MUNUS</sup> <sup>MUNUS</sup> <sup>idg</sup> <i>un-ra</i> 2 <i>pan-su-kaš</i>	11 women, each, 2 shekels (and)
15	2.9 <i>ir-ma-ki.na</i> 5 <sup>MUNUS</sup> <sup>pu-ḫu</sup> <sup>idg</sup>	2 ninths. 5 girls,
16	<i>un-ra</i> 1 <i>pan-su-kaš a-ak</i> 2 <i>ši-iš-</i>	each, 1 shekel and 2 thirds.
17	<i>maš.na</i> 2 <sup>MUNUS</sup> <sup>pu-ḫu</sup> <sup>idg</sup> <i>un-ra</i>	2 girls, each,
18	<i>pír-nu-šu pan-su-kaš a-ak pí-</i>	a half shekel and a half
19	<i>šu</i> 9 <i>ir-ma-ki.n[a x]</i> » (sic)	of a ninth . . . .

## CONTENTS

Artataxma informs the new treasurer Ratininda (who first appears as such in this first month of the twentieth year) that the sum of 6 karsha and 6 shekels of silver should be paid to workmen who as “copperers” may have assisted the “tax handler” and who were engaged at (perhaps) the gateways Partetash and(?) Vispashiyatish.

## TRANSLITERATIONS AND TRANSLATIONS

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The sum specified represents half of the wages of twenty-nine men, women, boys, and girls whose services were rendered in the first month of the twentieth year. The payments were said to be as follows:

INDIVIDUALS.	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
9 men	3½	3	2;13,20
2 boys	1½ (=1; 6,40)		
11 women	2½ (=2;13,20)	2	4;26,40
5 girls	1¾ (=1;40)		
2 "	½ + 1/16 (=0;33,20)		1; 6,40
Total 29		6	6; 6,40

The totals which the scribe's figures call for are thus one-ninth of a shekel more than those totals which he gives in lines 3-4; he merely ignored this fraction.

## NOTES

The text ends abruptly, probably in the middle of the word *hal-[mi]*, "sealed order," on the last available line of the reverse. Apparently the scribe abandoned the document when he was this far along, perhaps because he saw that he had insufficient room to complete his closing phrases.

Lines 5-7: *ku-pir-ri-iš*. The same word, written *ku-pir-ri-ia-iš*, appears in Nos. 54-55 in similar contexts. I have been unable to find for the word a wholly satisfactory explanation. From its form it is scarcely an Elamite word, and no Avestan or OP word known to me appears altogether suitable. Just possibly it could be explained on the basis of an OP *\*kufriya*, "copperers," as R. G. Kent very tentatively proposed to me by letter, for we note that in No. 54 the "workmen," *ku-pir-ri-ia-iš*, are under the supervision of Hystanes, the *ba-ši-ka-ra*; if the latter is correctly explained as "tribute handler" (see No. 41), then "copperers" might handle copper receipts as part of the tax or tribute.

*-bar-te-taš*. See below (also in Nos. 48 and 59) for some evidence to suggest that this was the name of a gateway.

My copy of the signs following *bar-te-taš* is as follows:

The transliteration which seems to result, however, makes no sense. I have sometimes wondered if the signs, which are written over an erasure, were not intended to be merely *a-ak ku(-ut)-te*, the common "and also, and," such as appears in No. 22:7-8 (cf. also l. 9). In that way the phrase would definitely link *Bar-te-taš* with *Mi-iš-ba-ši-ia-ti-iš*. Both "place names" reappear in No. 59, where they are perhaps preceded by the sign for "gate, gateway." Our *Mi-iš-ba-ši-ia-ti-iš* obviously stands for an OP *Vispa-šiyāti*, "(Containing) All (Kinds of) Prosperity." The name at once recalls that of the magnificent gateway to Persepolis which itself bore the name "(Gateway of) All Lands" (XPa). The OP name there evident is *Visadahyu*, and the Elamite translation renders this quite literally by *Mi-iš-šá-da-a-ḥu-iš*; that the Median form of the OP name, *Vispadahyu*, was also current is demonstrated by the Akkadian rendering of this name: *U-is-pi-da-a-i*. Thus, unless our interpretation of the signs in No. 59 is incorrect, our *Mi-iš-ba-ši-ia-ti-iš*, representing the Medianized OP compound *Vispašiyāti*, may be the name of another gateway to the Persepolis Terrace, one which was perhaps reserved for cooks, tradesmen, servants, slaves, and the like, and where such ordinary but necessary articles as sheep, wine, beer, clothing, and arms could be brought in for the table and the accoutrement of the king, attendants, and the whole personnel inhabiting the Terrace. Such a name would indeed be quite appropriate for such a purpose. "Partetash" may be the name of another such gateway, the meaning of which is not determinable at present (note that by a reading such as *par-te-ur* we might conceivably derive the name from OP *fratarā*, "prior, in front").

## PERSONNEL

*Ra-tin-in-da*, treasurer and addressee: Beginning with the first month all subsequent letter-type tablets show that this individual was treasurer throughout the twentieth year (of Xerxes). His name is always so written except in No. 59, where it is *Ra-tin-da*, and in No. 75, where the reading is apparently *Ra-te-in-da*.

Despite the superficial resemblance between *Ra-tin-in-da* and *Ū-ra-tin-da* it is unlikely that these names were intended to be identical although the individuals so named were contemporaries. The former is the name of the treasurer and appears only in letter-type documents (where, however, he is sometimes "responsible" for

workmen; so in this text, as in Nos. 68–68a and 75); the name of that *Ū-ra-tin-da* who first appears in the last years of Xerxes occurs only in memorandum-type texts, where he is always the “responsible” party (but see above, No. 3).

The name of the treasurer *Ra-tin-in-da* is probably to be explained as of OP origin. Compare the Greco-Persian *Ῥαθίτης* (a hypocoristic form based on Av. *raθa-*, “chariot” (Justi, *NB*, p. 260; Stonecipher, *GPN*, p. 58); for the latter element compare perhaps the prior element of *Ἰνταφέρνης*, OP *Vi<sup>r</sup>da-farnā*.  
*Ir-da-tak-ma*, addressor: See No. 21.

## DATE

The tablet computes payment for services performed in the month Adukanaisha (Nisanu) of the twentieth year (of Xerxes), or from April 6 through May 5, 466 B.C.

## SEAL

Type 2; see tablet No. 21.

## 49a

Owing to the bad state of their preservation the following tablets could not be copied in full at Teheran. Like No. 49, however, they were written by Artataxma to the treasurer Ratininda and were concerned with payments for services in the same first month of the twentieth year (of Xerxes). All were sealed with seal-type 2.

## 1. PT 4 440:

- 1 *Ūra-tin-in-da kán-ša-bar-ra*
- 2 *tu<sub>4</sub>-ru-iš » ir-da-tak-ma*
- 3 *na-an-KI.MI[N . . . ]*

The first line of the reverse bore the signs [. . .]-*du-kán-na*-. . .] which permits restoration of the date as [<sup>DINGIR</sup>ITU<sup>idg</sup> *ha*]-*du-kán-na*-[*iš.na » be-ul 20-um-me-man-na*].

## 2. PT 4 648:

- 1 *Ūra-tin-in-da kán-ša-ba(sic)-ra tu<sub>4</sub>-ru-iš » ir-*
- 2 *da-<sup>1</sup>tak<sup>1</sup>-ma na-an-KI.[MIN . . . ]*

About the middle of line 6 began the date:

- 6 [. . .] <sup>DINGIR</sup>ITU<sup>idg</sup> *ha-du-kán-na*-
- 7 *iš » be<sup>1</sup>-ul <sup>1</sup>20<sup>1</sup>-um-[me-man-na]*

## 3. PT 4 952:

- 1 *Ūra-tin-in-da kán-ša-[bar-ra » ]*
- 2 *ba-ir-šá.an tu<sub>4</sub>-ru-[iš Ūir]-*
- 3 *da-tak-ma na-an-KI.MIN*

On the reverse the date could be made out faintly as

- [. . . <sup>DIN</sup>IRITU<sup>idg</sup> *ha-du-kán-na*-[*iš*]  
» *be-ul 20-na.ma* [. . . ]

## 49b

According to the date which appears on the following very poorly preserved texts, they actually precede in point of time text No. 49: they once computed payments for services performed in the nineteenth year. They were not written, however, until some time in the twentieth year; this is demonstrated by the fact that not Vahush, but Ratininda, is treasurer.

## 1. PT 4 439:

This text once computed payments for services rendered in the tenth and eleventh months of the nineteenth year. The only legible signs were as follows:

- 1 *Ūra-tin-in-da [kán-ša-bar-ra » ba]-*
- 2 *ir-šá.an tu<sub>4</sub>-r[u-iš]*
- 3 *Ūir-da-tak-ma [na-an-KI.MIN]*

## TRANSLITERATIONS AND TRANSLATIONS

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The last line of the obverse, where the date began, could not be read. On the edge appeared

$x+1$  *ha-na-ma-kaš.na a-a*[k<sup>DINGIR</sup>sa]-  
 $x+2$  *mi-ia-maš* 𐎠-be-ul '19'-[um-me-man-na]

with the reverse totally destroyed.

## 2. PT 4 651:

This text once computed payment for services performed in the twelfth month of the nineteenth year and began thus:

1 𐎠ra-tin-i[n-da kán-ša-bar-ra 𐎠ba]-  
 2 *ir-šá*.[an tu<sub>4</sub>-ru-iš 𐎠ir-da-tak-ma na-an-KI.MIN]

The date, which began on the edge, read as follows:

$x+1$  [. . . .<sup>DIN</sup>IRIT<sup>id</sup> mi-  
 $x+2$  *kán-na-iš* 𐎠-be-ul 19-na.ma

The seal impression on both tablets was type 2.

## 50

	1 75(?) <i>kur-šá-um</i> 7 <i>pan-su-kaš</i> 𐎠šá'-	75(?) karsha, 7 shekels, 2 thirds
	2 <i>iš-maš</i> '4' <i>ir-ma-ki</i> KÜ.BABBAR <sup>id</sup> ka <sub>4</sub> - [ap-nu]-	(and) a fourth (of a shekel), silver,
	3 <i>iš-ki</i> 𐎠ba-ir-šá.na.ma.mar 𐎠[kur-taš]	from the Treasury of Parsa, (which) the workmen,
	4 UDU.NITÁ <sup>id</sup> ba-te-ip 𐎠d[u(?)- . . . ]-	herding sheep in (the place) . . . -
	5 <i>ra-mi</i> - <sup>id</sup> ud(?) <sup>1</sup> -da 𐎠ú-ra-tin-da 'šá'-	ramidda (and for whom) Uratinda is
	6 <i>ra-man-na</i> hu-pi-be du-iš	responsible, they have received.
	7 <i>ša-ak</i> pír-nu-ip-šu <sup>DINGIRIT</sup> [U <sup>id</sup> ha]-	(It is) the equivalent (of) half (the wage) of the
	8 <i>du-kán-nu-ia.na</i> 𐎠-be-	month
	9 <i>ul</i> 20-um-me.na	Adukanaisha of the
	10 1 ME 27 𐎠RUḪ <sup>id</sup> un-ra 3 pan-'su'-	20th year.
Edge	11 <i>kaš šá-iš-maš</i> [. . . ]	127 men, each, 3 shekels
	12 '6(?) <sup>1</sup> 𐎠pu-hu un-ra 2 pan-[su-kaš . . . ]	(and) a third (and) . . . .
Rev.	13 27 𐎠KI.MIN KI.MIN [. . . ]	6(?) boys, each, 2 shekels (and) . . . .
	14 25 𐎠KI.MIN KI.MIN [. . . ]	27 ditto, ditto, . . . .
	15 7 𐎠KI.MIN KI.MIN [. . . ]	25 ditto, ditto, . . . .
	16 11 𐎠KI.MIN KI.MIN pír-[nu-ip-šu . . . ]	7 ditto, ditto, . . . .
	17 KI.MIN	11 ditto, ditto, a half . . . .
	18 91 <sup>MUNUS</sup> MUNUS <sup>id</sup> un-ra 2 pan-[su-kaš	(of) the same.
	. . . .]	91 women, each, 2 shekels (and) . . . .
	19 2.9 <i>ir-ma-ki</i>	(and) 2 ninths.
	20 55 <sup>MUNUS</sup> pu-hu un-ra 1 pan-su-[kaš . . . ]	55 girls, each, 1 shekel (and) . . . .
	21 17 <sup>MUNUS</sup> KI.MIN KI.MIN 1 KI.MIN 9 <i>ir</i> -[ma- ki]	17 ditto, ditto, 1 ditto (and) a ninth.
	22 4 <sup>MUNUS</sup> KI.MIN KI.MIN pír-nu-ip-šu	4 ditto, ditto, a half
	23 <i>pan-su-kaš</i>	(of) a shekel.

## CONTENTS

A memorandum-type tablet which states that the sum of at least 75 karsha, 7 $\frac{1}{2}$  shekels of silver from the Persepolis Treasury has been received by upwards of 370 men, boys, women, and girls who appear to have been herding sheep in some place probably not far from Persepolis and for whom Uratinda is responsible. The sum designated, which was presumably paid in cash, represents but half their wages; the balance may have been paid in sheep. The work was performed in the first month of the twentieth year (of Xerxes). Because of the damaged condition of the tablet it is obviously impossible to check the computations.

## NOTES

Line 4: That the stem of *ba-te-ip* which occurs in identical context in No. 61:3 means "(to) herd, shepherd," was proposed in connection with *kam-ba-ti-ia* in No. 5. This meaning is, of course, a guess which is neither corroborated nor refuted by *ba-ti-ip* in the inscription of Huteludush-Inshushinak in *Mém.*, XI, p. 73, Pl. 12(3), No. 99c:20. The first sign of the place name following this word in the present text could be *du* or *na*; in line 5 the dubious *ud* might be *tin*, *ka*, or *is*.

## PERSONNEL

*Ú-ra-tin-da*, who is responsible for the workmen: See No. 3.

## DATE

The tablet computes payment for services rendered in the month Adukanaisha (Nisanu) of the twentieth year (of Xerxes), or from April 6 through May 5, 466 B.C.

## SEAL

Type 5; see tablets 34-35.

## 51 (Pl. XXX)

	1	13 kur-šá-um '7' pan-su-kaš	13 karsha, 7 shekels,
	2	(erased)	(erased)
	3	ΚÛ.BABBAR <sup>idg</sup> ka <sub>4</sub> -ap-nu-iš-ki ṽ-ba-	silver, from the Treasury
	4	ir-šá.na.ma.mar »kur-taš mar-	of Parsa, (which) the workmen,
	5	ri-ip ṽ-ba-ir-šá »bat-ti-	artisans (at) Parsa (whom) Patti-
	6	na-šá da-ma »ú-ra-tin-	nasha "sent" (and for whom) Uratin-
	7	da šá-ra-man-na hu-pi-be	da is responsible, they—
Edge	8	KAŠ <sup>idg</sup> šá-gi.ma 2 ši-iš-maš	beer (serves) as the equivalent (of) 2 thirds
	9	du-ma-iš <sup>DINGIRITU<sup>idg</sup></sup>	(of the wage)—are receiving. Months:
	10	ha-du-kán-nu-ia <sup>DINGIR</sup>	Adukanaisha (and)
Rev.	11	tu-ru-ma-raš ṽ-be-ul 20-me(sic)-	Thuravahara of the 20th
	12	um-me.na	year.
	13	84 »RUḤ <sup>idg</sup> un-ra 2 ši-iš-maš	84 men, each, (receives) 2 thirds (of a shekel).
	14	9 »KI.MIN KI.MIN pí-r-nu-šu	9 ditto, ditto, a half
	15	pan-su-kaš.na	of a shekel.
	16	24 »RUḤ <sup>idg</sup> un-ra	24 men, each,
	17	ši-iš-maš pan-su-kaš	a third (of) a shekel.

## CONTENTS

A memorandum-type tablet which states that the sum of 13 karsha and 7 shekels of silver from the Persepolis Treasury has been given to artisans who had been brought to Persepolis by Pattinasha and for whom Uratinda was responsible. Two-thirds of the payment is to be made in beer, doubtless at a standard rate. The services of the artisans were performed during the first and second months of the twentieth year (of Xerxes). The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
84 men	$\frac{2}{3}$ (=0;40)	5	6
9 "	$\frac{1}{2}$		4;30
24 "	$\frac{1}{3}$		8
<hr/>			
Total 117		6	8;30 ×2 months
<hr/>			
		13	7

## TRANSLITERATIONS AND TRANSLATIONS

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## NOTES

Line 11: Apparently the scribe began to write *20-me.na* but, after writing the *-me*, completed the fuller form by which he intended us to understand *20-um-me.na*.

## PERSONNEL

*Bat-ti-na-šá*, who brought the workmen to Persepolis: For this name, which may be of Egyptian origin, see No. 9a.

*Ú-ra-tin-da*, who is responsible for the workmen: See No. 3.

## DATE

The tablet computes payment for services rendered in the months of Adukanaisha (Nisanu) and Thuravahara (Aiaru) of the twentieth year (of Xerxes), or from April 6 through June 3, 466 B.C.

## SEAL

Type 5; see tablets 34-35.

## 52 (Pl. XXXI)

	1	<i>Tra-tin-in-da kán-ša-bar-ra</i> 𐎠𐎡𐎠𐎢𐎡𐎠	(To) Ratininda the treasurer of
	2	<i>ir-šá.an tu<sub>4</sub>-ru-iš</i> 𐎠𐎢𐎡𐎠𐎢𐎡𐎠	Parsa speak, Artataxma
	3	<i>na-an-KI.MIN 14 kur-šá-um</i> 𐎠𐎢𐎡𐎠𐎢𐎡𐎠 <sup>idz</sup>	says: 14 karsha, silver,
	4	<i>ap si<sub>1</sub>.si<sub>1</sub>-du(!) gal</i> 𐎠𐎢𐎡𐎠𐎢𐎡𐎠	give to them (as) wages: (to) workmen,
	5	<i>ra-ša-ka<sub>4</sub>-ra ap-pa mu-šá-ip</i> 𐎠𐎢𐎡𐎠	armorers, who are accounted to
	6	<i>ha-an-kur-ra-ka<sub>4</sub>.an</i> 𐎠𐎢𐎡𐎠	(the place) Hankurraka (and for whom)
	7	<i>na</i> 𐎠𐎢𐎡𐎠	Otanes is responsible in Narēši (Niriz).
Edge	8	<i>ra-man-na ša-ak pír-nu-šu</i>	(It is) the equivalent (of) half
	9	<i>gal.na gal ap-pi-ni</i> <sup>DINGIR</sup>	of the wages, the wages of them (for)
Rev.	10	<i>ITU<sup>idz</sup> tu-ur-ma-ráš.na</i> 𐎠𐎢𐎡𐎠	the month of Thuravahara
	11	<i>be-<sup>1</sup>ul<sup>1</sup> 20-um-me-man-na</i> 12	of the 20th year. 12
	12	<i>»RU<sup>idz</sup> un-ra 3 pan-su-kaš 3</i>	men, each, (receive) 3 shekels (and) 3
	13	<i>ša-áš-maš.na 9 »pu-<sup>idz</sup> un-ra</i>	fourths. 9 boys, each,
	14	<i>2 pan-su-kaš pír-nu-šu pan-su-kaš.na</i>	2 shekels (and) a half of a shekel.
	15	<i>9 »pu-<sup>idz</sup> un-ra 1 pan-su-</i>	9 boys, each, 1 shekel
	16	<i>kaš 3 ša-áš-maš a-ak 8 ir-<sup>1</sup>ma<sup>1</sup>-ki.na</i>	(and) 3 fourths and an eighth.
Edge	17	<i>14 MUNUS<sup>idz</sup> un-ra 2 pan-su-kaš pír-</i>	14 women, each, 2 shekels
	18	<i>nu-šu pan-su-kaš 11 MUNUS<sup>idz</sup> pu-<sup>idz</sup></i>	(and) a half shekel. 11 girls,
End	19	<i>un-ra 1 pan-su-kaš</i>	each, 1 shekel
	20	<i>3 ša-áš-maš.na a-ak</i>	(and) 3 fourths and
	21	<i>8 ir-ma-ki.na</i>	an eighth.

## CONTENTS

Artataxma informs the Persepolis treasurer Ratininda that the sum of fourteen karsha of silver should be paid to workmen fashioning coats of mail who are assigned to the place Hankurraka and for whom Otanes in Narēši (Niriz) is responsible. The amount stipulated represents payment of one-half the wages of fifty-five individuals for the second month of the twentieth year (of Xerxes). The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
12 men	3½ (=3;45)	4	5
9 boys	2½	2	2;30
9 "	1½ + ⅓ (=1;52,30)	1	6;52,30
14 women	2½	3	5
11 girls	1½ + ⅓ (=1;52,30)	2	0;37,30
<hr/> Total 55		<hr/> 14	

## NOTES

Lines 4–5: *iš-ra-ša-ka-ra*. This word appears to be the Elamite rendering of an OP word which we could expect to be *\*zrāda-kara* but which may actually have been *\*zrāza-kara* (as our spelling seems to suggest) and which, as *zirih-gar* (زرگزر), is listed in modern Persian lexicons. Avestan shows *zrāda-* (“Panzer,” *BAiW*, col. 1703), Pahlavi *zrēh* (probably through *zrādy-*; cf. Nyberg, *Hilfsbuch des Pehlevi*, II, “Glossar,” p. 257). Admittedly the second *z* of our form (if the latter is interpreted correctly) causes difficulty; but as Hübschmann has adequately demonstrated (*Persische Studien*, pp. 220–23 and 62–63), OP *z* representing Iranian *z* appears in modern Persian as both *z* and *d*, even in the same word; thus OP *didā*, “fortress,” becomes modern *dīz*. The second *z* in our word may have arisen from the same kind of a phenomenon.

This interpretation is corroborated by the following interesting fact: the same Achaemenid inscription which gives OP *Vispa-zana* yields *Mi-iš-šā-da-na* as its Elamite equivalent (DNA; cf. also DSx and DSzc, where the OP forms are missing); this can mean only that an OP *\*Visa-dana* (and/or *\*Vispa-dana*) was also current (cf. Meillet-Benveniste, *op. cit.*, pp. 8 f.). Thus it is quite possible that both forms *\*zrāza-kara* and *\*zrāda-kara* existed simultaneously in different dialects of OP.

One cannot remain unmindful of the fact that El. *Mu-iš-ri-ia* is, in OP, *Mudrāya*; however, it is unsafe to draw further conclusions, for the Elamite name may well have followed not the OP but the Akkadian form *Mu-uš-ri*.

The initial cluster *zr* would, of course, be written *iš-ra* in Elamite, just as OP *Spar-da* is written *Iš-bar-da*.

As indicated by the meaning of the word in Avestan and modern Persian, our workmen, then, are fashioning the mail suits of armor which Herodotus (vii. 61) described as having “iron scales like those of fish,” and portions of which were found in abundance in the excavations of the Treasury (cf. Schmidt, *op. cit.*, pp. 44 ff. [illus.]).

This interpretation, finally, is strongly supported by the probable identification of the place name which is mentioned here, *Na-ri-e-ši(-iš)*, with modern Nīrīz, the Arabic district Nairīz; for in that district (see below) there are known to have been in the Arabic period iron mines and workmen who specialized in the manufacture of steel blades.

Line 5: For *mu-šā-ip* see the Notes to No. 48.

Line 6: The same place name is obviously referred to in the *An-kur-rāk-kaš* of No. 36:7, where Otanes likewise is mentioned.

Line 7: The resemblance between this place name *Na-ri-e-ši* (with Elamite termination *-iš*) and modern Nīrīz, the Arabic district Nairīz, is surely more than coincidental. The Arab geographer Muqaddasī (cf. Schwarz, *Iran im Mittelalter*, p. 105) says: “In Nairīz (province) are iron mines . . . .” Ibn al-Balkhī says of ancient Šāhah, modern Chāhāk, some sixty or seventy miles north of Nīrīz: “In Šāhah they get iron, and of the steel make swords and other blades, which [after the name of the town] are called Chāhākī . . . .” (Le Strange, *op. cit.*, pp. 24 f.). Sir Aurel Stein reports that an abundance of slag and iron smeltings marks the existence of former local industries at Chāhāk (*op. cit.*, pp. 204–6). Hence the site where our “coat-of-mail makers” practiced their craft under the supervision of Otanes would seem to be none other than that where, down into Arab times, this craft was at home: in the vicinity of Nīrīz near the southeast extension of the lake of the same name some one hundred air-miles from Persepolis.

## PERSONNEL

*Ra-tin-in-da*, treasurer and addressee: See No. 49.

*Ir-da-tak-ma*, addressor: See No. 21.

*Ū-da-na*, who is responsible for the workmen: See No. 36.

## DATE

The payment herewith ordered is for services performed in the month Thuravahara (Aiaru) of the twentieth year (of Xerxes), or from May 6 through June 3, 466 B.C.

## SEAL

Type 2; see tablet No. 21.



## 53 (Pl. XXXII)

	1	<i>Yra-'tin'-in-da kán-ša-bar-ra tu<sub>4</sub>'ru'-iš</i>	(To) Ratininda the treasurer speak,
	2	<i>Yir-da-tak-ma na-an-KI.MIN 38 kur-</i>	Artataxma says: 38 karsha,
	3	<i>šá-um 5 pan-su-kaš a-ak pír-nu-šu</i>	5 shekels, and a half
	4	<i>pan-su-kaš KÙ.BABBAR<sup>idg</sup> ap sù.sì-du gal</i>	shekel, silver, give to them (as) wages:
	5	<i>»kur-taš ap-pa mu-šá-ip »ka<sub>4</sub>-bar-ap-</i>	(to) workmen who are accounted (to) <i>Ka<sub>4</sub>-bar-ap-iš</i>
			(Khafir?)
	6	<i>iš a-ak »ba-a-ši-ia.an ha(!)-mi</i>	and (to) <i>Ba-a-ši-ia</i> (Fasā); there
	7	<i>»na-pi-iš-ša sad-da-bal-ti-iš</i>	Napezza, the centurion
	8	<i>»ka<sub>4</sub>-bar-ap-ia-iš šá-ra-man-na</i>	in <i>Ka<sub>4</sub>-bar-ap-ia-iš</i> , is responsible.
Edge	9	<i>ša-ak pír-nu-šu gal ap-pi-ni</i>	(It is) the equivalent (of) half their wages (for)
	10	<sup>DINGIRIRU<sup>idg</sup></sup> <i>šu-ur-ma-ráš.na</i>	the month of Thuravahara
	11	<i>»be-ul 20-um-me-man-na</i>	of the 20th year.
Rev.	12	<i>37 »RUḪ<sup>idg</sup> un-ra 3 pan-su-</i>	37 men, each, 3 shekels
	13	<i>kaš a-ak 3 ša-aš-maš.na 20 »pu-ḫu<sup>idg</sup></i>	and 3 fourths. 20 boys,
	14	<i>un-ra 2 pan-su-kaš a-ak pír-nu-šu</i>	each, 2 shekels and a half
	15	<i>pan-su-kaš.na 3 »pu-ḫu<sup>idg</sup> [un-ra]</i>	of a shekel. 3 boys, each,
	16	<i>1 pan-su-kaš 3 ša-aš-maš.na a-'ak'</i>	1 shekel, 3 fourths and
	17	<i>8 ir-ma-ki.na MA 7 <sup>MUNUS</sup><sup>MUNUS</sup><sup>idg</sup></i>	an eighth. 67 women,
	18	<i>un-ra 2 pan-su-kaš a-ak pír-nu-šu.na</i>	each, 2 shekels and a half.
Edge	19	<i>15 <sup>MUNUS</sup>pu-ḫu<sup>idg</sup> un-ra 1 pan-</i>	15 girls, each, 1
	20	<i>su-kaš ša-aš-maš.na 8(?) <sup>MUNUS</sup>pu-ḫu<sup>idg</sup></i>	shekel (and) a fourth. 8(?) girls,
End	21	<i>un-ra [pír-nu-šu] pan-su-kaš</i>	each, a half shekel
	22	<i>'a-ak(!)' 8 [ir-ma-ki.na]</i>	and an eighth.

## CONTENTS

Artataxma informs the treasurer Ratininda that the sum of 38 karsha, 5½ shekels of silver should be paid to workmen assigned to (probably the district) Khafir and to the town of Fasā; for them the centurion Napezza in Khafir is responsible. The sum specified represents half of the wages of 150 workmen for the second month of the twentieth year (of Xerxes). The calculations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
37 men	3¾	13	8;45
20 boys	2½	5	
3 "	1¾ + ⅛		5;37,30
67 women	2½	16	7;30
15 girls	1¼	1	8;45
8(?) "	½ + ⅛		5
<hr/> Total 150		<hr/> 38	<hr/> 5;37,30

Thus the scribe apparently approximated the actual total of "38 karsha, 5 shekels, a half and one-eighth," by "38 karsha, 5 shekels, and a half of a shekel."

## NOTES

Lines 5-6: No better reading for the place name *Ka<sub>4</sub>-bar-ap-iš*, which in line 8 is written *Ka<sub>4</sub>-bar-ap-ia-iš*, is apparent; the first sign is assuredly not GIŠ (i.e., iš), which appears as in line 7, and a reading *ud* would be even more dubious. One is reminded of the word *ku-pír-ri-(ia-)iš* (a loan word? [see No. 49]), but the same place name may be mentioned as *Ka<sub>4</sub>-pír-ap(?)iš* in No. 80:5 as also in Fort. 8959 where appears the place name *Ka<sub>4</sub>-pír-iš-iš* (*sic*); this may or may not be identical with *Ka<sub>4</sub>-u-pír-ri-iš* in Fort. 3125 and 8621. Perhaps the final *-iš* may be considered an Elamite termination.

Because of the probable identification of the following place name *Ba-a-ši-ia* with modern Fasā, one is justified in suggesting that this name may be continued in the name of a tract west of Fasā and hence on the old caravan road from the mouth of the Persian Gulf to Shiraz: Khafir. Recently examined by Aurel Stein (*Iraq*, III [1936], 134 ff.), it had already been noted by Chardin, Thevenot, Ouseley, and St. Johns (cf. Schwarz, *op. cit.*, p. 73).

If the suggested equation of *Ba-a-ši-ia* with *Fasā* does not hold, in view of the fact that Shiraz itself appears in our texts (see No. 42) one might consider Kefre, south of Shiraz and halfway to Kawar; in Ištakhri's time, "upper" and "lower" Kefre constituted two of the thirteen "districts" accounted to Shiraz (see Schwarz, *op. cit.*, p. 44).

Line 6: The last two signs of this line were long read as ZA.BAR.KAŠ, and comparison of the whole line made with *be-a-ši-iš-kur-ra-iš-be*, "ornament makers," in No. 30:4-5. There is, however, no doubt that the last signs should be read as *ha-mi*, "there"; this leaves us with a place name, *Ba-a-ši-ia*, to which perhaps the Elamite termination *-an* has been added. There is good reason to believe that this is modern *Fasā*, Persian *Pasā*, south of Lake Nīriz. *Fasā* lies on the route to Parga (modern Furg) and Tāravā (modern Tārum), both of which appear in the Behistun inscription of Darius; the route ends at Bandar Abbas. The Arab and Persian geographers themselves believed *Fasā* to be an "ancient" city, founded by Hystaspes (Bištāsb; so Ṭabari) or by Bahman, father of Dārā (so Ibn al-Balkhī; references in Schwarz, *op. cit.*, pp. 97 ff., and Le Strange, *op. cit.*, p. 32). Its ruins extend back to the Hellenistic period and probably beyond (Aurel Stein, *op. cit.*, pp. 137 ff.).

Line 20: The numeral is written over an erasure, and would seem to be 4 or perhaps 5; but the scribal totals, even if slightly approximate, seem to require 8 here, for all other numerals are clear.

## PERSONNEL

*Ra-tin-in-da*, treasurer and addressee: See No. 49.

*Ir-da-tak-ma*, addressor: See No. 21.

*Na-pi-iš-ša*, responsible for the workmen: This name, which has not yet occurred in other Persepolis texts, would seem to be of Elamite origin, embodying the word for "god" (*napi(r)*) and the ending *-izza* which we have noted as, apparently, a hypocoristic ending in No. 4. The name *Na-be-iš-ša* appears in *Mém.*, IX, No. 51:4.

## DATE

Identical with No. 52.

## SEAL

Type 2; see tablet No. 21.

## 54 (Pl. XXXIII)

	1	<i>Ṭra-tin-in-da kán-ša-bar-ra tu<sub>4</sub>-ru-iš</i>	(To) Ratininda the treasurer speak,
	2	<i>Ṭir-da-tak-ma na-an-KI.MIN 7</i>	Artataxma says: 7
	3	<i>kur-šá-um 6 pan-su-kaš a(!)-ak ša-dš-maš.</i>	karsha, 6 shekels, and a fourth,
	4	<i>na KÙ.BABBAR<sup>idg</sup> ap si.sì-du gal »</i>	silver, give to them (as) wages, (namely, to)
	5	<i>kur-taš ku-pír-ri-ia-iš » ú-iš-</i>	workmen, copperers(?), (for whom) Hys-
	6	<i>da-na » ba-ši-ka<sub>4</sub>-ra » ba-ir-šá(!)</i>	tanes the tribute (or tax) handler (at) Parsa
	7	<i>šá-ra-ma ša-ak pí-ru-šú gal.na</i>	is responsible. (The money is) the equivalent (of)
			half of the wage,
Edge	8	<i>gal ap-pi-ni<sup>DINGIRITU<sup>idg</sup></sup> šu-ur-ma-ráš.na</i>	their wage (for) the month of Thuravahara
	9	<i>» be-ul 20-na.ma 7 » RUḪ<sup>idg</sup> un-</i>	in the 20th year. 7 men, each,
Rev.	10	<i>ra 3(!) pan-su-kaš a-ak 3 ša-dš-maš.na</i>	3 shekels and 3 fourths.
	11	<i>11 » pu-ḫu<sup>idg</sup> un-<sup>ra</sup> 2 pan-su(!)-kaš a-ak</i>	11 boys, each, 2 shekels and
	12	<i>pír-nu-šú.na 7 » pu-ḫu(!)<sup>idg</sup> un-ra 1</i>	a half. 7 boys, each, 1
	13	<i><sup>1</sup>pan<sup>1</sup>-su-kaš 3 ša-dš-maš a-ak 8 ir-ma-</i>	shekel, 3 fourths and an eighth.
		<i>ki.na(!)</i>	
	14	<i><sup>5</sup> » pu-ḫu<sup>idg</sup> un-ra 1 pan-su-kaš ša-dš-</i>	5 boys, each, 1 shekel (and) a fourth.
	15	<i>maš.na 1<sup>MUNUS</sup> pu-ḫu<sup>idg</sup> un-ra 1 pan-su-</i>	1 girl, each, 1 shekel,
	16	<i>kaš 3 ša-dš-maš <sup>1</sup>a<sup>1</sup>-ak 8 ir-ma-ki.na</i>	3 fourths and an eighth.
	17	<i><sup>1</sup>1<sup>1</sup> <sup>MUNUS</sup> pu-ḫu<sup>idg</sup> <sup>1</sup>1<sup>1</sup> pan-su-kaš ša-dš-</i>	1 girl, 1 shekel (and) a fourth.
		<i>maš.na</i>	
Edge	18	<i>» ḫal-mi ḫi &lt;li&gt;-ka<sub>4</sub> du-me » ba-ka<sub>4</sub>-pu-</i>	This sealed order has been given. The receipt from
			Mega-
	19	<i>uk-šá.ak(!)-ka<sub>4</sub>.</i>	byzus
End	20	<i>mar du-<sup>ka</sup>1</i>	was received.

