

Musical ensembles in ancient Mesopotamia

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[*](#)



1. *Introduction*

In Mesopotamian literature, especially in the context of religious festivals, ensembles of musical instruments are regularly mentioned. Furthermore, the playing of official as well as popular music is depicted fairly often in Mesopotamian visual art. It therefore seems plausible to compare the groups of names recorded in texts with the groups of instruments represented iconographically from similar periods. Archaeological excavations have found actual instruments, sometimes in groups, and these will also be taken into consideration. Not surprisingly there has been much learned discussion about the correct translation of Sumerian and Akkadian

words for musical instruments and how best to relate them to the instruments depicted or excavated. In this paper I hope to contribute to the discussion by identifying names that are grouped together with some particular depictions of instruments in ensembles.

One textual source to be used will be passages from literary texts concerning festivals and other events where music was played. Another will be the lists on which the names of musical instruments are systematically ordered. These lexical lists comprised selections of Sumerian words from a given semantic field, sometimes translated into another language, and were used in the process of educating the Mesopotamian scribe. Since we have reason to suppose that there was an amount of speculation in these lists and that the scribes could also use theoretical names in their urge to omit nothing they need to be treated with some caution.^[1] The administrative texts from the Ur-III-period (\pm 2000 BC), especially those from the Ur and Umma workshops where musical instruments were produced, is an additional source. The texts are interesting but deserve a separate study so they will be referred to only as the occasion arises.

The Royal Tombs of Ur (\pm 2650 BC), excavated by Sir Leonard Woolley, with their beautifully decorated instruments which were accurately reconstructed using the team's advanced techniques, are a rich source for archaeological material. Those instruments that were found together can be considered as a musical ensemble. Iconographical sources are also rich, with cultic scenes featuring the playing of instruments found on stelae, statues, bas-reliefs, cylinder seals and vases.

The various sources, lexical, literary, iconographic and archaeological, will be dealt with in a chronological order. But separating by millennia is a somewhat artificial scheme which will have to be later refined.

2. *General classification*

Before examining the textual and pictorial material to be compared, a general classification of the terms used for musical instruments in Sumerian and Akkadian order is required.^[2] The instruments themselves are generally classified as chordophones, aerophones or percussion instruments, including the membranophones and idiophones.^[3]

The pictographic signs used for the names of the instruments provide clues to identifying them in the texts. These clues can be refined by descriptions in later lexical and literary texts, where specific materials used in their construction are mentioned by means of determinatives: **ḡiš** “wood”, **gi** “reed”, **kuš** “skin, leather”, **uruda** “copper, metal”, and **zabar** “bronze”. This evidence is correlated in the Glossary.

2.1 Chordophones:

According to its pictogram the **balaĝ** was a chordophone, a harp^[4], and so it is probable that the associated composite terms, **BALAĜ.NAR** (= **tigi**) and **BALAĜ.DI** (= **dubdu**), are also chordophones. As a determinative sign some chordophones have not only “wood” but also “hide”, since some wooden parts are covered with hide. I have earlier identified the **algar** and the **algarsur**, which occur in later texts directly after **ala**, as horizontal harps played with or without plectrum (Krispijn, “Beiträge”, p. 9-10), but this is now disputed by Veldhuis and Shehata (see Glossary). Although there is still no general accepted identification for the **zamin**, most scholars now tend to translate it as “lyre”. **zannaru**, a type of lyre, is a loanword from Hattic **zinar**. Presumably **miritum** “instrument of Mari”, **sabitum** “instrument of Sabûm” and **parahšitum** “instrument of Far(a)hšum/Fars” are regional types of chordophone. **urza(ba)bitum** is a chordophone named after someone called Urzababa, possibly the king of Kiš mentioned in the Sumerian Sargon Legend.^[5] **urgula** “lion” is always mentioned among other chordophones but identifying it is unclear. **gusala** “neck to which strings are attached” and **siezen** “fret” or “tuning peg” are probably terms for the lute or for parts of the lute.

Aerophones:

gisug, **gitag** and **gidid** are all composite terms written with the sign **gi** “reed”.

These are the aerophones probably to be identified with the flute or oboe. There is some confusion in later texts between **gidid** and **gisug** (see Glossary).

The **adara** “ibex horn” and **siamsi** “elephant tusk” comprise the horns.

Percussion:

1. Ziegler has recently proved that the **ala** is a big drum (see Glossary). It is written with the determinatives for wood, hide and metal (copper). In later texts **šim/ub** drums have the determinative for hide as well as their normal determinatives for wood and bronze. Since **adab** and **zamzam** have the determinative for metal (copper) in late texts they can be regarded as percussion instruments.[\[6\]](#)

Singers:

In the early lexical lists there are several terms for singers. From the Uruk period onward the general term **nar** “singer, musician” is found. **gala** “lamentation singer” occurs only in inscriptions from the late Presargonic period (\pm 2400 BC). Other terms are **šud** “singer of prayers” and **šir** “singer of songs, composer”.

3. Musical instruments from the 3rd millennium BC.

3.1 Musical instruments in the lexical lists of the 3rd millennium BC. (Table 1.1)

In the early lexical lists most chordophones (including the players and the songs they accompany) are denoted by the sign **balağ** “harp” or a composite word. The lexical series ED Lu A of the Uruk IVa period (\pm 3200 BC)[\[7\]](#) already includes **gal balağ** “(leading) harp player”[\[8\]](#), and later lexical lists (Fara period \pm 2600 BC) have **balağdi** “singer of harp songs”, **balağ dilmun** “Dilmun harp”, **balağ**

mari “harp/instrument of Mari”, **burbalaĝ** “(player of a) special type of harp”, and **tigi** (= **NAR+BALAG** literally “harp of the singer”). The only other chordophone which could be included in the early lexical lists were **gal.zà** “(leading) lyre player” or “singer of songs of praise” (?) (ED Lu A 108). **zà** follows **gal šùd** “(leading) prayer singer” and therefore could possibly be an abbreviation of **zà.mí (zamin)** “lyre”. An objection against this suggestion is that **zamin** does not occur among musical instruments anywhere else in later lexical lists or literary texts of the 3rd millennium. It is only a word, written **zà.me**, meaning “to be praised” or “song of praise”; cf. **zà.me** = *wādium* “someone who praises” (VE 1181). However, the etymology of **zamin** “wide side” suggests an object like a musical instrument.

Three types of aerophone occur in the lists as composites with “reed”, **gidid**, **gisug** and **gitag**, flutes and oboes, and one as a composite with **si** “horn”, **siamsi** “tusk of the elephant”.

Several percussion instruments are listed: **ala** “big drum” **gištag** “wooden drum”, **ruru** “curved clapping sticks”, **šim/ub** “drum” and **zam(zam)** a drum or idiophone. The main pictogram for drums is **ABxZAG** that later becomes **ABxTAK**. According to its pictogram it was a slightly diabolo-shaped drum (see fig. 2).

3.2 Musical ensembles in the literary texts of the 3rd millennium BC (Table 1.2).

The only musical instruments in the literary texts of the Presargonic period, **tigi** and **balaĝdilmun** (chordophones), occur singly.

From the Gudea period (\pm 2100 BC) onward ensembles are mentioned. Three sorts are found in the Gudea inscriptions:

- Chordophones and percussion: 5,
- Only chordophones: 6.
- Only percussion: 4.

The chordophones that are mentioned are **alğar**, **balağ**, **miritum** and **tigi**, and the percussion instruments are **adab**, **ala**, **šim/ub**.

In Gudea Cylinder A VI-VII (3) the precious **balağ**, which is brought into the temple as a votive gift, is called **gišgudid** “loud sounding wood”. **gišgudid** is an epithet of different instruments. To identify **gišgudid** as a lute as early as the Gudea Period is improbable, because lute-like instruments do not figure in official ritual.

3.3 Survey of musical ensembles (instruments) excavated or occurring in 3rd millennium iconography. (Table 1.3.1-2).

The following combinations occur:

- Chordophones (big lyre; vertical harp) and percussion (big drum, sistrum; clapping sticks): 3, 9, 11, 13, 14.
- Chordophones (vertical harp; big lyre; small lyre A-B) and singer(s) (and people clapping): 4, 5, 6, 7, 8, 15, 16, 21.
- Chordophones (vertical harp), percussion (big drum; clapping sticks) and singer(s) (and people clapping): 1, 12, 19.
- Chordophones (horizontal harp; aerophones (ram's horn), percussion (small drum) and singer(s): 2.
- Percussion (big drum; small drum) and people clapping: 20.

From (Table) 1.3.1 it is clear that the vertical harp is more popular in the first half of the 3rd millennium and the big lyre in the second half, although it occurs as early as 2800 BC (3). The earliest evidence of the horizontal harp (2) is an imported piece found in Adab. Its style suggests an import from Iran and so it remains an isolated case in this early period. Only after 2000 BC do horizontal harps really from Mesopotamia occur in iconography (R 61, 71-75). Two types of small lyres occur: type A (5, 6, 16) and type B (15). Type A is a lyre comparable with the big lyre but on a smaller scale. Type B rather resembles later Syrian lyres. The first lutes appear as a solo instrument (17, 18) in iconography during the Sargonic period.

The figures on votive plaques and cylinder seals who hold their arms crossed, separating them from the chest, I have interpreted as singers. Such a figure in this pose is seen on ‘The standard of Ur’ (6) in the upper register at the right. His hairstyle resembles the statue of the singer-harp player Urnanše from Mari (Z p. 33). The iconography of singers will be discussed further elsewhere.

