

Scribes Working in Pairs on Water Resource Management in the City of Umma during the Ur III Period¹

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The role of irrigation management in the development of the first urban societies in Mesopotamia is still an important topic of discussion among philologists, archaeologists and historians. Since the mid-twentieth century, the development of Mesopotamian civilization has been seen as being intrinsically linked to the building of water-related infrastructure (dams, canals, etc.) to ‘tame’ the environment. Although the importance of wetlands in the development of prehistoric communities in the Ubaid period has been emphasized by J. Oates² and, above all, more recently, by J.R. Pournelle,³ there is no doubt that, from the third millennium BC onwards, the region of Sumer became an important area for the production of cereals and crops, irrigated by artificial canals, had probably gained ground when compared to the wetlands. For this reason, therefore, earthwork projects and the building of reservoirs, dams and canals are crucial for the management of irrigation. This brief note is aimed at describing a particular situation related to the scribes involved in earthworks in the city of Umma.

Every earthwork activity was, in the main, run by two officials: the ugula, who ran the workers' teams, and the one who sealed the tablet, representing the administration (kišib PN). See, for example, four texts, all dated to ŠS 2/-/, which record earthworks in the reservoir for flood control in the center of Idsala:⁴ in these texts, while the ugula always switch, the one who seals the tablet is always the same person, Ur-^dŠara₂, scribe, son of Šeš-kal-la (Ur-^dŠara₂ / dub-sar / dumu Šeš-kal-la).

BPOA 6 892

Obv. 1-4: 17 guruš u₄ 2-še₃ / i₇-Id₂-sal₄-la-ke₄ šu₂šu-luh ak / 17 guruš u₄ 2-še₃ / kab₂-ku₅ Id₂-sal₄-la sahar šu ti-a

Rev. 1-4: ugula Tab-ša-la / kišib Ur-^dŠara₂ / seal / mu ma₂ ^dEn-ki ba-ab-du₈

Seal: Ur-^dŠara₂ / dub-sar / dumu Šeš-kal-la

1. This study was written as part of the research funded by the Czech Science Foundation as the project GA ČR 18-01897S “Economic Complexity in the Ancient Near East. Management of Resources and Taxation in the 3rd and 2nd Millennium BC”. The abbreviations used in this article are listed in Cuneiform Digital Library Initiative (CDLI) web-site available in http://cdli.ucla.edu/wiki/doku.php/abbreviations_for_assyriology (URL consulted on May 28th 2018). Add AS (Amar-Sin), ŠS (Šu-Sin) and Š (Šulgi) The texts are transliterated using the following conventions: Obv. = Obverse, Rev. = Reverse, the “/” points out the end of line, whilst “//” an indented line.

2. Oates 1960.

3. Pournelle 2003 and 2007.

4. For Idsala and its localization in Umma province, see Steinkeller 2001: 72.

SACT 2 9

Obv. 1-4: 10 guruš u₄ 2-še₃ / i₇-Id₂-sal₄-la-ke₄ // šu-luh ak / u₄ 2-še₃ / kab₂-ku₅ Id₂-sal₄-la//^{ki}
sahar šu ti-a

Rev. 1-4: ugula Šeš-kal-la / kišib Ur-^dŠara₂ / seal / mu ma₂ ^dEn-ki ba-ab-du₈

Seal: Ur-^dŠara₂ / dub-sar / dumu Šeš-kal-la

BPOA 6 1466

Obv. 1-4: 15 guruš u₄ 2-še₃ / i₇-Id₂-sal₄-la-ke₄ ^{šu₂}šu-luh ak / u₄ 2-še₃ kab₂-ku₅ / Id₂-sal₄-la-ta
sahar šu ti-a

Rev. 1-4: ugula A-kal-la / kišib Ur-^dŠara₂ / seal / mu ma₂ ^dEn-ki ba-ab-du₈

Seal: Ur-^dŠara₂ / dub-sar / dumu Šeš-kal-la

MVN 16 903

Obv. 1-4: 10 guruš u₄ 2-še₃ / i₇-Id₂-sal₄-la-ke₄ ^{šu₂}šu-luh ak / u₄ 2-še₃ kab₂-ku₅ / Id₂-sal₄-la-ta
sahar šu ti-a

Rev. 1-4: ugula Lugal-ku₃-zu / kišib Ur-^dŠara₂ / seal / mu ma₂ ^dEn-ki ba-ab-du₈

Seal: Ur-^dŠara₂ / dub-sar / dumu Šeš-kal-la

These tablets describe the same work in the same location. Since the day is not recorded, it is impossible to establish a chronological order among the texts, but probably the situation described in the texts was the following: in the second year of the reign of Šu-Sin the cleaning of the canal (šu-luh ak) and the collecting of earth from the reservoir for flood control in Idsala (kab₂-ku₅ Id₂-sal₄-la sahar šu ti-a) were planned. The administrative registration of the works was done by Ur-^dŠara₂, a scribe son of Šeš-kal-la. At this point, several teams of workers were called (two teams of 10, one of 15 and one of 17), each under the responsibility of a supervisor, the ugula. The texts do not tell us if these teams were all called together at the same time (perhaps working at different points on the same canal), or if each team replaced a previous one that, for unknown reasons, had to be substituted.