## TRANSLITERATIONS AND TRANSLATIONS

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## CONTENTS

Artataxma informs the treasurer Ratininda that the sum of 7 karsha, 6½ shekels of silver should be paid to workmen, "copperers(?)," for whom the "tribute handler" Hystanes is responsible at Persepolis. The sum represents half the wages for services rendered in the second month of the twentieth year (of Xerxes) by thirty-two individuals. The calculations, which employ the same wage scale as No. 53, are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
7 men	3½	2	6;15
11 boys	2½	2	7;30
7 "	1½ + ¼ (=1;52,30)	1	3; 7,30
5 "	1½		6;15
1 woman	1½ + ¼ (=1;52,30)		1;52,30
1 "	1½		1;15
<hr/> Total 32		<hr/> 7	<hr/> 6;15

## NOTES

Line 5: For the suggestion that *ku-pír-ri-ia-iš* might be "copperers," from OP \**kufriya*, and that the workmen were concerned with the handling of copper receipts under the supervision of the "tribute handler" Hystanes, see above, No. 49.

Line 6: See No. 41 for the suggestion that *ba-ši-ka<sub>4</sub>-ra* represents OP \**bāji-kara*, "tribute handler."

The last sign in *Ba-ir-šá* resembles *maš* but is actually *šá*, as comparison with that sign in line 19 demonstrates; it is not *šú*.

## PERSONNEL

*Ra-tin-in-da*, treasurer and addressee: See No. 49.

*Ir-da-tak-ma*, addressor: See No. 21.

*Ū-iš-da-na*, responsible for the workmen: The name is obviously OP \**U-stāna*, "Having a Good Location" (Stonecipher, *GPN*, p. 66), Greek *Hystanes*. The same name was borne by the satrap of "Babylon and Across the River" in the early years of Darius (cf. Olmstead, "Tattenai, Governor of 'Across the River,'" *JNES*, III [1944], 46).

*Ba-ka<sub>4</sub>-pu-uk-šá*, who delivered a receipt: See No. 37.

## DATE

Identical with No. 52.

## SEAL

Type 2; see tablet No. 21.

## 55

	1	<i>Yra-tin-in-da kán-ša-bar-ra tu<sub>4</sub>-ru-iš<sup>1</sup></i>	(To) Ratininda the treasurer speak,
	2	<i>Yir-da-tak-ma na-an-KI.MIN 2</i>	Artataxma says: 2
	3	<i>kur-šá-um 3 pan-su-kaš a-ak 3 'ša<sup>1</sup>-</i>	karsha, 3 shekels, and 3 fourths
	4	<i>dš-maš pan-su-kaš KÙ.BABBAR<sup>idg</sup> 'ap<sup>1</sup></i>	(of) a shekel, silver, to them
	5	<i>sì.sì-du gal »kur-taš ku-pír-</i>	give (as) wages—to workmen,
	6	<i>ri-ia-iš ha-su(?) -ib-be</i>	copperers(?) . . . .
Edge	7	<i>gal.na <sup>DINGIRITU<sup>idg</sup></sup> tu-ur-ma-</i>	for wages of the month Thura-
	8	<i>ráš.na »be-ul 20-um-me.na</i>	vahara of the 20th year.
Rev.	9	<i>3 »RUH<sup>idg</sup> u[n-ra <sup>DINGIRITU<sup>idg</sup></sup> . . . .]</i>	3 men, each, per month, . . . .
		Four lines completely destroyed	
	14	<i>pan-su-kaš a-ak pír-nu-[šú pan]-</i>	shekels and a half of a
	15	<i>su-kaš.na 1 <sup>MUNUS</sup>[. . . .]</i>	shekel. 1 woman, . . . .
	16	<i><sup>DINGIRITU<sup>idg</sup></sup>.na 1 pan-[su-kaš . . . .]</i>	per month, 1 shekel (and) . . . .
	17	<i>ša-dš-[maš pan-su-kaš.na]</i>	fourth(s) of a shekel.

## PERSEPOLIS TREASURY TABLETS

## CONTENTS

Artataxma informs the treasurer Ratininda that the sum of 2 karsha,  $3\frac{3}{4}$  shekels of silver should be given to workmen who may have been "copperers" for work performed in the second month of the twentieth year (of Xerxes). The tablet is damaged and the scribal computations are unknown.

## NOTES

Lines 5–6: For a suggestion regarding the meaning of *ku-pir-ri-ia-iš* see No. 49. The dubious sign in the word which here follows has three horizontals, then two verticals. Reading it as either *su* or as *š* yields no word which clarifies the passage to me, for it is unlikely that we should compare the *hu-us-si-ip.me* which appears so frequently in texts of Untash-Huban (Hüsing, *op. cit.*, p. 45, believes it to mean "ancestors").

## PERSONNEL

*Ra-tin-in-da*, treasurer and addressee: See No. 49.

*Ir-da-tak-ma*, addressor: See No. 21.

## DATE

Identical with No. 52.

## SEAL

Type 2; see No. 21.

## 56

	1	<i>ra-tin-in(-da) kán-ša-bar-ra</i> 𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣	(To) Ratininda, the treasurer of Parsa
	2	<i>an tu<sub>4</sub>-ru-iš</i> 𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	speak, Artataxma
	3	<i>na-an-KI.MIN 5 kur-šá-um pír-nu-</i>	says: 5 karsha, a half
	4	<i>šu pan-su-kaš 8 ir-ma-ki.na</i>	shekel, (and) an eighth (of a shekel),
	5	𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	silver, to them give (as) wages—(to)
	6	𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	men rendering accounts
	7	𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	in the treasure storehouse
Edge	8	𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	of Parsa; (it is) the equivalent (of) half
	9	<i>gal</i> 𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	(of) the wages (for) the month of Thuravahara
Rev.	10	<i>na</i> 𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	of the 20th year.
	11	<i>9</i> 𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	9 men, each, 5 shekels,
	12	<i>su-kaš pír-nu-šu pan-su-kaš a-ak</i>	a half shekel, and
	13	𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	an eighth (of) a shekel.
	14	𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	A sealed order has been given;
	15	<i>du-um-me</i> 𐎠𐎢𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣𐎠𐎣𐎡𐎣	the receipt (is) from Mega-
	16	<i>uk-šá.ak-ka<sub>4</sub>.mar.ka<sub>4</sub></i> (sic)	byzus.

## CONTENTS

Artataxma informs the Persepolis treasurer Ratininda that the sum of 5 karsha,  $\frac{5}{8}$  shekel of silver should be given to nine workmen who have been rendering accounts in the treasure storeroom of Persepolis during the second month of the twentieth year (of Xerxes). The sum represents only one-half of the wages to be paid (presumably the balance has been or was to be paid in sheep or wine), and each workman is to receive  $5\frac{5}{8}$  shekels. There is mention of a sealed order, for which a receipt was secured from Megabyzus.

## NOTES

Line 6: This writing of the more normal phrase *mu-ši-in sùk-ki-ip* made absolutely certain the value of sign No. 50 as *sùk*.

Line 7: *Kán-ša(-iš)* without question renders OP \**ga<sup>za</sup>*, "treasure"; *nu-da-nu(.ni)*, with the probable meaning "storeroom," was examined above in No. 19.

Line 16: Unexplainable is the final *ka<sub>4</sub>* where we expect *du-iš* or *du-iš-da*; it can scarcely be said that the scribe has just been careless (but note the omitted signs in ll. 1 and 14), for exactly the same phraseology is found in the same context in No. 57:16.

## TRANSLITERATIONS AND TRANSLATIONS

171

## PERSONNEL

*Ra-tin-in-(da)*, Persepolis treasurer and addressee: See No. 49.

*Ir-da-tak-ma*, addressor: See No. 21.

*Ba-ka<sub>4</sub>-pu-uk-šá*, who delivers a receipt: See No. 37.

## DATE

Identical with No. 52.

## SEAL

Type 2; see tablet No. 21.

## 57

	1	<i>Yra-tin-in-da kán-ša-bar-ra</i> ▶	(To) Ratininda the treasurer
	2	<i>ba-ir-šá.na tu<sub>4</sub>-ru-iš</i>	of Parsa speak,
	3	<i>Yir-da-tak-ma na-an-KI.MIN</i>	Artataxma says:
	4	<i>7 pan-su-kaš pír-nu-šu pan-su-kaš</i>	7 shekels (and) a half shekel,
	5	<i>KÛ.BABBAR<sup>idg</sup> ap sî.sî-du gal</i>	silver, to them(!) give (as) wages—
	6	▶ <i>nu-ti-be-ul mu-ši-</i>	(to) Nutipel, account-
	7	<i>in sùk-ki-ra ša-</i>	renderer of (in?) the
Edge	8	<i>iš-ra.na ša-ak pír-nu-</i>	. . . . ; (it is) the equivalent (of) half
Rev.	9	<i>ip-šu gal DINGIRITU<sup>idg</sup> tu-</i>	the wage (for) the month
	10	<i>ur-ma-ráš ▶ be-ul 20-um-</i>	(of) Thuravahara of the 20th year.
	11	<i>me.na 1-<sup>1</sup>ir<sup>1</sup> ▶ nu-ti-be-ul</i>	1 (man), Nutipel,
	12	<i>DINGIRITU<sup>idg</sup>.na 7 pan-su-kaš</i>	per month, 7 shekels
	13	<i>a-ak pír-nu-ip-šu pan-su-</i>	and a half shekel
	14	<i>kaš du-man-ri ▶ hal-</i>	is to receive.
	15	<i>mi hi li-ka<sub>4</sub> <sup>1</sup>du-me<sup>1</sup></i>	This sealed order has been given; the receipt
	16	▶ <i>ba-ka<sub>4</sub>-pu-uk-šá.ak-ka<sub>4</sub>.mar.ka<sub>4</sub></i>	(is) from Megabyzus.

## CONTENTS

Artataxma informs the Persepolis treasurer Ratininda that the sum of  $7\frac{1}{2}$  shekels of silver should be paid to one Nutipel who has been rendering accounts (in some designated spot?) during the second month of the twentieth year (of Xerxes). The sum designated represents half of the total wages; presumably the balance was to be or had been paid in goods. There is mention of a sealed order for which a receipt was secured from Megabyzus.

## NOTES

Few tablets specify the name(s) of the recipient(s) of the payment; here Nutipel receives the somewhat extraordinary sum of  $7\frac{1}{2}$  shekels, which represents only half his total wages for a month's work.

Lines 6–8: See the preceding tablet for a similar phrase, but I think it improbable that my eyes so deceived me at Teheran that the present text also can have read thus: *kán(!)-ša-iš nu(!)-da(!)-nu(!)* or similarly, desirable though that might be. For the *ša-iš-ra.na* as read I have no explanation, however.

Line 16: For the final *.ka<sub>4</sub>* see the preceding tablet.

## PERSONNEL

*Ra-tin-in-da*, Persepolis treasurer and addressee: See No. 49.

*Ir-da-tak-ma*, addressor: See No. 21.

*Nu-ti-be-ul*, account-renderer and recipient of the wages: The name, for which *Nu-ti-ud-da* in No. 71:6 may be a hypocoristic, does not appear elsewhere in Persepolis texts examined to date; comparison with the name Nidinti-Bel in DB, which is written in Elamite as *Nu-ti-ut-be-ul*, may not be totally irrelevant, but although the element *nu-ti* is at present unknown (*be-ul* as “year” is, of course, familiar), the name is probably of

Elamite origin and one may perhaps compare the personal name <sup>d</sup>*Ni-du-pi-ir* (or *An-ni-du-pi-ir?*) in *Mém.*, IX, No. 100:5.

*Ba-ka<sub>4</sub>-pu-uk-šá*, who delivers a receipt: See No. 37.

## DATE

Identical with No. 52.

## SEAL

Type 2; see tablet No. 21.

## 58

	1	<i>Tra-tin-in-da kán-ša-bar-ra tu<sub>4</sub>-ru-iš</i>	(To) Ratininda the treasurer speak,
	2	<i>Tir(!)-da-da(sic)-tak-ma na-an-KI.MIN 4</i>	Artataxma(!) says: 4
	3	<i>kur-šá-um 1 pan-su-kaš ša-áš-maš</i>	karsha, 1 shekel, (and) a fourth
	4	<i>pan-su-kaš KÙ.BABBAR<sup>id*</sup> ap si.si-du gal</i>	(of) a shekel, silver, give to them (as) wage(s)—
	5	<i>» pu-ḥu<sup>id*</sup> ba-ti-ma-nu-iš ka<sub>4</sub>-ra-</i>	(to) boys attached to the (royal) house, ass drivers
	6	<i>bat-ti-iš » ba-ir-šá.an » be-ul-</i>	of Parsa, (for whom) Pel-
	7	<i>pa-ak-ka<sub>4</sub> šá-ra-man-na ša-ak</i>	pakka is responsible. (It is) the equivalent
	8	<i>pír-nu-ip-šu gal DINGIRITV<sup>id*</sup> tu-</i>	(of) half the wage(s) (for) the month
Edge	9	<i>ur-ma-ráš » be-ul 20-na.ma</i>	Thuravahara in the 20th year.
	10	<i>11 » RUḤ<sup>id*</sup> 3 pan-su-</i>	11 men, (each,) 3 shekels (and)
Rev.	11	<i>kaš 3 ša-áš-maš pan-su-kaš.</i>	3 fourths of a shekel
	12	<i>na du-man-pi » ḥal-mi</i>	they are to receive. A sealed order
	13	<i>li-ka<sub>4</sub> » ba-ka<sub>4</sub>-ba-ad-</i>	has been given. Megabates
	14	<i>[da<sup>1</sup> tal-li-iš-da</i>	wrote (the document),
	15	<i>[du<sup>1</sup>-um-me » ba-ka<sub>4</sub>-pu-</i>	the receipt from Mega-
	16	<i>uk-šá ak-ka<sub>4</sub>.mar du-ka<sub>4</sub></i>	byzus was received.
	17	<i>DINGIRITV<sup>id*</sup> tu-ur-ma-ráš.na</i>	(In the) month of Thuravahara
Edge	18	<i>» be-ul 20-na.ma » ḥal-mi</i>	in the 20th year this sealed
	19	<i>ḥi li-ka<sub>4</sub></i>	order has been given.

## CONTENTS

Artataxma informs the treasurer Ratininda that the sum of 4 karsha, 1½ shekels of silver should be paid to boy donkey drivers attached to the (royal) house for work performed at Persepolis in the second month of the twentieth year (of Xerxes). The recipients are said to be responsible to Pelpakka, and the payment represents half of the total wages. The scribe, Megabates, first says that a sealed order had been given, then later adds that "this sealed order has been given" and states that a receipt was secured from Megabyzus in the same month—at which time, apparently, the document was written. In the computations, the scribe has substituted "men" for "boys," and assigns to each (eleven are specified) 3¾ shekels for the month.

## NOTES

As noted above, this document is a near-duplicate of No. 47, which prescribes payment to the same number of workmen (though at a slightly differing wage scale) doing the same tasks two months earlier. Perhaps the wage scale is slightly higher in this text because, although "boys" are said to be the recipients in line 5, the payments actually go to "men" according to line 10. A cast prepared at Persepolis and brought to Chicago by Schmidt substantiated my readings in Teheran in every detail.

## PERSONNEL

*Ra-tin-in-da*, treasurer and addressee: See No. 49.

*Ir(!)-da-da-tak-ma*, addressor: See No. 21. The name as here written involves two "errors": the first sign is actually *ni*, not *ir*, and there is a repeated *da* which is probably a slip of the scribe rather than an effort to introduce the initial sound of the *tak* sign, in which case we should transliterate thus: *Ir-da-da<sup>2</sup>tak-ma*.

## TRANSLITERATIONS AND TRANSLATIONS

173

*Be-ul-pa-ak-ka*<sub>4</sub>, who is responsible for the workmen: See No. 46.

*Ba-ka<sub>4</sub>-ba-ad-da*, scribe: This individual is also named as having written No. 68; almost beyond doubt he likewise wrote a number of the other nineteenth- and twentieth-year tablets (e.g., No. 47, the near-duplicate to this document), in which his name does not appear. The name, like that of the admiral *Ba-ka<sub>4</sub>-ba-da* in No. 8, is more familiar to us in its Greek form, Megabates.

*Ba-ka<sub>4</sub>-pu-uk-šá*, who delivered a receipt: See No. 37.

DATE

Identical with No. 52.

SEAL

Type 2; see No. 21.

## 59

	1	» <i>ra-tin-<sup>1</sup>da<sup>1</sup></i> ( <i>sic</i> )	» <i>kán-ša-bar-ra</i>	(To) Ratin(in)da the treasurer
	2	<i>tu<sub>4</sub>-<sup>1</sup>ru-iš<sup>1</sup></i>	» <i>ir-da-tak-ma na-</i>	speak, Artataxma
	3	<sup>1</sup> <i>an-ki.min 4<sup>1</sup></i>	<i>kur-šá-am 5 pan-su-kaš</i>	says: 4 karsha, 5 shekels,
	4	[ <i>KÛ.BABBAR</i> ] <sup>idz</sup>	<i>pír-nu-ba-ik gal</i>	silver, half (of) the wage,
	5	[ <i>sì.sì-du</i> ] <i>gal</i>	» <i>pu-ḥu ba-ti(?!)-</i>	give (as) wage(s) (to) boys attached to the (royal)
	6	[ <i>ma-nu</i> ] <i>kur-ri-iš</i>	<sup>aiš(?)</sup> <i>šip(?)na</i>	house, (drivers?) for the asses (which are) at the
				gateway(s) (named)
	7	» <i>mi-iš-ba-ši-ia-ti-iš</i>		Vispashiyatish (and)
	8	» <i>bar-te-taš.ma</i>	<sup>gal<sup>1</sup></sup> <sup>DINGIR</sup>	Partetash. (It is) wages
Edge	9	<sup>ITU</sup> <sup>idz</sup> <i>tu-ma-ráš.na</i>	»	(for) the month of Thuravahara
	10	<i>be-ul 20-um-me-man-na 12</i>		of the 20th year. 12
Rev.	11	» <i>pu-ḥu un-ra</i>	<sup>3</sup> <i>pan-su-</i>	boys, each, 3 shekels
	12	<i>kaš a-ak 3.4</i>	<i>ir-ma-ki pan-su-kaš.</i>	and 3 fourths of a shekel
	13	<i>na du-man-pi</i>	<sup>DINGIR</sup> <sup>ITU</sup> <sup>idz</sup> <i>tu-ma-</i>	are to receive. (In the) month of Thura-
	14	<i>ráš.na</i>	» <i>be-ul 20-um-me-man-na</i>	vahara of the 20th year
	15	» <i>ḥal-mi li-ka<sub>4</sub> du-me</i>		a sealed order has been given; the receipt
	16	» <i>ba-ka<sub>4</sub>-pu-uk-šá.ik-</i>		from Megabyzus
	17	<i>ki.mar ap du-iš-da</i>		for(?) them he received.

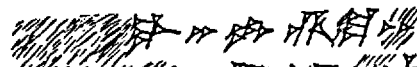
## CONTENTS

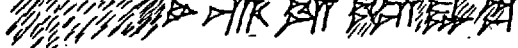
Artataxma informs the treasurer Ratin(in)da that the sum of 4 karsha, 5 shekels of silver represents half of the wages which should be paid to twelve boys attached to the royal estate, (drivers of) asses, who apparently performed their duties at or near gateways, one of which was named "All Prosperity." Each boy is to receive 3 $\frac{3}{4}$  shekels, and the payment is for services in the second month of the twentieth year (of Xerxes). The document, once accompanied by a sealed order, for which a receipt was secured from Megabyzus, was written in the same month.

## NOTES

Line 4: Presumably *ša-ak*, "the equivalent (of)," has been unintentionally omitted by the scribe.

Lines 5–8: These troublesome lines were repeatedly examined at Teheran in the hope of acquiring a satisfactory reading for even those portions which are preserved. My copy of lines 5–6 shows the following:

5 

6 

Various readings admittedly are possible (thus, e.g., *pu-ḥu-ba* » or *pu-ḥu ba-ḥal* at the end of l. 5). The transliteration and translation here proposed, subject to many reservations, assumes that *kur-ri-iš* may represent OP \**xara*, Av. *xara-*, and that the phrase is similar to the longer reading in Nos. 47 and 58: » *pu-ḥu ba-ti-ma-nu-iš ka<sub>4</sub>-ra-bat-ti-iš*.

The concluding part of line 6 is no less difficult. A reading *kar-ra.na* is quite conceivable, especially since the *ra* sign sometimes (as, e.g., in No. 68:5) assumes curious forms very similar to the second sign from the end of this line. In that case, perhaps this word and not the preceding *kur-ri-iš* could represent OP \**xara*, and *kur-ri-iš* could then become the concluding element in a word involving OP *-kara*.

Nevertheless, we know that one gateway at Persepolis was called *Vispadahyu*, the "(Gateway) of All Lands" (see above, No. 49). Our signs may, without too great stretch of the imagination, be read as <sup>ois</sup>*šip.na*, involving the hitherto misread sign No. 68. Thus we would now secure knowledge of a second gateway at Persepolis, one intended perhaps for the entry of provisions, clothing, and the like and so appropriately named "(Gateway Possessing) All Prosperity," and perhaps also of a third, for which the reading appears to be *Bar-te-taš*.

Thus our text would telescope a somewhat longer original statement which attempted to say that payment was herewith ordered for boy herdsmen of asses who performed their duties at or near the gateway(s) named "All Prosperity" and ". . . ."

Line 17: The position of *ap* before the verb is puzzling.

## PERSONNEL

Identical with No. 56.

DATE

Identical with No. 52.

SEAL

Type 2; see tablet No. 21.

## 59a

The following tablets could not be copied at Teheran. The first was badly scraped, and even the beginning signs could be read only because one knew exactly what to expect. Both are letters of Artataxma to the (Persepolis) treasurer Ratininda about payments to be made for services performed in the second month (Thuravahara) of the twentieth year (of Xerxes). Both tablets bore type 2 seal, like the preceding.

## 1. PT 4 896:

1 *Yra-tin-in-da kán-ša-bar-ra tu<sub>4</sub>-ru-iš*

2 *»ir-da-tak-ma na-an-KI.MIN*

About the end of line 7 began the date:

7 [. . .] <sup>DINGIRITU</sup><sub>idg</sub>

8 *tu-ur-ma-ráš.na »be-ul 20-me.na*

## 2. PT 4 366:

1 *Yra-tin-in-da kán-ša-bar-ra*

2 *»ba-ir-šá.an tu<sub>4</sub>-ru-iš*

3 *Yir-[da-tak-ma na-an-KI.MIN]*

About line 2 of the reverse appeared the date:

2 . . . <sup>DINGIRITU</sup><sub>idg</sub> tu-

3 *ur-ma-ráš »be-ul 20-um-[me-man-na]*

## 60

1 [*»ra-tin-in-da kán-ša-bar-ra tu<sub>4</sub>-ru-iš*]

2 [*»ir-da-tak-ma na-an-KI.MIN 37 kur-šá-am*]

3 *1 pan-su-kaš a-ak ša-[áš-maš pan-su-kaš]*

4 *KÙ.BABBAR<sup>idg</sup> ap šl.sì-[du gal »kur]-*

5 *taš »ba-ku-ra-d[a »sad-da]-*

6 *bat-<sup>ti</sup>-iš <sup>ti</sup>-r[a-ši-iš šá]-*

7 *ra-ma ša-ak pír-nu-[ba gal.na]*

(To) Ratininda the treasurer speak,

Artataxma says: 37 karsha,

1 shekel, and a fourth (of) a shekel, silver, give to them (as) wages—(to) workmen

(for whom) Bakurada the centurion

in Shiraz is

responsible. (It is) the equivalent (of) half of the wages,



## TRANSLITERATIONS AND TRANSLATIONS

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Edge	8	'gal' ap-pi-ni <sup>DINGIRITU</sup> id <sub>g</sub> [tu-ru-ma]-	their wages (for) the month of Thuravahara(?)
	9	'ráš(?)'.na 𐎠-be-ul 20-u[m-me-man-na]	of the 20th year.
Rev.	10	12 𐎠RUḪ <sup>id<sub>g</sub></sup> un-ra [ <sup>DINGIRITU</sup> id <sub>g</sub> 3 pan-su]-	12 men, each, (per) month, 3 shekels
	11	kaš a-ak 3 ša-dš-maš.na 11 [𐎠pu-ḫu <sup>id<sub>g</sub></sup> ]	and 3 fourths. 11 boys,
	12	un-ra 2 pan-su-kaš a-ak [pír-nu-ba pan]-	each, 2 shekels and a half shekel.
	13	su-kaš 11 𐎠pu-ḫu <sup>id<sub>g</sub></sup> un-[ra 1 pan]-	11 boys, each, 1 shekel
	14	su-kaš a-ak 3 ša-dš-maš.na a-[ak 8 ir-ma]-	and 3 fourths and an eighth.
	15	ki.na 13 𐎠pu-ḫu <sup>id<sub>g</sub></sup> un-[ra 1 pan-su-kaš]	13 boys, each, 1 shekel
	16	[a-ak <sup>1</sup> ša-dš-maš.na 15 [𐎠pu-ḫu <sup>id<sub>g</sub></sup> un]-	and a fourth. 15 boys, each,
	17	[ra] pír-nu-ba pan-[su-kaš 8 ir-ma-ki.na]	a half shekel (and) an eighth.
		Rest completely broken away.	

## CONTENTS

The probable addressor, Artataxma, writes to the (presumed) treasurer Ratininda informing him that a sum of money should be paid to workmen for whom Bakurada, the centurion in Shiraz, is responsible. The sum specified is but half of the wages to be paid for services performed perhaps in the second month of the twentieth year (of Xerxes). For the computations as they doubtless appeared originally, see No. 42.

## NOTES

Apparently this document was a near-duplicate of No. 42, which dealt with services performed by the same individuals in the eleventh month of the nineteenth year. This text, however, concerns payments made for services rendered in the twentieth year, and probably in the second month of that year; by this time a new treasurer (Ratininda) had assumed office, and so it would seem to be necessary to restore his name in line 1. The name of the addressor could here be restored with certainty as Artataxma, were it positively known that the seal was type 2; unfortunately the type could not be ascertained. In all other respects, however, this text and No. 42 appear to be parallel, save in minor details (e.g., No. 42 consistently writes 𐎠ir-ma-ki for the fraction "one-fourth," where this text just as consistently writes ša-dš-maš).

## PERSONNEL

*Ra-tin-in-da*, the presumed treasurer and addressee: See No. 49.

*Ir-da-tak-ma*, the assumed addressor: See No. 21.

*Ba-ku-ra-da*, who in Shiraz is responsible for the workmen: See No. 42.

## DATE

The year is assuredly the twentieth, but only part of the last sign of the month name was preserved; visible seemed to be parts of two verticals, then two horizontals, which could permit restoration to *Tu-ru-ma-ráš* (i.e., Thuravahara) or the like. If that is correct, the date is identical with that of Nos. 52 ff.

## SEAL

Type doubtful; perhaps 10 but more probably 2.

## 61 (Pl. XXXIV)

1	'34' kur-šá <sup>1</sup> -um 1 pan-su-kaš 'ša-dš <sup>1</sup> -[maš]	34 karsha, 1 shekel, (and) a fourth (of a shekel),
2	KÜ.BABBAR <sup>id<sub>g</sub></sup> ka <sub>4</sub> -ap-nu-iš-ki 𐎠ba-ir-šá.na.	silver, from the Treasury of Parsa,
3	ma.mar 𐎠kur-taš UDU.NITÁ <sup>id<sub>g</sub></sup> ba-te-ip	(which) workmen, shepherders
4	𐎠ma-ka <sub>4</sub> -lak(!).na 𐎠ú-ra-tin-da šá-	of (the place) Makalak, (workmen for whom) Ura-
		tinda
5	ra-man-na ḫu-pi-be du-iš ša-ak	is responsible, have received. (It is) the equivalent
6	pír-nu-ip-šu gal <sup>DINGIRITU</sup> id <sub>g</sub> tu-ru-	(of) half the wages (for) the month of Thura-

	7	<i>ma-raš.na</i> <i>↳be-ul 20-um-me.na</i>	vahara of the 20th year.
	8	38 <i>»RUḪ<sup>idg</sup> un-ra 3 pan-su-kaš</i>	38 men, each, 3 shekels (and)
	9	3 <i>ša-dš-maš du-iš</i>	3 fourths have received.
	10	5 <i>»pu-ḫu un-ra 3 pan-su-kaš</i>	5 boys, each, 3 shekels (and)
	11	8 <i>ir-ma-ki</i>	an eighth.
Edge	12	16 <i>»pu-ḫu un-ra 2 pan-su-kaš</i>	16 boys, each, 2 shekels (and)
	13	<i>pīr-nu-ip-šu KI.MIN</i>	a half (of) the same.
Rev.	14	7 <i>»pu-ḫu un-ra 1 KI.MIN</i>	7 boys, each, 1 (of) the same (and)
	15	3 <i>ša-dš-maš 8 ir-ma-ki.na</i>	3 fourths (and) an eighth.
	16	4 <i>»pu-ḫu un-ra 1 pan-su-kaš ša-dš-maš</i>	4 boys, each, 1 shekel (and) a fourth.
	17	2 <i>»KI.MIN KI.MIN pīr-nu-ip-š[u pan]-su-kaš</i>	2 ditto, ditto, a half shekel (and)
	18	8 <i>ir-ma-ki du-iš</i>	an eighth have received.
	19	35 <sup>MUNUS</sup> MUNUS <sup>idg</sup> <i>un-ra 2 pan-su-kaš<sup>1</sup></i>	35 women, each, 2 shekels (and)
	20	<i>pīr-nu-ip-šu<sup>1</sup> KI.MIN<sup>1</sup></i>	a half (of) the same.
	21	15 <sup>MUNUS</sup> <i>pu-ḫu un-ra 1 pan-s[u-kaš 3 ša-dš-maš]<sup>1</sup> 8<sup>1</sup> ir-ma-ki</i>	15 girls, each, 1 shekel (and) 3 fourths (and) an eighth.
	22	4 <sup>MUNUS</sup> KI.MIN KI.MIN 1 <sup>KI.MIN<sup>1</sup></sup> [ <i>ša-dš-maš</i> ]	4 ditto, ditto, 1 ditto (and) a fourth.
Edge	23	[5 <sup>MUNUS</sup> KI.MIN <i>pīr-nu-ip-š[u pan-su-kaš</i> ]	5 ditto, a half shekel (and)
	24	8 <i>ir-ma-ki</i>	an eighth.

## CONTENTS

A memorandum-type tablet which states that the sum of 34 karsha, 1½ shekels of silver from the Persepolis Treasury has been given to 131 shepherders, of the place Makalak, for whom Uratinda is responsible. This sum represents half the wages for services performed in the second month of the twentieth year (of Xerxes). The calculations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
38 men	3¼ (=3;45)	14	2;30
5 boys	3⅝ (=3; 7,30)	1	5;37,30
16 "	2½	4	
7 "	1½ + ⅙ (=1;52,30)	1	3; 7,30
4 "	1¼		5
2 "	½ + ⅙ (=1;52,30)		1;15
35 women	2½	8	7;30
15 girls	1¾ + ⅙ (=1;52,30)	2	8; 7,30
4 "	1¼		5
5 "	½ + ⅙ (=0;37,30)	0	3; 7,30
<hr/> Total 131		34	1;15

## NOTES

Line 4: Search for a place name resembling this has been in vain.

Lines 19–24: Note that the wage scale duplicates that in lines 12–18, which makes the restorations certain.

## PERSONNEL

*U-ra-tin-da*, responsible for the workmen: See No. 3.

## DATE

Identical with No. 52.

## SEAL

Type 5; see tablets 34–35.

## 62 (Pl. XXXV)

	1	[ <i>x pan-su-kaš a-ak . . .</i> ]	<i>x</i> shekels and . . . .
	2	[ <i>KI.MIN KÙ.BABBAR<sup>idg</sup> ka<sub>4</sub>-ap</i> ]-	(of) the same, silver, from the Treasury
	3	[ <i>nu-iš-ki ṽba-ir-šá.na</i> ].	of Parsa,
	4	[ <i>'ma.mar<sup>1</sup> [ṽ] 'kur-taš<sup>1</sup> [ṽ] 'be-ši-iš<sup>1</sup></i>	(which) the workmen, ornament
	5	<i>kur-ráš-be ṽba-ir-šá ṽbar-in-</i>	makers (at) Parsa, (whom) Farnadata
	6	<i>da-ad-da da-ma ṽú-ra-</i>	data "sent" (and for whom) Ura-
	7	<i>tin-da šá-ra-man-na ḥu-</i>	tinda is responsible,
	8	<i>pi-be GEŠTIN<sup>idg</sup> šá-ag-</i>	they—wine (serves) for (its) equivalent—
Edge	9	<i>gi.ma du-iš<sup>DINGIR</sup></i>	have received. (It is payment for)
	10	<i>ITU<sup>idg</sup> ḥa-du-kán-nu-</i>	the months from Adukanaisha
Rev.	11	<i>ia.ik-ki.mar ku-iš</i>	through
	12	<i>DINGIRITU<sup>idg</sup> sa-a-kur-ri-</i>	Thaigarci
	13	<i>ši-iš ṽbe-ul 20-na</i>	of the 20th year.
	14	<i>5 ṽRUḤ<sup>idg</sup> un-ra 2 ši-iš-maš</i>	5 men, each, 2 thirds.
	15	<i>1 ṽKI.MIN p̄tr-nu-ip-šu pan-su-kaš</i>	1 ditto, a half shekel.
	16	[ <i>x ṽ</i> ] [ <i>KI.MIN un-ra<sup>1</sup> š[i-iš-maš]</i> ]	<i>x</i> ditto, each, a third (of a shekel).

## CONTENTS

A memorandum-type document which states that certain monies from the Persepolis Treasury have been paid to workmen, ornament makers, who have been sent to Persepolis by Farnadata and for whom Uratinda is responsible. The payment is made not in cash, however, but in wine, and is for services rendered during the first three months of the twentieth year (of Xerxes). The scribe's calculations cannot be checked because of the damaged state of the document.

## NOTES

Since almost half of the tablet is completely broken away the restoration of lines 1–3 is altogether problematical. Note, however, that in all major respects this text is like No. 30: the number of workmen involved is small, the payments to them are almost infinitesimal, the workmen are "sent" to Persepolis by another individual, and the task on which they are engaged (*be-ši-iš-kur-ráš-be*, "ornament makers") seems to be the same. In No. 30, however, wine served as the equivalent of two-thirds of the wage; here the total payment is made in wine. Although only part of line 16 is preserved, this was doubtless the last line of the original document.

## PERSONNEL

*Bar-in-da-ad-da*, who sent the workmen to Persepolis: See No. 43.

*Ú-ra-tin-da*, responsible for the workmen: See No. 3.

## DATE

The text computes payment for services performed from the month of Adukanaisha (Nisanu) through Thaigarci (Simanu) of the twentieth year (of Xerxes), or from April 6 through July 3, 466 B.C.

## SEAL

Type 5; see tablets 34–35.

## 63 (Pl. XXXVI)

1	<i>Yra-tin-in-da kán-ša-bar-ra</i>	(To) Ratininda the treasurer
2	<i>ṽba-ir-šá.an 'tu<sub>4</sub><sup>1</sup>-ru-iš ṽ</i>	of Parsa speak,
3	<i>ir-da-tak-ma na-an-KI.MIN</i>	Artataxma says:
4	<i>4 kur-šá-um 5 pan-su-kaš</i>	4 karsha (and) 5 shekels,
5	<i>KÙ.BABBAR<sup>idg</sup> ap s̄l.s̄l-du(!) gal</i>	silver, give to them (as) wages—
6	<i>ṽpu-ḥu<sup>idg</sup> ba-ti-ma-nu-</i>	(to) boys attached to the (royal)
7	<i>iš ak-ka<sub>4</sub>-be gal nu-iš-</i>	estate who (for) wages are tending

	8	<i>ki-ip</i> » <i>ma-u-ka<sub>4</sub> a-ak</i>	(animals and whom) Vahauka and
Edge	9	» <i>ak-ka<sub>4</sub>-ia-še</i> <i>ša-ir-</i>	the "helpers," gold ornamenters(?),
Rev.	10	<i>nu-pa-sa-iš da-ma</i> <i>ša-ak</i>	have sent. (The money is) the equivalent
	11	<i>pīr-nu-ip-šu gal.na gal ap-</i>	(of) half of the wages, their
	12	<i>pi-ni</i> <sup>DINAIRITV</sup> <i>idē sa-a-kur-</i>	wages (for) the month of Thai-
	13	<i>ri-ši-iš.na</i> » <i>be-ul</i>	garci of the
	14	<i>20-um-me-man-na 15</i> »	20th year. 15
	15	<i>pu-ḥu<sup>idē</sup> un-ra.na</i>	boys, each,
	16	<i>3 pan-su-kaš du-man-</i>	3 shekels are to receive.
	17	<i>pi</i> » <i>ḥal-mi ḥi li-</i>	This sealed order has been
	18	<i>ka<sub>4</sub></i>	given.

