

GELB

Memorandum on

TRANSLITERATION AND TRANSCRIPTION OF CUNEIFORM

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by

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INTRODUCTION

1. The publication of Le syllabaire accadien (Paris, 1926) and Les homophones sumériens (Paris, 1929) by the great French Assyriologist, F. Thureau-Dangin, started a new epoch in the field of Assyriology. By trying to bring order into the existing systems of transliteration Thureau-Dangin well earned the gratitude of all those scholars who had anything to do with the transliteration of the various cuneiform systems of writing.

2. What started primarily as a system for differentiating the various polyphonous values has grown gradually (and is still growing), through no fault of Thureau-Dangin's, into a monstrosity which shows little understanding for the basic principles of cuneiform writing and, even less, for the practical application of the problem.

3. I can talk all the more freely on the subject since I myself am indirectly responsible, through my article "Additional Akkadian Values" in AJSL LIII (1936-37) 34-44 and 180-187, for contributing to the wrong slant which the problem of transliteration of cuneiform has taken in the last few years.

4. The very fact that since the publication of my AJSL article I have been able to accumulate several hundred additional Akkadian and Sumerian values has persuaded me more than anything else that the time has come to put a stop to the unbridled expansion of the existing transliteration system.

5. Literally thousands of new values can be obtained through the modern tendencies to "correct" the ancient scribes, through taking too seriously the so-called "rebus" values found only in one author or text, and through confusing phonetic problems with the system of transliteration. The rigid interpretation of certain theories, exemplified in such transliterations as a₁₁-n a (Poebel, AJSL LI [1934-35] 166) for a n - n a or a (n) - n a, is another case which, if fully applied, would lead to the creation of hundreds of new values.

6. It is significant of Thureau-Dangin's greatness that a number of reforms proposed in this paper revert to Thureau-Dangin's original ideas and practices, which unfortunately he was persuaded to give up in his SA and HS, following some ill-advised suggestions on the part of his Assyriological colleagues.

7. The present paper grew out of a need for a system of transliteration to be used by the staff of the Chicago Akkadian Dictionary. It aims not at the rejection of Thureau-Dangin's system but at its simplification and systematization. Its original draft was submitted for consideration in April 1948 to a group of Chicago Assyriologists composed of Messrs. F. W. Geers, R. T. Hallock, A. Heidel, T. Jacobsen, L. Oppenheim, and A. Salonen, and after a prolonged discussion it was approved by them in principle. The revised draft is presented herewith to Assyriologists at large for further consideration and discussion with the fervent hope that some common understanding may soon be reached to achieve a system of cuneiform transliteration on an international basis.

GENERAL REMARKS ON TRANSLITERATION AND TRANSCRIPTION

8. Transliteration is a form of graphic transfer wherein one sign (or a combination of alphabetic signs and artificial symbols) stands for each character of the writing we are recording. Thus three cuneiform signs can be transliterated as i-din-nam or i-di(n)-nam.

9. Transcription is a form of graphic transfer wherein one sign (or a combination of alphabetic signs and artificial symbols) stands for each phoneme of the language we are recording. Thus the three cuneiform signs transliterated as i-din-nam or i-di(n)-nam are to be transcribed as iddinam.

10. Transcription is of secondary importance in Assyriology. Note that transcriptions of languages recorded in cuneiform writings reproduce always linguistic forms reconstructed from transliterations since we do not have at our disposal informants speaking the original languages.

11. For the definitions of transliteration and transcription as used in linguistics cf. among others (O. Jespersen and H. Pedersen), Phonetic Transcription and Transliteration (Oxford, 1926); L. Bloomfield, Language (New York, 1938) pp. 85 and 90; G. L. Trager in Studies in Linguistics I, No. 20 (June, 1943) p. 1.

12. Transliteration and transcription are two separate problems and they should never be confused. The aim of transliteration is to record faithfully the original writings, avoiding as much as possible the element of interpretation; the aim of transcription is to record linguistic forms, and in case of languages preserved in cuneiform these can only be reconstructed through interpretation.

13. In using side by side transliterated and transcribed forms we can enclose the latter in braces by writing i-di(n)-nam{iddinam}.

14. The symbols for signs and phonemes as used in transliteration of cuneiform and transcription of languages preserved in cuneiform are those traditionally used in Assyriology and therefore they do not necessarily correspond to the symbols proposed by the International Phonetic Association.

15. Assyriologists in general have been confusing transliteration with transcription. Cf. AOF VI (1930-31) 295 ff. and VIII (1932-33) 223 f., where the term "transcription" is regularly used for what should be called "transliteration."

16. For examples of partial confusion of transliteration with transcription in cuneiform usage cf. e. g.:

Instead of ^dEN.ZU we "transliterate" dSîn interpreting the medial vowel(s) as i, thus forgetting that the spoken form--at least in older periods--may have been not sîn but suen, suin, or the like.

Instead of KUG.GI we write GUŠKIN or g u š k i n, using a form with medial š which, although attested in syllabaries, may not have existed in early Sumerian. Note also the spelling KUG.KI in Cappadocian.

Instead of TI-ki or TI-qi₂, we write ilqî^{q1}₂, although the form may

have been not only ilqî but also ilteqî or really ilteqê.

Instead of DUMU we write mâr, mêr, although in some periods the forms may have been mara', marâ, mera', or merâ.

Instead of il-zi in case of transliterations of Boğazköy or Nuzi sources we write il-si₂, although nothing is known about the pronunciation of sibilants in these outlying regions.

CHARACTER OF CUNEIFORM WRITING

17. All the cuneiform writings which originated directly or indirectly from the old Sumerian system have in common the following classes of signs: (1) logograms or word signs, (2) syllabograms or syllabic signs, (3) the so-called "determinatives" or semantic indicators, and (4) the so-called "phonetic complements" or phonetic indicators.