The structure of the texts is as follow:

- ✓ *x* workers for *y* days;
- ✓ description and place of the assigned work;
- ✓ supervision of PN₁ (ugula);
- ✓ seal of (kišib) PN₂.

As already noted by Steinkeller,⁵ the tablet can be paraphrased in this way: PN₂ receives from PN₁ *x* workers for *y* number of days, to complete an earthwork in a certain place. What is really happening is the following series of events:

1. PN₂ orders PN₁ to undertake work *x* in the place *y*;
2. PN₁ organizes his workers and finishes the work;
3. PN₂ writes a tablet for PN₁, which records the number of workers and work-days.

5. Steinkeller 2003: 46.

This tablet was kept by the ugula and, at the end of the year, this would have been given to the fiscal office to draw up the balanced account.⁶

However, there are cases where the person's name after the word *kišib* does not match the name of the person who physically sealed the tablet. To better understand this situation, it is useful to introduce the concept of “administrator's office” (in Sumerian, *nam-ša₃-tam*). We have over five hundred attestations of “*nam-ša₃-tam*”, mainly from Umma.⁷ The expression appears at the end of the document, in the form “*kišib nam-ša₃-tam PN*”. The document is usually sealed by the same person. An example is provided in AnOr 1 79 (AS 2/-/-):

Obv. 1-5: 2 ²/₃ sar kin sahar / pa₄ a-da-ga a-ša₃ // Ka-ma-ri₂^{ki} / ba-al-la / ugula Da-DU-mu

Rev. 1-2: *kišib nam-ša₃-tam* // Ur-^{gis}*gigir šabra* / mu ^dAmar-^dSuen // lugal-e Ur-^{bi₂}*lum^{ki}* mu-hul

Seal: Ur-^{gis}*gigir* / dub-sar / dumu Bar-ra-[AN]

But some texts, as indicated above, include the seal of a person who is different from the one that appears after the word *kišib*. See, for example, Ontario 2 155 (AS 2/-/-):

Obv. 1-4: 10 guruš u₄ 1-še₃ / kab₂-ku₅ En-gaba//ri₆ gub-ba / ugula Lu₂-^dNin-ur₄-ra / *kišib nam-ša₃-<tam> A//du-mu*

Rev. 1-2: *seal* / mu ^dAmar-^dSuen // lugal-e // Ur-^{bi₂}*lum^{ki}* // mu-hul

Seal: Ur-^d[Su]jen / dub-sar / dumu Ur-^{gis}*gigir ša₃-tam*

The same situation is also documented in other texts regarding earthworks:⁸

Text	<i>kišib nam-ša₃-tam</i>	Seal
Syracuse 193 (Š 48/xii/-)	Ab-ba-ge-na	Lu ₂ - ^d Šara ₂ / dub-sar / dumu Ur-sa ₆ -ga
BPOA 7 2571 (AS 3/-/-)	Šeš-kal-la	Lugal-nig ₂ -lagar-e / dub-sar / dumu Da-da
SAT 2 872 (AS 5/ii/-)	Lu ₂ - ^d En-lil ₂ -la ₂	Ur-lugal / dub-sar / dumu Da-a-gi ₄

6. Steinkeller 2003: 46.

7. According to the Database of Neo-Sumerian Texts (BDTNS, <http://bdtms.filol.csic.es>, URL consulted on May 28th 2018), the expression “*nam-ša₃-tam*” is attested 532 times: 529 from Umma, 2 from Ġirsu, while 1 is documented in a text of unknown provenience.