## CONTENTS

Artataxma informs the Persepolis treasurer Ratininda that the sum of 4 karsha, 5 shekels of silver should be paid to fifteen boys attached to the royal estate who have been sent (to Persepolis) by Vahauka and his helpers (who are, perhaps, gold ornamenters). The boys are being paid for tending animals, and the money represents only half of their real wages for services performed in the third month of the twentieth year (of Xerxes). Each boy is to receive three shekels. A sealed order once accompanied the document.

## NOTES

Lines 9–10: *ša-ir-nu-pa-sa-iš*. The first sign of this group cannot be the numeral 4, which is written quite differently in line 4. As is often the case, one may find it difficult here to distinguish between *nu*, *me*, and *maš*; but the third sign in this group is written identically with the *nu* in lines 6, 7, and 11 and should, therefore, also be *nu*.

Since this reading appears to be sound, I suggest that the group represents an OP compound like Av. *zaranyō-pis-* or *zaranyō-paēsa-* (*BAiW*, col. 1679), "(with) gold ornaments." The fact that the OP word for "gold" is *darni*, not *zarni* (modern Persian *zar*), does not militate against this possibility; both forms are dialectically possible (cf. Herzfeld, *ApI*, pp. 134 f.) and that with *z* is documented in an OP (Median) loan word, *\*zarniyaka* (𐎠𐎢𐎡𐎢) in Aramaic papyri (cf. Cowley, *op. cit.*, p. 96; Meillet-Benveniste, *op. cit.*, p. 159). Nevertheless we do not expect El. *p* to represent OP *p*; it is so used only in the proper names *Ši-iš-pi-iš* (= *Cišpiš*) and *Ka<sub>4</sub>-ap-pi-ša-ka<sub>4</sub>-nu-iš* (= *Kāpišakāniš*), and if our interpretation is correct that El. *be-a-ši-iš-kur-ra-iš-be* represents OP *\*pisa-kara* with the prior element appearing in the Avestan root *paēs-* (see above, No. 30), then the usual rule that OP *p* = El. *b* would here be violated.

## PERSONNEL

*Ra-tin-in-da*, treasurer of Persepolis and addressee: See No. 49.

*Ir-da-tak-ma*, addressor: See No. 21.

*Ma-u-ka<sub>4</sub>*, who sent the workmen: For this name, OP *Vahauka*, see No. 1.

## DATE

Payment is here ordered for services rendered in the third month, Thaugarci (Simanu), of the twentieth year (of Xerxes), or from June 3 through July 3, 466 B.C.

## SEAL

Type 2; see tablet No. 21.

## 63a

The following tablet was very badly damaged, and owing to its condition could not be copied in full at Teheran. It bore an impression of seal-type 2.

- 1 *Ṭra-tin-in-da kán-ša-bar(sic)-ra* <sup>1</sup>*tu<sub>4</sub>-ru-iš* » *ir*<sup>1</sup>-
- 2 *da-tak-ma na-an-KI.MIN* [. . .]

About the end of line 6 appeared the sign for "month," but the month name could not be ascertained. The year date was damaged but rather certainly read » *be-ul* <sup>1</sup>*20*<sup>1</sup>-*um-me.na*.

## TRANSLITERATIONS AND TRANSLATIONS

179

## 64 (Pl. XXXVII)

	1	30 <i>kur-šá-um</i> 3 <i>pan-su-kaš pír-nu-šu</i>	30 karsha, 3 shekels, (and) a half
	2	<i>pan-su-kaš.na</i> KÙ.BABBAR <sup>idg</sup> <i>ka<sub>4</sub>-ap-nu- iš-</i>	of a shekel, silver, from the Treasury
	3	<i>ki</i> † <i>ba-ir-šá.na.ma.mar</i> † <i>kur-taš</i>	of Parsa, (which) the workmen
	4	<i>ka<sub>4</sub>-ap-nu-iš-ki-ip</i> † <i>ka<sub>4</sub>-ma-a-nu-iš(!)</i>	of the Treasury in Kamaini,
	5	† <i>ú-ra-tin-da šá-ra-man-na</i>	(workmen for whom) Uratinda is responsible,
	6	<i>hu-pi-be gal.ma du-ma-iš šá-ak</i>	have received for wages. (It is) the equivalent
	7	[ <i>pír-nu-šu</i> ] <i>gal.na</i> DINGIRITU <sup>idg</sup> <i>sa-a-</i>	(of) half of the wage (for) the month of Thai-
	8	[ <i>kur-ri-ši-iš.na</i> † <i>b]e-<sup>1</sup>ul 20-me.na</i> ]	garci of the 20th year.
		Rest broken away.	
Rev.	x+1	[. . .]	. . . . 2 ditto.
	x+2	<sup>1</sup> 40 6 <sup>1</sup> MUNUS <sup>8</sup> KI.MIN KI.MIN 4 KI.MIN	46 ditto (women), ditto (each), 4 ditto (shekels).
	x+3	1 MUNUS <sup>8</sup> KI.MIN 2 KI.MIN	1 ditto, 2 ditto.
	x+4	9 MUNUS <sup>8</sup> KI.MIN KI.MIN 2 KI.MIN	9 ditto, ditto, 2 ditto.
	x+5	6 MUNUS <sup>8</sup> <i>pu-hu</i> KI.MIN 1 KI.MIN	6 girls, ditto, 1 ditto (and) a half.
		<i>pír-nu-šu</i>	
	x+6	6 MUNUS <sup>8</sup> KI.MIN KI.MIN 1 KI.MIN	6 ditto, ditto, 1 ditto.
	x+7	4 MUNUS <sup>8</sup> KI.MIN KI.MIN <i>pír-nu-šu</i>	4 ditto, ditto, a half shekel.
		<i>pa[n-su]-kaš</i>	
Edge	x+8	PAB 1 ME 1 <i>kur-taš hi</i>	This total, 101 workmen, (was)
	x+9	† <i>be-ul 20-um-me.na</i>	of the 20th year.

## CONTENTS

A memorandum-type document which states that the sum of 30 karsha, 3½ shekels of silver from the Persepolis Treasury has been paid to 101 "Treasury workmen" in Kamaini for whom Uratinda was responsible. The sum represents but half the total wages for work performed in the third month of the twentieth year (of Xerxes). Because of damage to the tablet the scribal computations cannot be checked.

## NOTES

Line 4: For the possible identification of *Ka<sub>4</sub>-ma-a-nu-iš* (= Kamaini) with modern Goyum northwest of Shiraz, see No. 40.

## PERSONNEL

*Ú-ra-tin-da*, responsible for the workmen: See No. 3.

## DATE

Identical with No. 63.

## SEAL

Type 5; see tablets 34-35.

## 65

	1	114 <i>kur-šá-um</i> 5 <i>pan-su-kaš pír-nu-</i>	114 karsha, 5 shekels, (and) a half
	2	<i>šu pan-su-kaš.na</i> KÙ.BABBAR <sup>idg</sup> <i>ka<sub>4</sub>-ap- n[u-iš-ki]</i>	of a shekel, silver, from the Treasury
	3	† <i>ba-ir-šá.na.ma.mar</i> [† <i>kur-taš ka<sub>4</sub>-ap]-</i>	of Parsa, (which) the workmen
	4	<i>nu-iš-ki-ip</i> † <i>ša-[. . .]</i>	of the Treasury [. . .],
	5	† <i>ú-ra-tin-da [šá-ra-man-na]</i>	(for whom) Uratinda is responsible,
	6	<i>du-ma-iš pír-nu-š[u</i> GEŠTIN <sup>idg</sup> (?) <i>šá-gi(?)]. ma</i>	are receiving. Half [(the wage) has wine as its equiva-
	7	DINGIRITU <sup>idg</sup> <i>sa-a-kur-ri-ši-iš.na</i>	lent].
	8	† <i>be-ul 20-um-me.na</i>	Month of Thagarci
			of the 20th year.

Edge	9	MA	»RUH <sup>idz</sup>	un-ra	5	[pan]-su-kaš	60 men, each, 5 shekels.		
	10	5	»KI.MIN	KI.MIN	4	KI.MIN	pir-nu-šu	5 ditto, ditto, 4 ditto (and) a half.	
Rev.	11	87	»KI.MIN	KI.MIN	4	KI.MIN		87 ditto, ditto, 4 ditto.	
	12	39	»KI.MIN	KI.MIN	3	KI.MIN	pir-nu-šu	39 ditto, ditto, 3 ditto (and) a half.	
	13	4	»KI.MIN	KI.MIN	3	KI.MIN		4 ditto, ditto, 3 ditto.	
	14	[x+]	4»	'pu-ḥu'	KI.MIN	2	KI.MIN	pir-nu-šu	x+4 boys, ditto, 2 ditto (and) a half.
	15	[x]	»KI.MIN	KI.MIN	2	KI.MIN		x ditto, ditto, 2 ditto.	
	16	[x	»]	KI.MIN	KI.MIN	1	KI.MIN	pir-nu-šu	x ditto, ditto, 1 ditto (and) a half.
	17	[x	»]	KI.MIN	KI.MIN	1	KI.MIN		x ditto, ditto, 1 ditto.
	18	[x	»]	KI.MIN	KI.MIN		pir-nu-šu	pan-su-kaš	x ditto, ditto, a half shekel.
	19	[x	MUNUS	MUNUS <sup>idz</sup>	KI.MIN	2	KI.MIN		x women, ditto, 2 ditto.
	20	[x	MUNUS	KI.MIN	KI.MIN	1	KI.MIN	pir-nu-šu	x ditto, ditto, 1 ditto (and) a half.
Edge	21	[x	MUNUS	KI.MIN	KI.MIN	1	KI.MIN		x ditto, ditto, 1 ditto.
	22	[x+]	6	MUNUS	KI.MIN	KI.MIN	pir-nu-šu	pan-su-kaš	x+6 ditto, ditto, a half shekel.

## CONTENTS

A memorandum-type document which states that the sum of 114 karsha, 5½ shekels of silver from the Persepolis Treasury has been given to an unknown number of "Treasury workmen" for whom Uratinda is responsible and whose services were performed in the third month of the twentieth year (of Xerxes). The scribal totals cannot be checked because of the damaged numerals.

## NOTES

Line 4: *ša* before the break is quite certain.

Line 6: The restoration is problematical; compare GEŠTIN<sup>idz</sup> *šá-gi.ma* 2 *ši-iš-maš* in Nos. 76:8 f. and 35:9 f.; GEŠTIN<sup>idz</sup> *šá-gi.ma* *ši-iš-maš* in No. 45:5 f.; or the frequent *ša-ak* *pir-nu-šu gal.na* as in No. 54:7

## PERSONNEL

*Ū-ra-tin-da*, responsible for the workmen: See No. 3.

## DATE

Identical with No. 63.

## SEAL

The seal end was missing, but doubtless it was originally type 5, on which see tablets 34–35.

## 66

1	[x] ME	37	kur-šá-um	3	pan-su-kaš	x hundred 37 karsha, 3 shekels,
2	KŪ.BABBAR <sup>idz</sup>	ka <sub>4</sub> -[ap]-nu-iš-ki	»ba-ir-šá.na.ma.mar			silver, from the Treasury of Parsa,
3	»	kur-taš	ka <sub>4</sub> -ap-nu-iš-ki-ip	»ba-ir-šá		(which the) workmen of the Treasury (at) Parsa,
4	»	ú-ra-tin-da	šá-ra-man-na	ḥu-pi-be		(for whom) Uratinda is responsible, they—
5	šá-ak	gal. <sup>na</sup>	du-ma-iš	šá-ak	pir-nu-šu	(as) the equivalent of wages—were receiving—the equivalent (of) half
6	gal. <sup>na</sup>	DINGIRITU <sup>idz</sup>	sa- <sup>na</sup> -[kur]-ri-ši-iš.na			of the wages (for) the month of Thaugarci
7	»	'be-ul'	20-um-[me.n]a			of the 20th year.
8	[. . .]	pan-su-kaš				. . . shekel(s).
9	[. . .]	KI.MIN				. . . ditto.
10	[. . .]	KI.MIN				. . . ditto.
11	[. . .]	KI].MIN	pir-nu- <sup>š</sup> u'			. . . ditto (and) a half.

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Edge broken away. On reverse:

<i>x</i> + 1	[ . . . KI].MIN <i>pír-nu-šu</i>	. . . . ditto (and) a half.
<i>x</i> + 2	[ . . . ] KI.MIN KI.MIN	. . . . ditto, ditto.
<i>x</i> + 3	1 ME 2 » KI.MIN KI.MIN 1 KI.MIN <i>pír-nu-šu</i>	102 ditto, ditto, 1 ditto (and) a half.
<i>x</i> + 4	81 » KI.MIN KI.MIN 1 KI.MIN	81 ditto, ditto, 1 ditto.
<i>x</i> + 5	37 » KI.MIN KI.MIN <i>pír-nu-šu</i> MIN	37 ditto, ditto, half (of) do.
<i>x</i> + 6	5 <sup>MUNUS</sup> MUNUS (erasure) KI.MIN 5 KI.MIN	5 women, ditto, 5 ditto.
<i>x</i> + 7	306 <sup>MUNUS</sup> KI.MIN KI.MIN 4 KI.MIN	306 ditto, ditto, 4 ditto.
<i>x</i> + 8	38 <sup>MUNUS</sup> KI.MIN KI.MIN 3 KI.MIN	38 ditto, ditto, 3 ditto.
<i>x</i> + 9	275 <sup>MUNUS</sup> KI.MIN KI.MIN 2 KI.MIN	275 ditto, ditto, 2 ditto.
<i>x</i> +10	[ <i>x</i> ] <sup>MUNUS</sup> <i>pu-ḥu</i> KI.MIN 2 KI.MIN	<i>x</i> girls, ditto, 2 ditto.
<i>x</i> +11	[ <i>x</i> +]27 <sup>MUNUS</sup> KI.MIN KI.MIN 1 KI.MIN <i>pír-nu-šu</i>	<i>x</i> +27 ditto, ditto, 1 ditto (and) a half.

Right end

<i>x</i> +12	93 <sup>MUNUS</sup> KI.MIN KI.MIN 1 <i>pan-su-kaš</i>	93 ditto, ditto, 1 shekel.
<i>x</i> +13	49 <sup>MUNUS</sup> KI.MIN <i>pír-nu-šu</i> MIN	49 ditto, a half (of) do.

## CONTENTS

A memorandum-type document which states that over 137 karsha, 3 shekels of silver from the Persepolis Treasury have been paid to Treasury workmen for whom Uratinda is responsible. The scribe first says that the sum constitutes the (full) wages of the workmen, then corrects himself to say that it is only half of their wages for work performed in the third month of the twentieth year (of Xerxes). His totals cannot be checked because of the missing numerals, but it is noteworthy that the extant total of workers numbers over one thousand.

## NOTES

Lines 5 f.: The scribe corrects himself without bothering to erase.

Lines *x*+5 and *x*+13: The use of two vertical wedges (MIN) to express "ditto" is an anomaly found only in this text.

## PERSONNEL, DATE, AND SEAL

Identical with tablet No. 64.

## 67 (Pl. XXXVII)

	1	36 [ <i>kur-šá-um x pan-su-kaš a-ak</i> ]	36 karsha, <i>x</i> shekels, and
	2	<i>pír-n[u-šu pan-su-kaš KÙ.BABBAR</i> <sup>idg</sup> <i>ka<sub>4</sub>-ap-n]u-</i>	a half (of) a shekel, silver, from the Treasury
	3	<i>iš-k[i ṽba-ir-šá.na.ma.ma]r »</i>	of Parsa, (which) the
	4	<i>kur-[taš ka<sub>4</sub>-ap-nu-iš-ki-i]p ṽba-</i>	workmen of the Treasury at Parsa,
	5	<i>ir-š[á » ú-ra-tin-da šá-ra-man-n]a</i>	(for whom) Uratinda is responsible,
	6	<i>du-m[a-iš šá-ag-gi.ma g]al.na</i>	were receiving. (It serves) for the equivalent of the wage,
	7	<i>gal pír-nu-<sup>[šú DINGIR]</sup>ITU</i> <sup>idg</sup> <i>sa-a-kur-</i>	the wage (of) half the month of Thai-
	8	<i>ri-ši-iš.na ṽbe-ul 20-me.na</i>	garci of the 20th year.
Edge	9	8 » RUḤ <sup>idg</sup> <i>un-ra 4 pan-su-kaš</i>	8 men, each, 4 shekels.
	10	15 » <sup>[KI.MIN]</sup> KI.MIN 3 KI.MIN	15 ditto, ditto, 3 ditto.
	11	1 » KI.MIN 2 KI.MIN	1 ditto, 2 ditto.
Rev.	12	1 » [ <i>pu-ḥu</i> 2 KI.MIN <i>pír-nu-šu</i>	1 boy, 2 ditto (and) a half.
	13	4 » KI.MIN KI.MIN 2 KI.MIN	4 ditto, ditto, 2 ditto.

14	10	» KI.MIN KI.MIN	1 KI.MIN	<i>pir-nu-šu</i>	10 ditto, ditto, 1 ditto (and) a half.		
15	2	» KI.MIN KI.MIN	1 KI.MIN		2 ditto, ditto, 1 ditto.		
16	1	» KI.MIN	<i>pir-nu-šu</i>	<i>pan-su-kaš</i>	1 ditto, a half shekel.		
17	2	MUNUS	MUNUS	KI.MIN	5	<i>pan-su-kaš</i>	2 women, ditto, 5 shekels.
18	24	MUNUS[. . . .]	KI.MIN		24 . . . .	ditto.	
19	2	MUNUS[. . . .]			2 . . . .		
20	10	MUNUS[. . . .]			10 . . . .		
21	6	MUNUS[. . . .]			6 . . . .		
22	20	[+x . . . .]			20+x . . . .		
Right end							
23	4	MUNUS	<i>pu-ḥu</i>	1	<i>pan-s[u-kaš . . . .]</i>	4 girls, 1 shekel . . . .	
24		[. . . .]				. . . .	

## CONTENTS

A memorandum-type tablet according to which upwards of 36 karsha from the Persepolis Treasury are given to more than one hundred "Treasury workmen" for whom Uratinda is responsible. The cash payment probably represents half the wages for the third month of the twentieth year (of Xerxes).

## NOTES

All restorations are somewhat problematical, but in most respects the text is similar to No. 66. On the curious statement in lines 6-7 see above, page 3.

## PERSONNEL, DATE, AND SEAL

Identical with tablet No. 64.

## 68 (Pl. XXXVIII)

	1	<i>Tra-tin-in-da kán-ša-bar-ra tu<sub>1</sub>-ru-<sup>1</sup>iš<sup>1</sup></i>	(To) Ratininda the treasurer speak,
	2	» <i>ir-da-šu-ra na-an-KI.MIN</i> 7 <i>kur-</i>	Artasyras says: 7 karsha,
	3	<i>šá-um</i> 1 <i>pan-su-kaš ši-iš-maš pan-</i>	1 shekel, (and) a third of a
	4	<i>su-kaš.na</i> KÙ.BABBAR <sup>idg</sup> <i>ap si.sì-du gal</i>	shekel, silver, to them give (as) wages
	5	» <i>ra-ša-be</i> » <i>du-ka<sub>4</sub>-<sup>1</sup>be</i> » <sup>1</sup> <i>mi-ra-</i>	(to) . . . . (and) . . . . (whom) Mira-
	6	<i>u-da da-ma</i> » <i>nu in šá-ra-ma</i> <i>ša-</i>	uda sent (and for whom) you are responsible; the
			equivalent
	7	<i>ak</i> 2(!) <i>ši-iš-maš gal</i> <sup>aiš</sup> GEŠTIN <sup>idg</sup> . <i>na</i>	(of) 2 thirds (of) the wage (is) in wine,
	8	<i>gal ap-pi(!)-ni</i> <sup>DINGIR</sup> ITU <sup>idg</sup> <i>kar-ma-ba-</i>	their wage (for) the month of Garmapada
Edge	9	<i>taš.na</i> » <i>be-ul</i> 20- <i>um-me-man-na</i>	of the 20th year.
	10	58 » <sup>RUḤ</sup> <sup>idg</sup> <i>un-ra</i> <sup>DINGIR</sup>	58 men, each,
Rev.	11	<sup>ITU</sup> <sup>idg</sup> . <i>na</i> 2 <i>ši-iš-maš pan-su-kaš.na</i>	per month, 2 thirds of a shekel.
	12	40 » <sup>RUḤ</sup> <sup>idg</sup> <i>un-ra</i> <i>pir-nu(!)-šu pan-</i>	40 men, each, a half of a shekel.
	13	<i>su-kaš.na</i> 38 » <sup>RUḤ</sup> <sup>idg</sup> <i>un-ra</i>	38 men, each,
	14	<i>ši-iš-maš pan-su-kaš.na</i> PAB	a third of a shekel. Total
	15	» <i>kur-taš</i> 1 ME 30 6 » <i>ḥal-mi ḥi li-</i>	workmen: 136. This sealed order has been
	16	<i>ka<sub>4</sub></i> » <i>ba-ka<sub>4</sub>-ba-ad-da tal-li-iš-da</i>	given. Megabates wrote;
	17	<i>du-me</i> » <i>ba-ka<sub>4</sub>-pu-uk-šá(!).ak-</i>	the receipt from Megabyzus
	18	<i>ka<sub>4</sub>.mar du-ka<sub>4</sub></i>	was received.

## CONTENTS

Artasyras informs the treasurer Ratininda that the sum of 7 karsha, 1½ shekels of silver should be given to 136 workmen whose task, unfortunately, cannot be determined but who were "sent" by Mirauda and for whom Ratininda himself is responsible. Two-thirds of the total wage, which is payment for services rendered in the



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fourth month of the twentieth year (of Xerxes), is to be paid in wine. The document makes reference to a sealed order and was written by Megabates; a receipt was secured from Megabyzus. The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
58 men	$\frac{2}{3}$	3	8;40
40 "	$\frac{1}{2}$	2	
38 "	$\frac{1}{3}$	1	2;40
<hr/> Total 136		<hr/> 7	<hr/> 1;20

## NOTES

This tablet is a near-duplicate of No. 68a, in which the total monies ordered paid are just twice those requested here. The addressor of No. 68a, however, was not Artasyras but Artataxma, with whose seal the tablet was impressed; unfortunately the date of No. 68a could not be determined.

Line 5: Compare No. 68a; also No. 76:5, in which there are no "personal wedges" before *du-uk-kaš*. Here and in No. 68a the reading is slightly uncertain, for the third sign of *ra-ša-be* is identical with the *bar* sign of line 1 and yet with the *be* sign of line 9. In No. 76, however, the reading is unquestioned.

Omission of the "personal wedges" before *du-uk-kaš* in No. 76 implies that this word at least is not a personal name, but search for an Elamite or OP parallel has been unproductive. Perhaps the same word appears in *» kur-taš du-ma-kaš-be* in No. 13:5, and also in *tuk-kaš.na* in No. 83:4. *Ra-ša-be* could scarcely be a personal name because of the context.

## PERSONNEL

*Ra-tin-in-da*, treasurer and addressee: See No. 49.

*Ir-da-šu-ra*, addressor: The name of this individual, who is the addressor also of No. 75, is clearly OP *Arta-θura*, "powerful through Arta," Greek *Ἀρταθούρας* (Justi, *NB*, pp. 37 f.; Stonecipher, *GPN*, p. 26).

*Mi-ra-u-da*, who "sent" the workmen (to Persepolis?): The same individual reappears in No. 68a; flour is given "by the hand of" (*kur-min*) one *Mi-ra-ia-u-da* in Fort. 1637 and 2563 (years 23 and 21 of Darius), and in Fort. 1634 (undated) the same commodity is presented by one *Mi-ra-da*. Perhaps the same name is written *Mar-ri-ia-da* on another Fortification text (from Hallock's "List of Names") although this may be a scribal error for *Mar-ri-ia-da-da* (Fort. 6662; also in Hallock's "List"). For the prior element compare the following names from other Fortification documents: *Pu-uk-iš-mi-ra* (Fort. 6412) and *Ba-ku-mi-ra*, *Ba-ka-mi-ra* (from Hallock's "List"); the latter is clearly identical with the OP name of individuals in Babylonia: *Ba-ga-mi-ri*, *Ba-ga-a-mir-ri* (Clay, *BE*, IX, p. 51).

*Ba-ka-ba-ad-da*, scribe: See No. 8.

*Ba-ka-pu-uk-šá*, who delivers a receipt: See No. 37.

## DATE

Payment is here ordered for services rendered in the month Garmapada (Duzu) of the twentieth year (of Xerxes), or from July 4 through August 2, 466 B.C.

## SEAL

Type 8, with a unilingual OP inscription reading "I, Xerxes, King. . . ." This seal appears also on tablet No. 75, where Artasyras also appears as addressor, and it is probably his seal.

## 68a

- |   |  |   |
|---|--|---|
| 1 | <i>Yra-tin-in-da kán-ša-bar-<sup>1</sup>ra<sup>1</sup></i>               | (To) Ratininda the treasurer                    |
| 2 | <i>tu<sub>4</sub>-ru-iš » ir-da-tak-ma</i>                               | speak, Artataxma                                |
| 3 | <i>na-an-KI.MIN 14 kur-šá-um 2</i>                                       | says: 14 karsha, 2                              |
| 4 | <i>pan-su-kaš.na a-ak 2 ši-iš-[maš]</i>                                  | shekels, and 2 thirds                           |
| 5 | <i>pan-su-kaš KÙ.BABBAR<sup>idz</sup> 'ap si.sì<sup>1</sup>-[du gal]</i> | (of) a shekel, silver, give to them (as) wages— |

	6	» <i>ra-ša-be a-ak</i> » [ <i>du-ka-be</i> ]	(to) . . . and . . .
	7	<i>ak-ka-be</i> » <i>mi-ra-[u-da da-ma]</i>	whom Mirauda sent (and for whom)
	8	» <i>nu in šá-ra-ma</i> [ <i>ša-ak 2</i> ]	you are responsible; the equivalent of 2
Edge	9	<i>ši-iš-maš gal</i> <sup>GE</sup> ŠTIN <sup>idg</sup> .na]	thirds (of) the wage (is) in wine,
Rev.	10	<i>gal ap-pi-ni</i> <sup>DINGIR</sup> ITU <sup>idg</sup> . . . ]	their wage (for) the month . . .
		Rest broken.	

## NOTES

This text is a near-duplicate of No. 68, as already noted, but the addressor (whose seal, type 2, it bears) is Artataxma, not Artasyras, and the total monies here ordered paid are just twice those of No. 68. For the name *Ir-da-tak-ma* and the type 2 seal, see tablet No. 21.

## 69

	1	1 ME 15 <i>kur-šá-um 6 pan-su-kaš 2</i>	115 karsha, 6 shekels, 2
	2	<i>ši-iš-maš 2.9 ir-ma-ki a-ak pír-nu-šu 9 ir-ma-ki</i>	thirds, 2 ninths, and a half (of) a ninth,
	3	KÙ.BABBAR <sup>idg</sup> <i>ka-ap-nu-iš-ki</i> » <i>ba-ir-šá.na.ma.</i>	silver, from the Treasury of Parsa,
	4	<i>mar</i> » <i>kur-taš mar-ri-ip</i> » <i>ba-ir-šá</i>	(which) the workmen, artisans (at) Parsa
	5	» <i>bat-ti-na-iš-šá da-ma</i> » <i>ú-ra-</i>	(whom) Pattinasha sent (and for whom) Ura-
	6	<i>tin-da šá-ra-man-na hu-pi-be du-ma-</i>	tinda is responsible, have
	7	<i>iš gal</i> <sup>GE</sup> ŠTIN <sup>idg</sup> <i>šá-ag-gi.ma 10</i> <sup>DINGIR</sup> na-an.[ <i>ha-tu.ma</i> ]	received (as) wages—wine (serves) for its equivalent—(for the period) within 10 days
	8	<sup>DINGIR</sup> ITU <sup>idg</sup> <i>kar-ma-ba-taš be-ul 20-um-me.na</i>	(of) the month Garmapada of the 20th year.
	9	9 » <i>RUḪ</i> <sup>idg</sup> [ <i>un-ra 2 pan-su-kaš 2 ši-iš-maš</i> ]	9 men, each, 2 shekels, 2 thirds.
	10	1 ME 12 [ <i>»</i> ] KI.MIN KI.MIN 2 KI.MIN 2.9 <i>ir-ma-ki</i>	112 ditto, ditto, 2 ditto, 2 ninths.
Edge	11	<sup>MA</sup> 19 <sup>1</sup> » KI.MIN KI.MIN 1 KI.MIN 2 <i>ši-iš-maš</i>	79 ditto, ditto, 1 ditto, 2 thirds,
	12	2.9 <i>ir-ma-ki pír-nu-šu 9 ir-m[a-ki]</i>	2 ninths, (and) a half (of) a ninth.
Rev.	13	79 » KI.MIN KI.MIN 1 <i>pan-su-kaš 2 ši-iš-maš</i>	79 ditto, ditto, 1 shekel, 2 thirds.
	14	58 » <i>pu-hu</i> KI.MIN 1 KI.MIN <i>ši-iš-maš pír-nu-šu</i>	58 boys, ditto, 1 ditto, a third, (and) a half
	15	9 <i>ir-ma-ki</i>	(of) a ninth.
	16	85 » KI.MIN KI.MIN 1 KI.MIN 9 <i>ir-ma-ki</i>	85 ditto, ditto, 1 ditto, a ninth.
	17	<sup>85</sup> » KI.MIN KI.MIN 2 <i>ši-iš-maš 6 ir-ma-ki</i>	85 ditto, ditto, 2 thirds, a sixth.
	18	55 » KI.MIN KI.MIN <i>pír-nu-šu pan-su-kaš pír-nu-šu</i>	55 ditto, ditto, a half shekel, a half
	19	9 <i>ir-ma-ki.na</i>	of a ninth.
	20	2 ME 25 <sup>MUNUS</sup> MUNUS KI.MIN 1 <i>pan-su-kaš 9 ir-ma-ki</i>	225 women, ditto, 1 shekel, a ninth.
	21	1 ME 6 <sup>MUNUS</sup> pu-hu KI.MIN <i>pír-nu-šu pan-su-kaš</i>	106 girls, ditto, a half shekel,
	22	<i>pír-nu-šu 9 ir-ma-ki[.na]</i>	(and) a half of a ninth.
	23	31 <sup>MUNUS</sup> KI.MIN KI.MIN 2.9 <i>ir-ma-ki pír-nu-šu 9 ir-ma-ki</i>	31 ditto, ditto, 2 ninths, (and) a half (of) a ninth.

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A memorandum-type tablet which states that the sum of 115 karsha,  $6\frac{1}{3}$  shekels of silver from the Persepolis Treasury has been paid to more than 900 artisans whom Pattinasha sent to Persepolis and for whom Uratinda is responsible. The money itself has not been given, however, but only its equivalent in terms of wine; the payment is for services rendered during (the first?) ten days of the fourth month of the twentieth year (of Xerxes). The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
9 men	$2\frac{2}{3}$ (=2;40)	2	4
112 "	$2\frac{2}{3}$ (=2;13,20)	24	8;53,20
79 "	$1\frac{2}{3} + \frac{2}{3} + \frac{1}{3}$ (=1;56,40)	15	3;36,40
79 "	$1\frac{2}{3}$ (=1;40)	13	1;40
58 boys	$1\frac{1}{3} + \frac{1}{3}$ (=1;23,20)	8	0;33,20
85 "	$1\frac{1}{3}$ (=1; 6,40)	9	4;26,40
85 "	$\frac{2}{3} + \frac{1}{3}$ (=0;50)	7	0;50
55 "	$\frac{2}{3} + \frac{1}{3}$ (=0;33,20)	3	0;33,20
225 women	$1\frac{1}{3}$ (=1; 6,40)	25	
106 girls	$\frac{2}{3} + \frac{1}{3}$ (=0;33,20)	5	8;53,20
31 "	$\frac{2}{3} + \frac{1}{3}$ (=0;16,40)		8;36,40
<hr/> Total 924		<hr/> 115	<hr/> 2; 3,20

This total, 115 karsha,  $2\frac{2}{3}$  shekels, is short of the scribe's totals in lines 1-2 by  $4\frac{2}{3} + \frac{2}{3}$  shekels. There are two dubious figures, in lines 11 and 17, where the numerals could not be guaranteed beyond question, and perhaps our error lies there, although it is difficult to see how a change in either or both of these could bring us to the scribe's figures.

## NOTES

The carelessly written text of No. 70 is closely parallel to this document; with minor exceptions the wage scale is the same, as is the period during which the work was done; here, however, a much larger number of workmen is employed.

Line 8: The horizontal wedge is omitted before *be-ul*.

## PERSONNEL

*Bat-ti-na-iš-šá*, who sent the workmen: See No. 9a.

*Ú-ra-tin-da*, responsible for the workmen: See No. 3.

## DATE

The payment here made was for work performed in ten days of the month Garmapada (Duzu) of the twentieth year (of Xerxes); if we assume that the first ten days are meant, the work period was from July 4-13, inclusive, 466 B.C.

## SEAL

Type 5; see tablets 34-35.

## 70 (Pl. XXXIX)

1	<i>š4 kur-šá-um 3 pan-su-kaš ši-iš-maš</i>	34 karsha, 3 shekels, (and) a third,
2	<i>KÙ.BABBAR<sup>idg</sup> ka-ap-nu-iš-ki 𐎶 ba-ir-</i>	silver, from the Treasury of Parsa,
3	<i>šá.na.ma.mar 𐎶 kur-taš mar-ri-ip</i>	(which) the workmen, artisans
4	<i>𐎶 bar-na-da-ad-da da-ma 𐎶 ú-ra-</i>	(whom) Farnadata sent (and for whom) Ura-
5	<i>tin-da šá-ra-man-na hu-pi-be du-ma-</i>	tinda is responsible, have received.
6	<i>ma(sic) gal &lt;GEŠTIN<sup>idg</sup>&gt; šá-ag-gi 10</i> <i>DINGIR<sup>na-an.ħa-tu.ma</sup> [DINGIR<sup>ITU</sup>]</i>	(as) wages—(wine) (serves as) its equivalent—(for
7	<i>idg kar-ma-ba-taš 𐎶 be-ul 20-um-me.na</i>	the period) within 10 days (of) the month
8	<i>5 𐎶 RUḪ<sup>idg</sup> un-ra 2 pan-su-kaš 2 ši-iš-maš</i> <i>2.9 ir-ma-ki</i>	Garmapada of the 20th year.
		5 men, each, 2 shekels, 2 thirds, (and) 2 ninths.