LOGOGRAMS

18. In Sumerian writing all logograms with indicated reading should be in lower case spaced roman:

l u₂

l u₂ - g a l

k u (g) - b a b b a r

19. In Sumerian writing all logograms or parts of logograms with unindicated reading should be in small cap roman:

SAL

HAR- r a

PA.TE- s i (or possibly e n₅ - s i)

20. In Akkadian writing all logograms and Sumerograms should be in small cap roman, regardless of whether their Sumerian reading is indicated or not,

LU₂

KUG.BABBAR

ARAD.ZU (this is a Sumerogram, i.e. Sumerian writing functioning
logographically in Akkadian)

HAR.RA

PA.TE.SI

21. While it would be relatively simple to distinguish by hyphen compound logograms with indicated reading (e.g. KUG-BABBAR) and by a dot those with unindicated reading (e.g. KI.KAL.BAD), too many complications are involved in the case of compound logograms with partially indicated readings. For that reason, it is suggested to write HAR.RA even though this spelling leaves unindicated the fact that while the reading of RA is known, that of HAR is not. Also, it is preferred to write in Akkadian KUG.BABBAR, not KU(G).BABBAR.

22. In some cuneiform systems even Akkadian spellings function sometimes as logograms. Thus in Cappadocian we should write:

SA.TU not sa-tu or ša₁₀-du₄ in the p.n. Puzur-šaduim or Puzur-šadwim

EŠ₄.DAR-za-at not Eš₄-tar₂-za-at (for Manzat?)

^dUD.ŠI not ^dUD-ši (for šamsi) because the sign ŠI does not have the
value ši in Cappadocian

NIK₂.KA-zi not nik₂-ka-zi or nik₂-ka-si₂ because the signs NIK₂ and KA
are not used syllabically in Cappadocian

23. It would of course be feasible to indicate such artificial logograms by putting them in small cap italic; however there is no need for burdening the system with such additional differentiations.

SYLLABOGRAMS

24. In Sumerian writing all syllabograms should be in lower case spaced roman;

m u - n a - b a - a l

s a - b a r - a - n i

m u - n a - a n - d u₃ (3 syllabograms + 1 logogram)

25. In Akkadian writing all syllabograms should be in lower case italic;

be-lum ra-bi-um

26. In some cases, in both Sumerian and Akkadian, syllabograms with unknown or uncertain interpretation should be written in small cap roman;

^dB a - U₂ in cases where the reading of U₂ as u₂, b a₆, or b u_x is not sure

e-BE-lu in cases where the reading of BE as be or til is not sure

DETERMINATIVES

27. The so-called "determinatives" are really semantic indicators which were attached to a basic logogram to facilitate its reading.

28. The symbols for determinatives and their abbreviations should be so chosen as to be of international use. Therefore such usage as ^c for city or ^{mt} for mountain should be avoided.

29. I would propose the use of Sumerian logograms for determinatives, written in raised lower case roman to avoid typographic difficulties with the raised cap types: ^e₂, giš, hur-sag, id₂, itu, kam, ki, ku₆, kur, kuš, lu₂, mul, mušen, na₄, sig₂, tug₂, udu, uru, and uzu. In addition I (i.e. Roman number), originally a symbol marking the beginning of an entry, could be used for masculine names and, in the earlier periods, also for feminine personal names; ^f for feminine personal names; ^d for divine names; II for dual. In Akkadian the determinatives of plurality DIL.DIL, HI, HI.A, ME, ME.EŠ, and MEŠ should be written on the line as part of Sumerograms. E.g. DINGIR.MEŠ, URU.DIL.DIL-ni, TUG₂.HI-ti₂.

30. In view of typographic difficulties with the raised types with lowered numbers (or raised diacritics) we should perhaps consider the possibility of totally revising the system by introducing Latin abbreviations. E.g. instead of

lu₂ or lú we could write ^h from homo. However, this suggestion is against the system and it should not be seriously entertained.

PHONETIC COMPLEMENTS

31. The so-called "phonetic complements" started as phonetic indicators which were attached to a basic logogram to facilitate its reading. From this secondary position phonetic complements rose to a position of equal phonetic standing with logograms. In some systems, such as Egyptian and hieroglyphic Hittite, frequent writing of full phonetic complements reduced the value of logograms to the secondary position of determinatives. Full phonetic complements are sometimes found in the Sumerian and Cappadocian systems of writing. The use of phonetic complements with syllabograms is relatively rare in cuneiform.

32. Place phonetic complements on the line and shorten by parentheses, if necessary, the value of the logogram or syllabogram to which the phonetic complements are attached:

a (n) - n a (or even a (n a) - n a from a n a ⁿ a)

b a n (d a) - d a

g i š^gestug₂ t u g₂ or g i š - t u g₂^gestug

E₂-ti

ébi-ti₂ (in Cappadocian)

ha-mu(š)-uš-tim

ša-ni-(n)im

e-TU-ub for êrub (in N. A.)

33. The writing of phonetic complements here proposed in the form E₂-ti deviates radically from the various forms heretofore used in Assyriology: bîti^{ti}, bîti(ti), bîti(E₂)^{ti}, bîti(E₂)-ti, bî_{ti}-ti, or the like. It has the advantage of using the principle of sign-by-sign transliteration and avoiding the element of interpretation. Whenever necessary, transcription could be added in the form E₂-ti { bîti }.

