

On Some Terms for "Bat" in Mesopotamia

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[The Sumerian logogram GAR.IB, with its older variant ARKAB.IB, is to be read *a/irkab*, Akk. *a/irkabu*, and designates a type of bat. The Early Dynastic sign ARKAB is to be differentiated from LAGAR and became obsolete at the end of the third millennium B.C. when it was replaced by GAR.]

1. GAR.IB^{mušen}

The logogram GAR.IB.MUŠEN, occasionally read *ša IB.MUŠEN* or *ša ib/p-ḫu* in the older literature, is well known in Akkadian medical and magical texts, but its reading has so far remained unknown and its meaning uncertain. The logogram is almost invariably preceded by U₅, to be read *rikibtu* according to *KUB* 4 48 iii 11, 18, etc.¹. This expression has been variously translated as "rut de bouquetin"... une sorte de plante" by Fossey², apud Labat, *RA* 53 76; "Brunst des Ib-Vogels" by Ebeling, *MAOG* 1/1 53 (in the copy of this publication in the Oriental Institute "Brunst" has been crossed out –presumably by Geers– and replaced by "Flügel"); "cantharides" by Thompson, *Esarh.* 12¹ (and elsewhere); "spurs of the GAR.IB- fowl" by Biggs, *TCS* 2 25f. (a translation he now rejects according to a personal communication); a drug "aus den Hoden, bzw. Drüsen der Tiere gewonnen", the animal being possibly in this case "eine Art Fledermaus", by Landsberger, *Fauna* 97¹. *AHW* 984a *rikibtu* leaves the word untranslated. In *RA* 54 712 I proposed tentatively "bat guano". The purpose of the present note is to establish the reading and meaning of GAR.IB^{mušen}, a task made possible by new materials and by the progress in the interpretation of lexical material. My unpublished conclusions are mentioned by Borger, *ABZ* (2nd edition) 437 n. 597 and by Pettinato, *MEE* 3 p. 118 ad 126 and, implicitly, p. 202 ad 25. The justification for these conclusions will be found in the following paragraphs.

2. Lexical Information.

The transliteration LAGAR in 2-3 is provisional in the sense that, as will be shown later, the sign is in fact ARKAB.

2.1. Bird Lists. a) Forerunners.

1) Early Dynastic Bird List.

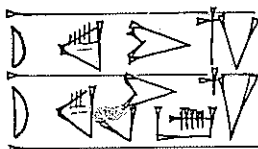
The preserved portions of the archaic Uruk recension (kindly communicated by M. W. Green), the Lagaš recension, and the Ur III fragments (see *MEE* 3 p. 275, sources C and D) do not contain the logogram, but it appears in the ED recension as published by Pettinato, *OA* 17 171:126 and *MEE* 3 p. 114:126, after *su-din mušen*, in the forms *su-din-¹LAGAR¹.IB^{mušen}* (Fara) and *su-din-IB* (Ebla). In the Fara source, Pettinato (*AO*

1) For references and a discussion of the passages without U₅ see 3.2.

2) Fossey read *rikibtu ša turāḫi* by a confusion of DĀRA with DĀRA/DARA₄.

17 171), like Salonen, *Vögel* 250, reads $^{\text{r}}\text{su}^{\text{l}}\text{-ib}$, but Deimel considered the sign preceding IB to be a special sign (LAK 297). Note the clear discrepancy between the form of the sign as given in LAK and the form copied in *WVDOG* 43 58 xi 21, as already pointed out in *RA* 54 71³. A collation from photo (kindly made available by my colleague R. D. Biggs) shows clearly:

Fig. 1



2) OB Pre-Canonical.

a) Nippur Recension. My unpublished reconstruction gives: 111 $\text{su-din}^{\text{mušen}}$, 112 $^{\text{r}}\text{LAGAR}^{\text{r}}\text{IB}^{\text{mušen}}$; the second entry comes from CBS 14156 (SLT 69) + N 5058 + N 6061 (photo, without the last piece, in Gordon, *Sumerian Proverbs* Philadelphia 1959 pl. 54); the reading LAGAR is based on my own collation, confirmed by Å. Sjöberg and R. Falkowitz.

b) Other OB Recensions. $\text{su-din}^{\text{mušen}}$, $\text{su-din-GAR}^{\text{IB}^{\text{mušen}}}$ CT 6 14 D ii 52 f.; IM 51144 xii 11f. (Tell Harmal, from photo); *LTBA* 81 r. i 2' (Warka); $\text{su-din}^{\text{mušen}}$, $\text{GAR}^{\text{IB}^{\text{mušen}}}$ *LTBA* 82 ii' 10³.