Edge	9	48	» KI.MIN KI.MIN 2 KI.MIN 2.9 <i>ir-ma-ki</i>	48 ditto, ditto, 2 ditto, 2 ninths.
	10	8	» KI.MIN KI.MIN 1 KI.MIN 2 <i>ši-iš-maš</i>	8 ditto, ditto, 1 ditto, 2 thirds,
	11	2.9	<i>ir-ma-ki pīr-nu-šu 9 ir-ma-ki(!)</i>	2 ninths, (and) a half (of) a ninth.
Rev.	12	27	» KI.MIN KI.MIN 1 KI.MIN 2 <i>ši-iš-maš</i>	27 ditto, ditto, 1 ditto, 2 thirds.
	13	18	» <i>pu-ḫu</i> KI.MIN 1 KI.MIN 1 <i>ši-iš-maš</i> <i>pīr-nu-šu 9(!) ir-ma-ki</i>	18 boys, ditto, 1 ditto, 1 third, (and) a half (of) a ninth.
	14	12	» KI.MIN KI.MIN 1 KI.MIN 9 <i>ir-ma-ki</i>	12 ditto, ditto, 1 ditto, a ninth.
	15	29	» KI.MIN KI.MIN 2 <i>ši-iš-maš 6 ir-ma-ki</i>	29 ditto, ditto, 2 thirds, a sixth.
	16	10	» KI.MIN KI.MIN <i>pīr-nu-šu pan-su-kaš</i> <i>ṽpīr<sup>1</sup>-nu-šu</i>	10 ditto, ditto, a half shekel (and) a half (of)
	17		<i>9 ir-ma-ki</i>	a ninth.
	18	53	<sup>MUNUS</sup> MUNUS KI.MIN 1 <i>pan-su-kaš</i> (erasure) <i>9 ir-ma-ki</i>	53 women, ditto, 1 shekel (and) a ninth.
	19	31	<sup>MUNUS</sup> <i>pu-ḫu</i> KI.MIN 2 <i>ši-iš-maš 6 ir-ma-ki</i>	31 girls, ditto, 2 thirds (and) a sixth.
	20	13	<sup>MUNUS</sup> KI.MIN KI.MIN <i>pīr-nu-šu pan-su-kaš</i>	13 ditto, ditto, a half shekel
	21		<i>a-ak pīr-nu-šu 9(!) ir-ma-ki</i>	and a half (of) a ninth.
	22	8	<sup>MUNUS</sup> KI.MIN KI.MIN 2.9 <i>ir-ma-ki pīr-nu-šu 9 ir-ma-ki(!)</i> .	8 ditto, ditto, 2 ninths (and) a half of a
	23	<i>na</i>		ninth.

## CONTENTS

A memorandum-type document which states that the sum of 34 karsha,  $3\frac{1}{2}$  shekels of silver from the Persepolis Treasury has been paid to 262 artisans whom Farnadata sent (to Persepolis) and for whom Uratinda is responsible. Not the money, but only its equivalent (in terms of wine) has been paid, however, and the payment is for services rendered during (the first?) ten days of the fourth month of the twentieth year (of Xerxes). The computations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
5 men	$2\frac{2}{3} + \frac{2}{3}$ (= 2;53,20)	1	4;26,40
48 "	$2\frac{2}{3}$ (= 2;13,20)	10	6;40
8 "	$1\frac{2}{3} + \frac{2}{3} + \frac{1}{18}$ (= 1;56,40)	1	5;33,20
27 "	$1\frac{2}{3}$ (= 1;40)	4	5
18 boys	$1\frac{1}{3} + \frac{1}{18}$ (= 1;23,20)	2	5
12 "	$1\frac{1}{3}$ (= 1; 6,40)	1	3;20
29 "	$\frac{2}{3} + \frac{1}{6}$ (= 0;50)	2	4;10
10 "	$\frac{1}{2} + \frac{1}{18}$ (= 0;33,20)		5;33,20
53 women	$1\frac{1}{3}$ (= 1; 6,40)	5	8;53,20
31 girls	$\frac{2}{3} + \frac{1}{6}$ (= 0;50)	2	5;50
13 "	$\frac{1}{2} + \frac{1}{18}$ (= 0;33,20)		7;13,20
8 "	$\frac{1}{3} + \frac{1}{18}$ (= 0;16,40)		2;13,20
<hr/> Total 262		34	3;53,20

The total thus secured by actual computation exceeds by 0;33,20 ( $= \frac{1}{2} + \frac{1}{18}$ ) shekels the figure secured by the scribe or his informant. Perhaps he mistakenly read "12 girls" instead of "13" in line 20; otherwise his figures are remarkably accurate.

## NOTES

See the notes to the parallel text No. 69. This document is carelessly written; there is a needlessly repeated *ma* beginning line 6 (actually the sign should be *iš*); the very important month date in lines 6-7 appears to have been almost an afterthought; and there are erasures in lines 1, 6-7, 9, 13-14, and 18. Even the erasures have not always been carefully made; in line 18, for example, one can still read rather clearly *pīr-nu-šu*, "a half (of a ninth)," which does not appear in No. 69 and which was not figured in the computations here. In lines 13 and 21, where the numeral 6 seems to appear, this numeral must actually be 9 (shown by No. 69 as also by the fact that in this document the numeral 6 is always fully written). Finally, *GEŠTIN*<sup>idg</sup>, "wine," has been altogether omitted in line 6; context and also No. 69 demand that it be restored.

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## PERSONNEL

*Bar-na-da-ad-da*, who sent the workmen: See No. 43.

*Ū-ra-tin-da*, who is responsible for the workmen: See No. 3.

## DATE

Identical with No. 69.

## SEAL

Type 5; see tablets 34–35.

## 71

1	[x] <i>kur-šá-um 5 pan-su-</i>	<i>x</i> karsha, 5 shekels,
2	[kaš KÙ.]BABBAR <sup>idg</sup> <i>ka-ap-nu-iš-ki</i>	silver, from the Treasury
3	[> ba]- <i>ir-šá.na.ma.mar</i> >	of Parsa, (which by)
4	<i>kur-taš mar-ri-ip</i> >	workmen, artisans
5	<i>ba-ir-šá.na.ma.mar</i> >	from(!) Parsa
6	<i>nu-ti-ud-dá da-ma</i>	(whom) Nutidda sent
7	> <i>ú-ra-tin-da šá-</i>	(and for whom) Uratinda
8	<i>ra-man-na hu-pi-[be].</i>	is responsible, by them
9	<i>na.ma du-man-<sup>l</sup>pi<sup>l</sup></i>	was received.
10	<i>šá-gi.ma 2 ši-iš-mas [gal.na]</i>	(The money serves) for equivalent (of) 2 thirds of
		the wage
11	DINGIR <sup>idg</sup> IT <sup>idg</sup> <i>sa-a-kur-<sup>l</sup>ri<sup>l</sup>-</i>	(of) the months Thaugarci,
12	<sup>l</sup> ši <sup>l</sup> -iš <sup>l</sup> DINGIR <sup>idg</sup> <i>kar-ma-ba-taš</i>	Garmapada,
13	[DINGIR <sup>l</sup> ] <i>ur-<sup>l</sup>na<sup>l</sup>-ba-ši-iš</i>	(and) Darnabaji—
14	[PAB] 3 DINGIR <sup>idg</sup> IT <sup>idg</sup> <i>ha-i[u.ma]</i>	within a total of 3 months
15	[> be]- <i>ul 20-me.na</i>	of the 20th year.

Balance too fragmentary for complete copy.

## CONTENTS

A memorandum-type tablet which states that an unknown total of karsha and five shekels of silver from the Persepolis Treasury has been given to Persepolis artisans whom Nutidda sent and for whom Uratinda was responsible. The payment, which is but two-thirds of the total wages, is made for services rendered during the third, fourth, and fifth months of the twentieth year (of Xerxes).

## NOTES

Line 5: To judge from parallel texts (e.g., Nos. 51 and 69) the unnecessary *.ma.mar* is a dittography from line 3, and the phrase was intended to mean “artisans at Persepolis.”

## PERSONNEL

*Nu-ti-ud-da*, who sent the workmen (to Persepolis): Perhaps a hypocoristic for *Nu-ti-be-ul*, on which see No. 57.

*Ū-ra-tin-da*, who is responsible for the workmen: See No. 3.

## DATE

The payment is for services rendered in the months of Thaugarci, Garmapada, and Darnabaji (Simanu, Duzu, and Abu) of the twentieth year (of Xerxes), or from June 4 through August 31, 466 B.C.

## SEAL

The seal end was missing, but if (as is most probable) there was once an impression there it was unquestionably type 5, on which see tablets 34–35.

	1	<i>š pan-su-kaš KÙ.BABBAR<sup>idg</sup></i>	5 shekels, silver,
	2	<i>ka<sub>4</sub>-ap-nu-iš-ki 𐎠-ba-</i>	from the Treasury
	3	<i>ir-šá.na.ma.mar 𐎠-pu-</i>	of Parsa, (which)
	4	<i>ḫu 𐎠-ba-ti(?) -ma-nu ap-pa</i>	the boys attached to the (royal) estate (and) who are
	5	<i>[ab(?)]<sup>1</sup>-ba-ir ku-ti-ip</i>	guarding(?) animals(?)
	6	<i>𐎠-ra-u-da-ma-ti-iš</i>	in Raudamati,
Edge	7	<i>[gal(?)] ḫu-pi-be du-</i>	(for) wages are
	8	<i>[ma-i]š GEŠTIN<sup>idg</sup></i>	receiving. Wine
Rev.	9	<i>šá-g[í.ma] 2 š[í]-iš-</i>	(serves) as the equivalent (of) 2 thirds
	10	<i>[maš gal DINGIR]ITU<sup>idg</sup> kar-</i>	(of) the wage from the month of Gar-
	11	<i>ma-ba-taš.na.ma.mar ku-iš</i>	mapada through
	12	<i>DINGIR]ITU<sup>idg</sup> ka<sub>4</sub>-ir-ba-ši</i>	the month Karbashiya—
	13	<i>PAB 3 DINGIR]ITU<sup>idg</sup> ḫa-tu</i>	within a total of 3 months
	14	<i>𐎠-be-ul 20-me.na</i>	of the 20th year.
	15	<i>š 𐎠-RUḫ<sup>idg</sup> un-ra ši-iš-maš</i>	5 men(!), each (received) a third (of a shekel).

## CONTENTS

A memorandum-type document which states that five shekels of silver from the Persepolis Treasury have been paid to boys attached to the (royal) estate who have perhaps been guarding animals at the place Raudamati. Wine, and not the money, serves for two-thirds of the payment which is for services rendered during the fourth, fifth, and sixth months of the twentieth year (of Xerxes). Each of the five herdsmen (the scribe now says that they were "men") has received a third of a shekel (per month). It is interesting to observe what Xenophon puts into the mouth of the boy Cyrus concerning the drinking sprees indulged in by the Medes (*Cyropaedia* i. 3.8 ff.; contrast the Persian practice as related by Herodotus, i. 133).

## NOTES

Line 4: For *ba-ti-ma-nu* compare No. 47. The sign queried may have been intended for *te*, for over an erasure there are two horizontals, a vertical, then two more horizontals.

Line 5: Though faint and all but destroyed, the first sign may have been *ap*, *nap*, or some similar sign.

The translation is dubious; the verb *ku-ti* normally means "(to) bear, bring," and it is only in its reduplicated form (*kukti-*) that the meaning is "(to) guard, protect."

Line 6: The place name *Ra-u-da-ma-ti-iš* (the *-iš* ending is doubtless an Elamite termination) does not appear in other tablets, but there can be little question that it embodies the OP word *rauta*, "river."

## DATE

Payment is stipulated for services performed from the month of Garmapada (Duzu) through the month of Karbashiya (Ululu) of the twentieth year (of Xerxes), or from July 4 through September 30, 466 B.C.

## SEAL

Type 5; see tablets 34–35.

	1	<i>34 kur-šá-um 3 pan-su-kaš</i>	34 karsha, 3 shekels, (and)
	2	<i>ši-iš-maš KÙ.BABBAR<sup>idg</sup> ka<sub>4</sub>-ap-nu-iš-ki</i>	a third (of a shekel), silver, from the Treasury
	3	<i>𐎠-ba-ir-šá.na.ma.mar 𐎠-kur-taš</i>	of Parsa, (which) the workmen
	4	<i>bat-ti-kur-ráš-be ḫu-ut-ti-ip</i>	making sculptures
	5	<i>𐎠-ḫAR<sup>idg</sup>.na 𐎠-ba-ir-šá 𐎠-</i>	of stone (at) Parsa,
	6	<i>ú-ra-tin-da šá-ra-man-na</i>	(for whom) Uratinda is responsible,
	7	<i>ḫu-pi-be gal.ma du-iš</i>	for wages have received.
	8	<i>2 ši-iš-maš GEŠTIN<sup>idg</sup> šá-ag-</i>	(For) 2 thirds (of the wage), wine (serves)
	9	<i>g[í.ma] DINGIR]ITU<sup>idg</sup> kar-</i>	as the equivalent. Months: from Gar-

## TRANSLITERATIONS AND TRANSLATIONS

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Edge	10	<i>ma-ba-taš.ik-ki.mar</i>	mapada
	11	<i>ku-iš</i> <sup>DINGIR</sup> ba- <sup>GI</sup> ia <sup>1</sup> -	through Bagayadi—
Rev.	12	<i>ti-iš</i> PAB <sup>4</sup> <sup>DINGIR</sup> [ITU] <sup>idg</sup>	a total of 4 months
	13	<i>↳ be-ul 20-um-me.na</i>	of the 20th year.
	14	<sup>98</sup> <sup>RUH</sup> <sup>idg</sup> un-ra [2]	98 men, each, 2
	15	<i>ši-iš-maš</i>	thirds (of a shekel).
	16	[17] <sup>RUH</sup> <sup>idg</sup> un-ra [pír-nu]-	17 men, each, a half
	17	<i>ip-su(sic) pan-su-kaš.na</i>	of a shekel.
	18	<sup>30</sup> <sup>6</sup> <sup>RUH</sup> <sup>idg</sup> un-ra	36 men, each,
	19	[ši]-iš-maš pan-su-[kaš].na	a third of a shekel.
	20	[↳] <i>be-ul 20-um-me.na</i>	(Payment) of the 20th year.

## CONTENTS

A memorandum-type document which states that the sum of 34 karsha, 3½ shekels of silver from the Persepolis Treasury has been paid to upwards of 150 workmen making stone sculptures at Persepolis for whom Uratinda was responsible. Wine served in place of money for two-thirds of the payment, which was for services performed during the fourth to seventh month (inclusive) of the twentieth year (of Xerxes).

Since all the numerals preceding <sup>RUH</sup><sup>idg</sup>, "men," are damaged, the actual total of workmen as here given cannot be trusted, although when they are employed the total payment agrees with the scribal totals in lines 1-2.

## PERSONNEL

*Ū-ra-tin-da*, who was responsible for the workmen: See No. 3.

## DATE

Payment is for services performed from the month Garmapada (Duzu) up to and including the month Bagayadi (Tashritu) of the twentieth year (of Xerxes), or from July 4 through October 29, 466 B.C.

## SEAL

Type 5; see tablets 34-35.

## 74

	1	<i>139 kur-š[á-um 5 pan]-</i>	139 karsha, 5
	2	<i>su-kaš 2 ši-i[š-maš]</i>	shekels, (and) 2 thirds,
	3	<sup>KÜ</sup> .BABBAR <sup>idg</sup> ka <sub>4</sub> -ap-[nu-iš-ki]	silver, from the Treasury
	4	[↳] <i>ba-ir-šá.na.m[a.mar]</i>	of Parsa, (which)
	5	<sup>↳</sup> <i>kur-taš</i> <sup>GIS</sup> <sup>idg</sup> še-iš-ki-	the workmen laboring (on) the wood
	6	<sup>ip</sup> <sup>AN</sup> .BAR <sup>idg</sup> <sup>GIS</sup> ši-ip	(and) iron door(s)
	7	<i>↳ ba-ir-šá</i> <sup>↳</sup> <i>ú-ra-</i>	(at) Parsa, (for whom) Ura-
	8	<sup>tin</sup> <sup>1</sup> - <i>da šá-ra-man-na</i>	tinda is responsible,
Edge	9	[hu]- <i>pi-be du-iš</i>	have received.
	10	[ <sup>DINGIR</sup> ITU] <sup>idg</sup> <i>tur-na-ba(!)-</i>	Months: from
Rev.	11	<sup>š</sup> <sup>1</sup> - <i>iš.ik-ki.mar</i>	Darnabaji
	12	<i>ku-iš</i> <sup>DINGIR</sup> ba- <sup>GI</sup> ia-	through Bagayadi—
	13	<i>ti-iš</i> PAB [3] <sup>DINGIR</sup> [ITU] <sup>idg</sup>	a total of 3 months
	14	<i>↳ be-ul 20<sup>1</sup>-um-me.na</i>	of the 20th year.
	15	<sup>300</sup> <sup>↳</sup> <sup>RUH</sup> <sup>idg</sup> un-ra 2 ši-iš-maš	300 men, each, 2 thirds (of a shekel).
	16	<sup>73</sup> <sup>↳</sup> <sup>KI</sup> .MIN <sup>KI</sup> .MIN	73 ditto, ditto,
	17	<i>pír-nu-ip-šu pan-s[u-kaš.na]</i>	a half of a shekel.
	18	<sup>128</sup> <sup>↳</sup> <sup>RUH</sup> <sup>idg</sup> [un]-	128 men, each,
	19	<i>ra ši-i[š-maš]</i>	a third.

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A memorandum-type document which states that the sum of 139 karsha,  $5\frac{2}{3}$  shekels of silver from the Persepolis Treasury has been paid to 501 workmen who were making or ornamenting the wood and iron door or doors at Persepolis and for whom Uratinda was responsible. The payment is said to be for services performed during the fifth to seventh month (inclusive) of the twentieth year of Xerxes, but in his expressed total the scribe or his informant has figured the number of months not as three but as five. The calculations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
300 men	$\frac{2}{3}$	20	
73 "	$\frac{1}{3}$	3	6;30
128 "	$\frac{1}{3}$	4	2;40
<hr/> Total 501		<hr/> 27	<hr/> 9;10

If the work was performed during three months only, the scribal totals should have been "83 karsha, 7 shekels, (and) a half." If (as seems to be correct) the work was actually performed during five months, the scribe's totals are correct if we assume that he ignored a small fraction: one-sixth.

## PERSONNEL

*Ū-ra-tin-da*, who was responsible for the workmen: See No. 3.

## DATE

The payments here described were for services rendered (according to the scribe's own notation; see above) from the month of Darnabaji (Abu) through Bagayadi (Tashritu) of the twentieth year (of Xerxes), or from August 3 through October 29, 466 B.C.

## SEAL

Type 5; see tablets 34-35.

## 75 (Pl. XL)

	1	<i>Ū-ra-te(?) -in-da</i> $\nu$ -ka <sub>4</sub> -	(To) Ratenda the
	2	<i>ap-nu-iš-ki-ra tu<sub>4</sub>(!)-ru(!)-iš</i>	treasurer speak,
	3	<i>Ūir-da-šu-ra na-an(!)-KI.MIN</i>	Artasyras says:
	4	<i>1 ME 3 kur-šá-um 5 pan-</i>	103 karsha, 5 shekels,
	5	<i>su-kaš KŪ.BABBAR<sup>idg</sup> ap si. 'si'-du(!)</i>	silver, to them give,
	6	<i>» kur-taš GIŠ<sup>idg</sup> GIŠ<sup>idg</sup> še-iš-ki-</i>	(to) workmen, woodworkers
	7	<i>ip » e(!)-iš(!)-ku-iš » (!)ptr(!)-</i>	(of whom) Eshkush is the fore-
	8	<i>ra-ma-na-kar-ra » nu</i>	man (and for whom) you are
	9	<i>šá-ra-man-na šá-gi-me</i>	responsible. The equivalent
Edge	10	<i>2 ši-iš-maš gal(!) GEŠTIN<sup>idg</sup>.</i>	(of) 2 thirds (of) the wage (is) in wine,
	11	<i>na gal ap-pi-ni DINGIR</i>	(as) their wage (for) the
Rev.	12	<i>ITU<sup>idg</sup> DINGIR ha-na-ma-kaš.</i>	months from Anamaka
	13	<i>ik.mar ku-iš DINGIR mi-kán-</i>	through Viyaxna—
	14	<i>na-iš pu-un-kat<sub>6</sub>-te.ma</i>	to its end—
	15	<i>PAB 3 [DINGIR ITU<sup>idg</sup>] ha-tu.ma <math>\nu</math> (!)</i>	within a total of 3 months
	16	<i>be-'ul' 20-me.na 3 ME 80 5</i>	of the 20th year. 385
	17	<i>» RUḪ<sup>idg</sup> un-ra.na DINGIR ITU<sup>idg</sup>.</i>	men, each, per month,
	18	<i>na 2 ši-iš-maš pan-su-kaš.</i>	2 thirds of a shekel
	19	<i>na du-man-ba 76 » RUḪ<sup>idg</sup></i>	are to receive. 76 men,
	20	<i>un-ra.na ITU<sup>idg</sup>(sic).na ptr(!)-nu-</i>	each, per month, a half
	21	<i>šu pan-su-kaš du-man-ba 1 ME</i>	shekel are to receive.
	22	<i>50 1 » RUḪ<sup>idg</sup> un-⟨ra⟩</i>	151 men, each,
Rt. end	23	<i>ši-iš-maš pan-su-kaš(!).na</i>	a third of a shekel
	24	<i>du-man-ba</i>	are to receive.



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Artasyras informs the treasurer Ratenda (without doubt Ratininda) that the sum of 103 karsha, 5 shekels of silver should be given to 612 woodworkers, of whom Eshkush was foreman and for whom Ratininda himself was responsible, for work performed in the tenth to twelfth month (inclusive) of the twentieth year (of Xerxes). Two-thirds of the wage is to be paid in wine; presumably the balance was to be paid in cash. The calculations are as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
385 men	$\frac{2}{3}$	25	6;40
76 "	$\frac{1}{2}$	3	8
151 "	$\frac{1}{3}$	5	0;20
<hr/> Total 612		<hr/> 34	<hr/> 5
			×3 months
		<hr/> 103	<hr/> 5

## NOTES

Erasures in lines 2, 4, 7, and 15, added to the fact that the signs were not too carefully written apparently with a split stylus, point to the presumption that this text was written by a somewhat inexperienced scribe, and not by that Megabates who wrote the only other extant tablet of which the addressor was Artasyras (No. 68).

Line 7: The second horizontal of  $\gg$  is misplaced and written as a part of *pír*.

Line 14: Compare No. 22:15 (*pu-un-ka-ti.ma*) and DB, § 30 (*pu-in-ki-te.ma*); clear use of the šv with the value *ka*<sub>4</sub> is noteworthy.

## PERSONNEL

*Ra-te(?)*-*in-da*, treasurer and addressee: The second sign of this name is puzzling. A reading *Ra-man-ma-in-da* is possible though unlikely; since, however, the name of the treasurer appears elsewhere as *Ra-tin-in-da* (see No. 3), a reading *Ra-te-in-da* (hardly *Ra-tu<sub>4</sub>-in-da*) is most likely, although the scribe may actually have attempted to write *Ra-tin(!)-ma-in-da*.

*Ir-da-šu-ra*, addressor: See No. 68.

*E-iš-ku-iš*, foreman: The name does not appear elsewhere in Treasury documents, and no similar name is known to me save *E-iš-šu-šu* in Fort. 5898 (undated, reign of Darius).

## DATE

Payment is here ordered for services performed from the month Anamaka (Tebet) through Viyaxna (Adaru) of the twentieth year (of Xerxes), or from December 28, 466, through February 25, 465 B.C.

## SEAL

Type 8; see tablet No. 68.

## 76

1 *2 kur-šá-um 4 pan-su-kaš pír-*  
 2 *nu-íp-šu(!) KI.MIN KÛ.BABBAR<sup>idg</sup> ka<sub>4</sub>-*  
 3 *ap-nu-iš-ki 1-ba-ir-šá.na.ma.*  
 4 *mar 2-kur-iaš pír-ra-sa-na-iš-*  
 5 *be 2-ra<sup>1</sup>-ša-be du-uk-kaš*  
 6 *1-ba-ir-šá 1-ú-ra-tin-*  
 7 *da šá-ra-man-na hu-*  
 8 *pi-be du-iš GEŠTIN<sup>idg</sup>*  
 Edge 9 *šá-gi.ma 2 ši-iš-maš*  
 10 *DINGIRITU<sup>idg</sup> sa-a-kur-ri-*

2 karsha, 4 shekels, (and)  
 a half (of) the same, silver,  
 from the Treasury of Parsa,  
 (which) the workmen, . . . .  
 . . . . .  
 (at) Parsa, (for whom) Uratin-  
 da is responsible,  
 have received. Wine (serves)  
 for the equivalent (of) 2 thirds (of the payment).  
 Month (of) Thaugarci

## PERSEPOLIS TREASURY TABLETS

Rev. 11	<i>ši-iš</i> <i>↳be-ul 1-na</i>	of the 1st year.
12	13 [ <i>↳RU</i> ] <sup>idg</sup> <i>un-ra</i>	13 men, each,
13	[2 <i>ši-i</i> ] <sup>idg</sup> <i>šaš du-[man-pi]</i>	2 thirds (of a shekel) were to receive.
14	[17] [ <i>↳RU</i> ] <sup>idg</sup> <i>un-ra pír-nu-</i>	17 men, each, a half
15	<i>ip-šu pan-su-kaš.na</i>	of a shekel.
16	22 [ <i>↳RU</i> ] <sup>idg</sup> <i>un-ra</i>	22 men, each,
Edge 17	<i>ši-iš-šaš du-man-ra</i>	a third (of a shekel) was to receive.
18	<i>↳be-ul 1-na</i>	1st year.

## CONTENTS

A memorandum-type tablet which states that the sum of 2 karsha, 4½ shekels of silver from the Persepolis Treasury has been paid to fifty-two workmen whose task at Persepolis we are unable to determine but who were under the supervision of Uratinda. The payment, two-thirds of which was to be made in wine, is for services performed in the third month of the first year (of Artaxerxes I). In all probability the original calculations were as follows:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
13 men	$\frac{2}{3}$		8;40
17 "	$\frac{1}{3}$		8;30
22 "	$\frac{1}{3}$		7;20
<hr/> Total 52		2	4;30

## NOTES

Line 2: The third sign is actually *su*—i.e., there are four horizontals, two verticals; the correct form of *šu* appears in line 15.

Line 4: The last part of the line appears as follows:



Dr. R. T. Hallock has found the reading as given above on Fort. 3502:2-3, but there seems to be no comparable word (or compound?) in other Persepolis texts, and no satisfactory interpretation of it.

Line 5: Compare Nos. 68:5 and 68a:6.

Line 17: The scribal error for *du-man-pi* is obvious when comparison is made with the same phrase elsewhere.

## PERSONNEL

*U-ra-tin-da*, who was responsible for the workmen: See No. 3.

## DATE

Payment is made for services rendered in the month Thairgarci (Simanu) of the first year of Artaxerxes I, or from June 12 through July 10, 464 B.C.

## SEAL

Type 5; see tablets 34-35.

## 77 (Pl. XLI)

1	14 <i>kur-ša-um 4 KA</i> <sup>idg</sup>	14 karsha, 4 shekels(!),
2	[ <i>KÛ.BABBAR</i> ] <sup>idg</sup> <i>ka-ap-nu-iš-ki</i>	silver, from the Treasury
3	[ <i>↳b</i> ] <i>a-ir-ša.na.ma.mar</i> <i>↳</i>	of Parsa, (which)
4	[ <i>pu</i> ]- <i>hu ap-pa am</i> <i>↳i-</i>	the boys who now
5	[ <i>ia</i> ] <sup>1</sup> - <i>an.uk-ku sik-ka</i> <sub>4</sub> -[ <i>ap</i> (?)]	upon the columned hall are stationed(?)
6	<i>↳ba-ir-ša</i> <i>↳u-ra-</i>	(at) Parsa, (for whom) Ura-
7	<i>tin-da ša-ra-man</i> -[ <i>na</i> ] <sup>1</sup>	tinda is responsible,
Edge 8	<i>hu-pi-b[e d]u-iš</i> [ <i>GEŠTIN</i> ] <sup>idg</sup>	have received. Wine (serves)
9	<i>ša-ag-gi.[ma 2]</i> [ <i>ši</i> ] <sup>1</sup> -[ <i>iš-šaš</i> ]	as the equivalent (of) 2 thirds (of the wages).
10	[ <i>DINGIR</i> ] <sup>idg</sup> [ <i>DINGIR</i> ] <sub>ha-du-kán</sub> -	Months: from Adukanaisha

## TRANSLITERATIONS AND TRANSLATIONS

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Rev. 11	<i>nu-ia.i[k-ka<sub>4</sub>.mar ku]-</i>	up to (and including)
12	<i>iš<sup>DINGIR</sup>kar-<sup>1</sup>ma<sup>1</sup>-[ba-taš]</i>	Garmapada
13	<i>↳be-ul 1-<sup>1</sup>na<sup>1</sup></i>	of the 1st year.
14	<i>43 ↳pu-ḥu un-ra</i>	43 boys, each,
15	<i>2 ši-iš-maš.na</i>	2 thirds.
16	<i>22 ↳pu-ḥu un-ra</i>	22 boys, each,
Edge 17	<i>ši-iš-maš.na</i>	a third.

## CONTENTS

A memorandum-type document according to which 14 karsha, 4 shekels of silver from the Persepolis Treasury are said to have been given to boys who were apparently laboring upon one of the buildings at Persepolis and for whom Uratinda was responsible. Wine probably served as payment for two-thirds of the total wages of the sixty-five boys whose work was carried out during the first four months of the first year (of Artaxerxes I). The calculations follow:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
43 boys	$\frac{2}{3}$	2	8;40
22 "			7;20
<hr/> Total 65		<hr/> 3	<hr/> 6
			×4 months
		<hr/> 14	<hr/> 4

## NOTES

Line 1: For  $ka_4^{idz}$  as a symbol for "shekel," see above, page 37, and No. 45.

Line 5: *sik-ka<sub>4</sub>-ap(?)*. A form of the root *sik-ka<sub>4</sub>-* is used twice in the DSf inscription as parallel to OP *avanīy*, "superata est" (cf. Kent, *JAOS*, LIII [1933], 15 f.; Akkadian uses forms of the verb *malū*, "(to) be full," doubtless in the sense of English "filling"), and once as parallel to the OP verb *frāsaḥ*, Akk. *epēšu*, "(to) erect." In *MVAeG*, XXXV, 1 (1930), p. 49, König believes it gives expression to any kind of building activity which is vertical but not horizontal. This meaning could be applicable here; it is not so appropriate in a considerable number of Fortification texts in which it is said that objects (grain, flour, etc.) *n.ug-gi* (var.: *uk-ku*) *sik-ka<sub>4</sub>-ka<sub>4</sub>*; thus, for example, Fort. 3547 reads: <sup>1</sup>100 ŠE.BAR<sup>idz</sup> <sup>2</sup>kur-man ↳ir-du-<sup>3</sup>ip-ma.na <sup>4</sup>↳ba-<sup>5</sup>ka<sub>4</sub>-ba(?)]-na. <sup>6</sup>ug-gi *sik-ka<sub>4</sub>-ka<sub>4</sub>* <sup>7</sup>↳be-ul <sup>8</sup>23(?)]-na. Here the most likely translation would seem to be: "100 (measures of) grain <sup>2</sup>(which) by the hand of <sup>3</sup>Irdupma <sup>4</sup>unto Bakabana(?) <sup>5</sup>have been <sup>6</sup>placed (i.e., delivered) <sup>7</sup>in the <sup>8</sup>23rd year." A similar meaning seems apt for the numerous occurrences of the root in the documents published in *Mém.*, IX, and is assumed here.

Lines 8-9: For the restoration see No. 79:7-8, written four years later.

## PERSONNEL

*Ū-ra-tin-da*, who was responsible for the boys: See No. 3.

## DATE

The tablet computes payment for services performed from the month of Adukanaisha (Nisanu) through Garmapada (Duzu) of the first year (of Artaxerxes I), or from April 13 through August 9, 464 B.C.

## SEAL

Type 5; see tablets 34-35.

## 78 (Pl. XLII)

1	<i>2 pan-su-kaš KÙ.BABBAR<sup>idz</sup> ka<sub>4</sub>-</i>	2 shekels, silver,
2	<i>ap-nu-iš-ki ↳ba-ir-šá.na.</i>	from the Treasury of Parsa,
3	<i>ma.mar 1 ↳RUḪ<sup>idz</sup> ḥa-te-na</i>	(which) 1 man, an ornament(?)
4	<i>ḥu-ut-ti-ra pīr-ra-</i>	maker (and) fore-
5	<i>ma-na-kur-raš ak-ka<sub>4</sub></i>	man who
6	<i>↳šu-šá-an.mar ši-nu-ka<sub>4</sub></i>	from Susa had come

## PERSEPOLIS TREASURY TABLETS

Edge 7	𐎲𐎠𐎼𐎿𐎧𐎺𐎠	𐎲𐎠𐎼𐎿𐎧𐎺𐎠	(to) Parsa (and for whom)
8	𐎠𐎺𐎠𐎧𐎺𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	Barishsha was responsible,
9	𐎠𐎺𐎠𐎧𐎺𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	they(!) received.
Rev. 10	𐎠𐎺𐎠𐎧𐎺𐎠𐎧𐎺𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	Wine (serves) for the equivalent (of the money).
11	𐎠𐎺𐎠𐎧𐎺𐎠𐎧𐎺𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	Months: from Baga-
12	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	yadi through
13	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	Viyaxna—a total
14	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	of 6 months
15	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	of the 3rd year.
16	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	1 man, a third
Edge 17	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	(of) a shekel (per month!) was to receive.

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A memorandum-type tablet which states that the sum of two shekels of silver from the Persepolis Treasury has been given to a foreman, apparently an ornament maker, who had come from Susa to Persepolis and for whom Barishsha was responsible. Wine serves as a substitute for a cash payment, and the rate—a third of a shekel (per month)—is extraordinarily low for a man whose apparent profession was so highly regarded among the Persians. The payment is for services rendered during the seventh to twelfth month (inclusive) of the third year (of Artaxerxes I).

## NOTES

Lines 3-4: *ha-te-na hu-ut-ti-ra*. In the lack of a similar Elamite word elsewhere (the context of *ha-te-en* in *Mém.*, IX, Nos. 96:27; 107:3, etc., seems to indicate that it is not the same word as that here), one naturally turns to the Iranian dialects for a proper interpretation, remembering that *raθuwiš-kara* was rendered as *ra-ti-u-ú-iš hu-ut-ti-ra*. Governing our procedure is the fact that Elamitic initial *ha* normally reproduces OP long or short *a*, and El. *te* usually renders OP *di*, *dai*, or *θa*.

Immediately we are provided with a most satisfactory interpretation in Pahlavi *ādvēn(ak)*, modern Persian *ādhān*, *āyān*, "decoration, ornament" (particularly that which is given to the gates and workshops of a city on festal occasions; cf. Horn, *Grundriss*, No. 61; Hübschmann, *Persische Studien*, No. 61; Nyberg, *Hilfsbuch*, II, "Glossar," p. 3). A compound of very similar meaning we have suggested for *be-a-ši-iš-kur-ra*, "ornament maker," in No. 30. The proposed OP compound would be *\*ādaina-kara*.

Line 6: This is the only occurrence of the name of the city Susa in the Treasury documents. Written *Šu-šá-an*, it appears frequently in Fortification texts in such contexts as were noted above on page 31.

The verb *ši-nu-* has already appeared as *ši-in-nu-* in §§ 13, 25, etc. of DB; see above, page 81.

Line 9: Since the tablet concerns payment to but one man the scribal error in writing *hu-pi-be* for *hu-pir-ri* (see Nos. 1:10 and 11:6) is obvious.

## PERSONNEL

*Ba-ir-iš-šá*, responsible for the workman: See No. 25.

## DATE

The tablet computes payment for services performed from Bagayadi (Tashritu) to Viyaxna (Addaru), inclusive, of the third year (of Artaxerxes I), or from October 16, 462, through April 10, 461 B.C.

## SEAL

Type 5; see tablets 34-35.