3.4 Identifications.

Comparing textual with pictorial evidence for ensembles conveys the following impressions:

- The chordophones depicted in combination with percussion instruments dating from the first half of the 3rd millennium could be the **balağ** and the **tigi**. Since the pictogram for **balağ** is a harp, the harp in the images is most likely to be a **balağ**. But it is also possible that in the course of the 3rd millennium **balağ** develops into general word for a musical instrument, for it is often the first entry for musical instruments in the lexical lists. **tigi** is a word found in the earliest literary texts and is apparently the word for the big lyre which features in 3rd millennium iconography.
- In the ensembles of the Gudea period the chordophones include the **algar** “horizontal harp” as well as the **balağ** “harp” and the **tigi** “big lyre”. A likely word for the small Mesopotamian lyre (type A) is **zamin**. The **miritum**, also mentioned as an instrument with the ensemble, could be the small Syrian lyre (small lyre type B), depicted in (Table) 1.3.2 15.
- The percussion instruments **adab**, **ala** and **šim/ub** could well be identified with sistrum, big drum and small drum.

4. Musical instruments from the 2nd millennium BC.

4.1 Musical instruments in the lexical lists of the 2nd millennium BC. (Table 2.1)

In the Old-Babylonian lexical lists the section of chordophones is considerably expanded. The OB Hh I begins with **balaḡ**, its derivations and parts. From the 3rd millennium lexical material **balaḡ**, **balaḡdi**, as well as **miritum** (earlier **balaḡ mari**), **tigi** and **zamin** return. New instruments in the lexical lists include **algar**, **algarsur**, **dua**, **gišgudid**, **harhar**, **niğharmušen**, **sabitum**, **šukara**, **tigidlu**, **urgula**, and **urzababa**. **gišgudid** is originally an epithet for several instruments, but from the OB onward it often functions as a term for lute and is listed among terms for lutes (**tigidlu**, **dua**, **šukara**). **algar** and **algarsur** are “horizontal harps” (see Glossary). As well as the **miritum**, the **sabitum** “instrument from Sabûm” is another imported instrument. In Šulgi B 164 and other texts **sabitum** is attached to **algar**, indicating that the **sabitum** is a type of horizontal harp. Sabûm is a region in north-western Iran from which the earliest examples of horizontal harps (Table 1.3.1 2) are imported, so it is almost certainly another type of horizontal harp. **urzababa**, **urgula**, **harhar** and **niğharmušen** could be types of lyres. Types of lutes (**tigidlu**, **dua**, **šukara**) occur now for the first time in the lists.

The aerophones **gidid** and **gisug** were mentioned in the earlier lists, but **adara** “horn of the ibex” is new. The percussion instruments found again are **ala** “big drum”, **šim/ub** “small drum” and **zamzam**, a percussion instrument, but, **meze** “sistrum” or “rattle”, **papa** “pair of clapping sticks” (?), and **lilis** “timpani” are new. **adab**, originally a percussion instrument, perhaps “cymbals”, is now used exclusively to indicate a type of song. Perhaps **malgatum** “... from *Malgium*”, a type of song, was also originally an instrument but this is uncertain.[\[9\]](#)

4.2 Musical ensembles in the literary texts of the 2nd millennium BC (Table 2.2.1-3).

The ensembles of the 2nd millennium literary texts when compared with those of the late 3rd millennium display a greater variety of instruments:

- Chordophones and percussion instruments: 2B, 3A, 4, 5A, 5B, 6A, 6B, 7, 9, 11, 14, 15A, 15B, 17, 18, 19A-B-C.

- Chordophones, aerophones and percussion instruments: 2A, 12, 13, 21.
- Only chordophones: 5C, 22 (**tigi** 100x).
- Only percussion: 1, 3B, 8, 10, 20, 23.

The chordophones mentioned in the literary texts are horizontal harps: **alğar**, **alğarsur**, **sabitum**; vertical harps: **balağ**, **balağdi**, **gišgudid** (?); the big lyre: **tigi**; small lyres: **zamin**, **miritum**. **siezen** is attested as a device on the lute, a “fret” or “tuning-peg”. When it is mentioned in the dispute ‘Winter and Summer’ (14) together with well-known instruments of official ensembles, it is not a lute but a harp. From the aerophones **adara** and **gisug** occur and the percussion instruments **ala**, **gurtur**, **lilis**, **meze**, **papa**, **šim/ub**, **šim(da)**, **zamzam**. **adab** is exclusively used as a term for a type of song in this period (4, 16, 17, 19A-B, 21), as in the lexical lists. Relatively often the combination **tigi**, **ala** and **šim** is found, which was apparently a standard ensemble for the cult (5B, 6A, 6B (+other instruments), 7, 9, 11, 14, 15A (B), 18.

Passages in hymns dedicated to king Šulgi (especially Hymn B) pay broad attention to their musical qualities.[\[10\]](#) Individual musical instruments are listed in a way that is reminiscent of lexical lists. Such passages, accumulating the names of all the instruments and how they were played, occupy an intermediate position between lexical lists and literary texts. It also explains why instruments occurring only in Šulgi hymns B and C are found in the lexical lists but not in other literary texts:

- lyres: **urzababitum** (lyre ? lex. – lit.), **zannaru** (lit.)
- lutes: **dim** (lit.), **šukara** (lex. – lit.), **urgula** (lex. – lit.),

zannaru, found for the first time in the literary texts, is a loanword from Hattic *zinar* and so must be the “Anatolian lyre”.

4.3 *Musical ensembles occurring in 2nd millennium iconography (Table 3.3).*

Almost all depictions of ensembles from the OB period belong to the realm of folk music. That makes them less suitable for comparison with the ensembles in literary texts, since almost always only official music is described in them. On terracotta plaques of the OB period several instruments are depicted individually: vertical and horizontal harps (type A and B), big lyre, ram's horn and flute (Table 3.3 0).

The following combinations occur:

- Chordophones (lute; small lyre), and percussion (small drum): 4, 5.
- Chordophones (horizontal harp, lute) and singer(s): 1, 3
- Chordophones (small lyre + lute), 6
- Percussion (big drum, clapping sticks): 2.

Folk music scenes show combinations of two instruments, a small lyre or lute with a small hand drum (4, 5). The MB example 6, where a monkey appears in the musical scene, might also feature folk music. Only 1 and 2 are depictions of the official music.

4.4 Identifications:

Identifying the instruments in this period is more difficult than in other periods because most ensembles depicted feature folk music with lutes, small lyres, and small drums. The literary texts, apart from the Šulgi hymns, lack any words for lute and have no references to folk music ensembles.

The only depictions of cultic music (1) show a vertical harp and a singer (?), and a big drum and clapping sticks (2). In the descriptions of cultic music the combination most often mentioned is **tigi**, **ala** and **šim**. In 3.4 I have suggested that **tigi** be identified with the big lyre. That identification could still be valid for the OB period, since a picture of a big lyre is drawn on terracotta plaques (see Table 2.3 0 R 78-79). The word **balağ**, sometimes replaced by the more specific terms **balağdi** or **gišgudi**, is to be identified with the vertical harp.

Although **alĝar** “horizontal harp” and **miritum** “small Syrian lyre (type B) is mentioned among the ensemble instruments, they do not occur in the iconography of the late 3rd millennium.

5. *Musical instruments from the 1rst millennium BC.*

5.1 *Musical instruments in the lexical lists of the 1rst millennium BC (Table 3.1).*

The lexical tradition of the late 2nd and 1rst millennium is primarily based on the series of OB lexical lists. The number of musical instruments on these lists expands gradually from the Old-Babylonian period, as can be illustrated by the evolving text of Hh.

OB Hh entries	MB Hh entries	NB Hh entries
23	29	76

The Middle Babylonian Hh has a few extra synonyms for individual musical instruments but is not so different from the OB-version. It also adds **zannaru** (= ..**INANNA**) “Anatolian lyre”, and **dim.(mar.kur.ra/mar.ha.ši)** “Iranian (from Margiana/Fars) type of lute” (?), items known from the OB Šulgi hymn B. Middle Babylonian Hh merges the section **ala** with that of **alĝar**, writing it as **á.lá.kara** (!), possibly because of assonance between **ala** and **alĝar**.

The standard version of Hh VII (B) has many extra entries. Most involve synonyms or parts of the musical instruments or associations with other instruments. As such they can be seen as a commentary on the entries in the earlier versions, to be compared with the commentary series Hg, where Akkadian synonyms and other associations are included.

5.2 Musical ensembles in the literary texts of the 1rst millennium BC (Table 3.2)

- Chordophones, aerophones, and percussion: 2, 4, 8,
- Chordophones and percussion: 3, 6, 9, 11.
- Chordophones: 1, 7.
- Aerophones and percussion: 12.
- Percussion: 5.

The chordophones mentioned in the literary texts include the previously mentioned **balağ**, **balağdi**, **gišgudid**, **harhar**, **sabitum**, **tigi**, **zamin** and a new term, *šibattu*. **gisug** is an aerophone that occurred earlier, but **gigid/ariktu** and *kanzabu* are new in the lists. As well as **ala**, **meze**, **šim/ub** again among the percussion instruments we find the new terms **lilis**, **papa**, **papa epan**.

Apparently the **alğar** and the **alğarsur** are no longer used, although they are still mentioned in lexical lists. For the rest **tigi** is found in lexical texts as a musical instrument (CAD T, p. 398). In literature **tigi** occurs only in the *balağ*-hymn *Uru amirabi*, which is attested in an OB-version, so it must be regarded as antiquarian. The **sabitum/šebītu** appears (only once) among other chordophones (**balağ**, **zamin**), aerophones (*arkātu*, *kanzabu*, *malīlu*) and percussion (*šinnitu*).

The standard cultic ensemble consists apparently of **balağdi**, **meze** and **šim/ùb**. **balağdi** can alternate with **gišgudid** or **balağ**, as in the OB period (see Table 4.2.1-3). Even in this period it is highly unlikely that **gišgudid** can be identified with the lute, since it is always mentioned in the context of official music (4, 7).