TRANSLITERATION OF CUNEIFORM SYSTEMS USED ON FOREIGN SOIL

34. In the case of cuneiform systems used on foreign soil, such as Hittite, Luwian, Hurrian, and Urartian, it is frequently customary to distinguish Sumerian and Akkadian logograms by putting the former in small cap roman and the latter in small cap italic, leaving lower case roman or italic (according to preference) for the transliteration of the syllabograms used for the local language. There is a definite need for bringing order into this matter. As to the choice between lower case roman and italic, the preference should be distinctly in favor of lower case italic, since lower case roman should be reserved for the modern language used by the author. It is at least debatable whether the advantages gained from distinguishing Sumerian and Akkadian logograms are not overshadowed by typographic difficulties and by the waste of time entailed in keeping track of different styles. I am in favor of transliterating all logograms--Sumerian and Akkadian--in small cap roman. Cf. on this problem E. F. Weidner in AOF VI (1930-31) 296 f.

35. For alphabetic arrangement of cuneiform systems used on foreign soil see § 104.

POLYPHONY AND HOMOPHONY IN CUNEIFORM

36. One of the principles involved in the definition of transliteration by the linguists requires the use of one symbol for each character of the writing we are recording. This principle cannot be fully applied to cuneiform writings with their well known characteristic of polyphony.

37. Polyphony and homophony are part and parcel of the cuneiform system of writing, although their importance has been greatly exaggerated by Assyriologists. Contrary to general belief, until the very last periods of cuneiform (i.e. N. A. and N. B.), there is in any particular area and period only limited polyphony

of syllabic signs and practically no homophony. Anybody who would take the trouble to count the individual signs with syllabic values in a single area and period--as I actually did in several instances--could easily ascertain for himself the truth of this observation. However, there is no question as to the existence of extensive polyphony and homophony if we include both logograms and syllabograms and take the whole field of cuneiform into consideration. There is e.g. in Deimel, ŠL I one sign UD which is attested with as many as 48 values, and there are 26 different signs for the values ge.

38. In talking about polyphony we should distinguish between full and qualified polyphony of a cuneiform sign. Full polyphony is involved in one cuneiform sign having the values ri and dal; qualified polyphony in one sign having the values ri and re or dal, tal and tal.

39. There seems to be no question about the need for the retention of full polyphonous values. We should write:

ding i (r) - r a	not a n - r a
a (n) - n a	not ding i r - n a
<u>i-dal-la-ah</u>	not <u>i-ri-la-ah</u>
<u>i-ri-ih</u>	not <u>i-dal-ih</u>

40. The question with qualified polyphonous values is more difficult.

41. I am inclined towards the retention of those polyphonous values which form part of the cuneiform system. Thus individual signs have the values:

<u>num</u> or <u>nim</u>	in <u>dan-num</u>	or <u>dan-nim</u>	<i>to be rewritten!</i>
<u>bu</u> or <u>pu</u>	in <u>a-bu</u>	or <u>a-pu</u>	
<u>ad</u> or <u>at</u> or <u>aṭ</u>	in <u>ad-din</u>	or <u>at-ma</u> or <u>aṭ-ru-ud</u>	
<u>li</u> or <u>le</u>	in <u>li-im-hur</u>	or <u>le-em-nu</u>	

42. But I see no reason for writing:

<u>ša₁₀-du₄-im</u>	instead of <u>sa-tu-im</u> (O. Akk.)
<u>pa₂-aṭ-ra-am</u>	instead of <u>ba-aṭ-ra-am</u> (O. A.)

il-qi₂ or il-qe₂ instead of il-ki (O. A., O. B.)

il-te-qe₂ instead of il-te-ge (Nuzi)

in those periods and areas in which the graphic distinction between voiced, voiceless, and emphatic sounds was either unknown or not fully developed. This would include Old Akkadian, Old Assyrian, Old Babylonian (in part), and Akkadian cuneiform used on foreign soil such as Boğazköy, Nuzi, etc. The values chosen for these phases of cuneiform should be normally those of the New Assyrian period.

43. In the Cypriote system, which does not indicate the distinction between voiced, voiceless, and aspirated consonants, we transliterate uniformly a-to-ro-po-se regardless of whether this writing stands for the Greek words anthrōpos, atropos, atrophos, or adorpos. In transliterating from older manuscripts we write uniformly "chevaux" or "knight" without bothering about the fact that these words were pronounced in a different way in older times. We transliterate CAIUS CAESAR following Latin even though we know that the two initials correspond to two different sounds. In all these cases transliteration is achieved by using one symbol for each character of the writing, not by a multitude of symbols each aiming at the reproduction of various intended or postulated sounds.

44. I must add that I found opposition from my colleagues in the Oriental Institute on the question of the proposal expressed in §42. As I personally feel rather strongly on this subject, thorough discussion and careful consideration of all the points involved are imperative.

45. Several reforms could be suggested to simplify Thureau-Dangin's system. By accepting them we could achieve: (1) a long step forward in the direction of sign-by-sign transliteration as preached by the linguists, (2) great saving of cost through avoiding many new values with high numbers (or complicated diacritics), and (3) easily understandable transliteration. These are the proposals.

46. Component elements of compound signs should be transliterated separately and in small cap roman, in both Sumerian and Akkadian:

KI.KAL.BAD	not	g a r a š ₂	or	GARAŠ ₂
AMAR.UD	not	M a r d u k _x	or	<u>Marduk_x</u>
A+ŠI or A.ŠI	not	e š ₉	or	EŠ ₉
KA+GAR	not	k u ₂	or	KU ₂
KA+ŠU.ŠA	not	p u z u r ₄	or	PUZUR ₄
ŠIM+MUG	not	š i m b u l u g ₂	or	ŠIMBULUG ₂
ŠIM+IGI	not	š i m b u l u g ₃	or	ŠIMBULUG ₃
ŠIM+BAL	not	š i m b u l u g ₄	or	ŠIMBULUG ₄

The customary transliteration of ŠIM+MUG and ŠIM+IGI as š i m b u l u g₂ and š i m b u l u g₃ in Sumerian has as much sense as if a linguist transliterated the spellings of "jail" and "gaol" as ĵeĵl₁ and ĵeĵl₂.