## 79

1	𐎠𐎺𐎠𐎧𐎺𐎠𐎧𐎺𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	402 karsha, 6 shekels,
2	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	and a half of a shekel,
3	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	silver, from the Treasury of Parsa,
4	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	𐎧𐎺𐎠𐎠𐎺𐎠𐎠	(which) the workmen, artisans (at)Vispazana

("[The Gateway of] All Races")

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	5	<sup>1</sup> ša <sup>1</sup> -na [ap-pa <sup>1</sup> i-ia-an.uk-ku	which (leads) to the columned hall,
	6	[ <sup>2</sup> ba-ir-iš-ša?] šá-ra-ma <sup>1</sup> ba-ir-ša	(workmen for whom) Barishsha(?) is responsible at Parsa,
Edge	7	[ <sup>2</sup> hu-pi-be] GEŠTIN <sup>idg</sup> šá-gi.ma	they—wine (serves) as its equivalent—
	8	[du-ma]-iš 2 ši-iš-maš	are receiving. (It is) 2 thirds
Rev.	9	[gal.na DINGIRI <sup>1</sup> ]TU <sup>idg</sup> ba-gi-ia-ti-iš.	of the wage (for the period) from the month of Bagayadi
	10	[mar] ku-iš DINGIR <sup>1</sup> mi-kán-na me-šá.na	through the later (intercalated) Viyaxna
	11	<sup>1</sup> be-ul <sup>1</sup> 5 <sup>1</sup> -um-me.na	of the 5th year.
	12	7 ME 88 RU <sup>idg</sup> un-ra 2 ši-iš-maš	788 men, each, 2 thirds (of a shekel are to receive).
	13	85 <sup>2</sup> KI.MIN KI.MIN pír-nu-šu pan-su-kaš	85 ditto, ditto, a half (of) a shekel.
	14	2 ME 71 <sup>2</sup> KI.MIN KI.MIN ši-iš-maš	271 ditto, ditto, a third.
	15	hi ap-pa 6 DINGIRITU <sup>idg</sup> na du-man-ba	This is what they are to receive for 6 months.
	16	4 <sup>2</sup> RU <sup>idg</sup> un-ra 2 ši-iš-maš	4 men, each, 2 thirds.
	17	1 <sup>2</sup> KI.MIN ši-iš-maš	1 ditto, a third.
	18	hi ap-pa 4 DINGIRITU <sup>idg</sup> na du-iš-da	This is what they received for 4 months.

## CONTENTS

A memorandum-type document which states that the sum of 402 karsha, 6½ shekels of silver from the Treasury of Persepolis has been paid to upwards of 1,100 artisans who were employed perhaps on a gateway leading to the "Hundred-Column Hall" and for whom an official was responsible at Persepolis. Wine served as the equivalent of the money, which is but two-thirds of the total wage for a period of time which the scribe first says is from the seventh through the intercalated twelfth month (a total of seven months) of the fifth year (of Artaxerxes I), but which he computes as being but six months. A supplementary provision details payment to another group of individuals for a period of four months.

Either the scribe's calculations are inadequate or my copy is incorrect; the text seems to show the following calculations:

INDIVIDUALS	EACH RECEIVES SHEKELS	TOTAL	
		KARSHA	SHEKELS
788 men	$\frac{2}{3}$	52	6
85 "	$\frac{1}{2}$	4	2;30
271 "	$\frac{1}{3}$	9	0;20
		Total 65	8;50 × 6 months
		395	3 2;40 0;20
4 "	$\frac{2}{3}$		
1 man	$\frac{1}{3}$		
		Total	3 × 4 months
		1	2
Grand total 1,149		396	5

Computation by the figures as read thus shows that the scribe's totals are in excess of ours by 6 karsha, 1½ shekels.

## NOTES

Line 4: The "personal wedges" are lacking before *kur-taš*.

Lines 4–5: *mi-iš-ba-ša-na*. Visible at the beginning of line 5 are the tops of two verticals. The word is clearly OP *vispa-zana*, "all races, tribes," just as it appears, for example, in the OP text DNα:10 f. and in the Elamite text DPα:3.

Unfortunately we are not told exactly what is called "All Races." Certainly we are not to believe that an Elamite scribe would go to the trouble to borrow an OP word to say that the artisans themselves came from various races or tribes. The borrowed word surely refers to a building, or is itself the name of a building. Immediately we are reminded that we have apparently discovered in these texts the name of one Persepolis gateway, *Vispa-šiyāti*, "(Gateway of) All Prosperity," and we already knew the name of another, *Vis(p)a-dahyu*,

“(Gateway of) All Lands.” The name of a third gateway may well have been *Vispa-zana*, “(Gateway of) All Races.”

If I understand the following words correctly, however, this presumed gate is not one leading to the Persepolis Terrace; it is rather a gate “to an *i-ia-an*,” and the latter word we have thought might be translated “columned hall” (see No. 3a). Out of the wealth of such columned structures at Persepolis we might be unable to select the one here referred to, were it not for the following facts:

1. We note that an *i-ia-an* is under construction in text No. 77, which is dated to the first months of the very first year of Artaxerxes I; we are justified in assuming that this structure had been begun by Xerxes.

2. From Artaxerxes’ own inscription (Herzfeld, *ApI*, pp. 45 f.) we know that the “Hundred-Column Hall,” begun by Xerxes, was completed by him.

In the light of these facts, Dr. Schmidt tentatively suggested to me that if *Vispa-zana* is indeed the name of a gate, it may have been the name of the “Unfinished Gate” north of the “Hundred-Column Hall” (cf. Schmidt, *op. cit.*, p. 2; the structure will be fully described in Schmidt’s final publication on Persepolis).

Previous interpretations of this passage which are here discarded, but which may still be correct (at least in part) are:

1. That what the scribe meant to say was, “(money which) the workmen, artisans *who* (are working) on the columned hall (the name of which is) *Vispazana* (have received).” This interpretation seems unlikely because of the position of the relative *ap-pa*.

2. That the full title of the main gateway to the Terrace was not merely *Vis(p)a-dahyu*, “(Gateway of) All Lands,” but *Vis(p)a-dahyu Vispa-zana*, “(Gateway of) All Lands (Possessing) All Races.” We note that the official titulature of the kings involves the phrase *xšāyahiya dahyunām vispazanānām* (or *paruzanānām*), “King of the lands of all (or of many) races.” It is unlikely, however, that Xerxes, to whom we owe the information about the name of the gate, would give to it (in an official inscription) an abbreviated title.

Line 10: There is space for one sign only; note the intercalated month.

Line 11: The numeral is written over an erasure but is certain.

Lines 12–18: Erasures in these and other lines (e.g., ll. 5 and 11) made reading a difficult matter, and my reading of the numerals in lines 12–18 may—at least in part—be incorrect, for the total of the calculations does not check with that given by the scribe in lines 1–2. It is certain, however, that he himself has blundered. In lines 9–10 he declares that the work period is from Bagayadi to the later Viyaxna; this is seven months, but he says it is six (l. 15). If we accept seven as the correct number of months we exceed his total by an impossible figure. The further calculations in lines 16–18 appear to have been an afterthought.

#### PERSONNEL

*Ba-ir-iš-šá* has been restored in line 6 (as the responsible party) simply because of the appearance of this name in No. 78; perhaps we should restore *Ū-ra-tin-da* (see No. 77, etc.).

#### DATE

As noted above, the scribe declares that the work period was from Bagayadi (Tashritu) through the later or intercalated Viyaxna (Addaru), inclusive, or a total of seven months of the fifth year (of Artaxerxes I)—i.e., from September 24, 460, through April 18, 459 B.C. He himself adds, however, that this period comprises but six months, and his computations appear to be based on that figure.

#### SEAL

Type 5; see tablets 34–35.

#### 80 (Pl. XLIII)

1	<i>45 kur-š[á-um x]</i>	45 karsha, <i>x</i>
2	<i>pan-su-kaš</i> K[Ū.BABBAR <sup>id*</sup> <i>ka</i> ]-	shekels, silver,
3	<i>ap-nu-iš-ki</i> ᵐ <i>b[a-ir-š]á</i> .	from the Treasury of Parsa
4	<i>na.ma.mar</i> ᵐ <i>kur-taš</i> ᵐ	(which) the workmen
5	<i>ka<sub>4</sub>-<sup>l</sup>pir(?)<sup>-</sup>ap(?)<sup>-</sup>iš-be</i> ᵐ	of Kapiro(?)
6	<i>ba-ir-šá</i> ᵐ <i>ú-ra-</i>	(at) Parsa, (for whom) Ura-

## TRANSLITERATIONS AND TRANSLATIONS

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Edge 7	<i>tin-da šá-ra-man-na</i>	tinda is responsible,
8	<i>ḥu-pi-be du-<sup>iš</sup></i>	have received.
9	<i>GEŠTIN<sup>idg</sup> šá-ag-gi.[ma]</i>	Wine (serves) as the equivalent
Rev. 10	<i>2 (erasure) <sup>iš</sup>šá-iš-m[aš.na DINGIR]</i>	of 2 thirds (of the wage for the)
11	<i><sup>ITU</sup>ḥa<sup>1</sup>-du-k[án-nu-ia]</i>	months Adukanaisha,
12	<i>DINGIR<sup>i</sup>tu<sup>1</sup>-ru-ma-r[áš DINGIR]</i>	Thuravahara, (and)
13	<i>sa-<sup>a</sup>l-kur-r[<sup>i</sup>š-i-<sup>iš</sup>]</i>	Thaigarci
14	<i>ḥ-be-u[l . . . .]</i>	of the . . . . year.
15	<i>6 [ḫRUḪ<sup>idg</sup> un-ra . . . .]</i>	6 men, each . . . .
16	<i>2 ME 10 [8(?)] [ḫKI.MIN KI.MIN . . . .]</i>	218(?) ditto, ditto, . . . .
Edge 17	<i>2 [ḫ<sup>1</sup>] [KI.MIN KI.MIN . . . .]</i>	2 ditto, ditto . . . .

## CONTENTS

A memorandum-type document according to which upwards of forty-five karsha of silver from the Persepolis Treasury are paid to at least 226 workmen apparently from the place Kapirap who at Persepolis are under the supervision of Uratinda. Wine replaces cash for two-thirds of the payment, which is for services performed in the first three months of an indeterminable year but which may well have been the twentieth year (of Xerxes). The calculations cannot be checked owing to the damaged condition of the figures given.

## NOTES

Line 5: On the place name compare No. 53.

## PERSONNEL

*Ū-ra-tin-da*, who is responsible for the workmen: See No. 3.

## DATE

Payment is for services performed in the first three months of an unknown year; it is possible that the year date was 20, first because the text is similar to No. 62, which records payment for services in the first three months of the twentieth year, and second because we seem to have workmen from the place Kapirap in No. 53, which is dated to the second month of that year.

## SEAL

Type 5; see tablets 34–35.

## 81 (Pl. XLIV)

1	<i>70 si-ri ni-iš<sup>idg</sup>.na</i>
2	<i>8 ti-ka<sub>4</sub>(ut?) KI.MIN.na</i>
3	<i>12 EL KI.MIN.na</i>
4	<i>22 š-i-ip.ša.an KI.MIN.na</i>
5	<i>87 mar-sa-iš-kaš KI.MIN.na</i>
6	(blank)
7	<i>PAB ḫ2(!) ME 1 IGI ka<sub>4</sub> ni-iš</i>
8	<i>iš (erasure) bat-ti-ma(?) -nu(?) -iš</i>
9	<i>(erasure) ru-ka<sub>4</sub>-man-ra</i>

## NOTES

There is hardly a single satisfactory answer to the many puzzling features in this text, which not improbably is a listing of the number of individuals from various places.

Line 1: *Ni-iš*, determined by the MEŠ sign, appears to be an “ideogram”; perhaps it is Akk. *nīšu*, “people.” Apparently we are to understand it where we find KI.MIN in each of the four following lines. In line 7, however, where *ni-iš* seems to be repeated, MEŠ is lacking.

Line 2: The old perplexing problem—how clearly to distinguish between *ka<sub>4</sub>*, *ut*, and *is* (GIŠ)—is here present.

Line 3: See above, page 80; we do not yet know the real value of the sign following the numeral.

Line 4: *Ši-ip*, when preceded by GIŠ, we know as “gate”; here there is no way of determining whether *š-i-ip.ša.an* is one word or more than one. Should we interpret as “Gateway (*šip*) of Race(s)” (OP *zana*)?

Line 5: For the place name *Mar-sa-iš-kaš* see No. 5, Notes; elsewhere, however, it is preceded by the (proper) determinative  $\text{𐎶}$ ; here that determinative is lacking.

Line 7: After PAB, "total," there are (for a reason unknown to me) the "personal wedges" which normally precede a personal name.

The total given by the scribe seems to be 201; his figures actually add up to 199; is it possible, therefore, that what seems to be 2 ME 1 IGI means "200 less one," perhaps 200 LÁL 1, written 2 ME 1 LÁL? I am convinced, however, that the fourth sign of this group is IGI (*ši*), not LÁL or LÁL-1. The significance of *ka*<sub>4</sub> following IGI is lost to me.

Line 8: For the repeated *iš* at the beginning of the line we expect MEŠ, as in line 1. For the OP phrase which seems to lie behind *ba(t)-ti-ma-nu-iš* see No. 47, Notes. Are the "people" here referred to "attached to the (royal) estate"?

Line 9: *Ru-ka<sub>4</sub>-man-ra* is a verbal form; its meaning is unknown (cf. *ru-ku-up* in the New Elamite inscription of Shutruru, *Mém.*, V, pp. 69 ff., Pl. 12 [No. 86], rev., l. 9).

## 82 (Pl. XLIV)

1	9 ŠE.BAR(!) <sup>idz</sup> KÙ.BABBAR <sup>idz</sup> .na(!) ka <sub>4</sub> (sic)-	9 "grains" of silver
2	du-uk-ka <sub>4</sub> .ak	(belonging) to Kadukka
3	máš-ši-ka <sub>4</sub>	which have been withdrawn.

## NOTES

Lines 1-2: Note the use of ŠE.BAR with GUŠKIN as cited in Deimel, *ŠL*, No. 367:62.

The name *Ka<sub>4</sub>-du-uk-ka<sub>4</sub>* is known from several Fortification tablets. Presumably *.ak* is the postposition found also in *.ik-ka<sub>4</sub>.mar*, *.ak-ka<sub>4</sub>.mar*, *.ak.mar*, etc.

Line 3: For the verb *máš-ši-* see No. 27:15 (Notes).

The seal impression is type 42, a unique specimen with an illegible cuneiform inscription.

## 83 (Pl. XLIV)

1	6 ME kur-šá-am	600 karsha,
2	KÙ.GI(!) <sup>idz</sup> gi-ti-	refined(?) gold,
3	ka <sub>4</sub> ap-pa da-ak	which had been deposited
4	tuk-kaš.na kur-mtn	in(?) the Dukkash, by the hand
5	𐎶 mi-mi(!)-iš.na	of Mimish
6	𐎶 ma-še-ši-iš(!)	from Uvādaicaya
7	hu(!).mar 𐎶 tuk-ráš	(to) Tukrash
Edge 8	ku-ut-ka <sub>4</sub> i-	has been brought
9	ia-an.na	to the columned hall.

## NOTES

The transliteration and translation here adopted after much hesitation rule out a tempting interpretation which is still inherently plausible; according to it we should read: <sup>1</sup>600 *kur-šá-am* <sup>2</sup>KÙ.GI<sup>idz</sup> *gi-ti* <sup>3</sup><𐎶> *ka<sub>4</sub>-ap-pa-da-ak-tuk-kaš.na*, etc., and translate: "1600 karsha, 2gold, income(?) 3of Cappadocia," etc. The name Cappadocia appears in Elamite versions of the royal inscriptions as *Ka<sub>4</sub>-a/ut-ba-du-ka<sub>4</sub>/kaš*, but the above would be perhaps the earliest occurrence of that form of the name which is seen in Greek *καππαδοκία*; the writing *da-ak-tuk* could be an attempt to render the *o*-vowel, as Dr. Gelb (who has found the same phenomenon in Akkadian texts) suggested to me.

Tempting as is this interpretation, it has been discarded for many reasons, not least because there can have been no room for a horizontal wedge preceding the first sign of the "name."

Line 2: Although the GI of KÙ.GI (i.e., GUŠKIN) lacks a second vertical wedge such as is present in the *gi* sign in this same line, our signs cannot be read ZA.AM<sup>idz</sup> in view of the *am* sign in line 1; hence "gold," for which the Elamite word was *la-dš-du*, must have been intended.

Neither *gi-ti* nor *gi-ti-ka<sub>4</sub>* is known from other texts, and we can scarcely compare *gi-ut* which appears, for example, in DN<sub>a</sub>, § 4. The suggested meaning "refined" is no more than a guess.



Line 3: For a verb *da-* meaning "(to) place" see No. 25.

Line 4: With *tuk-kaš* compare Nos. 76:5 (»*ra-ša-be du-uk-kaš*) and 68:5 (»*ra-ša-be » du-ka<sub>4</sub>-be*).

Line 6: In DB, § 43, the place name Uvādaicaya is rendered in Elamite as *Ma-te-ši-iš*; so written (also as *Ma-te-iš-ši-iš* and *Ma-te-iš-ša*) it reappears in several Fortification tablets. When we note that variant writings of the place name equated with modern Shiraz include both *Ši-ra-iš-ši-iš* and *Ti-ra-iš-ši-iš* (see No. 42), it becomes obvious that our *Ma-še-ši-iš* is to be equated with *Ma-te-ši-iš* and hence with Uvādaicaya.

Line 7: The apparently meaningless *hu* beginning the line is not a scribal error; Fort. 7112:6 f. reads as follows: »*ma-te-ši-iš.hu.mar » šu-ša-an sa-ak*, "From Uvādaicaya he went to Susa."

*Tuk-ráš* must be the correct reading in view of a place name in Fortification tablets which is written *Ti-ik-ráš* and *Ti-ik-rák-kaš*; the latter appears in Fort. 15, an accounting of sheep and oil withdrawn from the Persepolis *ambar* or storehouse; *Ti-ik-ráš* appears in Fort. 11473, an accounting of grain paid out in that city.

A land named *Tukriš* is known from the days of Sargon of Akkad; cf. Cameron, *History of Early Iran*, p. 29.  
Line 8: *Ku-ut-ka<sub>4</sub>* seems to be a variant writing of *ku-ti-ka<sub>4</sub>*.

## PERSONNEL

*Mi-mi-iš*, by whose hand the gold was brought: The name does not appear elsewhere. The second sign resembles ANŠU perhaps more than it does *mi*.

## DATE

Unknown.

## SEAL

Type 15 (unique). Traces of a two-line (or longer) cuneiform inscription remain, and the one visible sign (*sa*) seems to be made in the Elamite fashion.

## 84 (Pl. XLIV)

Obv. Beginning lines broken away.

	1	[. . . . .]
	2	[. . . » <i>da</i> ]- <i>sa</i> - <sup>1</sup> <i>bat-ti-iš</i> <sup>1</sup>
	3	[. . . » <i>t</i> ] <i>aš-šu-íp</i>
	4	[. . . ]- <i>ba</i> (?)- <i>ra-ka<sub>4</sub></i> (?)- <i>tuk</i>
	5	[. . . - <i>a</i> ] <i>s-du</i> (?)- <i>ka<sub>4</sub>-da.na</i>
	6	[. . . »] <i>da-sa-bat-ti-iš</i>
	7	[. . . ] » <i>taš-šu-íp</i>
	8	[. . . ] » <i>ru-sik-ka<sub>4</sub></i>
	9	[. . . ] » <sup>1</sup> <i>ú</i> - <sup>1</sup> <i>ma-ba</i> (?)- <i>ma</i> (?) <sup>1</sup>
	10	[. . . ] » <i>taš-šu-íp</i>
	11	[. . . <i>m</i> ] <i>i-ir-šu-ka<sub>4</sub></i>
End	12	[. . . ]- <i>ba-ka<sub>4</sub></i>
	13	[. . . » <i>t</i> ] <i>aš-šu-íp</i>
Rev.	14	[. . . <i>i</i> ] <i>r-da-še-da</i>
	15	[. . . »] <i>taš-šu-íp</i>
	16	[. . . ]- <i>ia-u-da-mi-ra</i>
	17	[. . . ] » <i>taš</i> (!)- <i>šu-íp</i>
	18	[. . . s] <i>AG</i> (?) » <i>mar-tuk-ka<sub>4</sub>.na</i>
	19	[. . . s] <i>AG</i> (?) » <i>taš-šu-íp</i>
	20	[. . . ]- <i>taš</i> » <i>mi-da-da</i>
	21	[. . . ] » <i>ir-man-nu-na</i> (erasure?)
	22	[. . . ] » <i>taš-šu-íp</i> (erasure)
	23	[. . . ]- <i>ia</i> -[. . . ]

## NOTES

The problems raised by this fragmentary text are many. Perhaps it is a list of names of individuals belonging to the army (*taš-šu-íp*), with their respective ranks (note the OP loan word *dasapati*). No seal impression was preserved on the extant portion of the document.

## 85 (Pl. XLV)

## THE AKKADIAN TEXT FROM THE TREASURY

As noted above, this closely written document is the only one so far discovered in the Persepolis Treasury which is written in Akkadian cuneiform.<sup>15</sup> It is a record of the revaluation of silver (monies) submitted as taxes by at least four individuals in the nineteenth and twentieth years of Darius, and appears to be dated on the twenty-fifth day of Kislimu of the twentieth year, or on December 30, 502 B.C.

Frequent erasures and lines inserted apparently as an afterthought make reading all the more hazardous and indicate a certain amount of carelessness on the part of the scribe, who also committed certain "errors" of calculation: three times he disregarded the fraction  $\frac{1}{4}$ , once he approximated the fraction  $\frac{1}{5}$  by  $\frac{1}{4}$ , and once  $7\frac{3}{4}$  shekels is written for  $7\frac{1}{2}$ . All except the last, however, are small errors, if they are errors at all and not mere approximations.

There is good reason to believe that this document did not originate at Persepolis or in the Parsa Treasury. The fact that it is inscribed in Akkadian and not in Elamite cuneiform would, of course, be insufficient evidence, but when this is considered together with other factors involving findspot, shape, and details of subject matter, it becomes almost decisive proof for that conclusion.

It is dated in the twentieth year of Darius and is therefore contemporary with many of the Elamite texts found not in the Treasury but in the Fortifications, in which were stored all other "economic" tablets written at Persepolis between the twelfth and the twenty-eighth years of Darius. Only by Darius' thirtieth year had the Treasury building been prepared for the reception of official documents;<sup>16</sup> thus, if this tablet had been written at Persepolis in the twentieth year it would surely have been stored not in the (incompleted) Treasury but in the Fortifications.

In shape it is like no other Persepolis tablet

from either the Fortifications or the Treasury. It has the familiar "pillow" form reminiscent of documents from Babylonia in the Neo-Babylonian, Persian, and Seleucid or Hellenistic periods. This point also is indecisive, for an Akkadian scribe at Persepolis would naturally fashion his tablet in the shape to which he was accustomed elsewhere, but it is not without significance that there is no other evidence for the presence of Akkadian scribes at the site save the existence of the Akkadian versions of the trilingual monumental inscriptions.

The only private individuals whose names in the body of the text are legible are the woman "Indukka, mother of Tutu, chief of merchants," and "Pattemidu, the Mede, son of the shepherd." These names tell us little, for they do not reappear in any of our other inscriptions. Nearly all local documents, however, from whatever findspot, insist rather forcefully that the payments were ordered or that the documents were written "at Parsa," or that the funds came from the "Parsa Treasury" or were paid to "Treasury workmen." Not only is there no corresponding statement in this inscription, but there is upon the tablet no seal impression—the characteristic distinguishing mark of all Treasury documents.

In the light of these facts this document must have originated elsewhere. The presence of the name of the "Mede" Pattemidu is hardly sufficient in itself to infer that it was written at some Median site such as Ecbatana, although that is a possibility.<sup>17</sup> More probably, however, it was written in Babylonia, for the language and technical terminology employed are very similar to those on a number of tablet inscriptions from that area.<sup>18</sup> In any event the inscription should not be used to deduce facts regarding the monetary economy at Persepolis in the twentieth year of Darius.

The general import of the inscription has al-

<sup>15</sup> See pp. 4-5.

<sup>16</sup> See tablet No. 1a.

<sup>17</sup> Note that Strassmaier, *Inschriften von Cyrus . . .* (Leipzig, 1890), No. 60, dated in the second year of Cyrus, originated in Ecbatana (Agamatanu), although the obligation there recorded was payable in Babylon.

<sup>18</sup> For example: *VS*, IV (1907), Nos. 123-24 (Darius, year 9); *TCL*, XIII (1929), Nos. 197-98 (Darius, years 26 and 27); *VS*, VI (1908), No. 299 (undated; cf. San Nicolò and Ungnad, *Neubabylonische Rechts- und Verwaltungsurkunden*, p. 684 and "Glossar," p. 41). For some of the terminology compare Landsberger, *ZA*, XXXIX (1930), 283 ff.

## TRANSLITERATIONS AND TRANSLATIONS

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ready been touched on. Evaluation of the taxes is based on refining<sup>19</sup> ten shekels—that is, a Persian karsha—and computing the depreciation first on them and then on the whole amount sub-

mitted. The three grades of “silver”<sup>20</sup> receive varying degrees of depreciation ranging from 0.416 per cent to 10 per cent.<sup>21</sup>

The text may be outlined briefly as follows:

- I. Day 25, month Kislimu, year 20, Darius the King. Remnant of payment of the woman Indukka, mother of Tutu, chief of merchants.
  1. 14½ minas white silver submitted, evaluated at 14 minas, 18 shekels.
  2. 9 minas, 53 shekels, second-grade silver = 9½ minas, ¾ shekel.
  3. 5 minas, 3 shekels, third-grade silver = 4½ minas, 3 shekels.
- II. Silver, tax of . . . the third grouping . . . .
  1. *x* minas white silver = 6½ minas, 3+ shekels . . . .
- III. Silver, tax of Pattedmidu the Mede, son of the shepherd.
  1. 8 minas white silver submitted, evaluated at 7½ minas, 6 shekels, from year 19 and year 20.
  2. 25 minas, 55 shekels, second-grade silver = 24 minas, 15¾ shekels.
  3. 8 minas, 55 shekels, third-grade silver = 8½ minas, 1¾ shekels.
 Second grouping . . . .
- IV(?).
  1. 2½ minas white silver = 2½ minas, 9¼ shekels.
  2. 6 minas, 50 shekels, second-grade silver = 6½ minas, 9¾ shekels.
- V. Silver, tax of [X,] shepherd.
  1. 2½ minas second-grade silver = 2 minas, 22¼ shekels.
  2. 7 minas, 18(?) shekels, third-grade silver = 6 minas, 52¼ shekels.

## TRANSLITERATION

## OBSERVE

- 1 U<sub>4</sub>-25-KÁM šá<sup>arbu</sup>kislīmu MU-20-KÁM ma-da-a-ri-ia-muš šarri kaspu ri-ḫi šá
  - 2 (erasure) . . . . šá<sup>in</sup>-duk-ka
  - 3 ummu šá<sup>mtu-ú-tu</sup> amēl-rab DAM.QAR<sup>P1</sup> [kaspu(?) šá(?)<sup>1</sup> 14 5/6 MA.NA kaspu pešū<sup>á</sup>
  - 4 ina lib-bi 10 šiglu ki-i pat-qu ribūtu<sup>á</sup> maṭī(LAL<sup>ti</sup>) PAB [9<sup>1</sup> šiglu 3 ri-bat i-te-la-<sup>o</sup>
  - 5 PAB 1/2(!) 2 (erasure) šiglu maṭī(LAL<sup>ti</sup>) ù ri-ḫi 14 MA.NA 18 šiglu kaspu

---

  - 6 kas[pu] (erasure?) šanū<sup>á</sup> 9 MA.NA 53 šiglu kaspu qut-tin-nu ina lib-bi 10 šiglu pat-qa (right edge) ribūtu<sup>á</sup>  
pit-qa maṭī(LAL<sup>ti</sup>)
  - 7 PAB [1/3(!) 2<sup>1</sup> šiglu ribūtu<sup>á</sup> maṭī(LAL<sup>ti</sup>) (erasure) . . . .
  - 8 ri-ḫi 9 1/2 MA.NA [3 ri<sup>1</sup>-bat šiglu kaspu pešū<sup>á</sup>

---

  - 9 ù kaspu šalšū<sup>á</sup> 5 MA.NA [3<sup>1</sup> šiglu ina lib-bi 10 šiglu ki-i pat-qu
  - 10 1 šiglu maṭī(LAL<sup>ti</sup>) PAB 9 šiglu PAB [1/2 MA.]NA ribūtu<sup>á</sup> gír-ú maṭī(LAL<sup>ti</sup>) PAB 4 1/2 MA.NA 3 šiglu kaspu(!)  
pe[šū<sup>á</sup>]

---

  - 11 kaspu man-da-at(!)-tú šá x-[x-x] šá(?)
- Lower edge
- 12 bābu šalšū<sup>á</sup> kaspu pešū<sup>á</sup>(?) [. . . šiglu kaspu
  - 13 ina lib-bi 10 šiglu ki-i pat-qa [. . . ] maṭī(LAL<sup>ti</sup>) ri-ḫi
  - 14 6 MA.NA 1/3 3 šiglu pit-q[u(?) . . . ]
- Illegible scribal computations

<sup>19</sup> The verb is *patāqu*; for the meaning “to refine” cf. A. L. Oppenheim, *JNES*, V (1946), 278. In this connection it can scarcely mean anything else than “(to) refine”—but note that a ten-shekel piece was common currency.

<sup>20</sup> “White silver,” *kaspu pišū* (cf. Landsberger, *op. cit.*, p. 284); “second-grade silver,” *kaspu quttinnu* or *kaspu šanū*; “third-grade silver,” *kaspu šalšū*.

<sup>21</sup> See above, p. 4. In the Elephantine papyri sums of money are generally reckoned (as in Assyria) by royal weight (“by the stone of the king”) and are further defined as “two R to the karsha”—i.e., an alloy of two quarters (a half-shekel) in ten shekels, or 5 per cent. Cf. Cowley, *op. cit.*, p. xxxi.

## REVERSE

- 1 *kaspu man-da-at-tu<sub>4</sub> šá<sup>m</sup>pa-at-te(?) -mi-du<sup>amēl</sup>ma-da-a-a<sup>amēl</sup>mār ri-<sup>o</sup>-a<sup>l</sup>(?)*  
 2 8 MA.NA *kaspu pešū<sup>á</sup> ina lib-bi 10 šiglu ki-i pat-qu 1/2 šiglu maṭī(LAL<sup>ti</sup>)*  
 3 PAB 9 1/2 šiglu [lu PA]B 1/3 4 šiglu u ri-<sup>h</sup>i<sup>l</sup> 7 1/2 MA.NA 6 šiglu *kaspu*  
 4 (written on line) *x-[x-x] ištu(TA) MIN M[U-1]9-KÁM u MU-20-KÁM*
- 
- 5 26 MA.N[A LAL] 5 šiglu *kas]pu qut-tin-nu ina lib-bi 10 šiglu ki-i pat-qu*  
 6 1/2 šiglu *'pit-qa' maṭī(LAL<sup>ti</sup>) PAB 9 šiglu ribūtu<sup>tá</sup> pit-qa maṭī(LAL<sup>ti</sup>) PAB 1 1/2 MA.NA 9 šiglu gir-ú*  
 7 [ú ri-<sup>h</sup>i 24 MA.NA 15 1/2 šiglu ribūtu<sup>tá</sup> pit-qa gir-ú
- 
- 8 8 MA.NA 55 šiglu *kaspu šalšu<sup>tá</sup> ina lib-bi 10 šiglu ki-i pat-qu*  
 9 1/2 šiglu *pit-qa maṭī(LAL<sup>ti</sup>) PAB 9 šiglu ribūtu<sup>tá</sup> pit-qa PAB 1/2 MA.NA 3 šiglu ribūtu<sup>tá</sup> ri-<sup>h</sup>i*  
 10 8<sup>1</sup> MA.NA 1/3 1 šiglu 3 ri-bat *kaspu pešū<sup>á</sup>*  
 11 (written on line) *bābu šanū<sup>á</sup> [x-x-x-n]i-in*
- 
- 12 2 1/2 MA.NA *kaspu 'pešū<sup>á</sup> ina lib-bi 10 šiglu ki-i pat-qa gir-ú maṭī(LAL) PAB 9 šiglu 3 ri-bat pit-qa gir-ú*  
 13 PAB [2/3 1/4] gir-ú *maṭī(LAL) u ri-<sup>h</sup>i 2 MA.NA 1/3 9 šiglu gir-ú*  
 Illegible scribal computations  
 Lower edge  
 14 6 MA.NA 5]0 šiglu *kaspu qut-tin-nu ina lib-bi 10 šiglu ki-i pat-qa ribūtu<sup>tá</sup> maṭī(LAL) PAB 9 [šiglu 3 ri-bat*  
 15 PAB 10(!) šiglu *ribūtu<sup>tá</sup> maṭī(LAL<sup>ti</sup>) u ri-<sup>h</sup>i 6 1/2 MA.NA 9 šiglu 3 ri-bat<sup>l</sup>*  
 Partly legible scribal computations  
 Left end  
 16 *kaspu man-da-tú šá [x<sup>l</sup> amēl]ri-<sup>o</sup>-a 2 1/2 MA.NA kaspu*  
 17 (erasure) *qut-tin-nu 1/2 šiglu maṭī(LAL) PAB(!) 7 šiglu 3 ri-bat maṭī(LAL)*  
 18 7 MA.NA 18(?) šiglu *kaspu šalšu<sup>tá</sup> 1/2<sup>l</sup> šiglu gir-[ú]*  
 19 PAB<sup>l</sup> 1/3 5 1/2 šiglu *gir-ú maṭī(LAL)*

## TRANSLATION

## OBVERSE

- 1 Twenty-fifth day of the month Kislimu, year 20, Darius the King. Silver, remnant of  
 2 [part of line erased] of the woman Indukka,  
 3 mother of (the man) Tutu, chief of the merchants. [Sum?] 14½ minas (of) white silver—  
 4 therein on (each) 10-shekel (piece), when it was “refined,” a quarter (shekel) it was decreased; total (of each  
 10-shekel piece): 9 and 3-quarters shekels came out.  
 5 Total (the whole was) decreased: ½ (mina), 2 shekels. Thus (*lit.*: “and”) the remnant (is) 14 minas, 18  
 shekels, silver.
- 
- 6 Silver, second(-class). 9 minas, 53 shekels (of) second-class silver—therein on (each) 10-shekel (piece),  
 “refined,” a quarter (and) an eighth (of a shekel) it was decreased.  
 7 Total: (on the whole) ½ (mina), 2 shekels, (and) a quarter it was decreased [rest of line erased].<sup>22</sup>  
 8 Remnant (on the whole): 9½ minas, 3-quarters (of a) shekel, white silver.
- 
- 9 And third(-class) silver. 5 minas, 3 shekels—therein on (each) 10-shekel (piece) when “refined”  
 10 1 shekel it was decreased; total: 9 shekels. Total (of the whole): [½ m]ina, ¼ + ¼<sup>23</sup> (shekel) it was decreased.  
 Total (remnant): 4½ minas, 3 shekels, white silver.
- 
- 11 Silver, tax of [ . . . ] of  
 Lower edge  
 12 the third grouping. White(?) silver [ . . . ] shekels silver—  
 13 therein on (each) 10-shekel (piece), when “refined,” [ . . . ] it was lessened; remnant:  
 14 6½ minas, 3 shekels, an eighth, [ . . . ]  
 (On bottom edge: scribal computations.)

<sup>22</sup> The scribe appears to have inserted the whole total here on this line before giving the remnant from each ten-shekel piece (in the latter part of the line); when he observed what he had done, he erased the latter part of the line.

<sup>23</sup> The error is very slight (¼ stands for ⅛).