Examination A (1), like the hymn B of Šulgi, is comparable with the lexical lists, accumulating the names of individual instruments, the chordophones, in a particular sequence. Another special case is Šurpu III 88-91 (10), a text which concerns liberating from the effect of oaths sworn in front of different musical instruments,

which are listed in groups of two or three: *mazzû* - *lilissu* (percussion) line 88; *halhallatu* - *tāpalu* (percussion) line 89; *alû* - *palaggu* - *timbūtu* (chordophones) line 90; *sammû* (**zà.mí**) - *sibattu* (chordophones ?) line 91.

5.3 Musical ensembles occurring in 1rst millennium iconography (Table 3.3.1-2)

- Chordophones (small lyre), aerophones (double pipe type A) and percussion (small drum): 3.
- Chordophones (small lyre), aerophones (double pipe type A), and singers (people clapping+singers): 10.
- Chordophones (horizontal harp+small lyre, horizontal harp+small lyre) and aerophones (double pipe type A-B): 6, 12.
- Chordophones (small lyre 2 types, 4 horizontal harps), and percussion (small drum, small drum + cymbals): 1, 8, 9.
- Chordophones (2 horizontal harps, 3 small lyres): 5, 7, 11.
- Aerophones (ram's horn, double pipe) and percussion (big drum, small drum+pithyra): 2, 4.

On reliefs from north-western Syria (1, 2, 3) cultic ensembles are shown with various combinations of small lyres (two types), percussion (small and big drum), and aerophones (double pipe (A) and ram's horn). An ivory box from Nimrud in Syro-Phoenician style (4) can be regarded similarly. The orchestras on the reliefs of the Assyrian palaces are different. After his successful lion hunt the king is attended by two musicians holding horizontal harps, in relief 5A, B, C.[\[11\]](#)

Several reliefs depict music in a military situation. An interesting scene of music and dance after the defeat of the enemy can be seen in (Table) 3.3.1 5D. Two harpists and a drummer appear at the right and on the left side there is a lute player with masked dancers. This is comparable to the garden scene following Assurbanipal's defeat of Te'umman of Elam (12) with its ensemble of vertical and horizontal harpists and someone playing the double pipe. After their victory at the river Ulay (10) the troops are welcomed by a full orchestra with horizontal and vertical harps,

double pipes, clapping and singing (twittering ?) women and children. A smaller ensemble, with two small lyres, cymbals and a small drum encourages the troops in battle (9). Lyre ensembles from outside Assyria were conscripted to play for the Assyrians (7).

There are other palace ensembles apart from these military scenes: a small lyre, harp and double pipes, played by women (?) (6) and a musical ensemble in a garden with a small lyre, played by an Elamite musician with a feather headdress, behind a horizontal harp played by a woman (11). The temple orchestra on a relief from the palace of Sennacherib (8) apparently consists of horizontal harps, small drums and cymbals. The fish-like headdresses of the musicians playing the horizontal harps point to their official positions as incantation priests. Two types of double pipe can be distinguished: A, with two diverging tubes, and B, with parallel tubes.

5.4 *Identifications*

It is tempting to identify the instruments of the standard cultic ensemble, **balaĝdi**, **meze** and **šim/ùb**, with the temple ensemble of horizontal harps, small drums and cymbals (Table 3.3.2 8), but that is not very convincing in view of earlier identifications. It is unreasonable to expect, the meaning of **balaĝdi** to have developed between the 2nd and 1rst millennia from a vertical to a horizontal harp, especially when *šebītu*, a type of horizontal harp in the OB period, is mentioned among other instruments (Table 3.2 8). It is better to consider **balaĝ**, **balaĝdi** and also **gišgudid** as terms for vertical harps which are found in several ensembles (Table 3.3.2 6, 10, 12). The small lyre is apparently the **zamin**. The double pipe type A could be the **gisug/malīlu** and type B the **gigid/ariktu** (“long reed”), since it has long tubes. **šim/ùb** must be the small drum. It seems unavoidable to equate **meze** with the cymbals, but because sistra are not found in 1rst millennium iconography some hesitation is justified.

6 Conclusions:

1. The ensembles of the first half of the 3rd millennium contain vertical harps (**balaĝ**), with big lyres (**tigi**), small lyres (**zamin**) and singers (**nar**, **endu**).
2. After 2300 BC the ensembles slightly change. The standard ensemble of cultic and official events consists of big lyres (**tigi**), small Syrian lyres (**balaĝ mari, miritum**), harps (**balaĝ, balaĝdi, gišgudi**), horizontal harps (**alğar**), big drums (**ala**), kettledrums (**lilis**), small drums (**šim**) and sistra (**adab**).
3. The ensembles of the early 2nd millennium continue the tradition of the late 3rd millennium but supplemented with the imported horizontal harp (**sabitum**), the flute (**gisug**) and the cymbals (**meze**). Innovation in the realm of folk music involved playing some foreign instruments such as lutes. At least in Mesopotamia they did not find their way into official performances.
4. The 1rst millennium ensembles remained traditional. As the main instruments of the cultic ensembles they maintained the vertical harp (**balaĝdi**), the (Iranian) horizontal harp (**sabitum**), the small lyre (**zamin**), sistra (**meze**), kettledrums (**lilis**) and small drums (**šim**). After the OB period the big lyre (**tigi**) became obsolete.
5. Generally speaking Mesopotamian ensembles are conservative in their combinations of chordophones, aerophones and percussion instruments. Within these groups newer instruments are only introduced to replace older ones.

Illustrations and tables of musical instruments.

Fig 1: Development of the sign **BALAG** from the Late Uruk to the Fara period.[\[12\]](#)

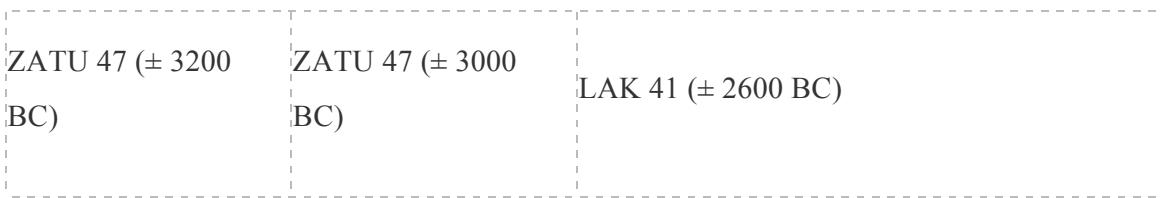


Fig 2: Development of the sign **ŠIM** “drum” from the Fara to the Ur III Period.

LAK 387 (± 2600 BC)	Rosengarten No. 163 (± 2200 BC)	Schneider No. 518 (± 2000 BC)
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Table 1.1: Musical instruments in the lexical lists of the 3rd millennium BC. [13]

Instrument	Classification	1	2	3	4	5	6	7	8	9	10
		ED Lu	ED	ED	ED	EDPV	EDPV	Other	Sign	Word	Lists:
		A (Enlund)	Lu B	Lu C	Lu E	A	B	SF	SF	NPL	VE
balaḡ										7 II	
(gal.balaḡ	C	106					XII		18;	62	
(gal)						206	11	45 II	III 9;	210	364;
sa.balaḡ)							(sa)	3	69		1242
balaḡdid	C		8	98					IX 7-		
balaḡdilmun	C					207			14		
balaḡmari	C					208					571
burbalaḡ	C			23	104	211					

tigi	C					V 6					
za(mi)	C	108 (?)									(1181)
gidid	A			102	209						d 218; 1390 g 7
gisug	A			103							b 42
gitag	A			104	210						1230 (B)
(B)				(B)	(A,C)						
siamsi	A				215						
ala	P			101							
gištag	P				212						
ruru	P				214						
šim/ub(tak)	P				213						
(tak)					(tak)						
zam(zam)	P			99							
nar		81b; 105									
(gal.nar)	S		(gal)	10	21	27; 94;		V 1-			875
(gal)								11			
šir	S			22	107						
šud	S					110- 111					198; 223

Table 1.2: Musical ensembles in the literary texts of the 3rd millennium BC.[\[14\]](#)

	1	2	3	4	5	6	7
			IAS No.	Gudea:			
Classification	Amaušumgal	6	116	Cyl A	Gudea	Gudea	Gudea
		19;	VI 24-	Cyl A	Cyl A	Cyl. B	Cyl B
		318	25 //	XVIII	XXVIII	X 9,	XV 18,
		2 1	VII 24-	18	17-18	11	20-21
			25				
algar	C					+	
balag	C			(+)	+		
balağdilmun	C			(+)			
gišgudid	C			(+)			
miritum	C					+	
tigi	C		(+) (B, C)			+	+ (C) ^[15]

Table 1.3.1: Musical ensembles (instruments) excavated or occurring in 3rd millennium iconography (1).

	5. 11-12					
	6. 1					
	7. 9-10, p. 42					
	8. 8					
	9. 13-14					
horizontal harp		+ (2)				
vertical harp	+		+		+	+
big lyre		+			+ (2)	+
small lyre type A				+	+	+ (1)[18]
small lyre type B						
lute						+
flute						(+)
ram's horn				(cf R 37)		
trumpet	+					
big drum	+		+			
small drum		+				

harp								
big lyre		+						+
small lyre					+			
Type A								
small lyre			+					
Type B								
lute						(+)	(+)	
flute								
ram's								
horn /								
trumpet								
big drum							+ (2)	+ (2)
small							+ (2)	+ (2)
drum								
sistrum		+						
clapping	+	+						
sticks								
people							+ (2+)	+ (2+)
clapping	+							?
singer	+ (3)			+ (?)	+ (?)			

Table 2.1: Musical instruments in the lexical lists of the 2nd millennium BC.