47. Exceptions to this rule would be compound signs whose component parts have either been forgotten or are little known and all those compound signs which are used regularly as syllabograms:

UC	or	u g	or	<u>ug</u>	not	PIRIG+UD
AZ	or	a z	or	<u>az</u>	not	PIRIG+ZA
AM ₃	or	a m ₃	or	<u>am₃</u>	not	A.AN
				<u>bu₃</u>	not	KA+ŠU (but KA+ŠU as a logogram)
AG ₂	or	a g ₂	or	<u>ram</u>	not	NINDA ₂ +ME
ŠAM ₂	or	š a m ₂	or	<u>šam₂</u>	not	NINDA ₂ +ŠE.A.AN or NINDA ₂ +ŠE.AM ₃
MEN	or	m e n			not	PISAN+ME.EN

48. There is no reason for writing:

KUBABBAR or k u b a b b a r instead of KUG.BABBAR or k u (g) -
b a b b a r

ARA₈ or a r a g instead of A.RA₂ or a - r a₂
Aššur instead of Aš-šur or Aš+šur
Ištar instead of Eš₄-tar₂ or Eš₄+tar₂

49. The listing of innumerable variant forms of Sumerian logograms such as:

ANŠE, ANŠI, ANŠU

GIDRI, GIDRU, MIDRA, MUDRU

HALBA₅, HALBI₅, HALMA, HALWA

ARAD, ARDA, ER₃, ERAD(?), ERI₂, ERUM(?), IR₃, URDU

is a problem not of transliteration but of phonology. For the purpose of transliteration of logograms only one of these forms should be picked and used regularly to stand as a symbol for the intended logogram.

50. The problem of variant forms of Sumerian logograms which resulted in different syllabic values is of another nature. Thus while the sign NI with the meaning "oil" should have only one logographic value (either i_3 or $i a_3$ in Sumerian, I_3 or IA_3 in Akkadian), it has at the same time at least two syllabic values (i_3 and $i a_3$ in Sumerian, i_3 and ia_3 in Akkadian).

51. There is no reason for writing:

z i - d a	instead of	z i (d) - d a
z i ₃ - d a	instead of	z i (d) ₂ - d a
k a l a - g a	instead of	k a l a (g) - g a
a ₁₁ - n a (AJSL LI 166)	instead of	a (n) - n a
i ₇ - d a	instead of	i (d) ₂ - d a
b a r ₂ or b a r a ₂	instead of	b a r (a g) or b a r a (g)
<u>a₃-su-u</u>	instead of	<u>(w)a-su-u</u>
<u>liq-ba-a₄</u>	instead of	<u>liq-ba-a(m)₃</u>
<u>Gar-ga₄-mis</u>	instead of	<u>Gar-ga(r)-mis</u>

52. Parentheses were frequently thus employed by Thureau-Dangin in SAKI and were defended later against Thureau-Dangin himself by S. Langdon in AOF VIII (1932-33) 223.

53. Shorter values should be used in^{the} case of common syllabic (but not logographic) signs. Thus write:

z i	or	<u>zi</u>	not	z i (d)	or	<u>zi(d)</u>
t u	or	<u>tu</u>	not	t u (d), t u (r) ₅	or	<u>tu(d)</u> , <u>tu(r)₅</u>

54. A number of new syllabic values have been proposed as a result of mis-correcting ancient scribes. Therefore do not correct the ancient scribes unless absolutely necessary! If the scribe wrote a-wi-lim where we should expect a-wi-lam, we should write a-wi-lim (mistake for awīlam?), not a-wi-lam₅. In some clear cases we may write i-pu!(wr. še)-uš.

55. There is a definite need for a thoroughgoing cleanup of the existing lists of polyphonous and homophonous values. All the newly proposed values should be collected by one central source and carefully sifted and evaluated before being introduced into the system.

56. The main divergence between Thureau-Dangin's and Deimel's methods of marking homophonous values lies in the former's using diacritics and numbers, while the latter uses numbers throughout. Thus

Thureau-Dangin writes	bar, bara, unu	while Deimel writes	bar, bara, unu
	bár, bára, unú		bar ₂ , bara ₂ , unu ₂
	bàr, bàra, unù		bar ₃ , bara ₃ , unu ₃
	bar ₄ , bará, únu		bar ₄ , bara ₄ , unu ₄
	bar ₅ , barà, ùnu		bar ₅ , bara ₅ , unu ₅
	bar ₆ , bara ₆ , unu ₆		bar ₆ , bara ₆ , unu ₆
	etc.		etc.

57. From the examples given above we see that Thureau-Dangin uses diacritics for the second and third values in the case of monosyllabic signs and two sets of diacritics for the second through fifth values in the case of dissyllabic signs. Diacritics of the type bára, bàra, bará, barà are used for dissyllabic signs which can also appear in shorter forms bár, bàr, bar₄, bar₅, while diacritics of the type unú, unù, únu, ùnu are used for signs which do not appear in shorter forms. However, there are cases in Thureau-Dangin's system which are not in accordance with these rules, such as buru₄, buru₅, duru₄, duru₅, etc.

58. It must be noted that Thureau-Dangin originally thought of using numeration throughout to distinguish homophonous signs but ~~was~~ swayed by Zimmern in favor of diacritics. Cf. SA p. VII.

59. The advantages and disadvantages of the two methods should be discussed and a decision should be reached as to which of the two should be accepted for general use. By accepting Deimel's method of numeration we can achieve greater uniformity, thus leaving open the possibility of using diacritics for other purposes than that of differentiating homophonous values.

60. In order to help in visualizing the problems of transliteration I am giving below three examples transliterated in both the old and the new method. The first one gives the text of an Old Akkadian seal (RTC 170), the second the beginning of a Cappadocian (=Old Assyrian) letter (BIN IV 42), and the third the beginning of a Nuzi text (JEN 435).