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## REVERSE

- 1 Silver, tax of Pattedidu, the Mede, son of the shepherd.
- 2 8 minas (of) white silver—therein on (each) 10-shekel (piece), when it was “refined” it was lessened (by)  $\frac{1}{2}$  shekel.
- 3 Total:  $9\frac{1}{2}$  shekels (left of each 10-shekel piece). Total (amount decreased on 8 minas):  $\frac{1}{2}$  (mina), 4 shekels. Thus (*lit.*: “and”) the remnant (is)  $7\frac{1}{2}$  minas, 6 shekels of silver.
- 4 (Paid?) from the same (“ditto”) (in) year 19 and year 20.
- 
- 5 26 mina[s less 5 she]kels<sup>24</sup> of second-grade silver. Therein on (each) 10-shekel (piece), when it was “refined”
- 6 it was lessened (by)  $\frac{1}{2}$  shekel (and) an eighth (=  $\frac{5}{8}$  shekel); total: 9 shekels +  $\frac{1}{4}$  +  $\frac{1}{8}$  (=  $9\frac{3}{8}$  shekels) it was lessened. Total (decreased on all):  $1\frac{1}{2}$  minas, 9 shekels +  $\frac{1}{4}$ .
- 7 And the remnant: 24 minas,  $15\frac{1}{2}$  shekels +  $\frac{1}{4}$  +  $\frac{1}{8}$  +  $\frac{1}{4}$ .<sup>25</sup>
- 
- 8 8 minas, 55 shekels of third(-grade) silver—therein on (each) 10-shekel (piece), when it was “refined”
- 9 it was lessened (by)  $\frac{1}{2}$  shekel (and) one-eighth (=  $\frac{5}{8}$  shekel); total: 9 shekels +  $\frac{1}{4}$  +  $\frac{1}{8}$  (=  $9\frac{3}{8}$  shekels). Total (decreased on all):  $\frac{1}{2}$  mina, 3 shekels +  $\frac{1}{4}$ . Remnant:
- 10 8 minas +  $\frac{1}{3}$ , 1 shekel, 3-quarters (= 8 minas,  $21\frac{3}{4}$  shekels), white silver.
- 11 (written on line) Second grouping [x-x-x-x-x]
- 
- 12  $2\frac{1}{2}$  minas white(?) silver—therein on (each) 10-shekel (piece), “refined,” it was decreased (by)  $\frac{1}{4}$  (shekel); total: 9 shekels, 3-quarters, one-eighth, one-twenty-fourth (=  $9\frac{3}{4}\frac{1}{24}$ ).<sup>26</sup>
- 13 Total:  $\frac{2}{3}$  +  $\frac{1}{4}$  +  $\frac{1}{24}$ <sup>27</sup> it has been decreased. And the remnant: 2 minas +  $\frac{1}{3}$ , 9 shekels +  $\frac{1}{4}$ . (On bottom of obverse: scribal computations, now illegible, made while figuring the above items.)
- Lower edge
- 14 6 minas, [5]0 shekels of second-grade silver—therein on (each) 10-shekel (piece), “refined,”  $\frac{1}{4}$  (shekel) it was decreased; total:  $9\frac{3}{4}$  shekels.
- 15 Total (on all): 10(!) shekels, one-quarter, it has been decreased. And the remnant:  $6\frac{1}{2}$  minas, 9 shekels, 3-quarters.
- (At bottom of edge: scribal computations made to aid his calculations. Clearly visible are the numbers 50, 8, 6, 3, and 4.)
- Left end
- 16 Silver, tax of . . . the shepherd.  $2\frac{1}{2}$  minas second-grade
- 17 silver—(therein, on each 10-shekel piece, when “refined,”)  $\frac{1}{2}$  shekel it was decreased. Total (on the whole): 7 shekels, 3-quarters,<sup>28</sup> it was decreased.
- 18 7 minas, 18(?)<sup>29</sup> shekels third(-grade) silver—(therein, on each 10-shekel piece, when “refined,”)  $\frac{1}{2}$  shekel (and)  $\frac{1}{4}$  (it was decreased).
- 19 Total (on the whole):  $\frac{1}{3}$  (mina),  $5\frac{1}{2}$  shekels +  $\frac{1}{4}$  it was lessened.

<sup>24</sup> The text shows “26 minas” clearly, but the totals in lines 6–7 add up to only 25 minas,  $54\frac{3}{4}$  shekels, which the scribe must have approximated by “25 minas, 55 shekels” (written “26 minas less 5 shekels”).

<sup>25</sup> The scribe has erred by  $\frac{1}{4}$  of a shekel.

<sup>26</sup> The scribe erred by  $\frac{1}{24}$  of a shekel.

<sup>27</sup> The totals here should be  $\frac{2}{3}\frac{1}{4}$ , but the restoration indicated does not agree with sign traces.

<sup>28</sup> This figure should be 7 shekels +  $\frac{1}{4}$ .

<sup>29</sup> This figure is incorrect—or, if correct, the totals in line 19 are either incorrect or misread. To secure the latter, line 18 should read upwards of 7 minas, 51 shekels.

## XII

## VOCABULARY OF ELAMITE WORDS

This vocabulary includes all Elamite words, personal names, geographic names, and many of the "ideograms" which appear in Treasury tablet inscriptions and in Fortification tablet inscriptions which were read by the writer and which are cited in this volume. References such as "1:3" or "15:30, Notes" are to the transliterations and notes of Treasury texts published in the latter part of this volume. Wherever possible or necessary, discussion of the word in question may be found under the first reference.

The order is that of the alphabet with this important exception: words containing the voiced consonants *b* and *d* have been treated as though they were written with signs containing the voiceless *p* and *t*.

The only abbreviations used are: fem., feminine; Fort., Fortification text; g. n., geographic name; n., note; No., number; OP, Old Persian; p., page; p. n., personal name; and var., variant.

*a-ak*, "and." *Passim*, e.g., 1:3, 11, 14, 15, 20; 9:3; 12:7, 8, 14.  
*ak-ka*, "who." 78:5. For the postfix *.ak-ka* see *ik-ka*.  
*ak-ka-be*, "(those) who." 4:16; 5:6 f.; 10a:5; 13:7; 15:8; 18:9; 21:6; 22:6, 7, 11; 27:8; 63:7; 68a:7; Fort. 6415:4 f.; 7096:4 f. (see 10a:5, Notes).  
*ak-ka-ia-še*, "helpers(?)." 3:x+2; 15:30; 18:27; 21:5; 22:24; 27:24 f.; 63:9; Fort. 3562:4 f. (see p. 13); 7097:4 f. (see No. 3, Notes).  
*Ak-ku-šu(?) -na*, p.n. 27:29.  
*am*, "now." 22:8; 77:4; Fort. 7096:14; 6415:12 (see p. 53, nn. 50-51).  
*Am-ma-ši-iš-na*, p.n., fem. 48:7 f.  
*Am-mu-uk-ka*, p.n. See *Ma-u-ka*.  
*am-ba-ráš*, "storehouse." OP (see p. 42). Fort. 15:1 (see 15:30, Notes).  
*am-ba-ra-bar-ra*, "storehouse keeper." Fort. 15:2, 14 (*ibid.*).  
*An-kur-rák-kaš*, g.n. 36:7. See also *Ha-an-kur-ra-ka*.  
*An-nu-gi-ru-iš*, p.n. 4:6.  
AN.BAR<sup>idg</sup>, "iron." 18:4; 23:3; 74:6.  
ANŠU.KUR.RA<sup>idg</sup>, "horse" (see sign list, No. 104, with note). 6:4; Fort. 6780:3 (p. 52, n. 43). See also p. 73, n. 23.

*an-da-kaš*, . . . 4:17 f.; 5:8.  
*ap*, "(to) them." See p. 48. *Passim*, e.g., 4:19; 6:9; 12:4; 13:9; 14:4.  
*ap-pa*, "which." 3:4; 3a:4; 9:4; 14:7; 21:7; 22:9; 27:9; 31:5; 48:6; 52:5; 53:5; 72:4; 77:4; 79:5; 83:3; Fort. 6415:7, 11, 13 f., and 7096:12, 15 (see p. 53, nn. 50-51, and 10a:5, Notes).  
*ap-pi*, 12a:x+1; 21:7; 22:9, 18; 27:10; 31:7.  
*ap-pi-ni*, 25:13; 33:9; 52:9; 53:9; 54:8; 60:8; 63:11 f.; 68:8; 68a:10; 75:11.  
*Ab-ba-ak-iš*, p.n., fem. 6:5; vars. *Ab-ba-uk-iš*, *Ab-ba-uk-ka-iš*.  
*ab(?) -ba-ir*, "animal(?)." 72:5.  
*Ab-bat-ra* (*Ab-be-ra?*), p.n. 4:4.  
*Ap-pi-iš-man-da*, p.n. 2:2; 9:2; 9a:2; 9b:2.  
*Ap-pi-ši-ia-ti-iš*, p.n. 6:6; 7:5 f.  
*ap-pu-ka*, "formerly." Fort. 6415:11; 7096:10 (see p. 53, nn. 50-51).  
*Ap-ti-iš*, p.n. 19:20.  
*a-ráš*, see *a-tuk*.  
*A-ša-ak-ka*, p.n. 4:7.  
*Áš-ba-ša-na*, p.n. 12:2 and Seal; 12a:2 and Seal; 14:2.  
*áš-du-maš*, "(one-)eighth." OP (see pp. 38 and 42). 15:19, 21, 25; 39:16, 20, 27.  
*At-te-ba-du-iš*, p.n. 31:19; 31a:x+2.  
*At-ti-ip*, "Hattians (Syrians)." 12:6; 15:5; 22:5.  
*a-tuk*, . . . See Notes to 4:17-18.  
*E-iš-ku-iš*, p.n. 75:7.  
*E-iš-šu-šu*, p.n. Fort. 5898:1 f. (see Notes to text 75).  
*e-ul*, . . . Fort. 11490:1 (see 19:6, Notes).  
*gal*, "wage(s), (wage) payment(s)." See p. 51. Vars. *gal-la*, *gal-li*, *gal-lu*, *ka-la*.  
(<sup>arš</sup>)GEŠTIN<sup>idg</sup>, "wine." See No. 49 of sign list (with notes), also p. 70. *Passim*, e.g., 1:11; 10a:7; 12:7, 9.  
GI-ma-ru-uk-kaš, g.n. See *Ka-a-ma-ru(-uk)-kaš*.  
<sup>arš</sup>GIŠ<sup>idg</sup>, "wood." See No. 33 of sign list. 1:6; 17:3; 20:3; 24:6; 25:7; 26:5; 32:4; 44:9; 74:5; 75:6.  
GIŠ.Ú.SA-nu-iš-ki-ip, "beer tenders." 38:8 f. See also *ki-iš-nu-iš-ki-ip* and KAŠ<sup>idg</sup>.  
*gi-ti-ka*, "refined(?)." 83:2 f.  
*gi-ul-li-ra*, "master." 8:7 f.  
*Ha-an-kur-ra-ka*, g.n. 52:6. Var. *An-kur-rák-kaš*.  
*Ha-ir-ba-mi-iš-šá*, p.n. Fort. 5904:3; see p. 65. Var. *Har-ba-mi-iš-šá*.  
*Ha-iš-ši-ia-ti-iš*, OP month name; see *Ha-ši-ia-ti-iš*.  
*hal-mi*, "seal, sealed document." See pp. 53 f. 3:x+3; 12:25; 14:20; 18:29; 21:19; 22:28; 27:29;

- 31:18; 33:18; 37:20; 38:20; 41:16; 42:24; 42a:x+5; 46:21; 47:15; 48:16; 54:18; 56:14; 57:14 f.; 58:12, 18; 59:15; 63:17; 68:15. Also in Fortification tablet inscriptions; see p. 31, nn. 33-36, and p. 53, nn. 50-51.
- ḥal-mar-ráš*, "fortress." 3:x+6; Fort. 1494:16 (see 3:x+6, Notes). See also p. 42. Var. *ḥal-mar-ri-iš*.
- ḥa-mi*, "there." 53:6.
- Ḥa-mi-ma*, OP month name; see *Sa-mi-ia-man-taš*.
- Ḥa-na-ma-kaš*, OP month name (see Table 4). 2:x+3; 12:11; 12b:10; 21:10 f.; 25:15; 29:15 f.; 38:10 f.; 38a (3 texts); 40:6; 43:10; 49b:x+1; 75:12. Var. *Ḥa-na-ma-ak-kaš*, 1:15; 20:11 f.; 39:6.
- ḥa-nu*, . . . 15:9; 22:10.
- ḤAR*<sup>ids</sup>, "stone." 9:5, 8; 24:5; 26:4; 73:5.
- ḥa-rák-ka<sub>4</sub>*, "is impressed(?)." Fort. 6415:14; 7096:15 f. (see p. 53, nn. 50-51).
- Ḥa-rad-ka<sub>4</sub>-ma*, p.n. Egyptian. 1:5.
- Ḥar-ka<sub>4</sub>-du-šū-iš*, g.n. 41:6.
- Ḥar-ba-mi-iš-šá*, p.n. See *Ḥa-ir-ba-mi-iš-šá*.
- ḥa-su(?) -ib-be*, . . . 55:6.
- Ḥa-ši-ia-ti-iš*, OP month name (see Table 4). 1:15; 12:10; 12b:9; 26:13; 28:12; 32:8 f.; 35:11 f.; 36:9 f.; 37:5 f. Vars. *Ḥa-ši-ia-ti*, 21:10; *Ḥa-iš-ši-ia-ti-iš*, 22:26 f.
- Ḥa-tàm-tup*, "Elam(ites)." Fort. 1637:9 (see p. 31, n. 36).
- ḥa-te-na*, "ornamentation." OP (see p. 42). 78:3.
- ḥa-tu*, "within" (a postfix). *Passim*, e.g., 1:17; 11:13; 12:12; 25:16.
- Ḥa-du-kán-nu-ia*, OP month name (see Table 4). 12a:x+2; 23:9f.; 24:12f.; 50:7f.; 51:10; 62:10f.; 77:10 f.; [80:11]. Var. *Ḥa-du-kán-na-iš*, 49:9 f.; 49a (3 texts).
- Ḥa-tur-ma-ak-šá*, "Fire-watcher." OP (see p. 7). Fort. 3126:4 f.
- ḥi*, "this." *Passim*, e.g., 12:25; 21:19; 37:20; note especially 4:16; 15:29; 18:26; 22:23; 27:23; 58:19 (contrast l. 13); 64:x+8; 79:15, 18.
- ḥi-ia-an*, "columned hall(?)." See *i-ia-an*.
- Ḥi-ia-ma-ši-ka<sub>4</sub>*, g.n.(?). 10a:7 f.; 27:15.
- Ḥi-pír-uk-ka<sub>4</sub>*, p.n. 1:21; 3:1x+4; 3a:x+7; 9:19. Var. *Ḥi-in-pír-uk-ka<sub>4</sub>*, Fort. 1016:21 f. (see No. 1, Personnel, and 9:19, Notes).
- ḥi-še*, "his name." 1:5; Fort. 6663:4 (see p. 7, n. 34); 3126:3 (see p. 7, n. 41); 10192:25 (see p. 10, n. 63).
- Ḥi-ti-iš*, p.n. 19:19 f.
- Ḥi-ut-ti-be-ul-la*, p.n. 3:x+5; 3a:x+3. Var. *Ḥi-ti-be-ul*, Fort. 1016:24 (see No. 3, Personnel, and 9:19, Notes).
- ḥu(mar)*, see *ik-ka<sub>4</sub>mar*.
- Ḥu-iš-ba-nu-iš*, p.n. Fort. 3562:3 (see p. 13).
- ḥu-be*, "that." 28:5; 29:6; Fort. 6415:12; 7096:13, 16 (see p. 53, nn. 50-51).
- ḥu-pi-be*, "those (individuals)." *Passim*, e.g., *ḥu-pi-be du-iš*: 23:5 f.; 24:9 f.; 26:7; *ḥu-pi-be du-ma-iš*: 34:7 f.; 43:7; 69:6 f.; *ḥu-pi-be . . . ap sù.sù-du*: 13:9 f.; 15:7 f.; 16:7 f.
- ḥu-pír-ri*, "that (one), him." 1:10; 11:6.
- ḥu-ut-lak*, "messenger." Fort. 6829:3; 7097:3 (see sign list, No. 71, note).
- ḥu-ut-ti-*, "(to) make, do."
- ḥu-ut-taš*, Fort. 8976:2 (see 15:30, Notes).
- ḥu-ut-taš-da*, 22:12; 27:15 f.
- ḥu-ud-da-iš-ni*, Fort. 6415:5 f.; 7096:5 f. (see 10a:5, Notes).
- ḥu-ut-ti-ip*, 9:[8]; 17:4 f.; 20:4 f.; 22:25; 24:5, 7; 25:9; 26:3 f.; 27:8; 73:4. Var. *ú-ut-ti-ip*, 36:6.
- ḥu-ut-ti-ra*, 11:4 (see also pp. 5-6), 78:4.
- ḥu-ut-tuk-ka<sub>4</sub>*, 15:9; Fort. 15:21 (see 15:30, Notes).
- Ia-áš-ud-da*, p.n. Fort. 3126:2 f. (see p. 7, n. 41).
- Ia-u-na-a*, p.n. (gentilic). 21:20 f.
- Ia-u-na-ip*, "Ionians." 15:6.
- . . . *-ia-u-da-mi-ra*, p.n. 84:16. Cf. *Mi-ra-u-da*.
- i-ia-an*, "columned hall." 3a:x+4; 9:9; 15:9; 18:10; 22:10; 48a:x+1 f.; 77:4 f.; 79:5; 83:8 f. Var. *ḥi-ia-an*: 12:6; 13:8.
- ik-ka<sub>4</sub>* (postfix), "to." 28:5; 29:6.
- ik-ka<sub>4</sub>mar*, 1:22 f.; 3:1x+5 f.1; 3a:x+8; 12:26; 12a:x+7; 15:28 f.; 18:25; 19:21; 21:21; 22:13; 43:10; 78:12.
- ik-ki*, 20:11.
- ik-ki.mar*, 11:11; 37:21; 42:25; 47:16 f.; 59:16 f.; 62:11; 73:10; 74:11.
- ik.mar*, 14:23; 22:29; 25:14; 28:26; 31:20; 31a:x+3; 38:21; 41:18; 75:13.
- ak-ka<sub>4</sub>mar*, 54:19 f.; 56:16; 57:16; 58:16; 68:17 f.
- ku.mar*, 42a:x+6.
- ḥu.mar*, 83:7.
- in* ("dative" postfix). 15:8; 49:8; 68:6; 68a:8.
- In-da-pi-ša*, p.n. 28:24 f.; 29:127.
- in-ni*, "not" (negative). Fort. 15:21 (see 15:30, Notes).
- ir-ip*, see *ir-pi*.
- Ir-iš-ti-man-ka<sub>4</sub>*, p.n. See p. 66, n. 31.
- ir-ma-ki* (indicating a fraction). See pp. 38 f. Vars. *ir-ma-ka<sub>4</sub>*, *ir-ma-ak*, *ir-mat-ki*, *kur-ma-ki*.
- Ir-man-nu-na*, p.n. 84:21.
- ir-ma-(ut)-tam<sub>4</sub>*, . . . OP (see p. 42).
- ir-mat-ki*, see *ir-ma-ki*.
- ir-pi*, "former, earlier." 10:rev. 2. Var. *ir-ip*, 27:12 f.
- Ir-da-ka<sub>4</sub>-ia*, p.n. 3a:1x+7 f.1; 9:22; 13:32; 15:28; 16:19 f.; 18:25.
- Ir-da-kur-rad-du-iš*, p.n. Fort. 3159:3 f. (see p. 6, nn. 31-32).
- Ir-da-ši-ia-ti-iš*, p.n. Fort. 7094:4 f. (see No. 6, Personnel).

- Ir-da-šu-ra*, p.n. 68:2; 75:3.
- Ir-da-tak-ma*, p.n. 21:2 f.; 22:2; 27:3; 37:2; 38:3; 38a:2 (7 texts); 41:2; 42:2; 42a:2; 42b:2; 46:2; 47:2; 48:2; 48a:2; 49:3; 49a:2 f. (3 texts); 49b:3 f. (2 texts); 52:2; 53:2; 54:2; 55:2; 56:2; 57:3; 58:2; 59:2; 59a:2 f. (2 texts); [60:2]; 63:3; 63a:1 f.; 68a:2.
- Ir-du-ip-ma*, p.n. Fort. 3547:2 f. (see 77:5, Notes).
- Ir-tup-pi-ia*, p.n. Fort. 1708:2 (see sign list, No. 70, note).
- is-ma-lu*, "inlay." 27:7.
- iš-ra-ša-ka<sub>4</sub>-ra*, "armorer." OP (see p. 43). 52:4 f.
- iš* ("locative" postfix). See p. 47, n. 3.
- Iš-tin(?)*-ka<sub>4</sub>, p.n. Fort. 11490:1 (see 19:6, Notes).
- ka<sub>4</sub>*, "qa (measure)." Fort. 11473:3, 4 (see p. 7, n. 40); 6780:5 (see p. 52, n. 43).
- KA<sub>4</sub><sup>idg</sup>, "shekel(s)." See p. 37.
- ka<sub>4</sub>-ak-kán-na*, "indeed." Fort. 6415:12 f.; 7096:14 (see p. 53, nn. 50-51).
- Ka<sub>4</sub>-a-ma-ru(-uk)-kaš*, g.n. Fort. 6415:5, 7 f.; 7096:5, 8 (see 10a:5, Notes). Var. GI(=Ke)-ma-ru-uk-kaš (see sign list, No. 27, note).
- ka<sub>4</sub>-ap-nu-iš-ki*, "Treasury." *Passim*; see 10b, Notes. Var. *ka<sub>4</sub>-ap-nu-iš-gi*, 27:5 f.
- ka<sub>4</sub>-ap-nu-iš-ki-ra*, "treasurer." *Passim*; see 10b, Notes.
- Ka<sub>4</sub>-ir-ba-ši-ia*, OP month name (see Table 4, p. 65, and No. 27, Date). 10:rev. 1-3; 11:10; 18:14; Fort. 6663:10 f. (see p. 7, n. 34). Vars. *Ka<sub>4</sub>-ir-ba-ši*, 72:12; *Ka<sub>4</sub>-ir-ba-iš-ši-iš*, 13:16; *Ka<sub>4</sub>-ir-pi-ši-iš*, 22:14; *Ka<sub>4</sub>-ir-pi-ši-ia-iš*, 31:9 f.; *Ka<sub>4</sub>-har-ba-ši-ia*, 27:27.
- ka<sub>4</sub>-la*, see *gal*.
- kam*, "cattle." OP (see p. 42). 5:3.
- Ka<sub>4</sub>-ma*, p.n. 14:21.
- Ka<sub>4</sub>-ma-a-nu-iš*, g.n. 64:4. Var. *Ka<sub>4</sub>-me-nu-iš*, 40:4.
- Ka<sub>4</sub>-me-(iš)-ša*, p.n. Fort. 1016:23; 3566:18; 5899:11 (see 9:19, Notes).
- kam-ba-ti-ia-ip*, "cattle herders." OP. See *kam* and *-ba-te/i*.
- kán-ša*, "treasure." OP (see p. 42). 56:7.
- kán-ša-ba(r)-ra*, "treasurer." OP (see p. 42). *Passim*, e.g., 10a:1; 22:1; 31:1; 33:1.
- Ka<sub>4</sub>-bar-ap-(ia)-iš*, g.n. 53:5 f., 8. Vars. *Ka<sub>4</sub>-pír-iš-iš*, Fort. 8959:6; *Ka<sub>4</sub>-u-pír-ri-iš*, Fort. 3125:3 and 8621:10 (see 53:5, Notes).
- ka<sub>4</sub>-ra*, "maker." OP (see pp. 42 and 6). Vars. *kar-ra*, *kur-ráš* (in *iš-ra-ša-ka<sub>4</sub>-ra*, *ba-ši-ka<sub>4</sub>-ra*, *be-a-ši-iš-kur-ra-iš*, *pír-ra-ma-na-kur-ráš*, *du-um-mar-ra-kur-ráš*; see also *hu-ut-ti-ra*).
- ka<sub>4</sub>-ra*, "ass." OP (see p. 42).
- ka<sub>4</sub>-ra-bat-ti-iš*, "ass herder." 47:6; 58:5 f.
- Kar-ki-iš*, p.n. 22:28; Fort. 10192:25 f. (see p. 10, n. 63); 6413:3 (see p. 51, n. 39).
- Kar-ma-ba-taš*, OP month name (see Table 4 and p. 65). 12:24; 12a:x+4; 13:15; 17:10; 22:12 f.; 25:14; 30:14; 68:8 f.; 69:8; 70:7; 71:12; 72:10 f.; 73:9 f.; 77:12. Var. *Kar-ma-bat-taš*, 9:14; 18:12 f.
- kar-ra*, see *ka<sub>4</sub>-ra*.
- KASKAL<sup>idg</sup>, "road." Fort. 6780:4 (see p. 52, n. 43).
- KASKAL-la, a kind of wood. Fort. 1494: obv. 2, rev. 11 (see sign list, No. 54, note).
- KASKAL-su, p.n. Fort. 8624:4 (see sign list, No. 54, note).
- KAŠ<sup>idg</sup>, "beer." 51:8. See also *ki-iš-nu-iš-ki-ip* and GIŠ.Ú.SA-nu-iš-ki-ip.
- Ka<sub>4</sub>-du-uk-ka<sub>4</sub>*, p.n. 82:1 f.
- Ka<sub>4</sub>-u-pír-ri-iš*, g.n. See *Ka<sub>4</sub>-bar-ap-iš*.
- ki*, "one." See p. 38, n. 25; also *ir-ma-ki*.
- ki-ir*, 5:11.
- ki-EL*, "shekel(s)." See p. 37.
- ki-ir*, see *ki*.
- ki-iš-nu-iš-ki-ip*, "beer (tenders)." 46:6. See also KAŠ<sup>idg</sup> and GIŠ.Ú.SA-nu-iš-ki-ip.
- KI.MIN, "the same, ditto." See sign list, No. 94, note; also MIN and *na-an-KI.MIN*.
- Kín-da-ri-iš-ša*, g.n. See *Ku-un-tur-ru-iš*.
- Ki-ri*. . . . , p.n. 3a:x+5.
- ku*, see *ik-ka<sub>4</sub>*.
- KÙ<sup>idg</sup>, "money." See sign list, No. 118, note. 22:18, 20, 22, 23.
- KÙ.GI<sup>idg</sup> (= GUŠKIN, Elamite *la-áš-du*), "gold." See sign list, No. 118, note. 83:2.
- Ku-in-tur-ru-iš-ša*, g.n. See *Ku-un-tur-ru-iš*.
- ku-is*, "he brought." See p. 31, nn. 33-36 (cf. *ku-ti*-[?]).
- ku-iš*, "up to (and including)." See p. 47, n. 3. *Passim*, e.g., 11:11; 22:13; 23:11.
- KÙ.BABBAR<sup>idg</sup>, "silver, money." See sign list, No. 118, note. *Passim*.
- ku-pír-ri-(ia)-iš*, "copperer(?)." OP(?) (see p. 42). 49:5 f.; 54:5; 55:5 f.
- KUR<sup>idg</sup>, "land." 15:5; 22:5.
- Kur-ka<sub>4</sub>*, p.n. Fort. 6663:3 (see p. 7 and n. 34).
- Kur-kaš*, p.n. 37:4.
- kur-ma-ki*, see *ir-ma-ki*.
- kur-mín*, "by the hand (of)." See pp. 48 f. *Passim*, e.g., 4:2; 5:2; 6:2; 7:3; 8:3; 11:2. Var. *kur-man* (see p. 48, n. 18).
- kur-ráš*, see *ka<sub>4</sub>-ra*.
- kur-rad-du-iš*, "wisdom." OP (see p. 6, n. 32, and *Ir-da-kur-rad-du-iš*).
- kur-šap*, "workmen." Fort. 3666:10; 4696:5 (see sign list, No. 66, note). Var. *kur-ša-ap*.
- kur-šá-um*, "karsha." OP (see pp. 37 f.). *Passim*, e.g., 1:3; 2:3; 9:3; 10a:3. Var. *kur-ša-am*; *passim*, e.g., 4:1; 5:1; 6:1 f.
- kur-ši-(ik-)kaš*, "cultivator." OP (see p. 42). 14:5; 31:5.



- kur-taš*, "workman." OP (see pp. 40 and 42). *Passim*, e.g., 7:4; 8:4; 12:4, 23; 13:5, 30.
- ku-ti-*, "(to) bring, bear." (Cf. *ku-is*[?]).
- ku-ti-ip*, 72:5.
- ku-ti-iš*, Fort. box 226-3:9 (see p. 31, n. 35).
- ku-ti-ra*, 36:8; Fort. 6415:1 (see 10b, Notes).
- ku-ut-ka<sub>4</sub>*, 83:8.
- Ku-un-tur-ru-iš*, g.n. Vars. *Ku-un-tar-ru-iš*, *Ku-in-tur-ru-iš-ša*, *Ku-un-tar-tur-ri-iš-ša* (see p. 62), and *Kin-da-ri-iš-ša*, 48:8 f.
- Ku-ut-ma*, month name. Fort. 1709:14; 7859:11 (see p. 41, n. 4).
- ku-ut-te*, "and, also." 22:7 f., 9. Var. *ku-ud-da*, Fort. 6415:10 and 7096:11 f. (see p. 53, nn. 50-51).
- la-an* (with determinative <sup>DIVOM</sup>), "divine ceremony(?)." Fort. 3126:7; 3159:5, 7 f.; 6663:5, 8; 8960:1; 11473:3 (see p. 7, esp. n. 40).
- la-aš-du*, "gold."
- la-aš-tuk-ki-ip*, "goldworkers." 37:4 f.
- La-gi-ul*, month name. Fort 9407:11 (see p. 41, n. 4).
- li-*, "(to) give."
- li-iš*, Fort. 1016:23; 3566:19 (see 9:19, Notes).
- li-iš-da*, 9:21; Fort. 5899:14; 6764:20 (see 9:19, Notes).
- li-ka<sub>4</sub>*, *passim*, e.g., 27:29; 37:20; 41:16. Var. *li-ik-ka<sub>4</sub>*, 12a:x+5; 14:21.
- li-ri-ra*, Fort. 3159:5; 6663:5 (see pp. 6 f.).
- .ma* ("locative" postfix). See p. 47, n. 4. *Passim*, e.g., 1:11, 17, 18; 16:6, 14; 19:6; 76:3, 9.
- ma-a-ráš-šá-*, see *mar-ri-*.
- Ma-ka<sub>4</sub>-lak*, g.n. 61:4.
- ma-ki-*, "(to) earn, allot(?), consume(?)." See p. 52.
- ma-ki-iš*, Fort. 3543:8; 6780:6 (see p. 52, n. 43).
- ma-ki-iš-da*, Fort. 1018:3 f. (*ibid.*).
- ma-ki-man-ba*, Fort. 6780:10 (*ibid.*).
- ma-ki-ip*, 7:4 f.; 8:5; 9:10; 9a:7; 12:5; 13:5 f.; 15:6; 16:6 f.; 18:5; 19:7; 29:10 f.
- ma-ki-ra*, 1:8.
- Ma-ku-iš*, "Magian." OP (see p. 43). Fort. 3159:4; 6663:4 (see p. 7).
- Man-na-an-da*, p.n. 30:5 f.; 31:5 f.; 34:5; 35:6; 42b<sup>1</sup>. Var. *Ma-na-an-da*, 33:6 f.; *Man-nu-un-da*, Fort. 5899:13 (see 9:19, Notes).
- .mar* ("ablative" postfix). See *ik-ka<sub>4</sub>* and p. 47, n. 4. *Passim*; separate forms: 13:32; 15:13; 16:20; 27:29; 78:6.
- Ma-ra-ša*, p.n. Fort. 6764:20 (see 9:19, Notes).
- Mar-ia-kar-šá*, p.n. 4:5. Var. *Mar-ri-ia-kar-šá*.
- Mar-ka<sub>4</sub>-šá-na*, OP month name (see Table 4 and pp. 64 f.). 2:x+2; 12:10; 19:13; 26:12; 34:9. Vars. *Mar-ka<sub>4</sub>-šá-na-iš*, 1:14; 12b:9; 42b; *Mar-ka<sub>4</sub>-ša-na-iš*, Fort. 3126:9 f. (see p. 7, n. 41).
- Mar-ri-e-iš-ša*, p.n. 25:3.
- mar-ri-*, "(to) hold, grasp."
- mar-ri-iš*, 5:8. Var. *ma-a-ráš-šá-ip*, 4:18.
- mar-ri-ip*, "artisans." 3:4; 28:7; 29:8 f.; 30:4; 33:6; 34:4; 35:4 f.; 43:4; 51:4 f.; 69:4; 70:3; 71:4; 79:4.
- mar-ri-iš*, "jug, jar." 1:13; 12:8; 13:12; 15:11; 22:22; 30:9 f.; Fort. 3159:1; 6663:1 (see pp. 6 f.), and *passim*.
- Mar-sa-iš-kaš*, g.n. 5:7; 81:5; Fort. 6663:6 (see p. 7, n. 34); 5466:4 (see 5:7, Notes).
- Mar-šu-uk-ka<sub>4</sub>*, p.n. Fort. 5466:2 (see 5:7, Notes).
- Mar-du-kán-na-šir*, p.n. 25:9 f.
- Mar-du-uk-ka<sub>4</sub>*, p.n. 1:22. Var. *Mar-tuk-ka<sub>4</sub>*, 84:18.
- máš-ši-*, "(to) withdraw, take out." See 27:15, Notes.
- máš-ši-ka<sub>4</sub>*, 82:3.
- máš-te-ip*, "(are) released, dismissed(?)." 22:8.
- maš*, *maš-še*, see *me-šá*.
- Ma-še-ši-iš*, g.n., see *Ma-te-ši-iš*.
- Maš-da-ia-aš-na*, p.n. 4:8.
- maš.du.ku.ip*, . . . . 49:6 f.
- Ma-te-ši-iš*, g.n. DB, § 43; Fort. 7112:6 f. (see 83:7, Notes). Var. *Ma-še-ši-iš*, 83:6; *Ma-te-iš-ši-iš*, Fort. 3126:3 f. (see p. 7, n. 41).
- Ma-u-iš*, p.n. 12:5; 13:6; 14:6; 15:7; 18:6; 22:6; 26:6; 27:1; 28:1; 29:1, 9; 30:7; 32:6; 33:1; 34:6; 35:7; 36:1; 39:4; 40:4; 42b:1; 43:6; 44:1, 11; 44a:1. Var. *Ma-u-ú-iš*, 31:1; 37:1; 38:1; 38a:1 (7 texts); 41:1; 42:1; 42a:1; 46:1; 47:1; 48:1; 48a:1, x+2 f.
- Ma-u-ka<sub>4</sub>*, p.n. 1:9; 7:7; 63:8. Vars. *Ma-ú-uk-ka<sub>4</sub>*, *Man-ú-uk-ka<sub>4</sub>*, *Man-ú-ú-uk-ka<sub>4</sub>* (see 1, Personnel), and *Am-mu-uk-ka<sub>4</sub>*, 4:3.
- me* (indication of abstract noun). See p. 52 and Notes to 1:22. Var. *-mi* (10a:7).
- me-ni*, "afterward." Fort. 3543:7 (see p. 52, n. 43).
- me-šá*, "later." 2:1x+6<sup>1</sup>; 10:rev. 3; 11:10; 27:13; 79:10. Vars. *maš* (Fort. 1016:23 and 3566:18), *maš-še* (Fort. 5899:13 and 6764:19 f.), *ma-še-iš-šá-um-me* (Fort. 5902:10 f.). See 10, Notes.
- Mi-kán-na*, OP month name (see Table 4). 11:12; 15:14; 21:12; 23:12; 27:12, 13; 43:11; 44:13; 78:13; 79:10. Vars. *Mi-kán-na-iš*, 1:16; 2:x+5; 33:10; 42b; 45:7; 46:8; 47:8, 13; 48:10, 14; 49b: x+1; 75:13 f.; *Mi-kán-nu-iš*, 12b:11; *Mi-ia-kán-na-iš*, 12:11 f.<sup>1</sup>; Fort. 5902:9 f. (see 10, Notes).
- mi*, see *-me*.
- Mi-ia-kán-na-iš*, OP month name; see *Mi-kán-na*. . . . *-mi-ir-šu-ka<sub>4</sub>*, p.n. 84:11.
- mi-iš-ba*, "all." OP (see p. 43).
- Mi-iš-ba-ša-na*, "(Gateway of) All Races." 79:4 f.
- Mi-iš-ba-ši-ia-ti-iš*, "(Gateway of) All Prosperity." 49:7; 59:7.
- Mi-iš-šá* . . . . , p.n. 12a:x+5.
- Mi-iš-du-kaš*, p.n. Fort. 6780:2 (see p. 52, n. 43).

*Mi-mi-iš*(?), p.n. 83:5.