	1	2	3	4

Instrument	Classification	OB Hh II			
		OB Hh I (ĝiš “wood”)[20]	(gi “reed”; kuš “hide, leather”; zabar “bronze”[21]	OB Proto- lu	OB Lu.aslag ₂
algar	C	I 601			
algarsur	C	I 602			A 248 (B)
balag	C	I 597-599	II C 135 (kuš)	660-662	A 250
balagdi	C	I 598 (A)	II C 136 (kuš C)		A 252-253 (A); 250 (C); 251 (D)
dua	C	I 618		640 (ĝiš)	
ĝišgudid	C	I 617		639	
harhar	C	I 607			
miritum	C	I 604			
niğharmušen	C	I 608			
sabitum	C	I 603			
šukara (šu)	C	I 619 (620)		640a	
tigi	C			(643)	
		I 613-616			
tigidlu	C	(kaskal; sa.3, Elam.ma)			

urzababa	C	I 605		
urgula	C	I 606		
zamin	C	I 610-612	II C 138 (kuš)	
gidid	A			A 242; 244
gisug	A		II A 104 // 121a	A 243 (A)
adab	P			612a
ala	P	I 600	II C 137 (kuš)	A 247 (A)
meze	P		II D 33 // 57b (zabar)	
lilis	P		II D 34 // 57a (zabar)	
šim/ub	P	II 565	II C 136a-b (C) // 139-141 (C) (kuš); II D 32 (zabar) (F)	
zamzam	P/A (?)			619
adša	S			604-605
endu	S			600-603
gala	S			653-658
iludid	S			A 245-246

nar	S								
(gal.nar)	S							641-650	
šir	S							587-599	
širsaḡ	S							A 255-256	

Table 2.2.1: Musical ensembles in the literary texts of the 2nd millennium BC. [22]

		1	2A	2B	3A	3B	4	5A	5B	5C
Instrument	Classification	Al-apin 27- 28	Curse of Akkade 35-38	Curse of Akkade 200- 204	Enki's Journey to Nippur 62-71	Enki's Journey to Nippur 93- 95	Enkitalu and Enkihegal 113	Iddin-Dagan A 35- 36; 41-42	Iddin-Dagan A 79	Iddin-Dagar 1 (A) 204- 207
algar	C				+			+		+
algarsur	C		+		+					
balağ	C			+(7)	+			+		
balağdi	C									
(dim)	C									
gišgudid	C									+
harhar	C				+					
miritum	C				+					
sabitum	C				+					

siezen	C										
(šukara)	C										
tigi	C	+		+(7)		+		+		+	
(urgula)	C										
(urzababi											
tum)	C										
zamin	C										+
(zannaru)	C										
adara	A										
gisug	A	+									
adab	P							+			
ala	P	+				+				+	
lilis	P		+							+	
meze	P			+							
šim/ub	P	+		+	+(zabar)	+				+	
zamzam	P		+		+						
pa.pa	P										
gurtur	?										
malgatum	?										

Table 2.2.2: Musical ensembles in the literary texts of the 2nd millennium BC.

urzababi						
tum						
zamin	C					
zannaru	C					
adara	A					+
gisug	A					+
adab	P					
ala	P	+	+	+	+	+
lilis	P					
meze	P					
šim/ub	P	+	+	+	+	+
zamzam	P					+
papa	P					
gurtur	?					+
malgatum	?					

Table 2.2.3: Musical ensembles in the literary texts of the Millennium II BC.

	17	18	19A	19B	19C	20	21	22	23
Instrument	Šulgi	Šulgi	Šulgi	Šulgi	TH	Urnamma	Ziegler p.	Ziegler nr	
Classification	C b	D	Šulgi	E	Šulgi E	106-	A 187	13: RIME	Ziegler nr
	366-	E 22	53-	101-102	107				
	76'	367	56					4.11.2.2[23]	41

meze	P								
šim simda	P		+			+	(simda)		
si.im									
ub	P						+		
zamzam	P							+	
pa.pa	P		+	+	+	+	+		+ (several)
gurtur	?								
malgatum	?	(+)	+	+					

Table 2.3: Musical ensembles occurring in the 2nd millennium iconography.

		0	1	2	3	4	5	6	
Object	Classification	(As only instrument depicted)	Terracotta relief (Larsa)	Stele (Ebla)	Terracotta relief IM 32062 with monkeys (Larsa)	Terracotta relief AO 16924 (Larsa)	Terracotta relief VA 7224 (?)	Cylinder seal (?)	
date			1800	1800	1800	1800	1800	1800	1300
literature			O 603	Z, p. 31	R 57	R 57	R 57	R 107	
horizontal harp	C		R 71-74 (A)						

		R 75 (B)					
vertical harp	C		+				
big lyre		R 78-79					
small lyre	C					+	+
lute	C			+(2)	+		+
flute/oboe	A	R 88-89					
ram's horn							
/							
trumpet	A	R 85-87, 90					
big drum	P		+				
small drum	P				+		+
sistrum	P						
clapping sticks	P		+				
singer	S		+	+(2)			

Table 3.1: Musical instruments in the lexical lists of the 1rst millennium BC.

	1	2	3	4	5
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Instrument	Classification	MB Hh	Hh VIIB	Hh IX (gi); Hh XI (kuš)	Hg	Diri III
alĝar	C	4247 (á.lá.kara2!)	57/63- 67			
alĝarsur = <i>algarsurû</i>	C	4248 (á.lá.kara2.ùr)	59-61; 68-73		B 165	
					B 166 (gišsur9.ra); B 167 (gišsur9.gal);	
balaḡ = <i>palaggu</i>	C	4244	39	XI 265		
balaḡdi = <i>timbutu</i> , <i>telitu</i> , (<i>tukkannu</i> , <i>utemenakku</i>)	C	4245	40-43	XI 266- 267; (Canonical lú IV 175)	B 161 (utemenakku)	
dim (markurra/marhaši)	C	4262-4263	48			
dua	C		126			
gišgudid = <i>inu</i>	C	4270	117, (118- 131), 133- 134		B 172 (giš.gal.30.àm); 173- 174 (giš.gù.dé.šà.ulu.ša4.(gú.ğar.ra))	
harhar = <i>harharu</i>	C		55-56		B 163-164	
(níğ)harmušen	C	4254-4256				
mandi = <i>mandiu</i>	C					53 gišŠU.

miritum	C	4251 (maritum)	77-78		
sabitum = <i>šebitu</i>	C	4249-4250 (<i>šebitu</i>)	74-76		51 ^{gis} BA]
sa'uš	C	(4267)	86a	B 171 (^{gis} sa.3)	
<i>sibatu</i>	C (?)				
<i>tigi</i> = <i>tigû, habšillatu</i>	C			(Canonical lú IV 226)	(uruda) 194
tigidla =	C	4264-4268			54- 56 ^{gis} ŠA ₃ TAR/KA
tungal = <i>tungallu</i>	C			B 168	^{gis} d EN.K]
urgula	C	4261	85		48
urzababa= <i>urzababitum</i>	C	4252	79-85	B 169	^{gis} d NIN.U
zamin = <i>sammû</i>	C	4257a-4260	44-54	B 162 (zà.mí.si.sá)	52 ^{gis} AR ₂
zannaru = <i>zannaru, kinnaru,</i> <i>kandabitum, tindû,</i> <i>harhadû</i>	C	4253a-c	(86a-b)	B 170 (^{gis} dim.nun)	43-46 ^{gis} r
adara	A				
bún	A (?)	4269			
gidid (var.: gi.gù.nun.di.d)	A			IX Gap D c 1-3: var.	38 (var. +balağ)

gigid = <i>arkatu</i>	A								
gisug = <i>malīlu</i>	A				Gap 2 = IX Gap D b 1-2				
adapa	P						(uruda) 193		
ala = <i>alū</i>	P	4247	62	XI 269					50 (BALA)
kanzabu	P (?)								
meze = <i>mazū</i>	P			not in Hh					
lilis = <i>lilissu</i>	P			not in Hh					
PAPA = <i>śinnatu/</i> <i>sinnitu</i>	P (?)			115					
PAPAepana = <i>tāpalu</i>	P (?)			116					
śim/ub = <i>halhallatu</i>	P					208			
zamzam = <i>samsammu,</i> <i>lilissu</i>	P		279				(uruda) 191-192		

Table 3.2: Musical ensembles in the literary texts of the 1rst millennium BC.[\[24\]](#)

		1	2	3	4	5	6	7	8	9
Instrument										
Classification		Examanation	Balağ	Balağ	Eršemma	Eršahuğğa	KAR	SAA	SAA	Šu
		A 28	Utu ...	Uru	No 159	nr 1 22	119	3 nr 2	3 nr 4	III

Language	C	Sum - Akk. (partly)	ekura	amirabi	17-23	(Akk)	28	I 7-9	(Akk)
			a +36- 41	Sum - Akk	Sum - Akk (partly)				
balaḡ = <i>palaggu</i>	C			+	(3)	+			+
balaḡdid = <i>timbuttu</i>	C		(+)	+	+		+		+
gišgudid = <i>inu</i>	C		(+) (B)			+		+	
harhar	C		(+)						
sabitum = <i>šebitu</i>	C								+
<i>sibātum</i>	C (?)								
tigi	C				+				
zamin = <i>sammū</i>	C		(+)				+	+	
gidid	A					+			
(gierra)	A		only isolated						
gigid	A			+					+

= <i>arkātu</i>							
gisug	A						+
= <i>malīlu</i>							
ala = <i>alū</i>	P			+ (A)			
<i>kanzabu</i>	P (?)						+
lilis	P			+ (B)			
= <i>lilissu</i>							
meze	P		+		+	+	
= <i>mazū</i>							
papa	P						+
= <i>sinnatu</i>							
papa epan	P						+
= <i>tāpalu</i>							
šim	P		+ (A)		+ (F)		+
= <i>halhallatu</i>							
ub							
(= <i>kuš/uruda</i> ub)	P		+ (A)		+ (A)	+	
= <i>uppu</i>							

Table 3.3.1: Musical ensembles occurring in 1rst millennium iconography.