c) Peripheral Recensions. Ugarit: $\text{IGI}^{\text{IB}^{\text{mušen}}}$, $\text{su-din}^{\text{mušen}}$, $\text{su-din-m in-na}^{\text{mušen}}$ RS 20.32 iii 42 (from photo, courtesy Nougayrol, collated by D. Kennedy); Boghazköy: *KBo* 1 27 + *KUB* 4 96 + *KBo* 26 3 iii 21'ff. has only $[\text{su}]\text{-din} = \text{šu-ut-tin} = [\dots]$, $\text{nu-ud su-din} = \text{nu-ud šu-ut-tin} = \text{b[i-el k]I.MIN}$, $\text{am su-din} = \text{am-mar k[I.MIN]} = \text{a}^{\text{l}}\text{-[dam šu]-ut-tin-ni}$ (collated from photo, courtesy H. G. Güterbock)⁴. Note the absence of the determinative mušen , found with the other entries in the list.

3) Canonical Recension (ḪAR-ra XVII).

The su-din group is not preserved in the main text—for an attempted reconstruction see *MSL* 8/2 143:296ff., with note—but it appears in the ḪAR-gud commentaries: $\text{su-din}^{\text{mušen}}$ B 258 and D 330 (where it is followed by an entry $\text{su-}[\dots]$ of uncertain restoration)⁵; finally, C 39 has $[\text{x}]\text{-}^{\text{r}}\text{x}^{\text{mušen}} = \text{ir-ka-bu} = [\text{a}]\text{r-ga-bu}$, where only the final vertical of x is preserved so that a restoration $[\text{GAR.}]^{\text{IB}}$ is paleographically possible. The restoration ir-[ga-bu] in B 259b (*MSL* 8/2 168) is most uncertain and will be disregarded here.

2.2. Series Diri.

a) Forerunners. The only recension that preserves the logogram is the "Oxford" recension *OECT* 4 152 and 153 (collated from photo and by O.R. Gurney, quoted according to *MSL* 15); line 383 has $\text{GAR}^{\text{IB}} = \text{ar-ka-[bu-(um)]}$, in the GAR-section.

b) Ugarit. Diri Ug. III 121 (copy Nougayrol, collated by D. Kennedy) has $\text{ar-kab} = \text{GAR}^{\text{IB}^{\text{mušen}}} = \text{ar-k[a-bu]}$, in a bird section.

c) Canonical. Diri V 178 has $[\text{i}]\text{r-ka-ab} = \text{GAR}^{\text{IB}^{\text{mušen}}} = [\dots]$, in the GAR-section.

The Diri passages definitively establish the reading a/irkab , as well as the Akkadian correspondence a/irkabu , with a variant with g in Hg C 39. Both dictionaries list the word under *argabu*, quoting HAR-gud (*AHw* 67a, *CAD* A/2 353a). Since this form is given in the right subcolumn of ḪAR-gud and the OB sources all give *arkabu*, the latter form is preferable and *argabu* is to be considered a secondary variant⁶.

3) The OB date of *LTBA* 81 and 82 is not clear; in any case they are unilingual lists closely related to OB models.

4) nu-ud and am stand for nunuz and amar , respectively.

5) One could restore $\text{su-[din-GAR.]}^{\text{IB}}$, but the Akkadian does not seem to fit. Note that SU. could also be the beginning of a ŠEN sign.

6) Von Soden's tentative "Taube" is based only on Eth. *regb* "dove"; the words of course cannot be related if the correct form is with k .

3. LAGAR/GAR.IB in Context.

3.1. Sumerian Texts.

The word occurs in a medical prescription in *RA* 54 62:120 (with discussion, *ibid.* p. 71): še₁₀ LAGAR.IB^{mušen}; the sign preceding IB was not identified in the *RA* 54 edition, but it is reasonably clear on the photo, *ibid.* p. 59. A literary text from Nippur from the Ur III period (6N-T637 vi 31ff.) reads: LAGAR.IB hul-zu kaskal na-sa₉-e, mušen hul-zu an na-ni-dal "your evil arkab should not reach the midpoint of (its) journey, your evil bird should not fly in the sky"⁷. In an administrative text from the same period with an interesting list of birds (FLP 145 in Owen, *ZA* 71 29ff.) line 17 may have: 24 [LAGAR].IB^{mušen} (see 6). For Ni 4128, see 5.