MIN, "ditto, the same." 66:x+5, x+13. See also  
KI.MIN.

*Mi-rák-ka<sub>4</sub>-ma*, p.n. Fort. 10192:25 (see p. 10, n. 63).

*Mi-ra-ma-na*, p.n. Fort. 3543:2 (see p. 52, n. 43).

*Mi-ra-u-da*, p.n. 68:5 f.; 68a:7. Vars. *Mi-ra-ia-u-da*,  
*Mi-ra-da*, *Mar-ri-ia-da*, *Mar-ri-ia-da-da*. Cf.  
. . . .*-ia-u-da-mi-ra*.

*Mi-da-da*, p.n. 84:20.

*Mi-ut*(?)*-ra-an-ka<sub>4</sub>*, p.n. 4:10.

*Mu-iš-ka<sub>4</sub>*, p.n. 13:31.

*mu-iš-ši-in*, see *mu-šá/i*.

*Mu-šir-ri-ia*, g.n., "Egypt(ian)." 9:6(?). *Mu-šir-ri-ia-ip*(?), 9:5; *Mu-šir-ia-ip*, 15:5; *Mu-šir-ri-ia-ra*, 1:6.

*mu-šá/i*, "(to) account, record(?)." *mu-šá-ip*, 48:6; 52:5; 53:5.

*mu-ši-in*, 15:30; 16:4; 18:28; 19:4; 21:5; 27:25; 48a:x+1; 56:6; 57:6 f.; Fort. 15:17; 2569:3; 8976:1 (see 15:30, Notes); 11490:1 (see 19:6, Notes). Vars. *mu-iš-ši-in*, 22:24 f.; *mu-ši-um-me*, Fort. 15:20 (see 15:30, Notes).

*Muš-mar-du*, p.n. 28:26.

*na-an*, "day." 69:7; 70:6.

*na-an-KI.MIN*, "says(?)." See pp. 47 f. *Passim*, e.g. 1:2; 3:2; 3a:2.

*na-ap*(*-pi/a*), "god." Fort. 6415:7; 7096:7 (see 10a:5, Notes).

*Na-pi-iš-ša*, p.n. 53:7.

*Napi*(*r*)*-su-uk-ka<sub>4</sub>*, p.n. Fort. 6764:18 f. (see 9:19, Notes).

*Na-pu-ik*(?)*-šu-ur*, p.n. 21:4.

*Na-ri-e-ši-iš*, g.n. 52:7.

*ni-iš*(<sup>ids</sup>), . . . 81:1, 7.

*ni-ma-ak*, "it shall be." 22:22, 23.

*nu*, "you" (sing.). 25:11; 27:9; 28:5; 29:6; 37:5; 42b; 49:8; 68:6; 68a:8; 75:8.

*nu-iš-ki*, "(to) tend." See also *ka<sub>4</sub>-ap-nu-iš-ki*.

*nu-iš-ki-ip*, 38:8 f.; 46:6; 63:7 f.

*nu-ma-u-maš*, "(one-)ninth." OP (see pp. 38 and 43). 22:4.

*nu-pi-i[š-da-ma]*, "inscription." OP (see p. 42). 9:9.

*Nu-tan-nu-ia*, p.n. 9:21.

*nu-da-nu*, "storeroom." 19:6; 21:6; 56:7. Var. *nu-tan-nu-ia*, Fort. 11490:1 (see 19:6, Notes).

*Nu-ti-be-ul*, p.n. 57:6, 11.

*Nu-ti-ud-da*, p.n. 71:6.

*Ba-a-ši-ia*, g.n. 53:6.

*Ba-gi-ia-ti-iš*, OP month name (see Table 4). 12: x+1<sup>1</sup>; 12b:8; 14:8 f., 19; 15:13; 19:12; 20:10 f.; 26:11 f.; 31:16 f.; 73:11 f.; 74:12 f.; 78:11 f.; 79:9. Var. *Ba-ki-ia-ti-iš*, 12:9 f.

*Ba-gi-iš-ša*, p.n. 4:13.

*Ba-ir-iš-šá*, p.n. 25:1; 78:7 f.; [79:6].

*Pa-ir-na-da-da*, p.n. See *Bar-na-da-ad-da*.

*Pa-ir-rák-áš-pi*, p.n., father of *Áš-ba-ša-na*, on seal-type 14 (see 12, Seal).

*Ba-ir-šá*, "Parsa, Persepolis." See p. 9, n. 51. Var.

*Ba-ir-iš-šá*; *Bar-šíp*, 4:17 (see pp. 65 f.).

*ba-is-KI.MIN*, "*paspasu* (fowl)(?)." See p. 48, n. 9.

*ba-iš-ša*, "vice-, assistant." OP (see p. 42). 15:17.

*Pa-iš-šá*. . . ., g.n. Fort. 6413:4 (see p. 51, n. 39).

*Ba-ka<sub>4</sub>-gi-ia*, p.n. 4:14.

*Ba-ka<sub>4</sub>-ba-ad-da*, p.n. 58:13 f.; 68:16. Var. *Ba-ka<sub>4</sub>-ba-da*, 8:5 f.

*Ba-ka<sub>4</sub>-ba*(?)*-na*, p.n. Fort. 3547:4 (see 77:5, Notes).

*Ba-ka<sub>4</sub>-bar-na*, p.n. (in Hallock's "List of Names"). Var. *Ba-ka<sub>4</sub>-pa-ir-na*, Fort. 1680:4 f. (see pp. 65 f.).

*Ba-ka<sub>4</sub>-pi-ik-na*, p.n. 4:9.

*Ba-ka<sub>4</sub>-pu-uk-šá*, p.n. 37:21; 38:21; 38a (7 texts); 41:17; 42:25; 42a:x+6; 47:16; 48:17; 54:18 f.; 56:15 f.; 57:16; 58:15 f.; 59:16; 68:17.

*Ba-ka<sub>4</sub>-da-ad-da*, p.n. 36:2 f.; 44:2 f.; 44a:2 f.

*Ba-ki-ia-ti-iš*, OP month name; see *Ba-gi-ia-ti-iš*.

*Ba-ku-ra-da*, p.n. 42:5; 42a:5; 60:5. Var. *Ba-ka<sub>4</sub>-u-ra-da*, Fort. 8866:3 f. (see 42, Personnel).

BAN<sup>ids</sup>, "bow." Fort. 11490:1 (see 19:6, Notes).

*pan-su-kaš*, "shekel(s)." See pp. 37 f.

*Pa-nu-uk-ka<sub>4</sub>*, p.n. Fort. 11490:2 (see 19:6, Notes).

*ba-ra*, "bearer." OP; see p. 42; also *am-ba-ra-bar-ra*, *kán-ša-ba*(*r*)*-ra*.

*Ba-rad-ka<sub>4</sub>-ma*, p.n. 1:2; 2:1; 3:1, 5; 3a:1; 9:1; 9a:1; 9b:1; 10:1; 10b:1; 11:5; 12:1; 12a:1; 13:1; 15:1; 16:1; 17:5 f.; 18:1; 19:1; 20:6; 22:1; 23:4 f.; 24:8. Vars. *Bar-ra-ad-ka<sub>4</sub>-ma*, 10a:1; *Bar-rad-ka<sub>4</sub>-ma*, 14:1; 21:1.

*pa-ri/a*, "(to) arrive at, attain, go to."

*pa-ráš*, Fort. 1637:10 (see p. 31, n. 36).

*pa-ri-ma-ak*, 21:17; 22:18 f.; 28:8; 29:11 f.; 30:8; 31:7 f.

*pa-ri-ma-na*, 12a:x+1; 14:7 f.; 22:9 f.; 27:10; var. *pa-ri-man-na*, 21:7 f.

*Bar-mi-iš-ša*, g.n. 5:4.

*Bar-na-ak-ka<sub>4</sub>*, p.n. 4:12; Fort. 1018:2 f. (see p. 52, n. 43); Fort. 6415:2 (see 10b).

*Bar-na-da-ad-da*, p.n. 70:4; vars. *Bar-na-da-ud-da*, 43:5; Fort. 7864:8 f. (see 43, Personnel); *Bar-in-da-ad-da*, 62:5 f.; *Pa-ir-na-da-da*, Fort. 1706:2 (see p. 65).

*Bar-ni-iš-ša*, p.n. 4:15; Fort. 6663:2 f. (see p. 7, n. 34).

*bar-ra*, see *ba-ra*.

*Bar-rad-ka<sub>4</sub>-ma*, p.n., see *Ba-rad-ka<sub>4</sub>-ma*.

*Bar-ru*, p.n. Fort. 6032:2 (see 4:17, Notes).

*bar-ru-da-ša-ra*, OP \**fratacara*(?); see p. 43, n. 12.

*Bar-šíp*, see *Ba-ir-šá*.

*Bar-te-taš*, a gateway(?). 48:6 f.; 49:6; 59:8.

- Ba-ru-ši-ia-ti-iš*, p.n., fem. Fort. 1017:2 f. (see 6, Personnel).
- ba-ši-ka<sub>4</sub>-ra*, "tribute handler." OP; see p. 43. 41:5; 54:6.
- ba-te/i*, *-bat-ti*, "master, lord." OP; see p. 42.
- kam-ba-ti-ia*, "cowherder." 5:3 f.
- ka<sub>4</sub>-ra-bat-ti*, "ass herder." 47:6; 58:5 f.
- sa-ad-da-bat-ti*, "chief of hundred." 1:7 f. Vars. *sa-da-bat-ti*, 24:4; *sad-da-bat-ti*, 42:5; 42a:5; 53:7; [60:5 f.].
- da-sa-bat-ti*, "chief of ten." 15:16, 17; 84:x+6. Var. *da-šá-bat-ti*, 12:13 f., 14.
- UDU.NITÁ<sup>idg</sup>-*ba-te*, "shepherd." 50:4; 61:3.
- ba-ti-ma-nu-iš*, OP *patiy māniya*, "upon (over) the property." See No. 47, Notes. 47:6; 48:5 f.; 58:5; 63:6 f.; 81:8. Var. *ba-ti-ma-nu*, 72:4.
- bat-ti-kur-ráš*, "sculpture, relief." OP; see p. 42. 17:4; 20:4; 24:4, 7; 26:3; 73:4.
- Bat-ti-na-(iš)-šá*, p.n. 9a:7 f.; 51:5 f.; 69:5.
- be-a-ši-iš-kur-ra*, "ornament maker." OP; see p. 42. 30:4 f. Var. *be-ši-iš-kur-ráš*, 62:4 f.
- be-ti-ka<sub>4</sub>*, "interpreted, translated(?)." 9:20; Fort. 3566:18; 5899:12; 6764:19 (see 9:19, Notes). See also *pi-ti-ka<sub>4</sub>*(?).
- be-ul*, "year." *Passim*, e.g., 1:18; 10:rev. 4; 11:13; 12:24.
- Be-ul-kúp-pa-at*, g.n. Fort. 1706:8 f. (see sign list, No. 29, note).
- Be-ul-pa-i/ak-ka<sub>4</sub>*, p.n. 46:7; 47:7; 58:6 f.
- pi-ik-ti*, "help, sustenance." 6:8.
- Pi-ka<sub>4</sub>-da-bar-ma*, p.n. 15:29 f.; 18:27; 22:23 f. Var. (scribal error) *Pi-pi-ka<sub>4</sub>-da-bar-ma*, 27:24.
- pír-nu-ba*, "half." See p. 38. Vars. *pír-nu/a-šu*, *pír-nu-ba-i/ak*, *pír-nu-ip-š/su*.
- pír-ra-sa-na-iš*, . . . 76:4 f.
- pír-ra-ma-na-kur-ráš*, "foreman." OP; see p. 43. 44:7 f.; 78:4 f. Var. *pír-ra-ma-na-kar-ra*, 75:7 f.
- pír-ra-tam<sub>4</sub>-ma*, "in the fortress." Aramaic. 36:2; 44:2; 44a:2.
- pír-ru-mu-*, "fixed by edict, declared." OP (see p. 43); for all forms see Notes to 13:13.
- pír-ši-ia-um*, "grain(?)." OP(?); see p. 7, n. 41 (Fort. 3126:6).
- pi-ti-ka<sub>4</sub>*, "changed, lost(?)." Fort. 6415:12; 7096:14 (see p. 53, nn. 50–51).
- pu-ḫu<sup>idg</sup>*, "boy." MUNUS<sup>idg</sup>-*pu-ḫu<sup>idg</sup>*, "girl." See p. 36, nn. 22–23, and p. 68.
- Pu-uk-iš-mi-ra*, p.n. Fort. 6412:2 (see 68, Personnel).
- pu-un-ka<sub>4</sub>-ti*, "its end." 22:15. Var. *pu-un-kat<sub>6</sub>-te*, 75:14.
- Ra-a-ma-ši-is-ra*, p.n. 10a:6.
- ra-ab-ba-ab-ba*, "bound, conscripted(?)." 22:7.
- Ra-ḫal*, month name. Fort. 7250:10 (see p. 41, n. 4).
- . . . *-ra-mi-ud*(?)*-da*, . . . 50:4 f.
- ra-ša-be*, . . . 68:5; 68a:6; 76:5.
- Ráš-ši-ud-da*, g.n. Fort. 2511:3 f. (see sign list, No. 112, note).
- Ra-tin-in-da*, p.n. 49:1; 49a (3 texts); 49b (2 texts); 52:1; 53:1; 54:1; 55:1; 56:1; 57:1; 58:1; 59a (2 texts); [60:1]; 63:1; 63a:1; 68:1; 68a:1. Vars. *Ra-tin-da*, 59:1; *Ra-te-in-da*, 75:1.
- ra-ti-ú-u-iš*, OP *raduwiš*. (See pp. 6 and 43). 11:3 f.
- Ra-u-da-ma-ti-iš*, g.n. 72:6.
- RUḪ<sup>idg</sup>, "man." See p. 68.
- ru-ka<sub>4</sub>-man-ra*, . . . 81:9.
- Ru-ma-te-in-da*, p.n. See *Ū-ra-tin-da*.
- Ru-sik-ka<sub>4</sub>*, p.n. 84:8.
- sa-ak*, "went, had gone." Fort. 7112:8 (see 83:7, Notes).
- Sa-a-kur-ri-ši-iš*, OP month name (see Table 4). 16:12 f.; 17:9 f.; 18:11 f.; 30:13 f.; 62:12 f.; 63:12 f.; '64:7 f.]; 65:7; 66:6; 67:7 f.; 71:11 f.; 76:10 f.; '80:13]. Var. *Sa-a-ak-ri-iš-ši-iš*, 13:14.
- sa-ad-da*, "hundred." OP (in *sa-ad-da-bat-ti-iš*, etc., "chief of hundred, centurion"; see p. 43). 1:7. Vars. *sa-da*, 24:4; *sad-da*, 42:5; 42a:5; 53:7; [60:5 f.].
- Sa-mi-ia-man-taš*, OP month name (see Table 4). 1:16; 2:x+4; 37:18 f.; 38a; 41:8, 14 f.; 42:6 f., 23; Fort. 3566:10 f. (see No. 9, Date). Vars. *Sa-mi-man-taš*, 32:9; *Sa-mi-ia-ma-iš*, 12:11; *Sa-mi-ia-maš*, 45:7, 19; 49b; *Sa-mi-ia-man-ti*, 12b:10; *Sa-mi-man-da*, 21:11; *Sa-mi-ia*, 40:7; 44:13; *Šá-mi-man-da*, 27:11 f.; *Ša-mi-ma*, Fort. 4697:14 (see Table 4, n. 15).
- Sad-du-mi-iš*, p.n. 5:5.
- sik-ki-*, *sùk-ki-*, "(to) establish(?)." *sik-ip*, 27:25.
- sùk-ki-ip*, 15:31; 16:4 f.; 18:28; 19:4 f.; 21:5 f.; 48a:rev. x+1.
- su-ki-ip*, 56:6.
- sik-ka<sub>4</sub>-ap*(?), 77:5.
- sùk-ki-ra*, 57:7; Fort. 2569:4 (see 15:30, Notes).
- sik-ka<sub>4</sub>-ka<sub>4</sub>*, Fort. 3547:5 f. (see 77:5, Notes).
- šip*, "door." See *ši-ip*.
- si-ri*, . . . 81:1.
- šì.šì-du*, "give!" See p. 48. *Passim*, e.g., 1:10; 12:4; 13:9.
- su-ki-*, *sùk-ki-*, see *sik-ki-*.
- sunki*, "king." 4:20; 6:9; 7:10; 8:10; 27:6; Fort. 3562:8 (see p. 13); 5205:13; 7859:13; box 226–3:8 (see p. 31, nn. 33–36); 6780:4 (see p. 52, n. 43).
- Sunki-ba-ba*, p.n. Fort. 8960:1 (see p. 7, n. 40).
- ša-ak*, see *šá-ak*.
- ša-áš-maš*, "(one)-fourth." OP (see p. 38).
- ša-ik*, see *šá-ak*.

- ša-ir-nu-pa-sa-iš*, "gold ornament." OP (see pp. 42 and 43). 63:9 f.
- ša-iš-ra(?)*, . . . 57:7 f.
- ša-iš-šu-maš*, see *ša-áš-maš*.
- Ša-mi-ma*, OP month name; see *Sa-mi-ia-man-taš*.
- ša-na*, "race, tribe." OP (see p. 43). In *Mi-iš-ba-ša-na*, 79:4 f. Cf. also *ši-ip.ša.an*, 81:4.
- ši-ip* (with <sup>ois</sup> determinative), "door." 18:5; 23:3 f.; 74:6. See also 59:6; sign list, No. 68, note; and *ši-ip.ša.an*.
- ši-ip.ša.an*, . . . 81:4.
- Ši-iš-šá-ú-ma-iš*, p.n. 28:2 f.; 29:3. Vars. *Ši-iš-šá-ú-iš*, 31:2 f.; 33:3; *Ši-iš-šá-u-iš*, Fort. 1637:7 (see p. 31, n. 36).
- ši-la*, "sculpture, relief(?)." 25:8; 27:8.
- Ši-ni-ni*, p.n. Fort. 1018:2 (see p. 52, n. 43). See also *Ū-ni-ni*.
- Ši-ul-la-tama*, month name. Fort. 5897:14 (see p. 41, n. 4).
- šá-ak/g*, "equivalent" (see pp. 52 f.). 22:8; 27:10; 64:6; 66:5.
- šá-gi*, 25:11; 44:5.
- šá-gi-me*, 33:7; 75:9.
- šá-gi.ma*, 20:8; 23:6 f., 8; 24:10; 26:8; 29:12; 34:17; 35:10; 43:9; 45:6; 51:8; 71:10; 72:9<sup>1</sup>; 76:9; 78:10; 79:7.
- šá-ag-gi*, 15:10; 18:7; 19:9; 28:9; 70:6; also perhaps 27:22.
- šá-ag-gi-me*, 21:8 f.; perhaps 9:12.
- šá-ak-ki-me*, 12:7; 14:7.
- šá-ak-ki-mi*, 10a:7.
- šá-ag-gi.ma*, 1:11; 11:7 f.; 13:10 f.; 17:7; 30:9; 62:8 f.; 69:7; 73:8 f.; perhaps also 77:9; 80:9.
- ša-ak*, 36:5; 49:8; 50:7; 52:8; 53:9; 54:7; 56:8; 57:8; 58:7; 60:7; 61:5; 63:10; 68:6 f.
- ša-ik*, 31:6; 37:3; 38:6; 41:4; 42:4; 46:4; 47:4; 48:4; perhaps also 42a:4.
- Šá-ak-ka<sub>4</sub>*, p.n. 1:1; 11:2 f.; 12:26(?); 17:2; 20:2; 23:2; 24:3; 26:2.
- šá-gi*, see *šá-ak*.
- šá-iš-ki-*, see *še-iš-ki-*.
- Šá-ki-iš*, p.n. Fort. 1016:6 f. (see sign list, No. 122, note). Var. *Šá-ka<sub>4</sub>-iš* (*ibid.*).
- Ša-mi-man-da*, OP month name; see *Sa-mi-ia-man-taš*.
- šá-ra-man-na*, "(is) responsible(?)." See pp. 50 f. Vars. *šá-ra-ma*; *šá-ra-ra*, Fort. 10192:26 (see p. 10, n. 63).
- šá-tin*, "priest." Fort. 8960:1 (see p. 7, n. 40); 6415:4; 7096:4 (see 10a:5, Notes).
- še-iš-ki-*, "(to) work, labor."
- še-iš-ki-ip*, 9:6; 17:3; 20:3 f.; 24:6; 25:8; 32:4 f.; 44:9 f.; 74:5 f.; 75:6 f. Var. *šá-iš-ki-ip*, 27:7.
- še-iš-ki-ra*, 1:7.
- ŠE.BAR<sup>idg</sup>*, "grain." See p. 37. 82:1; Fort. 6413:1; 6414:1 (see p. 51, n. 39); 6780:1 (see p. 52, n. 43); 3547:1 (see 77:5, Notes).
- še-ra-*, "(to) command, order." (See pp. 47, n. 6, and 50, n. 34).
- še-ra-iš*, 4:21.
- še-ráš-da*, 5:10; 6:9 f.; 7:10; 8:10 f.
- Še-ud-da*, p.n. 38:9.
- Šib-ba-man-ra*, . . . Fort. 1638:5 (see sign list, No. 96, note).
- Ši-ia-ti-iš-ša*, p.n. Fort. 3566:1 (see 6, Personnel).
- Ši-ia-ti-iš*, "prosperity." OP (see p. 43; also the notes to *Ap-pi-ši-ia-ti-iš* in No. 6). As p.n., Fort. 706:5 (see 6, Personnel).
- Ši-iš-maš*, "(one-)third." OP (see pp. 38 and 42). Var. *ši-šu-maš*.
- Ši-nu-ka<sub>4</sub>*, "(had) come, gone." 78:6. See also sign list, No. 122, note.
- Ši-ra-iš-ši-iš*, g.n. Vars. *Ti-ra-ši-iš*, 42:6; 42a:6; 60:6; *Šir-ši-is*; *Ti-ra-iš-ši-iš* (see 42:6, Notes).
- ši-šu-maš*, see *ši-iš-maš*.
- Šu-da-ak-ka<sub>4</sub>*, p.n. Fort. 3543:3 (see p. 52, n. 43).
- Šu-sá-an*, g.n. 78:6; Fort. box 226-3:9 (see p. 31, n. 35); 7112:8 (see 83:7, Notes).
- Šu-ur-ma-ráš*, OP month name; see *Tu-ur-ma-ráš*.
- Šu-ud-da-ia-u-da*, p.n. Fort. 6414:5 (see p. 51, n. 39).
- da-*, "(to) send, place, put."
- da-ak*, 83:3.
- da-ma*, 25:10; 30:6; 33:7; 34:6; 35:7; 43:5 f.; 48a:x+3; 51:6; 62:6; 63:10; 68:6; 69:5; 70:4; 71:6.
- da-man-na*, 42b; Fort. 11490:1 f. (see 19:6, Notes).
- Da-ak-ka<sub>4</sub>*, p.n. Fort. 6413:2 (see p. 51, n. 39).
- Da-ad-da*, p.n. 12:25.
- Da-ad-da-man-ia*, p.n. 8:11 f. Var. *Da-du-man-ia*, 6:10; 7:11.
- tal-li-*, "(to) write."
- tal-li-iš*, 1:22; 6:10; 7:11; 13:31; 16:18 f.; 18:24; 19:18 f.; 28:25; 31:19; 31a:x+2 f.; Fort. 1016:22; 5899:12; 6764:19 (see 9:19, Notes).
- tal-li-iš-da*, 3:x+4; 3a:x+7; 8:12; 9:20; 12:25; 12a:x+5 f.; 14:21 f.; 21:20; 27:29; 58:14; 68:16.
- <sup>da</sup>*tal-li-iš*, 15:27 f.
- tal-iš*, 22:28.
- da-ma*, see *da-*.
- Da-man-bar-na*, p.n. 4:11.
- da-na-kaš*, OP *dānaka*, "one-eighth shekel." 28:22.
- Da-ri-ia-u-iš*, p.n. 4:19 f.; 5:9 f. Var. (see No. 4, Personnel): *Da-ri-a-ma-u-iš* (on seal-types 1-3; see p. 55).
- Tar-ka<sub>4</sub>-a-ú-iš*, p.n. 10:2; 10a:2; 10b:2; 13:2; 15:2; 16:2; 18:2; 19:2.

## VOCABULARY OF ELAMITE WORDS

- da-sa*, "ten." OP (see p. 42). In *da-sa-bat-ti-iš*, 15:16, 17; 84:2, 6. Var. *da-šá-bat-ti-iš*, 12:13 f., 14.  
*da-šá*, see *da-sa*.  
*taš-šu-íp*, "army, people." 27:25; 84 (*passim*).  
*Da-du-man-ia*, p.n. See *Da-ad-da-man-ia*.  
*da-u-šá-um*, "libation." OP (see pp. 7 ff., 42). Fort. 3159:6; 6663:7 (see pp. 6 f.); 6415:6; 7096:6 (see Notes to 10a:5).  
*Te-tuk-ka<sub>4</sub>*, p.n. 27:29.  
*te-um-pi-ti(n)*, . . . . 22:11. Var. *te-um-ip-te*, 27:15; 10a:8(?).  
*Ti-ik-ráš*, see *Tuk-ráš*.  
*ti-ka<sub>4</sub>(ut?)*, . . . . 81:2.  
DINGIR<sup>idg</sup>, "god." 10a:5. See *na-ap(-pi/a)*.  
*Ti-ra-ši-iš*, g.n. See *Ši-ra-iš-ši-iš*.  
*Ti-ri-ia*, p.n. Fort. 2569:3 (see 15:30, Notes).  
*du-*, "(to) receive, take."  
*du-iš*, *passim*, e.g., 11:7; 13:33; 16:20; 17:6. See pp. 47 and n. 6.  
*du-iš-da*, *passim*, e.g., 1:23; 3a:x+8; 7:8 f.; 8:9. See p. 47, n. 6.  
*du-ka<sub>4</sub>*, 54:20; 58:16; 68:18.  
*du-me*, "receipt." *Passim*; see especially 1:22, Notes. Var. *du-um-me*, 3a:x+7; 12:26; 12a:x+6; 14:22; 21:20; 22:29; 56:15; 58:15.  
*du-ma*, 70:5.  
*du-ma-ak*, 22:20; 29:18, 19, 21, 23.  
*du-ma-iš*, 34:7 f.; 35:9; 43:7; 51:9; 64:6; 65:6; 66:5; 67:6; 69:6 f.  
*du-man-ra*, 1:21; 11:14; *du-man-ri*, 31:14; 38:17; 57:14.  
*du-man-ba*, *passim*, e.g., 12:16, 17, 19, 21, 23; *du-man-pi*, *passim*, e.g., 21:15; 37:7, 9, 10, 11, 13, 15, 17, 18.  
*du-šá*, Fort. 6780:3 (see p. 52, n. 43).  
*du-ka<sub>4</sub>-be*, . . . . 68:5; [68a:6]; see also *du-uk-kaš*, *tuk-kaš*, and *du-ma-kaš(?)*.  
*tuk-kaš*, . . . . 83:4; see also *du-ka<sub>4</sub>-be*, *du-uk-kaš*, and *du-ma-kaš(?)*.  
*Tuk-ráš*, g.n. 83:7. Vars. *Ti-ik-ráš*, *Ti-ik-rák-kaš*.  
*du-ma*, *du-me*, see *du-*.  
*du-ma-kaš*, . . . . 13:5; see also *du-ka<sub>4</sub>-be*, *du-uk-kaš*, and *tuk-kaš(?)*.  
*Tu-ma-ráš*, OP month name; see *Tu-ur-ma-ráš*.  
DUMU, "son." Elamite *šá-ak*. 7:6; also on seal-type 14 (see No. 12, Seal).  
*du-nu-*, "(to) give."  
*du-nu-iš-da*, Fort. 7251:4 (see p. 49, n. 21).  
*du-nu-ka<sub>4</sub>*, 4:19; 5:9; Fort. 5234:10 (see p. 53, n. 59).  
*tup-pi*, "tablet." Fort. 6415:14; 7096:15 (see p. 53, nn. 50–51).  
*Tur-na-ba-ši-iš*, OP month name (see Table 4 and p. 65). 13:15 f.; 18:13; 31:8 f.; 71:13; 74:10 f.; Fort. 6663:13 f. (see p. 7, n. 34). Var. *Tar-na-ba-ši-na*, Fort. 2569:8 f. (see Table 4, n. 8).  
*tu<sub>4</sub>-ru-iš*, "speak!" See pp. 47 f. *Passim*, e.g., 1:1; 2:1; 3:1.  
*du-šá*, see *du-*.  
*du-uk-kaš*, . . . . 76:5; see also *du-ka<sub>4</sub>-be*, *tuk-kaš*, and *du-ma-kaš(?)*.  
*du-um-mar-ra-kur-ráš*, "doormaker." OP (see p. 42). 18:4.  
*du-um-me*, see *du-*.  
*Tu-ur-ma-ráš*, OP month name (see Table 4). 52:10; 55:7 f.; 56:9; 57:9 f.; 58:8 f., 17; 59a (2 texts). Vars. *Tu-ru-ma-ir*, 16:12; *Tu-ru-ma-ráš*, 24:13; 51:11; [60:8 f.]; 61:6 f.; 80:12; *Šu-ur-ma-ráš*, 53:10; 54:8; *Tu-ma-ráš*, 59:9, 13 f.  
*ú*, "I." On seal-types 1–3 (see p. 55); Fort. 6415:11, 13; 7096:13, 16 (see p. 53, nn. 50–51).  
*.ug-gi*, see *.uk-ku*.  
*Ú-iš-ba-ka<sub>4</sub>*, p.n. Fort. 8275:1 (see p. 48).  
*ú-iš-pir-na*, "up-carrier(?)." OP (see p. 42). 12:6. Var. *ú-iš-bar-na*, 13:7 f.; 15:8; 18:9 f.  
*Ú-iš-da-na*, p.n. 54:5 f.  
*.uk-ku*, "upon." 1:12 (cf. 1. 13); 7:9; 8:10; 9:13; 13:8, 13; 15:9, 12; 16:9; 18:8, 10; 19:10; 48a:x+2; 77:5; 79:5. Vars. *.uk-ki* (cf. *la-áš-tuk-ki-ip*, 37:4 f.); *.ug-gi*, Fort. 3547:5 (see 77:5, Notes).  
*Ú-ni-ni*, p.n. 21:20 (see also *Ši-ni-ni*).  
*un-ra*, "each." See p. 69. *Passim*.  
*un-sa-ak*, "administrator(?)." 4:2; 5:2 f.; 6:3; 7:3; 8:3 f.  
*Ú-pir-da*, p.n. Fort. 3126:2 (see p. 7, n. 41).  
*U-ra*, p.n. 31:20; 31a:x+3.  
*Ú-ra-tin-da*, p.n. (see 3:2, Personnel).  
1) 3a:2 (var. *Ru-ma-te-[in-]da*, 3:2?).  
2) *Ú-ra-te-en-da*, 15:27; 16:18; 18:23 f.; 19:17 f.  
3) 45:4; 50:5; 51:6 f.; 61:4; 62:6 f.; 64:5; 65:5; 66:4; 69:5 f.; 70:4 f.; 71:7; 73:6; 74:7 f.; 76:6 f.; 77:6 f.; 80:6 f.  
*Ú-šá-ia*, p.n. Fort. 6415:1 (see 10b, Notes).  
*Ú-šá-ka<sub>4</sub>-ia*, p.n. 41:6 f.  
*Ú-da-na*, p.n. 36:7 f.; 52:6 f.  
UDU.NITÁ<sup>idg</sup>, "sheep." See p. 70. *Passim*, e.g., 1:10, 12; 9:12; 50:4; 61:3.  
*ú-ut-ti-ip*, see *hu-ut-ti-ip*.  
ZID.DA<sup>idg</sup>, "flour." See p. 70. Fort. 3126:1 (see p. 7, n. 41); 1018:1 (see p. 52, n. 43).



## INDEX OF TABLET NUMBERS AND LOCATIONS

Publication No.	Field No.	Dimensions (Length, Breadth, Thickness in Mm.)	Present Location <sup>1</sup>	Publication No.	Field No.	Dimensions (Length, Breadth, Thickness in Mm.)	Present Location
1	4 601	74×42×26	A 23284	38a (3)	4 684	62×39×23	Teh.
1a	6 50	Fragments only	Teh.	(4)	4 826	61×30×22	Teh.
2	4 639	72×47×25	Teh.	(5)	4 394	62×44×23	Teh.
3	4 331	97×42	A 23212	(6)	4 646	71×47×23	Teh.
3a	6 279	77×36×26	Teh.	(7)	4 700	85×54×22	Teh.
4	4 385	51×39×13	A 23227	39	4 748	87×48×27	Teh.
5	4 675	45×36×18	A 23303	40	4 650	93×51×27	A 23293
6	4 445	41×31×18	Teh.	41	4 403	68×44×22	A 23234
7	4 262	40×30	Teh.	42	5 182	97×64×25	Teh.
8	4 743	39×33×18	A 23320	42a	5 512	67×35×21	Teh.
9	4 844	59×40×25	A 23335	42b	4 689	66×45×23	Teh.
9a	4 690	72×42×21	Teh.	43	4 709x	28×42	Teh.
9b	4 692	65×49×24	Teh.	44	4 444	67×39×25	A 23243
10	4 158	65×43	Teh.	44a	4 759	75×29×23	Teh.
10a	4 497	66×59×24	Teh.	45	6 75	93×52×30	Teh.
10b	4 1037	92×87	Teh.	46	4 848	79×54×22	A 23336
11	4 745	55×28×22	Teh.	47	4 678	74×50×24	Teh.
12	4 506	94×66×27	A 23259	48	4 679	69×44×23	Teh.
12a	4 757	56×46×23	Teh.	48a	4 740	63×44×20	Teh.
12b	4 752	91×53×27	Teh.	49	4 636	74×44×22	Teh.
13	4 737	63×46×20	A 23317	49a (1)	4 440	63×37×21	Teh.
14	4 395	65×48×20	Teh.	(2)	4 648	68×42×22	Teh.
15	4 673	7×52×21	A 23301	(3)	4 952	68×42	Teh.
16	4 746	53×37×18	A 23321	49b (1)	4 439	60×41×21	Teh.
17	4 507	58×31×24	A 23260	(2)	4 651	64×40×18	Teh.
18	4 652	71×52×21	Teh.	50	4 b		Teh.
19	4 747	58×43×21	A 23322	51	4 599	72×38×36	A 23283
20	4 443	61×35×25	A 23242	52	4 656	65×36×21	A 23295
21	4 676	59×40×16	Teh.	53	4 438	73×46×21	A 23241
22	4 726	78×49×23	A 23312	54	4 407	73×39×19	A 23235
23	4 638	69×38×25	A 23291	55	4 645	68×39×20	Teh.
24	4 332	63×34	Teh.	56	4 437	65×41×21	Teh.
25	4 421	59×39×22	A 23238	57	4 683	66×37×21	Teh.
26	4 674	62×41×24	A 23302	58	4 677	68×43×20	Teh.
27	4 680	74×52×21	A 23304	59	4 406	63×42×21	Teh.
28	4 749	77×60×26	A 23323	59a (1)	4 896	77×52×23	Teh.
29	4 862	72×56×23	Teh.	(2)	4 366	66×38	Teh.
30	4 655	65×47×25	A 23294	60	5 26	52×38	Teh.
31	4 883	61×42×23	Teh.	61	4 739	94×54×29	A 23318
31a	5 340	44×24	Teh.	62	4 333	79×32	A 23213
32	4 1014	61×36×25	Teh.	63	4 647	60×38×19	A 23292
33	4 975	63×47×21	A 23373	63a	4 658	79×58×23	Teh.
34	4 687	65×38×25	Teh.	64	4 905	89×43×28	A 23348
35	4 744	56×32×23	Teh.	65	4 751	90×52×25	Teh.
36	4 244	72×43	A 23186	66	4 654	105×49×29	Teh.
37	4 741	83×57×22	A 23319	67	4 405	93×45×28	Teh.
38	4 686	57×40×22	A 23307	68	4 436	74×43×21	A 23240
38a (1)	4 552a	67×40×22	Teh.	68a	4 849	62×41×20	Teh.
(2)	4 897	77×55×24	Teh.	69	4 a		Teh.