61. Example from Old Akkadian:

Old	New
1) <u>^dNa-ra-am-^dSin_x</u> (or <u>^dSin(EN.ZU)</u>)	<u>^dNa-ra-am-^dEN.ZU</u>
2) <u>il₃</u> (or <u>il(DINGIR)</u>) <u>A-ka₃-de₃^{ki}</u>	DINGIR <u>A-ga-de₃^{ki}</u>
3) <u>Šar-ri₂-iš-ta₂-kal₂</u>	<u>Šar-ri₂-iš-da-gal</u>
4) <u>tu^šsarrum_x</u> (or <u>tu^šsarrum(DUB.SAR)</u>)	DUB.SAR
5) ?	ARAD.ZU

62. Example from Cappadocian:

Old	New
1) <u>a-na Puzur₄</u> (or <u>Puzur₄(KA+ŠU.ŠA)</u>) <u>-A-šur u₃</u>	<u>a-na KA+ŠU.ŠA-A-šur u₃</u>
2) <u>I-ku-pi₂-A-šur</u> <u>qi₂-bi-ma</u>	<u>I-ku-bi-A-šur</u> <u>ki-bi-ma</u>
3) <u>um-ma</u> <u>Sa₃-ba-zi-a-ma</u> <u>ma-ša-ar-tam₂</u>	<u>um-ma</u> <u>Za-ba-zi-a-ma</u> <u>ma-za-ar-dam</u>
4) <u>pi₂-ti₂-a-ma</u> <u>tu^š-pi₂</u> <u>bi-ri-a-ma</u>	<u>bi-ti₂-a-ma</u> <u>DUB-bi</u> <u>bi-ri-a-ma</u>

63. Example from Nuzi:

Old	New
1) <u>tup-pi₂</u> <u>ri-ik-si₂</u> <u>ša</u>	DUB-bi <u>ri-ik-zi</u> <u>ša</u>
2) <u>^mGe-el-Te-šup</u> <u>mâr</u> <u>Hu-ti-ia</u>	<u>^IGe-el-Te-šup</u> DUMU <u>Hu-ti-ia</u>
3) <u>it-ti₄</u> <u>^mE-he₂-el-Te-šup</u> <u>mâr</u> <u>Pa-a-a</u>	<u>id-di</u> <u>^IE-he₂-el-Te-šup</u> DUMU <u>Pa-a-a</u>
4) <u>[i]-na</u> <u>be-ri-šu-nu</u> <u>ri-ik-sa₃</u> <u>ir-ku-su₂</u>	<u>[i]-na</u> <u>be-ri-šu-nu</u> <u>ri-ik-za</u> <u>ir-ku-zu</u>

CAPITALIZATION OF INITIALS OF PROPER NAMES

64. In view of the aim of transliteration to avoid as much as possible the element of interpretation I was originally against the capitalization of initials of proper names. It had seemed to me that there was no reason for us in modern times to indicate a characteristic distinction which the ancients failed to make in their writing. However, so many advantages in our understanding of the text can be achieved through capitalization of the initials of proper names that it may seem worth while to reconsider the problem from both points of view. We may possibly consider adopting capitalization in transcription only.

EXPRESSION OF QUANTITY IN AKKADIAN

65. The expression of vowel quantity in transcribing Akkadian is at the present time one of the most vexing problems. There are two ways of attacking such a problem; either to indicate vowel quantity following schematically the original writing or to indicate it on the basis of grammatical reconstructions. As vowel quantity was either left totally unindicated in the Akkadian systems of writing or indicated very inadequately (chiefly in the N. A. and N. B. periods), it is impossible to introduce a system based solely on reproduction of original writings. Consequently the only adequate system that can be proposed must be based on grammatical reconstructions.

66. The system here tentatively proposed is, with some changes, the result of amalgamation of certain ideas expressed and put in practical use by A. Goetze

in Language XX (1944) 165, Orientalia, N.S. XVI (1947) 239 f., and elsewhere and by T. J. Meek in JNES V (1946) 64, n. 4.

67. I propose the use of three symbols:

- macron to indicate grammatical length, as in māhāru, māhiru, māhīru, imhūrū
- ^ circumflex to indicate length resulting from contraction of a vowel plus a weak consonant or a weak consonant plus a vowel, as in īmur <*i>mur, zību <*zi>bu, bītu <*bajtu, rabī <*rabij, rabū <rabju, hadīš <*hadwiš
- ~ tilde to indicate length resulting from contraction of two syllables, as in mātu <*mawātu, ilqū <ilqiu (subj.) and <ilqiu (pl.), ūbbit <u>abbīt

68. Problems to consider:

How to indicate rabī which was reduced to rabi (later still further reduced to rab)?

How to indicate the reduction in ibaššī > ibašši, while noting that ibaššī-ma, ušabšī-šu do not seem to be reduced to ibašši-ma, ušabši-šu?

Are we at any time entitled to write ikūn <*ikwun or ikūnū <*ikwunū?

Are we entitled to write ikunnū <*ikawwanū (besides ikan <*ikawwan)?

69. From the Old Babylonian period on in the case of the Babylonian system of writing and from Middle Assyrian on in the case of Assyrian cuneiform, double consonants followed by a vowel are regularly indicated in the well known method; dannu is written da-an-nu, nudunnū is written nu-du-un-nu-u₂/u.

70. However, final double consonants are never indicated in the writing, although they may very well have been pronounced. Thus the writing šar should probably be transcribed (not transliterated!) as šarr, that of da-an as dann. See provisionally Gelb, IAV p. 21 and Gelb, Purves, MacRae, NPN p. 7.