Object	Classification	1	2	3	4	5 A-B-C	5 D
		Relief	Relief	Relief.	Ivory box	Relief.	Relief. Palace
		(Carchemish	(Karatepe			Assurnasirpal	Assurnasirpa

	(Šam'al)	(Nimrud)	BM 124533	BM 124548
date	900	800	700	800
			1. p.	// 124535 //
literature		1. p. 71	108	(Nineveh)
			+12	R 134 (A) //
			2	135 (B) //
				R 136-137
horizontal harp	C		+ (2)	+ (2)
vertical harp	C			
small lyre	C	+ (2 types)	+ (2 types)	
lute				+
double pipe:			+ (2)	
type A -B	A		(A)	(A)
ram's horn /				
trumpet	A	+		
big drum	P	+		
small drum	P	+ (2)	+	+
cymbals	P			+

psithyra	P				+ (2)		
people clapping	S						+ (dancers with mask)
singer	S					(+ ?)	

Table 3.3.2: Musical ensembles occurring in 1rst millennium iconography.

		7	8	9	10	11	12
		Relief.		Relief.	Relief.	Relief.	Relief.
Object	Classification	Palace of Sennacherib BM 124947	Relief. Palace of Sennacherib BM 124948 (Nineveh (Nineveh)	Palace of Assurbanipal AO 19908	Palace of Assurbanipal BM 124802	Palace of Assurbanipal (Nineveh)	Palace of Assurbanipal BM 118916
		700	700	650	650	650	650
date							
literature		142	1. 122 +141	149-150	151-153	148	147+ (?)
horizontal harp	C		+ (4)		+ (2)	+	+ (1+)
vertical harp	C				+ (7)		+ (1+)
small lyre	C	+ (3)		+ (2 types)		+	
double pipe:	A				+ (2) (A)		+ (B')

type A -B								
ram's								
horn /								
	A							
trumpet								
big drum	P							
small	P			+ (2)		+		
drum								
cymbals	P			+		+		
psithyra	P							
people	S						+ (2+9)	
clapping							+ (2)	
							lamenting	
singer	S						+ (2)	
							(twittering)	

Glossary of musical instruments and their writing.[\[25\]](#)

1	2		3	4				
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			“standing beside or on top of each other” (A, B), “resounding together” (C) = cymbals (?) [26] It is also a type of song. For the determinative sign uruda “copper, metal” see uruda a.da.pà = <i>adapu</i> = <i>mazzû</i> Hg to Hh XI 193 (Landsberger, <i>MSL VII</i> , 153). The equation with <i>mazzû/manzû</i> (= mezé) “jaw, sistrum” points to a metal idiophone (see U. Gabbai in this volume).
adab	a.da.ab (A); a.dab ₆ (B); ^(uruda) a.da. pà (C)	P: M	
adara	á.dara,	A	“horn of the ibex”.
adša	ad.ša ₄	S	“uttering a soft sound” a type of singer.
ala	(ḡiš/kuš/uruda)á.lá (A) / a.la (B) = <i>alû</i> (C)	P: M	“(instrument) fastened to/suspended from the arm”. ala is listed directly after balağ and before alğar in OB Hh (I 600). In canonical Hh VII B 62-73, between alğar and sabitum it is associated with alğar (see there), balağ.gal “big harp/instrument”, balağ.tur “small harp/instrument”, TUN₃.gal “big bag” = <i>tungallu</i> “big bag” = <i>tukkan ša nukuššē</i> “bag of the doorsil”. These explanations all point to an instrument with a substantial sound box (“big bag”) and a pole standing horizontally in a hole or an instrument resembling the “bag of the doorsil”. Ziegler, N. (Musiciens Mari, pp. 74-76) has demonstrated that it was a heavy instrument sometimes made of copper, which makes the identification with the big drum certain. This being so, the association with the alğar etc. in MB Hh Can. Hh VIIB 63, is somewhat peculiar. The gods Enki and Sîn are connected with the ala in Can. Hh VII B 72- 73. <i>alû</i> forms a trio with <i>palaggu</i> and <i>timbūtu</i> in Šurpu

		III 90 (Table 3.2 10).
algar	(^{giš})al.ğar	C “(instrument) placed down”. ^[27] ^{giš} al.ğar occurs in Ur III-Early OB administrative texts from Isin. The fact that the alğar is listed among the stringed musical instruments, e.g. MCS 5 115 No. 1 6 (administrative Isin) and its playing technique is indicated with aga.šu.si “fingering” (Krispijn, “Beiträge”, pp. 10-11) makes an identification with a chordophone more likely than with a type of drum.
alğarsur	(^{giš})al.ğar.sur ₉ (A); al.ğar.su.ra (B) = algarsuru (C)	C “(instrument) placed down with a plectrum”. Can. Hh VII B 60-61 lists two regional types including an Elamite type of alğarsur . In Hg B II 165 <i>algarsurrû</i> is equated with <i>šulpu ša balağ</i> (!?) “stick of the musical instrument” = plectrum (?) and <i>surgallu</i> with <i>šulpu</i> “stick”. Veldhuis, N. (“The sur-Priest, the Instrument ^{giš} al.ğar.sur ₉ , and the Forms and Uses of a Rare Sign”, <i>AfO</i> 44-45 (1997-1998), pp. 119-128) considers the ^{giš} al.ğar.sur ₉ to be a drumstick; see also Shehata, D. N. (“Some Observations on the /alğarsur/”, in Gatsov, I. - Schwarzberg (ed.), <i>Aegean - Marmara - Black Sea: the Present State of Research on the Early Neolithic</i> (Langenweissbach 2006), pp. 367-378). For my reasons for considering the alğarsur to be a stringed musical instrument see alğar .
balağ	(^{giš/kuš})balağ= <i>palagg</i> <i>u</i> (B)	C “harp” (?). The pictogram for balağ develops from a bow-shaped chordophone (Uruk ± 3200 BC) into an angular-shaped harp (Fara ± 2600 BC, see fig. 1).

		Composites of balağ in the early lexical lists of professions are: gal_a.balağ “leader of the <i>balağ</i> -players”; balağ.di (see balağdi); NAR.BALAĞ (see tigi).
		Later balağ might have been developed into a term for a musical instrument in general. ²⁸ balağ occurs in Ur III administrative texts from Ur, Isin and elsewhere. Cf. balağ = <i>kinnārum</i> “Syrian lyre” VE
		572. [28] <i>palaggu</i> forms a trio with <i>alū</i> and <i>timbūtu</i> in Šurpu III 90 (Table 3.2 10).
		“sounding <i>balag</i> ” (?) also “harp player, singer of <i>balag</i> -songs”. For the pronunciation of BALAĞ.DI as dubdu(b) , see Krispijn, “Beiträge”, p. 23 note 40. In Can. Hh VIIIB it is equated with <i>utemenakkum</i> < *ù+temen+ak “plank/bridge of the (foundation) peg(s)”, which could point to the side of a harp with tuning pegs. Hg B II 161 explains that word as <i>kişallu</i> “ankle bone”. The sign BALAĞ and cognates have the readings balağ , dúb and tak_a , dubdub(di) (D) is a reduplicated, onomatopoeic (?) form like <i>halhallatu</i> , lilis and zamzam . <i>timbūtu</i> forms a trio with <i>alū</i> and <i>palaggu</i> in Šurpu III 90 (Table 3.2 10).
		“ <i>balag</i> of Dilmun”. Dilmun is the region from the island Failaka as far as Bahrain (including the opposite coast). In MB Hh 4266-4267 <i>talmuttu</i> “instrument of Dilmun”, occurring in OB Mari as well (CAD T, p. 414, but there not understood as “Dilmunite”), is used for a type of lute.
balag ²	(giš/kuš) BALAĞ.DI	
balag ²	(A) = <i>dubdu</i> (?)	
	= <i>timbūtu</i> (B);	
balag ²	BALAĞ.di.da (C);	C
/ dubdu	BALAĞ.	
	BALAĞ.di =	
	dúb.dúb.di (D)	
balag	balag.dilmun	
dilmun	= <i>talmuttu</i> (?)	

balaḡ	balaḡ.ma.rí		“balaḡ of Mari”. Mari is an important city state on the Middle Euphrates on the way to Syria. The “harp of Mari” is the precursor of miritum .
mari	= <i>miritum</i>		
burbalaḡ	búr.balaḡ	C	búr.balaḡ special type of <i>balaḡ</i> or “ <i>balaḡ</i> -player moving (his fingers ?) quickly”. Cf. nundum.nundum.búr.ke₄ = <i>šaptān muššabratum</i> “twittering lips” CT 17, 32 19-20; nundum.búr.re.balaḡ.ğá = <i>nasāsum</i> “to wail” Kagal D sect. 9 7 (PSD B, 195-196).
dim	ḡisdim	C	“pole”. Two regional types are attested: ḡisdim.mar.kur₄.ra = <i>halmatru</i> “pole from Margiu/Halmatru” (MB Hh 4262) // ḡisdim.dim.addir “poles of the bridge” (Can. Hh VII B 48); and ḡisdim.mar.ha.a.ši = <i>parahšū</i> “pole from Fars” (MB Hh 4263) “pole of Margiu/Halmatru”. The Akkadian translation in Hh VII B 48 and Hg B I 191: <i>sagū=arkilla</i> “bear” (?) is unclear. Possibly it is a kind of lute.
endu	èn.du	S	“uttering a humming sound” èn is onomatopoeic for a humming sound.
gala	gala (UŠ.KU)	S	Possibly a loanword from Semitic <i>qr'</i> “to call, recite” (?) = lamentation singer, cult singer. The early writing UŠ.KU.e.ne = * <i>gala'ene</i> in the inscriptions of Urukagina (Ukg 6 I 13') confirms an original hiatus at the end of the word.
gi'erra	gi.ér.ra	A	“reed of weeping” .
gidid	gi.di (A); gi.di.da (B) =	A	“sounding reed”. gi.di = <i>rahālu gi</i> ; <i>bari'um</i> “to bleat of a reed”; “hollowed out”, cf, Krispijn, “Beiträge”, p. 15,