<sup>1</sup> The tablets acquired by the Oriental Institute are cited by accession number; those remaining in the National Museum in Teheran are indicated by the abbreviation Teh.

## PERSEPOLIS TREASURY TABLETS

Publication No.	Field No.	Dimensions (Length, Breadth, Thickness in Mm.)	Present Location	Publication No.	Field No.	Dimensions (Length, Breadth, Thickness in Mm.)	Present Location
70	4 672	90×47×27	A 23300	78	4 681	58×35×28	A 23305
71	4 802	65×36×32	Teh.	79	4 996	73×39×24	Teh.
72	4 477	57×33×26	Teh.	80	4 659	54×36×27	A 23297
73	4 842	76×44×27	Teh.	81	4 657	51×37×18	A 23296
74	4 693	65×41×27	Teh.	82	4 610	33×28×15	A 23286
75	4 471	65×49×25	A 23253	83	4 682	42×32×20	A 23306
76	4 441	75×47×27	Teh.	84	6 325		Teh.
77	4 753	66×38×26	A 23324	85	4 808	106×71×28	A 23331



## PLATES





1

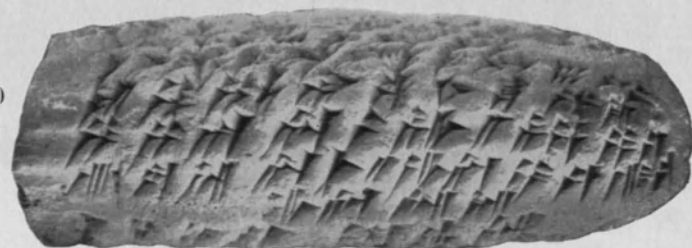
13



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20



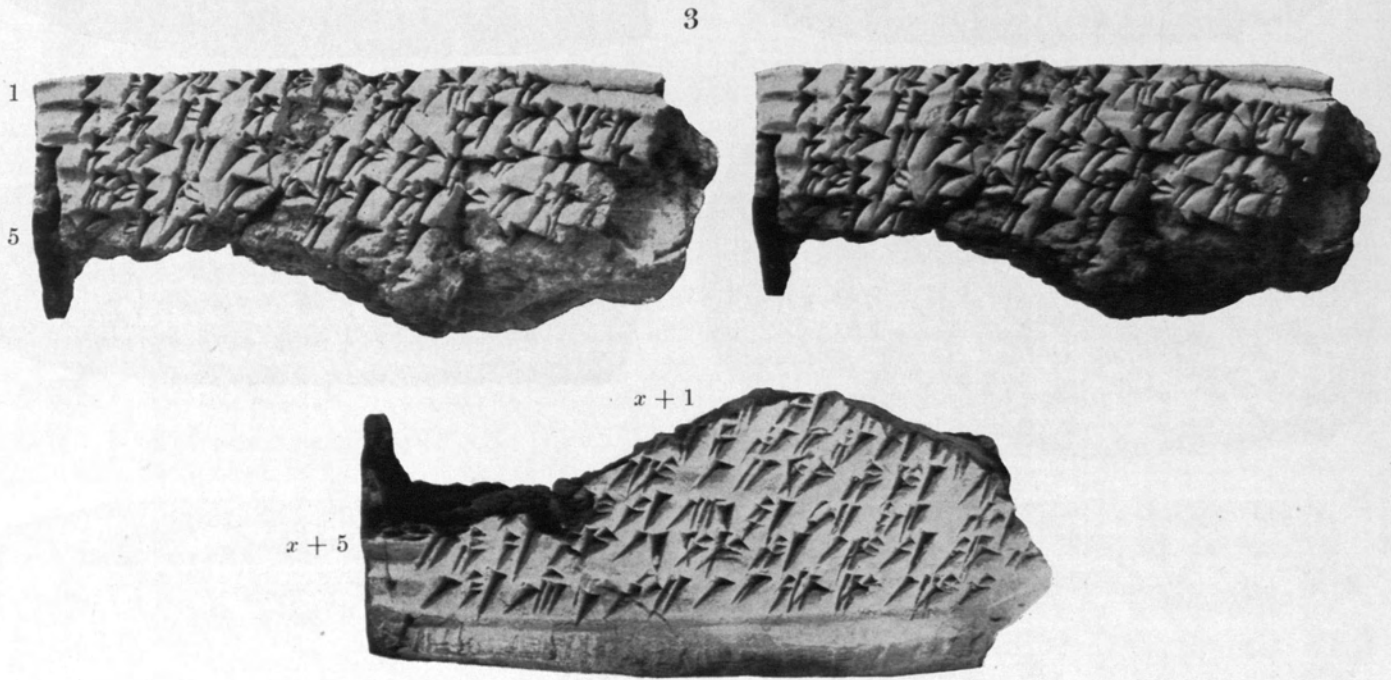
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PLATE II



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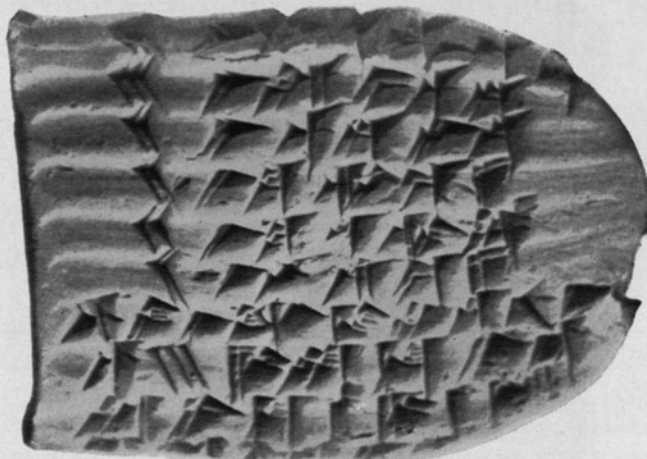


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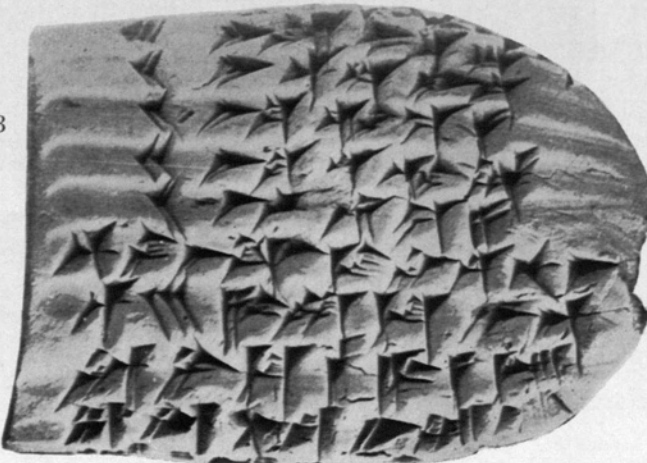


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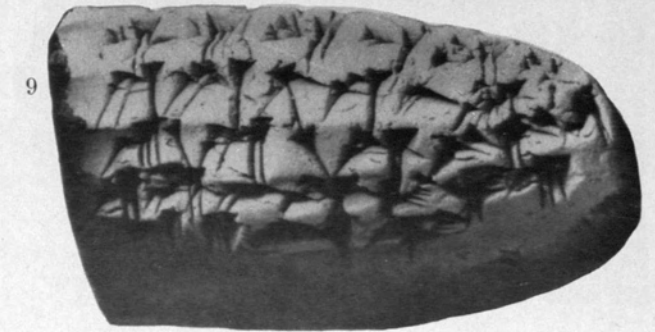
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PLATE IV



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PLATE VI



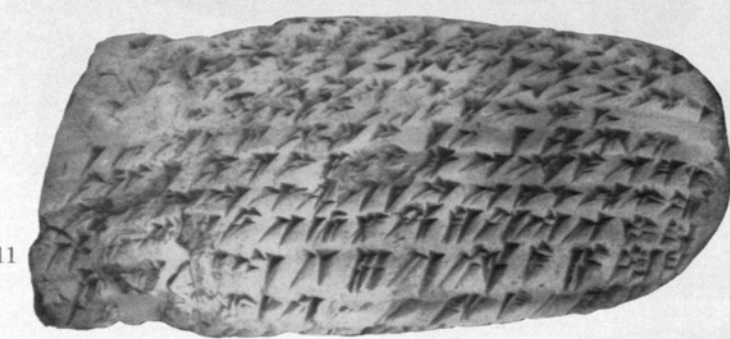
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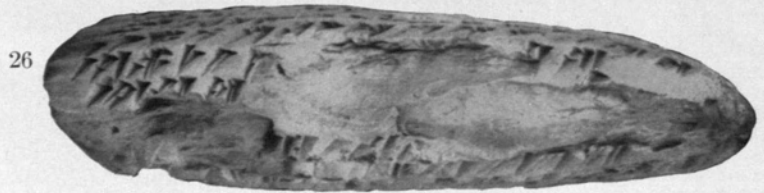


PLATE VIII





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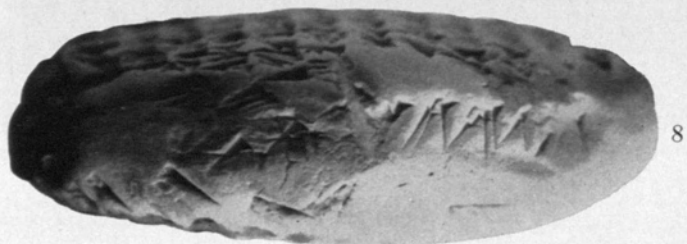
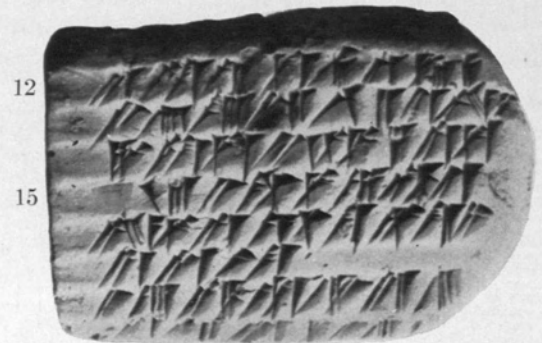


PLATE X

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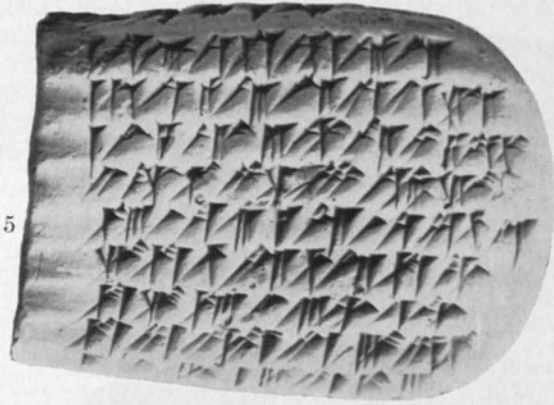
17



8

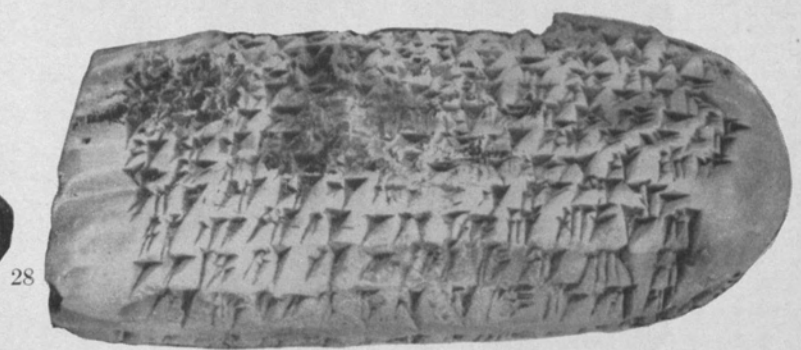
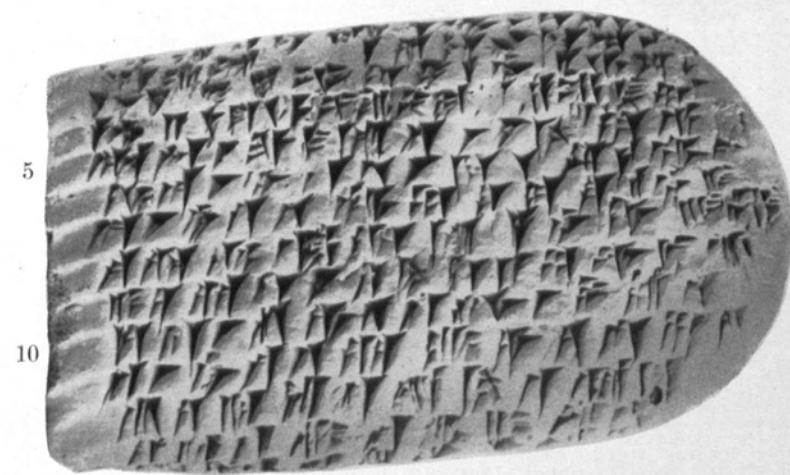
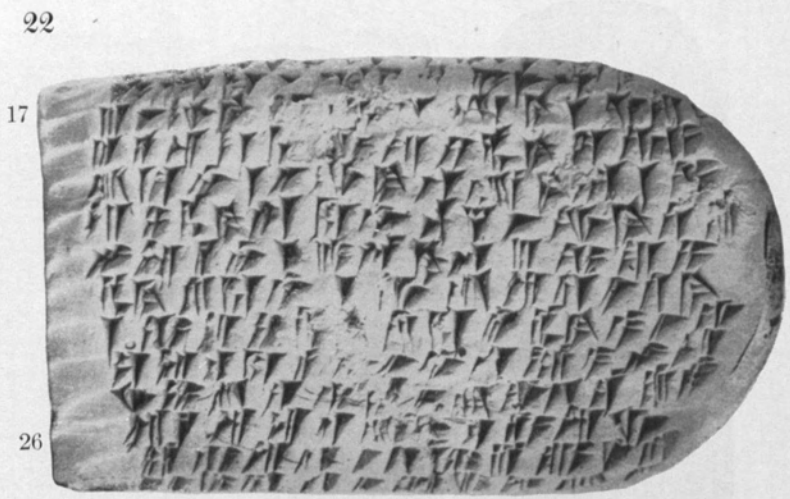
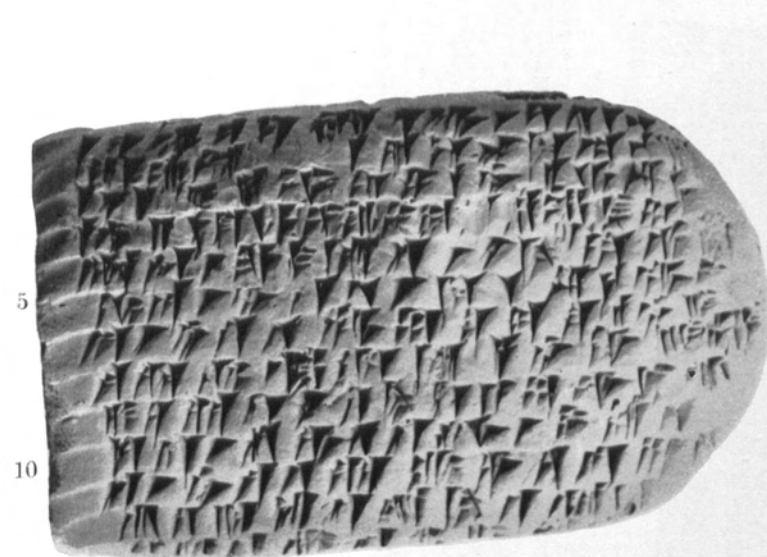
PLATE XII

19



20







23



8



5



11



17



24\*

1



11



15

2



18



9



4



\* Persepolis Expedition photograph; see p. ix.

PLATE XVI



25



26



PLATE XVIII

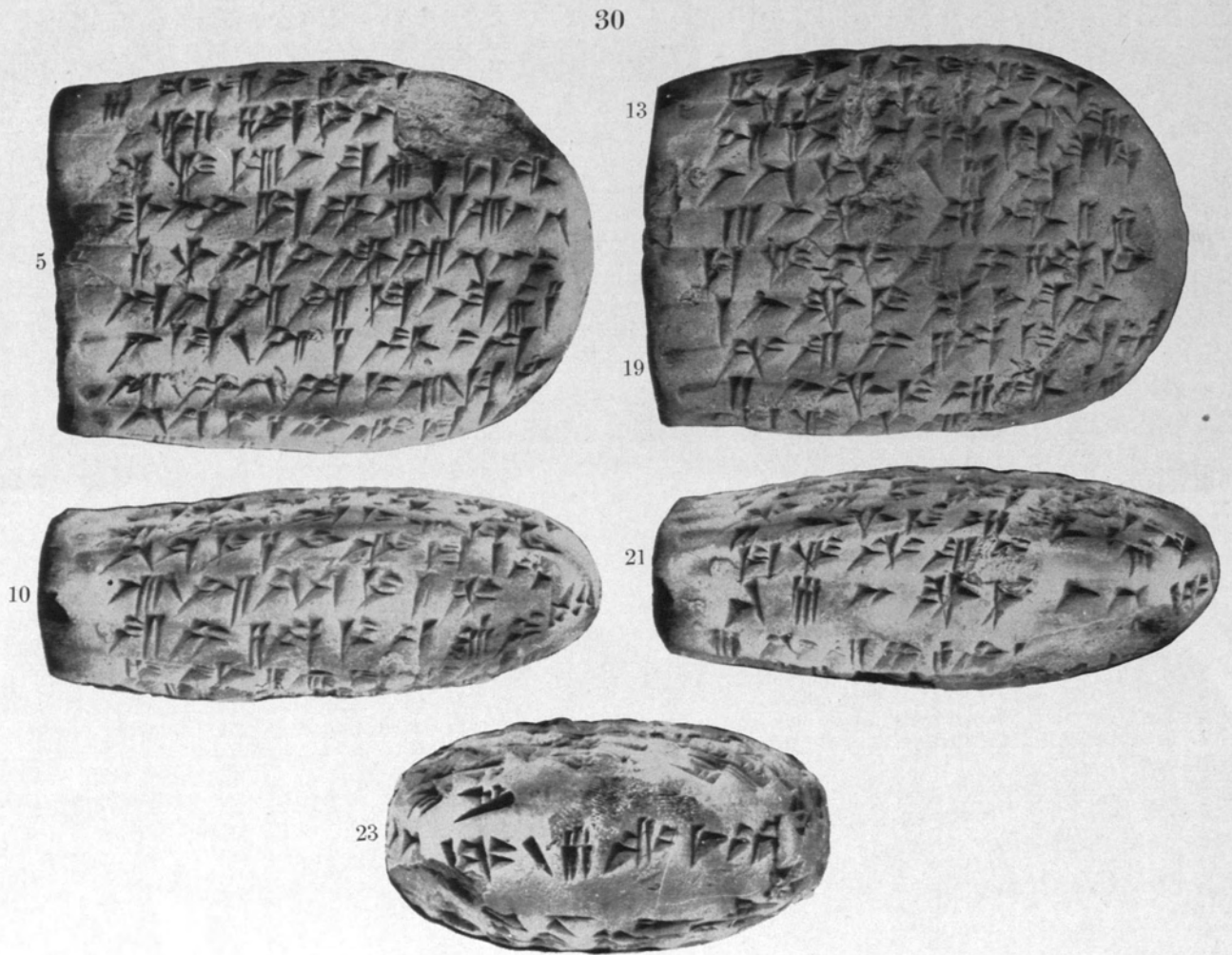


27





PLATE XX



33



PLATE XXII



36



17





37



13



19



14



21

11



5



17

10

PLATE XXIV

38

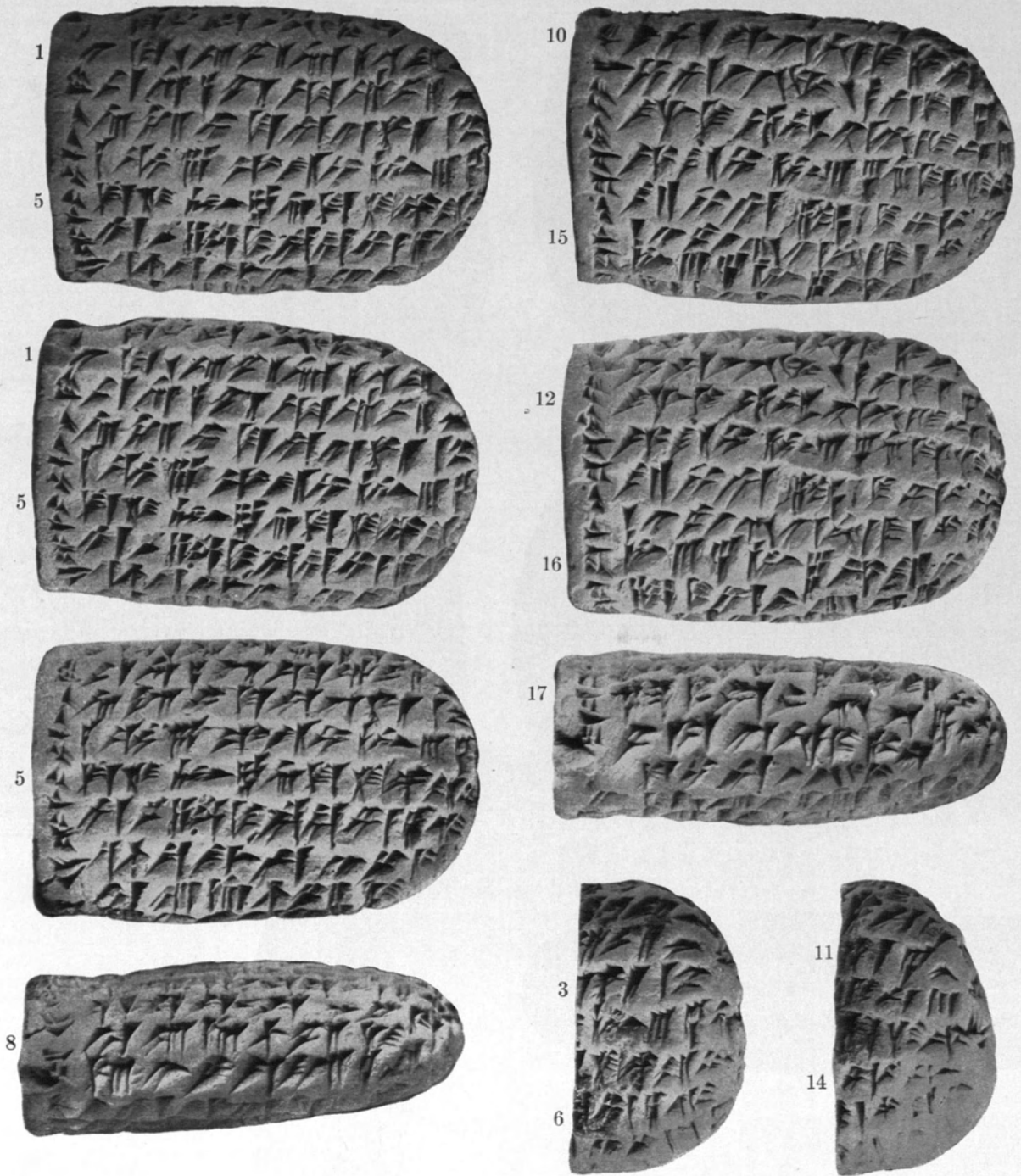




PLATE XXVI

41



42\*



1



13



17

20



3

7



25



12



5

10



17

21

\* Persepolis Expedition photograph; see p. ix.

44



45\*



22



\* Persepolis Expedition photograph; see p. ix.

46



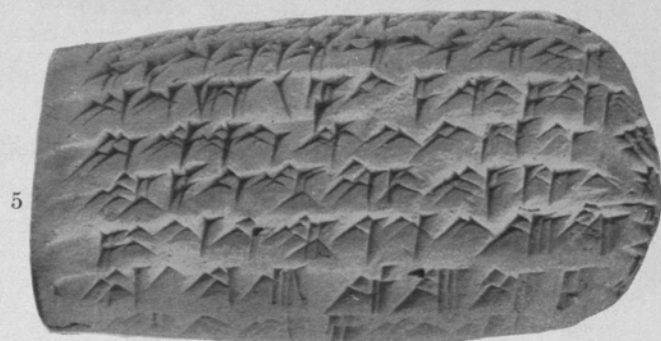
PLATE XXX

51



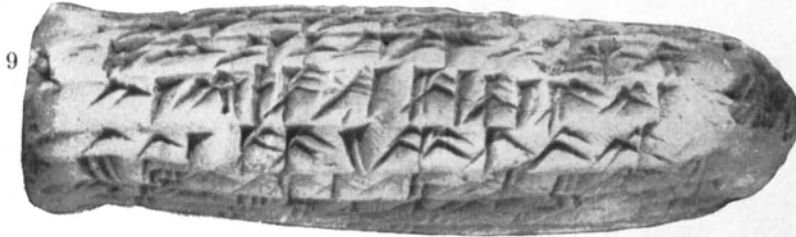


52



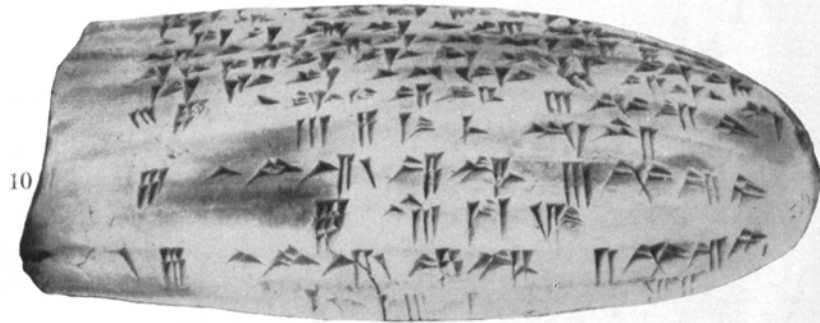


53



54





62

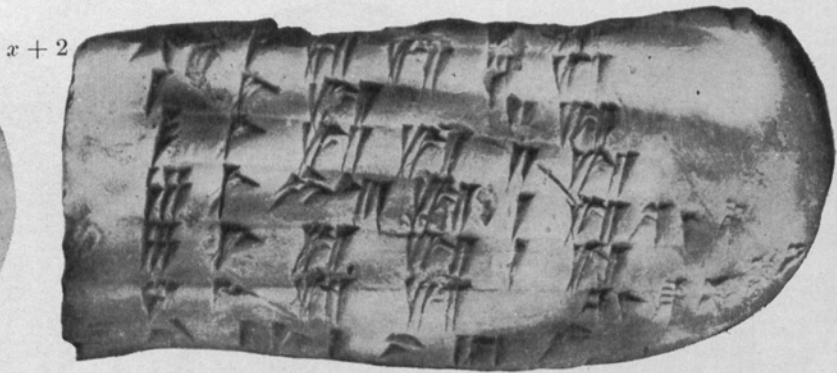


PLATE XXXVI



63





67\*



\* Persepolis Expedition photograph; see p. ix.

PLATE XXXVIII





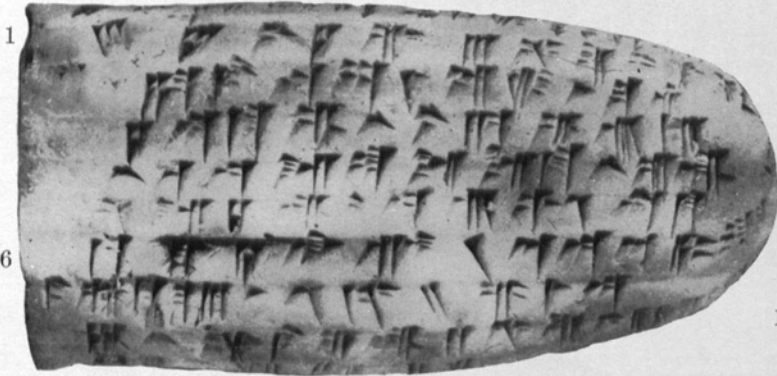
70



12



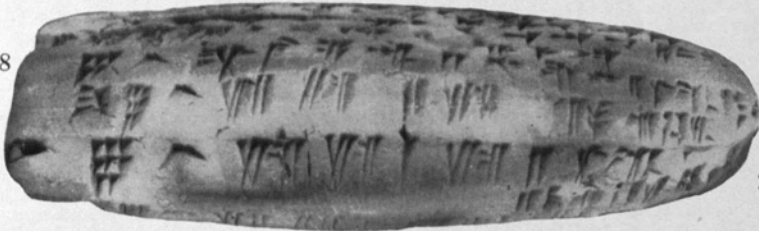
16



19



8



22



10



8

11



PLATE XL

75



77



PLATE XLII

78



80



PLATE XLIV

81



82



83



84\*

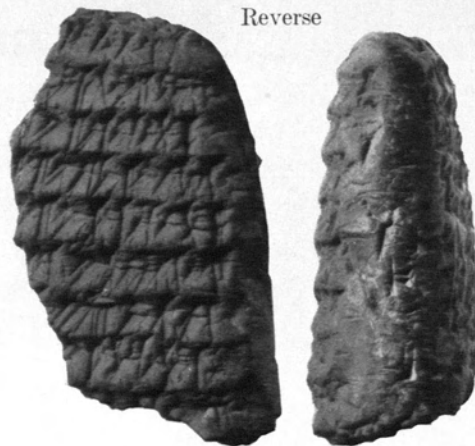
Obverse



End



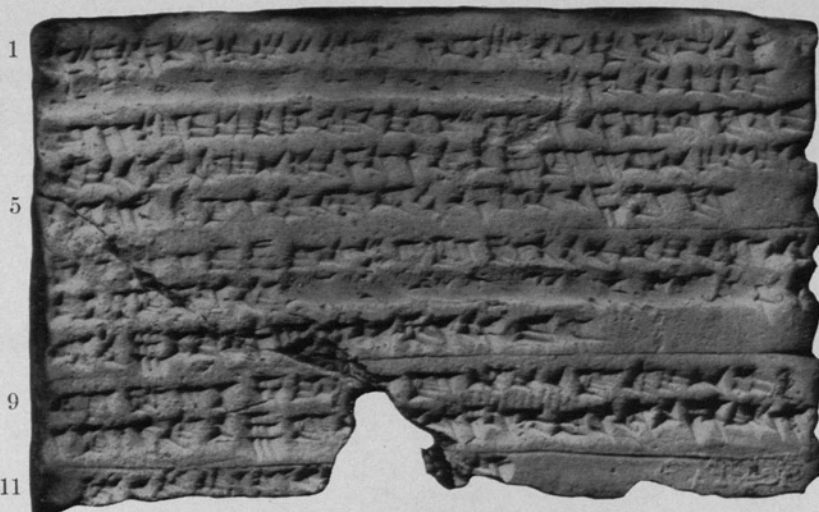
Reverse



\* Persepolis Expedition photograph; see p. ix.

85

Obverse



Right end

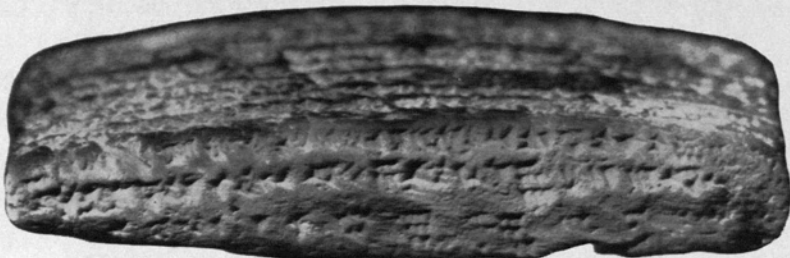
12



Reverse



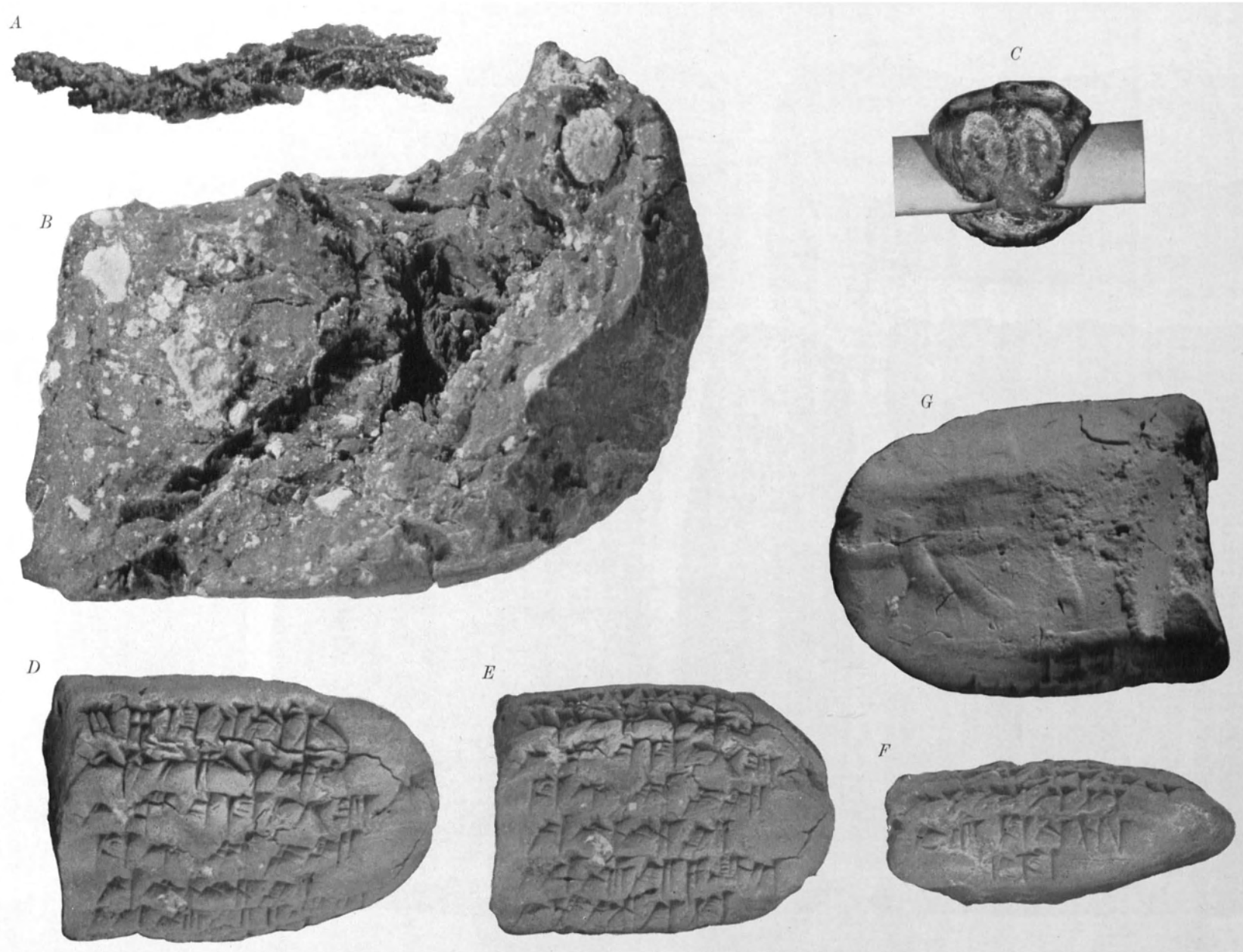
14



Left end

16





DETAILS OF TABLET MANUFACTURE

- A. Cord from interior of Fort. 6751, magnified 5 times.  
 B. Interior of Fort. 6751, showing knot and impression of cord (see p. 26), magnified  $3\frac{1}{2}$  times.  
 C. Oriental Institute "sealing" (A 3761) from Uruk (with roll of paper inserted in tube) showing impression left by cords which were tied around the parchment or papyrus roll and which protruded from the "sealing."  
 D-G. Typical Fortification tablet (Fort. 5903). D-E, obverse; F, edge; G, reverse.