71. It should be strongly emphasized that such spellings as i-din-nam,

u-bar-rum, li-bur-ra-am can only be accepted as expressing double consonants if they are found beside spellings of the type i-di-in-nam or i-di-in-na-am, u-ba-ar-rum or u-ba-ar-ru-um, and li-bu-ur-ra-am. As long as the latter spellings cannot be attested we should transliterate the former spellings as i-di(n)-nam { iddinam }, u-ba(r)-rum { ubārum }, and li-bu(r)-ra-am { līburam }. The use of transcriptions enclosed within braces is optional. This problem was discussed in a note to No. 28:4 in my Old Akkadian Inscriptions in Field Museum of Natural History (unpubl.).

72. In the earlier periods of cuneiform writing, when no general method of indicating consonant quantity or double consonants existed, several ways were sporadically devised to circumvent this shortcoming.

73. One method was by reduplication of a whole syllable, as in the Cappadocian examples A-šur-i-me-ti₂-ti₂ { Aššur-imitti }, A-šur-i-di₂-di₂ { Aššur-iddi(n) } quoted in Gelb, IAV p. 20, n. 9.

74. Another device is illustrated in the spellings li-i-ba Aš_r-dar { libb Aštar } "the heart of Išhtar" and ki-i-ta-am { kittam } found in an Isin inscription discussed by Poebel in OLZ XXV (1922) 511 and AS No. 3, p. 45.

75. Still another device was achieved by "broken" writing, exemplified by the following cases: Šar-um-GI (in Sumerian) = Šar-ru-GI (in Akkadian) in the Old Akkadian inscriptions treated by Poebel, PBS IV pp. 173 ff.; DINGIR-qar-ad { Num-qarrād } in YOS IV 156:1; names composed with en-um { ennum } in Ur III (Schneider, Orientalia XXIII f. p. 67) and Cappadocian (Stephens, PNC pp. 36 ff.) texts. This problem was discussed by T. Jacobsen (unpubl.).

76. On the other hand, spellings like Te-hi-ip-pa-pu { Tehip-apu } (Gelb, Purves, MacRae, NPN pp. 151 f.) and Ku-ru-ub-bi-la-ag (Delaporte, ITT IV p. 6, No. 7067) { Kur(u)b-Ilag } or { Kur(u)b-Elag } express not double consonants but hiatus.

SIGNARIES, GLOSSARIES, DICTIONARIES

77. The following discussion on the subject of signaries, glossaries, dictionaries, and related terms has two objectives: (1) to establish a more rigorous and systematic terminology; (2) to ascertain the needs for basic tools in the field of Assyriology in the hope that it may be possible to plan on some concerted action to supply them within reasonable future.

78. Signary is a list of signs, arranged either by forms or by transliterated values. There are different types of signaries.

79. Signary of forms or formal signary follows the formal arrangement of signs. Best examples: F. Thureau-Dangin, Recherches sur l'origine de l'écriture cunéiforme (Paris, 1898); G. A. Barton, The Origin and Development of Babylonian Writing I-II (Leipzig and Baltimore, 1913); C. Fossey, Manuel d'assyriologie II (Paris, 1926). What is needed is a signary of forms brought up to date.

80. Signary of syllabograms (syllabic values) or syllabic signary or simply syllabary contains, as the names imply, phonetic signs used syllabically.

81. In the field of Akkadian recent signaries of Akkadian syllabograms are, F. Thureau-Dangin, Le syllabaire accadien (Paris, 1926); P. Naster, Chrestomathie accadienne (Louvain, 1941); A. Deimel, Šumerisches Lexikon I. Šumerische, akkadische und hethitische Lautwerte (3rd ed., Roma, 1947).

82. The great shortcoming of all the existing signaries is that, while they attempt to collect all the syllabograms used in the field of Akkadian as a whole, they do not as a rule indicate the tremendous differences among syllabaries of various periods and areas.

83. One of the most urgent needs in Assyriology is a signary of Akkadian syllabograms arranged according to periods and areas. The procedure to follow would be: (1) first to collect the syllabaries of all the individual cuneiform systems of writing, as I have done already for about a dozen systems, and then (2) to make a composite syllabary to cover the whole area of cuneiform.

84. This composite Akkadian syllabary could have the following form:

Num- ber	Assyrian Form	Value	Old Akk.	Ur III	Isin- Larsa	O.B.	M.B.	N.B.	O.A.	M.A.	N.A.	Remarks
1.	𐎶	aš		x	x	x	x	x	rare:	x	x
		às				rare:	rare:				rare:
		dil									x	
		dili										
		del										
		dele	x									
		til									x	
		ti ₅					Nuzi:
		dāl									rare:	
		rum				x						
		rù					Nuzi:				x	
		šúp					Nuzi:					
		ina									x	"rebus" sign
		in									x

85. In commentary to this chart we can add the following:

- Col. 1 gives numbers following the order of Deimel, ŠL
- Col. 2 gives the Assyrian form following Deimel, ŠL
- Col. 3 gives all the known Akkadian syllabic values. We should perhaps leave open the possibility for such still unattested values as del. After a thorough cleanup (see §55) some of the values here given should disappear.
- Cols. 4-12 give the syllabic values as used in different periods (and areas if necessary). The boxes should be gradually filled out. References should be given to rare occurrences, perhaps in footnotes.
- Col. 13 gives room for remarks to be added when necessary.

86. There is as yet no signary of Sumerian syllabograms. Thureau-Dangin's HS

and Deimel's ŠL I give Sumerian values without distinguishing logograms from syllabograms.

87. What is needed is a signary of Sumerian syllabograms arranged according to periods and areas in the form suggested for Akkadian in §§81-85.

88. Signary of logographic values or logographic signary contains logograms or word signs, frequently misnamed "ideograms" or "ideographic signs." Best examples: R. E. Brünnow, A Classified List (Leyden, 1889); B. Meissner, Seltene assyrische Ideogramme (Leipzig, 1910); G. Howardy, Clavis cuneorum (Lipsia, 1933); A. Deimel, Šumerisches Lexikon II. Vollständige Ideogramm-Sammlung (Roma, 1928-33). What is needed is a new edition of Deimel.