8. It is worth stressing that we find this situation also in other texts which are not related with earthworks but with other sectors of the administration: Vicino Oriente 8/1 13 (Š 48/-/-), MVN 21 37 (Š 48/-/-), SNAT 312 (AS 1/ii/-), AnOr 1 75 (AS 1/-/-), Aleppo 244 (AS 1/-/-), BPOA 1 680 (AS 3/-/-), BPOA 1 727 (AS 3/-/-), BPOA 2 2235 (AS 3/-/-), Syracuse 134 (AS 3/ii/-), MVN 21 140 (AS 4/-/-), MVN 18 570 (AS 4/-/-), BPOA 7 2905 (AS 4/-/-), Ontario 2 163 (AS 6/-/-), MVN 14 313 (AS 7/-/-), UTI 4 2603 (AS 7/-/-), UTI 4 2899 (AS 7/-/-), MVN 21 147 (AS 7/-/-), UTI 5 3431 (AS 7/-/-), BPOA 1 1268 (AS 7/-/-), SACT 2 132 (AS 9/-/-), SAT 2 1155 (AS 9/-/-), BPOA 7 2024 (AS 9/-/-), SACT 2 91 (ŠS 1/-/-), UTI 5 3379 (ŠS 1/-/-), Rochester 179 (ŠS 2/-/-), BPOA 7 2251 (ŠS 2/-/-), UTI 6 3518 (ŠS 3/-/-) and SAT 3 1660 (ŠS 6/-/-). Moreover, the same situation is described in Laurito, Mezzasalma and Verderame 2008 in some “labels” that register the monthly accounts of regular deliveries (sa₂-du₁₁). We have to highlight, however, that sometimes the expression *nam-ša₃-tam* can be omitted. In this case the text records simply a personal name after the word *kišib* and a seal that belongs to a different person (as, for example, in BPOA 7 2571 [AS 3/-/-]).

SAT 3 1228 (ŠŠ 1/-/-)	A-gu-gu	Lugal-ezem / dub-sar / dumu Da-da
MVN 16 814 (ŠŠ 5/-/-)	A-gu-gu	Ur-e ₂ -mah / dub-sar / dumu Da-da
SAT 3 1689 (ŠŠ 6/-/-)	Lugal-nesag-e	Lu ₂ -du ₁₀ -ga / dub-sar / dumu Lugal-nesag-e

It is possible to assume that there were a number of “administrative officials responsible”, a scribe who managed certain earthworks and people. This office also employed another scribe, subordinate to the first one; but he held, so to speak, the “power of attorney”, with its own associate seal. He was a sort of deputy. In order to simplify the situation, we can refer to them as “senior scribe” (the responsible one) and “junior scribe” (the deputy). In the absence of the senior scribe (or for other reasons we cannot infer through reference to the texts), the junior one was authorized to use his seal. But he had to indicate, in the tablet, that the recording was made on behalf of his superior.

With reference to the text above, Ontario 2 155, the situation can be described as follows:

1. the administrative office, headed by A-du-mu, orders Lu₂-^dNin-ur₄-ra to work on the reservoir for flood control of the En-gaba-ri₆ field;
2. Lu₂-^dNin-ur₄-ra organizes his 10 workers and goes to the place;
3. the administrative office prepares a tablet for Lu₂-^dNin-ur₄-ra, recording the number of workers and work-days;
4. in the administrative office, A-du-mu is unable to seal the tablet, and so Ur-^dSuen (the junior scribe) records the information on the tablet, seals it, recording on the tablet that this document has been sealed on behalf of A-du-mu;
5. the tablet is taken by Lu₂-^dNin-ur₄-ra who, later on, gives it to the fiscal office in order to draw up his balanced account.

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Ugaritic Glosses XII: The Nominal Pattern /^laqtl/ and its Apophonies in Ugaritic

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The nominal pattern /^laqtl/ is well known from the Arabic morphology¹ as an elative semantic morpheme in the field of qualifying attributes: ^ʔ*akbar*, ^ʔ*aḥsan*... The same grammatical-semantic structure is found in Ugaritic². But in this language a set of nominal substantive lexemes turn also up in which the elative adjectival aspect loses its determinant character to remain implicit or metaphoric behind the objective designative value of the noun. Two questions have to be answered in this connection: the elative genesis of the lexematic formation and the possible generic belonging together, either objectively or semantically, of such lexemes.

Let us gather the set of such substantive nouns, leaving aside for the time being the PPNN:

-/^laqtl/ formations: *āgzrtly*, *āgzr*, [*āliy(n)* (>[*ālit*])], [*āmrr*], *ānhb*, *ānhṛ*, *ānnḥ*, *āqhr*, *āqšr*, *āzmr*³.

-apophonies: *ūbdīt*, *ūbdy*, *ūdbr*, *ūpdt*.⁴

The series *āgzrtly*, *āgzr*, *ānhb*, *ānhṛ*, *ānnḥ*, *āqhr*, *āqšr* shapes a well defined class of denominative nouns (*ānhb*, *ānhṛ*, *ānnḥ*, *āzmr*) and attributive adjectives (*āgzrtly*, *āgzr*, *āqhr*, *āqšr*) said basically of living beings, animal and vegetal, while *āliy(n)*, *āmrr* become substantivized attributives applied to divine beings and *ārbdd* is a particular (abstract?) isolate and complicate case⁵.

a)

ānhb, “a flower” (*// gd*), *^ʔ*anhab-* < Sem. (?) **nhb* < Ar. *nahaba*, “to plunder”; Eth. *nahaba*, “to forge”;⁶