3.2. Akkadian Texts.

The term U₅/rikibtu GAR.IB^{mušen} is extremely frequent in medical and magical texts: *AMT* 6, 3 + :7,8; 2:27,30; 8, 5:1'; 8, 7:1; 9, 1:13; 11, 2:20; 13, 2:1; 13, 7:4; 15, 4:1; 16, 1:9, 23; 17, 6:5; 17, 7:2; 18, 6:1; 19, 5:4; 49, 6:2; 57, 5:12; 62, 3 (K 3350):23; 63, 1:9; 64, 1 + 37; *BAM* 3 ii 29; 104:30; 112:24; 168:35; 248 iv 23; *CT* 23 26:4; 32:9, 36:51; Küchler, *Beitr.* 9 ii 46; 12 iv 22; 14 i 24; 19 iv 15; *RA* 18 (= *BAM* 106) 15:6; 53 6:31; etc. The reading *rikibtu* comes from *KUB* 4 48 iii 11, 18, lower edge 2; 37 7:8. For the Šaziga passages, see R. D. Biggs, *TCS* 2 25f. and Index s. v. GAR.IB is extremely rare without U₅; in *CT* 39 23:2 a falcon is mentioned whose flight is like that of a GAR.IB. *BAM* 3 r. iv 4 lists, among other drugs, KU IB.GAR. MUŠEN, after A.GAR.GAR MÁŠ.DÁ "scat of a gazelle", where IB.GAR obviously stands for GAR.IB (see *CAD* Z 151a).

4. Other Occurrences of LAGAR/GAR.IB.

* ED Lu A 55 (*MSL* 12 10 f.; *MEE* 3 3ff.) has "LAGAR".IB, followed by "LAGAR".GAR, where "LAGAR" represents a sign similar to but distinct from LAGAR discussed below 6. Pre-sargonic texts from Girsu dealing with the Elam trade (nam-ga-eš₈-ak elam-me-ne-kam and nam-ga-eš₈-ak má elam-ka-kam) list a product GAR.IB after relatively large amounts of naga "amole": 75 gur of naga and 7 ma-na of GAR.IB in *RTC* 20 i and 1 gur and 1 ma-na, respectively, in 21 i. There is still a homographic logogram ^{tu}en ig-dára "loin cloth" which, however, does not seem to have contaminated the history of GAR.IB.

5. Meaning of ARKAB/GAR.IB.

The constant association of arkab^{mušen} with su-din^{mušen}, and especially the combination su-din-GAR/LAGAR.IB (2.1, 2 c), make Landsberger's suggestion that arkab is a type of bat (*Fauna* 97¹) extremely likely. I think it would be inadvisable to go beyond that with the data presently available and to attempt to identify the arkab in contrast with the su-din bat among the twenty or so species of Chiroptera listed in R. T. Hatt, *The Mammals of Iraq* Ann Arbor 1959 pp. 28ff. The meaning "bat guano" for še₁₀ arkab^{mušen} (compare KU *GAR.IB^{mušen} in *BAM* 3 r. iv 4), suggested in *RA* 54 71², may be bolstered by zoologists' references to contemporary use of this guano in Iraq; see D. L. Harrison, *Footsteps in the Sand* London 1959 p. 105, and R. T. Hatt, *op. cit.* 28, for its use between Ramadi and Habbaniya and near Sulaimaniya, respectively. It should be added here that there is absolutely no evidence for such use in ancient Mesopotamia. If the GAR.IB product in *RTC* 20 and 21 is also "bat's excrement" as a source of nitrates—a likely supposition because of the association with naga—the small amounts attested preclude its destination as a fertilizer and a therapeutic or magic purpose is to be assumed. While a meaning "semen" for *rikibtu* is reasonable in view of the use of the logogram A for the same word (Proto-Kagal 237; Aa 1/1:37), the suggestion, made in *RA* 54 71², that "semen of the arkab bat" is a folk designation for guano is purely speculative⁸. The text FLP 145 (3.1) seems to imply that bats were considered edible. This point is confirmed

7) Compare kaskal mu-un-sa, kaskal mu-un-sa₉-ba "he reached the midpoint of the journey, when he had reached the midpoint of the journey (he became ill, etc.)" Lugalbanda and 'Hurrum' 75.

8) The fact that the term *rikibtu* is also said of the *ajalu* speaks, perhaps, against this supposition: the bead-like scat of the Cervidae is quite different from the bat's guano.

by the hemerological text Ni 4128 (*SET* 2 94) i' 3': GAR.IB^{mušen} su-din^{mušen} na-an-gu₇-e muš 'lu-lu i-gál "he should not eat the arkab and the bat, he will get 'numerous snakes(?)'"⁹.

There is a patent word play between *rikibtu ša arkabi* and *rakābu*, in its sexual sense. Whether this relationship is a mere folk etymology tying together two unrelated words or arkab is of Semitic origin and related to *rakābu* is a question that remains unanswerable for the moment.