89. Signary of names should contain signs with their corresponding "names." Ancient names of cuneiform signs whenever known have been collected in Deimel, ŠL I. What is needed, however, is a complete list of cuneiform signs, each with an assigned "name" or symbol, which in many cases may express the so-called first value but may not fully correspond to the ancient name. Thus DIL might represent the sign known variously as DILŪ, DILI, DEL, HAL the sign HALLU, HALLA; BA the sign BABŪ.

90. The objections against using ancient names for sign symbols are:

- 1) Many ancient names are unknown.
- 2) It is frequently difficult to ascertain the correct form of an ancient name.
- 3) The ancient names are frequently very complicated and difficult to remember.

91. The function of such an arbitrary list would be to provide "names" or symbols for cuneiform signs which could be used in:

- 1) All cases referring to the sign, as in "DIL sign" or "the sign DIL."
- 2) In cases where the interpretation of a sign is unknown, as in DIL with the values dil, aš, etc. or d i l , a š , etc.

- 3) Preferably in cases of compound signs, as in UD.KIB.NUN^{ki}, ŠIM+IGI, AMAR.UD.

92. Under the term "glossary" we should understand a partial dictionary, as for instance a dictionary of a work, an author, a dialect, a period, or any coherent group of texts. Good examples are the glossaries in the VAB series.

93. Vocabulary is a list or collection of words of a certain language, usually alphabetically arranged and explained or defined. Dictionary is a word book, that is, a vocabulary in book form. At least in the English usage, the term lexicon is synonymous with either vocabulary or dictionary.

94. Best examples of Akkadian dictionaries are; Friedrich Delitzsch, Assyrisches Handwörterbuch (Leipzig, 1896); W. Muss-Arnold, A Concise Dictionary of the Assyrian Language (New York, 1905); C. Bezold, Babylonisch-Assyrisches Glossar (Heidelberg, 1926). A. Deimel, ŠL III 2. Akkadisch-Sumerisches Glossar (Roma, 1937) is primarily a cross index to lists of logographic values.

95. There is as yet no Sumerian dictionary. J. D. Prince, Materials for a Sumerian Lexicon (Leipzig, 1908), F. Delitzsch, Sumerisches Glossar (Leipzig, 1914), and A. Deimel, ŠL III 1. Sumerisch-Akkadisches Glossar (Roma, 1934) are not dictionaries but primarily cross indexes to lists of logographic values.

ALPHABETIC ARRANGEMENTS

96. It has been customary to arrange Akkadian roots and words in the order of the Hebrew alphabet, in some cases even the non-Semitic Sumerian language has been subjected to this custom. There is not the slightest reason for this procedure. As long as the old Sumerian or Akkadian order of sounds is unknown, the only logical order for these languages is that of a modern alphabet based on Latin.

97. The order for Sumerian should be;

a, b, d, e, g, h, i, k, l, m, n, p, r, s, š, t, u, z. To these the ultimate addition of the vowel o and the consonants *ŋ*, j, w should possibly be considered.

98. In arranging Akkadian lexicographical elements according to roots the following consonant sequence should be observed:

ʾ, b, d, g, h, k, l, m, n, p, q, r, s, š, t, ṭ, z.

99. Symbol ʾ includes:

ʾ₁ = ʾ (āleph)

ʾ₂ = h (hē)

ʾ₃ = ḥ (ḥēth)

ʾ₄ = ʿ (ʿajin)

ʾ₅ = ġ (ġajin)

ʾ₆ = w (waw)

ʾ₇ = j (jōdh)

ʾ_x = ʾ_x (when the quality of ʾ is unknown)

100. In arranging roots containing different weak consonants in the same position, differences in the weak consonants should be considered of secondary importance to those of full consonants. For example bʾ₄l would precede bʾ₁r. Only in the case of identical full consonants should the order of weak consonants be considered, as in bʾ₁r preceding bʾ₆r.

Thus the order should be:

bʾ₄ʾ₇, bʾ₆ʾ₁, bʾ₄l, bʾ₁r, bʾ₆r, bʾ_xr, bʾ₇t

not:

bʾ₁r, bʾ₄l, bʾ₄ʾ₇, bʾ₆ʾ₁, bʾ₆r, bʾ₇t, bʾ_xr

101. The suggestion for this arrangement of weak consonants resulted from the difficulties experienced in hunting e. g. for the word bāru under the roots bʾ₁r, bʾ₂r, etc., instead of simply under the root b + weak consonant + r.

102. In arranging Akkadian lexicographical elements according to words the following sequence should be observed:

a, b, d, e, g, h, i, j, k, l, m, n, p, q, r, s, š, ṣ, t, ṭ, u, w, z.

To these the ultimate addition of the vowel o and of the consonants h and ṭ (both

in Old Akkadian) should possibly be considered.

103. The suggestion for the use of j and w is the result of long deliberation which took into account the instinctive aversion in Anglo-Saxon and Latin countries to the use of j for the weak consonant. However, we should remember that,

- 1) The alternative transliteration as y, sometimes used by Assyriologists causes great difficulties in alphabetic arrangements: a word written i-ša-ru would come under išāru, while the spelling ia-ša-ru or ya-ša-ru would come under yašāru.
- 2) The transliteration as i (alongside u) would be consistent, but impractical from the typographic point of view.
- 3) The transliteration as j (alongside w) here proposed is in agreement with the usage of the IPA.