		Civil, <i>Practical Vocabulary A</i> , p. 100.
gigid	gi.gíd.(da) = <i>arkātu</i> (?) (B)	A “long reed”. A complication is that both su₁₃ and gíd are written with the sign BU .
gisug	gi.su ₁₃ (A); gi.sù (B) = <i>malīlu</i> (C)	A “empty reed”. Krispijn, “Beiträge”, pp. 15-17: BU=su₁₃ an earlier writing for sù.(ga) “empty, hollow”.
gitag	gi.tag (A); gi.tak ₄ (B); GIxTAK ₄ (C)	A “played reed”. tag or tak₄ might be earlier writings for TUKU/du₁₂ “to play an instrument”. (Civil, <i>Practical Vocabulary A</i> , p. 101).
gurtur	gur.tur	? “small basket” (?).
gusala	gú.sa.lá	C “neck, to which strings are attached” directly after šukara in OB Lú 640a.
gišdua	(giš)dù.a	C “erected/planted wood/tree” or “provided with a (?) penis”. gišdù.a = <i>karna inu, karnānu</i> is apparently synonymous with giššu.kara₂ . See also gišgudid .
gišgudid	giš.gù.di.d (A); gù.dé (B)= <i>inu</i> (C)	“loudly sounding wood”. Epithet of various instruments. In Can. Hh VII B 117-132 gišgudid is associated with kiri , “garden” (118); ù.lu.di “tinkling” (119); du₈.du₈ “richly provided with” (120); šu.galam.ma “stairs (?)” [29] (121); sa.šú “casting net”(122). All these entries could be similes of a many stringed chordophone like the harp. That is confirmed by the entry 132: giš.gal.30.àm “big wooden (instrument) with 30 (strings)”. The known parts of the gišgudid are: úr “base”(123); u₅ “summit”(124); giš.dù.a “supplied with a penis” [30] (126); giš.dím “carved wood” (127); gišbala “spindle” (128); á.ĜA₂ “arm of the ...” (129). In 130-131 the <i>inu</i> has the Sumerian

			equivalents giš.gal “big wooden (instrument)” and giš.šu.gal “big wooden hand”.
			Otherwise its position in OB Hh I between tigidlu and šukara , two types of lyre, makes it more likely to interpret gišgudid as a lyre from the OB period onward (see A.D. Kilmer, “Laute. A. Philologisch”, <i>RLA</i> Band 6, 512-515 (Berlin, 1983).
gištag	GIŠxTAK ₄ (A); giš.tag (B)	P: I: (?)	“wood played on” gištag ”, must be a type of wooden drum, cf. giš.tag = <i>NI-bù-um</i> (=a/uppum ?) “cylinder drum” VE 366; ^{giš} GIŠxTAK ₄ = <i>a-ša-ru₁₂-ru₁₂-um</i> (<i>as/šarru</i>) “cylinder (?)” VE 437[31].
harhar	(^{giš})har.har	P: C: (?)	“rings, links of a chain”. In MB Hh 4254 harmušen(na) “ring of a bird” instead of harhar is attested, though translated with <i>harhu/arrum</i> . Part of is this instrument is gešpu,har.mušen (MB Hh 4255) “circular handle of the <i>harharu</i> ” = <i>mušelû</i> “part to lift the instrument”.
iludid	i.lu.di	S	“uttering the <i>ilu</i> -sound”.
kanzabu	kanzabu	P: I: ?	“fawning (instrument)” < <i>kuzzubu</i> “to fawn” “rattle” (?).
lilis	li.le.ěš (A); li.li.is (B); AB ₂ XBALAG ₂ = lilis (C) = <i>lilissu</i> (D)	P: M	Reduplicated, onomatopoeic (?) form like dubdub (=balağ.di), <i>halhallatu</i> , and zamzam . On the well-known tablet from the Seleucid period O 175 (Thureau Dangin, <i>Tablettes d’Uruk</i> TCL VI, (Paris, 1922), No. 47) a kettledrum is drawn with the caption lilis (C). <i>lilissu</i> forms a pair with <i>manzû</i> in Šurpu III 88 (Table 3.2 10).

malgatu m	ma.al.ga.tum	(?) “song/instrument from Malgium”. Perhaps an instrument or a type of song.
meze	me.zé = <i>manzû</i> (B)	P: “cheek bone” = sistrum (?) <i>manzû</i> forms a pair M with <i>lilissu</i> in Šurpu III 88 (Table 3.2 10).
miritum	(^{gis})mi.rí.tum (A); ma.rí (B)	“(instrument) from Mari”. In Can. Hh VII B 78 it is associated with ^{gis} gú “the wooden neck”, possibly referring to the “neck” of the instrument. ^{gis} maritum occurs in Ur III-Early OB administrative texts from Isin. The furniture term ^{gis} zà.mi.rí.tum “side (in the shape of) the <i>miritum</i> ” occurs in texts from Ur, Umma, Puziriš-Dagan and Nippur-Esagdana.
nar	nar	S “singer”.
niğhar- mušen	(^{gis})níg.har.mušen	C (?) “thing (= part) of the bird snare”.
papa	(^{gis})pa.(pa) = <i>sinnatu</i> (B)/ <i>śinnet</i> <i>u</i> (C)	A (?) “sticks”. The Akkadian word is also used for parts of a rein and bridle.
papa’epa na	(^{gis})pa.pa.é.pa.na = <i>tāpalu</i> (B)	P: “pair of sticks”. <i>tāpalu</i> forms a pair with I in <i>halhallatu</i> Šurpu III 89 (Table 3.2 10).
parahšit um	<i>parahšitum</i>	C “(Instrument) from Far(a)hšum/Fars” occurs in texts from Mari and Middle Babylonian Lexical texts from Emar.
ruru	(^{gis} /uruda)ru.ru	P: “curved metal or wooden throwing stick” I Cf. ^{gis} /uruda)ru.ru = <i>mar-ba-a</i> GN (?) VE 414.
saeš	(^{gis})sa.eš	C “three strings” ^{gis} sá.eš occurs in Ur III-Early OB

		administrative texts from Isin.
sabitum	(^{gis})sa.bí.tum = šebitu (B)	“(instrument) from Sabum” is in Can. Hh VII B 75-76 associated balağ.tur “small instrument (harp)” and C with ^{gis} susbu “purification priest” (= MUŠ-guṇu. BU). “the wooden neck” ^{gis} sá.bí.tum occurs in Ur III-Early OB administrative texts from Isin.
siamsi	si.am.si	A “horn = tusk of the elephant”.
siezen	(^{gis})si.EZEN	“bound horn”. Part of a šukara -lute. Also part of the harp? Cf. si.EZEN = <i>qarnānū</i> , <i>qarna-inū</i> “horn of the lute” = fret/tuning-key (?) (Krispijn, “Beiträge”, 4-5 and Krispijn, T.J.H., “Musik in Keilschrift”, p. 466). [32]
šibātu	si-ba-a-te (Var. si-bat-ti)	C “?” <i>šibātu</i> forms a pair with zamin in Šurpu III 91 (Table 3.2 10) and could therefore be a chordophone; (?) percussion and chordophone combinations are found in Šurpu III 90: <i>alū</i> - <i>palaggu</i> - <i>timbūtu</i> .
šim(da)	AB ₂ +ŠA ₃ = šem/ùb (A); si.im (B); (^{kuš}) sim (C); ši.im (^{zabar}) (D) = <i>halhallatu</i> (E); AB ₂ +KARA ₂ = šem ₅) (F)	P: šem ^{zabar} OB (Forerunner) II 565. The reading and development of the sign AB₂+ZAG/TAK₄/ŠA₃ = šem/ub _{3/5} and its phonographically written si.im is complicated (see now Civil, <i>Practical Vocabulary A</i> , pp. 101 and fig. 2). A special type of drum is AB₂+ZAG.tak₄ . A problem is the writing si.im.da for the expected si.im in Gudea Cyl. B M XV 20 and Šulgi E 101. The parallel passage in Gudea Cyl. A XVIII 18 has only si.im . Is si.im.da the complete writing? In 1rst millennium texts šem = AB₂+ŠA₃ = <i>halhallatu</i> is distinguished from ^{kuš} ùb = <i>uppu</i> . <i>halhallatu</i> (E) is a reduplicated, onomatopoeic (?) form like dubdub(di) (= balağ.di), lilis and zamzam . <i>halhallatu</i> forms a pair

			with <i>tāpalu</i> in Šurpu III 89 (Table 3.2 10).
šir	šir (=EZEN)	S	“song”, originally “composition” (?). Cf. šir.NAR/kad ₄ Išme-Dagan VA 61 (Ludwig, M.L., <i>Untersuchungen zu den Hymnen des Išme-Dagan von Isin</i> , (Wiesbaden, 1990), 193-195).
šir saḡ	šir.saḡ	S	“first song”.
šud	šud	S	“prayer” also in the combination gal.šud “(leader of the) prayer singer(s)” ED Lu A 107.
šukara	(^{giš})šu.kara ₂	C	“carried by the hand, utensil” is attested in the OB Hh I 619 and not in the later versions. That it is the Syrian lyre with a hornlike summit is indicated by the part siezen = <i>qarnānū</i> , <i>qarna-inū</i> .
tigi	(^{giš})tigi = NAR.BALAĜ = <i>tigū</i> (A); <i>ti.gi</i> (B); <i>ti.gi</i> ₄ (C)	C	The sign combination means “harp of the singer” (?).
tigidlu	(^{giš})ŠA ₃ .TAR = tigidlu = <i>tigidallu</i> (?) (B)	C	The sign combination ŠA ₃ .TAR might be interpreted as “split heart” indicating the fingerboard of a lute crossing the sound box. tigidlu < * <i>tigi.dal</i> “crosspiece of the <i>tigi</i> ” could refer to the neck of a lute resembling the crosspiece of a lyre. Beside the general indication tigidlu (OB Hh I 613; MB Hh 4264) there are special types: tigidlu.kaskal.la “travel <i>tigidlu</i> ” = <i>harhadutu</i> GN (?) (OB Hh 614; MB Hh 4265); tigidlu.kaskal.la “travel <i>tigidlu</i> ”; tigidlu.sa.3 “ <i>tigidlu</i> with 3 strings” = <i>talmuttu</i> “(instrument of) Dilmun” (OB Hh I 615; MB Hh 4266-4267, see also balaĝ dilmun); tigidlu.elam.ma “ <i>tigidlu</i> from