6. The Sign LAGAR and the Sign ARKAB.

The sign LAGAR because of its shape and of its relatively low frequency has created occasional difficulties for the modern cuneiformist; see *MSL* 12 69 (confusion of NB LAGAR with LAGAB) and Alster, *JCS* 23 116f. (confusion with SI), and note the symptomatic fact that Borger has left blank all columns for LAGAR in his paleographic table in *ABZ* p. 29. Moreover it is now clear that there is a sign ARKAB, very similar to but different from LAGAR, which is the first sign of the compound logogram arkab. The forms to be considered are displayed on the table in fig. 2.

	Urak	Abū-Šalābīkh	Fara	Ebla	Girsu	Ur III	OB
ARKAB							
LAGAR							

Fig. 2

The ED forms are taken, whenever possible, from ED Lu A where lines 55f. have ARKAB.IB and ARKAB.GAR while line 94 has LAGAR.ĀB.KU/LU thus providing an easy way to see the differences between the two signs. Most Ur III and OB copies of ED Lu A are imitations of ED copies of this ubiquitous list with the old signs not always faithfully reproduced. Thus, for instance, 6N-7476 + 477 (Ur III, Nippur) has a clear TAR, instead of LAGAR, in line 94, a reading incorrectly accepted in *MSL* 12.

In Abū-Šalābīkh one also finds ARKAB in *OIP* 99 82 r. ii' 9f. in the divine names ^den-ARKAB-LAK 777, ^dnin-ARKAB-LAK 777. LAGAR can be seen in *OIP* 99 46 iii 2ff. and duplicate 48 ii 2ff. The sign LAGAR is written with the head of the upper slanted wedge toward the right and is thus a mirror image of GAR.

In Fara ARKAB = LAK 296, of which 297 is a spurious variant (see fig. 1 for the correct form), and LAGAR = LAK 306. The latter has a variant with the slanted wedge's head on the right, like the Abū-Šalābīkh form, and marked curvature of the lower wedge, see, e.g., *WVDOG* 43 57 iii 74ff. (a duplicate of *OIP* 99 46).

For the Ebla forms, see *MEE* 3 p. 296 no. 22 for ARKAB and p. 328 no. 176 for LAGAR. The variant with the head to the right also exists in Ebla, see *MEE* 3* pl. 24 i 4. The most important contribution of the Ebla texts to the history of the signs under discussion is the sign name ARKAB = *ār-ga-bū-um* *MEE* 3 51-52:25, a confirmation of the conclusion at the end of paragraph 2. It is unclear whether the reading implied by the sign applies only to ARKAB or only to the group ARKAB.IB.

The (Pre)-Sargonic form from Girsu is given in the table on the assumption that GAR.IB replaces ARKAB.IB in *RTC* 20 and 21. The late form with GAR would thus be first attested in the Lagaš region. There seem to be no examples of LAGAR in Girsu. A presumed LAGAR in Y. Rosengarten, *Répertoire commenté* Paris 1967 no. 140 has been shown by Ph. Talon, *RA* 68 176f. to be GIDIM¹⁰. The form given here is abstracted from TÜR (= NUN.LAGAR).

9) Is muš-lu-lu a disease? worms? Strabo, *Geography* 16.1.7, informs us that Borsippa abounds in very large *nykterides* that are "caught and salted for food". See C. Metaxas, *Revue des sciences naturelles appliquées* (1891) 325. Note that in Lev. 11:19 the *qalleg* usually translated by "bat", is listed among the impure birds.

10) Contrary to Talon's statement that *VAS* 14 163 vi 1 is "la plus ancienne graphie connue" of GIDIM, the sign is known

The Ur III form is from 6N-T637, quoted in 3.1, see also the photo in *RA* 54 59 v 9. In line 17 of FLP 154 (D.I. Owen, *ZA* 71 29ff.), I was unable to see, examining the tablet, any traces of the [di]n proposed by Owen (*ibid.* 37); the scribe either wrote SU.IB or the first sign is an uncommonly long ARKAB. Notice how the sign ARKAB is identical with the sign for the fraction 1/3; possible occurrences of ARKAB.IB in this period risk being misread as 1/3 gin. The LAGAR form is taken from the many occurrences of é-n ig-lagar (*BIN* 5 43, 48, 274; etc.).

In OB times ARKAB disappears completely —except for a possible occurrence in the Nippur Forerunner to *U*h XVIII —merging with GAR. Although in the spelling IGI.IB in the Ugarit Bird List the IGI could be taken as an interpretation of an ARKAB in its Ebla form, it seems more likely to be a scribal error induced by the two preceding lines: igi-gud-da^{mušen} and igi-geštin-na^{mušen} (lines 196ff.).

already in ED texts: *MSL* 12 20 ad 67, *OIP* 99 131 ii 3'; after Talon's note was published, *MEE* 3 199.97 showed the correctness of his reading by giving GIDIM = *mu-ga-[i]i-mu* (< lü-gidim).