104. In cuneiform systems used on foreign soil such as Hittite, Hurrian, etc., which do not indicate the distinction between voiced, voiceless, and emphatic (or aspirated) consonants or indicate it very unsystematically, the alphabetic arrangement should be like that proposed in Gelb, Purves, MacRae, NPN p. 6.

a, e, h, i, j, k, (incl. g and q), l, m, n, o, (if it exists),
p (incl. b), r, s, š, t (incl. d and ṭ), u, w, z (incl. ṣ)

SYMBOLS AND ABBREVIATIONS

105. Use of the following symbols is suggested:

x	a single unreadable sign
xxx	three unreadable signs
....	an undefined number of unreadable signs
[]	fully destroyed
[]	partially destroyed
< >	omitted by scribe
《 》	pleonastically written by scribe

[[]]	erased by scribe
{ }	transcribed elements (see §13)
()	unpronounced elements, as in transliteration of $z i (d)_2 - d a$ or <u>liq-ba-a(m)₃</u>
	elements not expressed in writing, as in transcription of <u>Āššur-iddi(n)</u>
	explanatory additions, as in <u>imhurū</u> (pl)
-	variant elements, as in <u>ma-(a) ku, zak(a) ru</u>
.	transliterations with indicated interpretation, as in <u>ba - d u₃, be-lum</u>
+	transliterations with unindicated interpretation, as in UD.KIB.NUN ^{ki}
x	ligatures, as in KA+IM, <u>Mo-ra+u, Āš+šur</u>
√	crossed signs, as in LU ₂ xLU ₂
/	Semitic root
/	alternative or variant reading, as in LI/LE (not LI/E), <u>ba-ar/bar</u>
*	reconstructed form
<	developed out of
>	developed into
?	questionable element
!	sign abnormal in form, but to be read as transliterated
<u>sic</u>	sign or form unexpected or unusual in its context
	parallel elements
=	equal to
≠	not equal to
˘	vocalic shortness
-	grammatical length, as in <u>mahāru</u> (see §67)
^	length resulting from contraction of a vowel plus a weak consonant, as in <u>bītu</u> , or of a weak consonant plus a vowel, as in <u>rabû</u> (see §67)
~	length resulting from contraction of two syllables as in <u>ḏaku</u> (see §67)
ˈ	primary stress, as in <u>mīthuru</u>
ˌ	secondary stress, as in <u>*mītahūru</u>

106. Use of the following abbreviations is suggested:

abl.	ablative	dem.	demonstrative
acc.	accusative	det.	determinative
act.	active	d.n.	divine name
adj.	adjective	do.	ditto
adv.	adverb	du.	dual
Akk.	Akkadian	Eg.	Egyptian
Amor.	Amorite	El.	Elamite
aor.	aorist	etym.	etymology
Ar.	Arabic	f.	father
Aram.	Aramaic	fem.	feminine
art.	article	fut.	future
Ass.	Assyrian	gen.	genitive
Bab.	Babylonian	gd.	granddaughter
br.	brother	gf.	grandfather
ca.	circa	gm.	grandmother
cap.	capital	g.n.	geographic name
caus.	causative	Gr.	Greek
cf.	compare	gram.	grammatical
c.H.	cuneiform Hittite	gs.	grandson
ch.	chapter	Gut.	Gutian
cit.	citation	h.	husband
coll.	collective	Heb.	Hebrew
conj.	conjunction	Hell.	Hellenistic
cun.	cuneiform	h.H.	hieroglyphic Hittite
d.	daughter	Hitt.	Hittite
dat.	dative	horiz.	horizontal
def.	definite, definition	Hurr.	Hurrian

<u>ibid.</u>	<u>ibidem</u>	N.A.	New Assyrian
IE	Indo-European	N.B.	New Babylonian
impf.	imperfect	neut.	neuter
impv.	imperative	nom.	nominative
indef.	indefinite	num.	numeral
inf.	infinitive	O.	Old
interrog.	interrogative	O.A.	Old Assyrian
interj.	interjection	O.Akk.	Old Akkadian
interp.	interpretation	O.B.	Old Babylonian
intrans.	intransitive	obs.	obsolete
Kass.	Kassite	obv.	obverse
l.	line	opp.	opposite, opposed
Lat.	Latin	opt.	optative
L.B.	Late Babylonian	p.	page
l.c.	lower case	par.	paragraph
l.e.	left edge	part.	participle
ling.	linguistic	pass.	passive
loc.	locative	per.	person
log.	logogram, logographic	Per.	Persian
l.w.	loan word	perf.	perfect
m.	mother	Phoen.	Phoenician
M.	Middle	phon.	phonetic
M.A.	Middle Assyrian	pl.	plural
masc.	masculine	plperf.	pluperfect
M.B.	Middle Babylonian	poss.	possessive
Mes.	Mesopotamian	p.n.	personal name
n.	note, noun	prec.	precativ
N.	New	pred.	predicate

prop.	preposition	subst.	substantive
pres.	present	Sum.	Sumerian
pret.	preterite	syll.	syllabic
pron.	pronoun	syn.	synonym(ous)
Pu.	Punic	Syr.	Syriac
publ.	publication, publish(ed)	tab.	tablet
q.v.	<u>quod</u> (<u>quem</u>) <u>vide</u>	tr.	translation, translated
r.e.	right edge	transcr.	transcription, transcribed
ref.	reference	translit.	transliteration, transliterated
refl.	reflexive	transt.	transitive
rel.	relative	Ugar.	Ugaritic
rev.	reverse	Urar.	Urantian
s.	son	v.	verb.
S.Ar.	South Arabic	<u>v.</u>	<u>vide</u>
Sem.	Semitic	var.	variant
sg.	singular	vent.	ventive
sis.	sister	vert.	vertical
Sub.	Subarian	w.	wife
subj.	subjunctive	wr.	writing, written

107. The abbreviations listed in §106 were suggested for use in the Chicago Akkadian Dictionary. The list would have to be revised if accepted for international use.