			Elam”. šA₃.TAR = tigidlu occurs in Ur III-Early OB administrative texts from Isin. Since three strings are mentioned, the identification with a lute is most likely.
ub	AB ₂ xŠA ₃ = ùb/šèm (A); ub _x = AB ₂ .ZAG.TAK ₄ (B) = <i>uppu</i> (= ^{kuš} ùb)	P: M	“cylinder”. See notes to šim(da) above.
urgula	(^{gis})ur.gu.la	C	“bigger dog, lion”, a kind of lute ? (see Šulgi B 166)
urzababa	(^{gis})ur.za.ba ₄ .ba = <i>urzababitum</i>	C	“the man/servant of (the god) Zababa” in Hh VII B 80-84 is someone associated with the god Ninurta, the zamin/arre (“instrument of praise”) of Inanna and the mythological bull <i>alimbû</i> . Possibly a sort of lyre.
zam / zamzam	za.am.(za.am) = <i>samsammu</i> (B)	P: M	onomatopoeic (?) a percussion instrument or a type of song often connected with gisug “flute” (CA 36, Urnamma A 3, 187, Šulgi E 38, 56 etc.) or tigi “big lyre” (Šulgi B 273, 276, Šulgi E 34, etc.). For the determinative sign uruda see ^{uruda} za.am.za.am Hh XI, reconstruction // Hg 191. Reduplicated, onomatopoeic (?) form like dubdub (= balagdi), <i>halhallatu</i> , and lilis .
zamin	zà.(me) (A), (^{gis/kuš})zà.mí (B) = <i>sammû</i> (C)	C	“wide side” (Krispijn, “Beiträge”, p. 6-7) also “to be praised” cf. zà.me = <i>wādium</i> “praising” VE 1181. In MB Hh zamin is translated <i>mandû</i> “pole”, which would fit the crossbar of a lyre. Parts of the lyre mentioned from OB Hh onwards are: ^{gis} kul.zà.mí “handle of the zamin ” = <i>hansû</i> “fibres (of the (OB Hh I 611; MB Hh 4259“ ^{gis} dub/KAB.zà.mí (OB Hh I 611; MB Hh 4259”; VII B 50) = <i>tuppu ša sammē</i> “board (?) of the zamin ” = <i>hansû</i> “?”, ^{gis} áb.zà.mí (MB Hh 4260) “cow of the zamin ” = <i>hasis sammē</i> “ear of the zamin = sound

		<p>hole (in the shape of a concave square)" (see E. Robson, Mesopotamian Mathematics 200-1600 BC (Oxford, 1999), pp. 50-54). In Hh VIIB 45 (reconstructed) zamin is explained as ár.re "The (instrument) of praise". The Mesopotamian tuning system is based on the zamin: cf Hh VIIB 47. ^{gis}zà.mí.si.sá = <i>išartu</i> "the <i>isartu</i> tuning" = <i>harru</i> (Hg B II . ZÀ (A) could be the abbreviation of zamin. It occurs in the combination gal.zà "leader of the <i>zamin</i>-players" ED Lu A 108. ZÀ is apparently not the abbreviation of ZÀ.HA = enkud "supervisor of hunting and fishing, fish collector" (Englund, Uruk, 142³¹⁹; Green, M.W., <i>JCS</i> 36 (1984), pp. 93-95). The enkud in its abbreviated form occurs in: gal.zà; nesağ_{za}.zà; bara_{za}.zà; DILMUN.zà ED Lu A 82-85. ^{gis}zà.mí occurs in Ur III-Early OB administrative texts from Isin. zamin forms a pair with <i>ṣibattu</i> in <i>Šurpu</i> III 91 (Table 3.2 10).</p>
zannaru	<p>(^{gis})za.na.ru = <i>zannaru</i>, <i>tindû</i>, <i>kinnaru</i></p>	<p>C</p> <p>Loanword from Hattic <i>*zinar</i>. In the Middle-Babylonian version it is beside <i>zannaru</i> translated with <i>tindû</i> "?" (also Diri III 45), <i>kinnaru</i> "Syrian lyre". In Hh B 86a // Hg B II 170 it is associated with ^{gis}dim.nun = <i>tindû</i> "magnificent pole" and in Hg B II 166 sur_{ra} "plectrum". For the relation of zannaru, ^{gis}(za).inanna, and ^{di}inanna_{za.za} see Krispijn, "Beiträge", p. 12.</p>

Abbreviation:

Most abbreviations are listed in the *Chicago Assyrian Dictionary* (CAD), (Chicago, from 1956). Other abbreviations used:

Can. Canonical.

ED Early Dynastic.

EDPV Early Dynastic Practical Vocabulary.

ePSD Electronic Philadelphia Sumerian Dictionary
(<http://psd.museum.upenn.edu>).

ETCSL Electronic Text Corpus of Sumerian Literature (<http://etcsl.orinst.ox.ac.uk>).

EV Abstracts from the Vocabularies of Ebla (“Estratti di vocabulari”).

Hh HAR.ra = *hubullu* Lexical Series, published in MSL V-X.

MB Middle-Babylonian.

OB Old-Babylonian.

VE Ebla Vocabulary (“Vocabulario di Ebla”)

^{*} I owe many thanks to Dr. M.E. Richardson for correcting and improving the English and many valuable additions and suggestions.

[1] See Krispijn, Th.J.H., "The Early Mesopotamian Lexical Lists and the Dawn of Linguistics", *JEOL* 32 (1991-1992), 12-22, especially pp. 14-15.

[2] For most such identifications see Krispijn, T.J.H. "Beiträge zur altorientalische Musikforschung 1: Šulgi und die Musik", *Akkadica* 70 (1990), p. 1-27 and Dumbrill,

R.J., *The Archaeomusicology of the Ancient Near East*, (London, 2005), Lexicon pp. 387-454.

[3] For these terms see e.g. Kartomi, M. J., *On Concepts and Classifications of Musical Instruments*, (Chicago-London, 1990), pp. 318-321.

[4] I use the term 'horizontal harp' for harps, whose sound box forms the horizontal base of the instrument and 'vertical harp' for bow-shaped harps and harps, whose sound box is placed vertically.

[5] Cooper, J. - Heimpel, W., "The Sumerian Sargon Legend", *JAOS* 103 (1983), 67-82 and Westenholz, J. G., *Legends of the Kings of Akkade*, (Winona Lake, 1997), pp. 51-53.

[6] **zamzam** is often mentioned beside the **tigi** and the **gisug** indicating a type of song. Cf. Glossary.

[7] Uruk IVa is an archaeological dating of a stratum in the Eanna complex in Uruk. The earliest fragments of lexical lists are found in these layers. The later Uruk III stratum (\pm 3000 BC) is contemporaneous with the site Jemdet Nasr. See for a general description of these earliest texts Englund, R. K., "Texts from the Late Uruk Period", in Attinger, P. - Wäfler, M., *Mesopotamien*, (OBO 160/1), (Freiburg 1998), 13-233. Sürenhagen, D., *Untersuchungen zur relativen Chronologie Babyloniens und angrenzender Gebiete von der ausgehenden 'Ubaidzeit bis zum Beginn der Fröhdynastisch-II-Zeit (HSAO Band 8)*, Heidelberg (1999), has refined the stratigraphy of Uruk and especially the Eanna.

[8] Since the sign **GAL**, which is the sign used for the Sumerian word **gal** "big", occurs so often in the ED Lu A list, that I would suggest that it be considered as the precursor of **lú** "man" of the later lists and not as an indication of the leader of a group of professionals.

[9] See for the Middle-Babylonian peripheral versions of Hh chapter 5.1.

[10] Other comparable hymns are Šulgi C , E and Išme-Dagan V.

[11] In 5A and 5B a beardless figure with typical headdress stands in front of the harps. Is he a singer?

[12] Bibliography of the paleography of the 3rd millennium:

- Green, M.W. - Nissen H.J., *Zeichenliste der archaischen Keilschriftzeichen aus Uruk (ZATU) (Archaische Texte aus Uruk (ATU) Band 2)*, (Berlin, 1987).
- Deimel, A., *Die Inschriften von Fara I Liste der archaischen Keilschriftzeichen (LAK)*, (Leipzig, 1922).
- Rosengarten, , *Répertoire commenté des signes présargoniques sumériens de Lagaš*, (Paris, 1960).
- Schneider, N., *Die Keilschriftzeichen der Wirtschaftsurkunden von Ur III nebst ihren charakteristischen Schreibvarianten (Keilschriftpaläographie Heft 2)*, (Rome, 1935).