ānhṛ, “great marine animal”, either “dolphin” or “whale”, *^ʔ*anḥar-* < CS. **nḥr*, “to snort, spout” (nor necessarily a loan from Ak. *nāḥiru*, rather the opposite ...);

ānnḥ, “mint” (?) (*// gd*), *^ʔ*annaḥ-* (?), but the inexistence of a Sem. base **nnḥ* and the graphical reduplication of the /n/ suggest rather a loanword from Ak. *ananiḥu*; maybe a *Wanderwort*, see Hit. *annanuḥḥa-*, “mint”; unless we assume a disimilating alternance *^ʔ*ananḥ-* for *^ʔ*annaḥ-*, see Syr. *nānhā*[?];

1. See W. Wright, *A Grammar of the Arabic Language*, Cambridge 19913, pp. 140f.; F. Corriente, *Gramática árabe*, Madrid 19832, pp. 243ss.

2. See J. Tropper, *Ugaritische Grammatik* (AOAT273), Münster 2000, p. 265.

3. See in this regard in general and for *ārbʕḥ* in particular J. Tropper, *Ugaritische Grammatik* (AOAT 273). Münster 2000, pp. 202s. The form *āqzrt* does not exist (reading for *āgzr*?).

4. On the other hand *īblbl*, *īdrp*?, *īlqsm*, *īqnū*, *īrbš*, *ā:izml* seem mostly loanwords in Ugaritic. In any case some of them could correspond to a nominal pattern /^li:aqtl/ (?), figured out by Tropper to explain the lexeme *īrbš*. See J. Tropper, *Ugaritische Grammatik*...p. 265; also lastly W.G.E. Watson, “A network of cognates”, *NABU* 2018/2:47 (on *ā:izml*).

5. See later, n. 6.

6. For other explanations see G. del Olmo Lete, “Glosas Ugaríticas IX: *rḥ gdm wānhbm* (KTU 1.3 II 2). El perfume de una diosa”, *Aula Orientalis* 36/1, 2018, 191-197.

āqhr, a commodity, *ʔaqhar- < Ar. *qahara*, “to overcome, conquer”;
āzmr, “foliage” (+ *mṭbt*), *ʔazmar- < Heb. *zmr, “to prune”.

b)

āgzr(tly), “eager, ravenous”, *ʔagzr- < CS *gzr, “devour”;
āgzr, nobility tittle (?), *ʔāgzar-, < Ar. *gāzara*, “to be abundant, copious”;
āqšr, “sloughing (its skin), said of snakes” (Ar. *ʔaqšar-*), *ʔaqšar- < Ar. *qašara*, “to be stripped of”;
ālīy(n), “the most powerful”, as divine epithet/DN, *ʔalʔay- > *ʔalʔiy- < CS *lʔy, “to be stron□”;
āmrr, “the blessed”, substantivized epithet/DN, *ʔamrar- < CS *mrr, “to be strong” (endure?).

c)

As for *ūbdīt*, *ūpdt*, *ūdbr*, besides showing a semantic contamination-assimilation (in the field of economic transactions, mainly < *ūbdy*),⁷ they exhibit a clear phonetic conditioning imposed by the labio-dental close (although front) phonetic complex /bd/-/db/, that prefers the back close /u/ instead of the front open /a/ realization of the *hamza*, the one on the contrary favored by the /ā-/ series, determined in this case by the accompanying palatal-nasal back, but open, phonetic clusters⁸. One must admit nevertheless that the explanation is not wholly convincing.

ūbdīt, “share-cropping”, *ubdaʔīt < Ar. *badaʔa*, “create, invent”⁹;
ūpdt, “share-cropping”, an allophone of *ūbdy*, a technical *Wanderwort* (see n. 8);
ūdbr, “leaseholder, manager”, *ʔudabir < Ar. *dabara*, “to succeed”¹⁰.

As for *ārbdd*, “quietud, repose”, probably *ʔarbidād, pattern /aqtīlāl/ < *rbd, see Ar. *rabada*, “to be quiet”¹¹.

7. See *infra* n. 8.

8. The nominal pattern /uqtal/ seems non-existent in Semitic; see del Olmo Lete, *art.cit.*, p. 613; it must be taken then as a contextual apophony of /aqtal/. As for *ābdy* (< *ʔbd), it is not a /aqtal/ formation.

9. Vocalized maybe by assimilation to *ūbdy*, a technical loan *Wanderwort*; or just an allophone; see *DUL* a.v.

10. See G. del Olmo Lete, “Ugaritic *nḥl* and *ūdbr*: Etymology and Semantic Field”, *JAOS* 132/4, 2012, 613-621.

11. See G. del Olmo Lete, *Interpretación de la mitología cananea* (Fuentes de la Ciencia Bíblica, 1), Valencia 1964, pp. 153-155, for the different proposals.