[13] Bibliography of the 3rd millennium lexical lists:

- Civil, M., The Series lú = ša and Related Texts (MSL XII), (Rome, 1969), 3-21: ED Lu A-E.
- Civil, M., The Early Dynastic Practical Vocabulary A (Archaic HAR-ra A) ARES IV, Rome (2008), pp. 99-102: EDPV A, EDPV B.
- Deimel, A., *Die Inschriften von Fara II Schultexte aus Fara (SF)*, Leipzig (1923): Sign Lists.
- Englund, R. K. – Nissen, H.J., *Die lexikalische Listen der archaischen Texte aus Uruk, Archaische Texte aus Uruk (ATU) Band 3*, Berlin (1993) (Uruk IVa and Uruk III): ED Lu A.

- Pettinato, G., *Testi lessicali monolingui della biblioteca L. 2769 (MEE 3)*, (Napels, 1981): ED Lu A, E; G. NPL = Lista di Nomi e Professioni (Names and Profession List).
- Pettinato, G., *Testi lessicali bilingui della biblioteca L. 2769 (MEE 4)*, (Napels, 1982): VE, EV.

[14] Bibliography of the 3rd millennium literary texts:

- Biggs, R. D., *Inscriptions from Tell Abū Šālābīkh (OIP 99)*, (Chicago 1974): IAS No. 116, 318.
- Edzard, D.O., *Gudea and His Dynasty, RIM Early Periods Vol. 3/1*, Toronto (1997): Cyl. A, B.

[15] Reconstructed: [ti.g]i en-níḡ.e-si-sá.a.da “with the en (?), the *tigi*-instrument that has organized everything”.

[16] Bibliography of the iconography and abbreviations from the 3rd to the 1rst millennium:

- A = Aruz, J. (ed.), *Art of the First Cities*, (New Haven-London, 2003).
- B = Boehmer, R.M., *Die Entwicklung der Glyptik während der Akkad-Zeit*, (Berlin, 1965).
- O = Opificius, R., *Das altbabylonische Terrakottarelief*, (Berlin, 1961).
- R = Rashid, S.A., *Musikgeschichte in Bildern Band II, Lief.erung 2: Mesopotamien*, (Leipzig, 1984).
- S = Suter, Cl.E., *Gudea's Temple Building The Representation of an Early Mesopotamian Ruler in Text and Image*, (Groningen, 2000), pp. 170-176 (Börker-Klähn); plate A-C (Suter).
- Z = Ziegler, N. (ed.), *La musique au Proche Orient ancien. Dossiers Archéologie et sciences des origines*, no 310, (Dijon, février 2006).
- 1 = figure No. 1.
- 1= page 1.

[17] See also Aruz, *Art of the Cities*, No. 230 (fig. 86). I interpret the small figure after the drummer as a young singer.

[18] This small lyre is neither type A nor B. A special monograph, devoted to the lyres of this tomb, De Schauensee, M., *Two Lyres from Ur*, (Philadelphia, 2002), corroborates the correctness of Woolley's reconstruction.

[19] See for reconstructions Suter, *Gudea*: ST.10 (Gudea ?) = R 45; ST.54 (Plate B) = R 51-52; ST. 15 (Plate B) = R p. 70; Other fragments with parts of musical instruments and people clapping: ST.9 (Plate A); ST.13 (Plate B); ST.25 (Plate B); ST.53.

[20] Bibliography of the lexical lists from the 2nd to the 1rst millennium:

- Civil, M., *The Series lú = ša and Related Texts (MSL XII)*, (Rome, 1969): OB Proto-lu (pp. pp. 25-73), OB Lu.aslag (pp. 151-213).
- Civil, *MSL XV The Series DIRI = (w)atru*, (Rome, 2004).
- Gantzert, M., *The Emar Lexical lists*, (Maastricht, 2008): MB Hh (especially Part 1, p. 101; Part 2, p. 64).
- Landsberger, B., *The Series Har-ra = hubullu Tablets V-VII (MSL VI)*, (Rome, 1958): Can. Hh V-VII (+ OB/MB Forerunners).
- Landsberger, B., *The Series Har-ra = hubullu Tablets VIII-XII (MSL VII)*, Roma (1959): Can. Hh VIII-XII (+ OB/MB Forerunners).
- Veldhuis, N., *Elementary Education at Nippur The Lists of Trees and Wooden Objects*, (Groningen, 1997): OB Hh.

[21] For this tablet of the Old-Babylonian Hh see Veldhuis, *Education*, p. 52. The transliteration of this OB forerunner is published in Landsberger, *MSL VII*, pp. 181-241. Since Landsberger named the forerunners after the later canonical series HAR.ra=hubullu (Hh) and Veldhuis has not published a complete edition of all OB Hh texts I refer to this tablet of OB Hh in the following way:

- *MSL VII 181-196 = II A // Hh VIII-IX.*
- *MSL VII 199-204 = II B // Hh X.*
- *MSL VII 213-228 = II C // Hh XI.*
- *MSL VII 231-241 = II D // Hh XII.*

[\[22\]](#) Bibliography of the 2nd millennium literary texts:

- *Al-apin* = *ETCSL* 5.4
- *Curse of Akkade* = *ETCSL* 1.5
- *Enki's Journey to Nippur* = *ETCSL* 1.4
- *Enkitalu and Enkihegal* = *ETCSL* *5.4.02 (not yet published in *ETCSL*)
- *Iddin-Dagan A* = *ETCSL* 5.3.1
- *Inanna and Enki* = *ETCSL* 3.1
- *Mariage of Martu* = *ETCSL* 7.1
- *Lamentation over Nippur* = *ETCSL* 2.4
- *Lamentation over Sumer and Ur* = *ETCSL* 2.3
- *Lamentation over Ur* = *ETCSL* 2.2
- *Lamentation over Uruk* = *ETCSL* 2.5
- *Nanše-hymn A* = *ETCSL* 14.1
- *Nisaba-hymn A* = *ETCSL* 16.1
- *Summer and Winter* = *ETCSL* 3.3
- *Šulgi A* = *ETCSL* 4.2.01
- *Šulgi B* = *ETCSL* 4.2.02
- *Šulgi C* = *ETCSL* 4.2.03
- *Šulgi D* = *ETCSL* 4.2.04
- *Šulgi E* = *ETCSL* 4.2.05
- *TH* = *ETCSL* 80.1
- *Urnamma A* = *ETCSL* 4.1.1
- *Ziegler* = Ziegler, N., *Les Musiciens et la musique d'apres les archives de Mari* (*Mémoires de N.A.B.U. 10 = Florilegium Marianum IX*), (Paris 2007).

[23] The other instruments mentioned in the Mari letter are chordophones: *algarsurum*; *kinnārum*; *mirītum*; *parahšitum*; (*pitnum*); *sammūm*; *tigitallum*; *urzababitum*; and percussion instruments: *alūm*; *halhallatum*; *le'ūm*; *lilissum*. It is uncertain whether these were played in ensembles. See N. Ziegler, *Les Musiciens et la musique d'apres les archives de Mari. Mémoires de N.A.B.U. 10*, Paris 2007. Orchestras are discussed on p. 13-15.

[24] Bibliography of second millennium literary texts:

- Examination A Sjöberg, A A., "Der Examentext A", ZA 64 (1974), 137-176.
- *Balaĝ Utu ...ekura* Cohen, M.E., *Balag-compositions: Sumerian Lamentation Liturgies of the Second and First Millennium B.C.*, Malibu (1974), pp. 418-422.
- *Balaĝ Uru amirabi* Cohen, Balag, pp. 536-603.
- Eršemma No. 159 Cohen, M.E., *Sumerian Hymnology: The Eršemma*, (Cincinnati, 1981), pp. 103-106.
- Eršahuĝga No. 1 22 Maul, S.M., 'Herzberuhigungsklagen' *Die sumerisch-akkaischen Eršahunga-Gebete*, (Wiesbaden, 1988), pp. 73-81.
- KAR No. 119 Lambert, W.G., *Babylonian Wisdom Literature*, (Oxford 1960), 118-120.
- SAA No. 3 Livingstone, Court Poetry and Literary Miscellanea (SAA 3), Helsinki (1989)
- Šurpu E. Reiner, Šurpu, a collection of Sumerian and Akkadian Incantations, AfO Beiheft 11, (Graz 1958).
- BBSt King, L.W., *Babylonian Boundary Stones*, (London, 1912)
- LKA No. 70 Farber, W., *Beschwörungsrituale an Ištar und Dumuzi* (Wiesbaden, 1977), p. 129.

[25] 1 = reconstructed pronunciation; 2 = writings in cuneiform script; 3 = general classification: A = aerophone; C = chordophone; I= ideophone; M = membranophone; P = percussion instruments; S = singer; 4 = literal translation and notes.

[26] **dab** = **tab** means “to stand together, beside each other”. Words beginning with the nominal prefix-chain **a.da-** (**a.da.min** “competition”, **a.da.lugal** “rival king”, **a.da.en** “rival king-priest”) contain the comitative case element “with, together”.

[27] **al** can be both a substantive “hoe” and verbal prefix for stative or passive forms.

[28] It is uncertain whether **BALAG** = *zu-mu-ba-ru* (*zumbaru) VE 364 has a connection with this entry. Cf. Civil, *Practical Vocabulary A*, p. 100), who relates it to Arabic *ṭanbūr* “drum”.

[29] Cf. **šu.ga.lam** Gudea Cyl. A VIII 6; XXII 21; XXXIII 25; XXVI 1.

[30] I.e. “breeding” (ePSD). See also **gišdua**

[31] Cf. *asarru* “an object to write on, cylinder (?)” CAD A/2, pp. 327-328.

[32] Krispijn, T.J.H., “Musik in Keilschrift Beiträge zur altorientalischen Musikforschung 2” in Hickmann, E. - Killmer, A.D. - Eichmann, R. (ed.), *Orient Archäologie Band 10, Studien zur Musikarchäologie III*, (Rahden, 2002).