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Musical ensembles in Ancient Mesopotamia

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Citation

Krispijn, T. J. H. (2008). Musical ensembles in Ancient Mesopotamia. *Proceedings Of The International Conference Of Near Eastern Archaeomusicology Icona 2008 Held At The British Museum December 4, 5 And 6, 2008 Ii*, 135-150. Retrieved from <https://hdl.handle.net/1887/18480>

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Note: To cite this publication please use the final published version (if applicable).

Edited by RICHARD DUMBRILL & IRVING FINKEL



Prima la musica e poi le parole

Proceedings of the International Conference
of
Near Eastern Archaeomusicology
ICONEA 2008
Held at the British Museum
December 4, 5 and 6, 2008

Foreword

Twenty years ago, in 1988, Irving and I were thinking about organizing a conference of Near Eastern archaeomusicology at the British Museum. About ten would have attended, perhaps a few more, and so we decided to wait until December 2008. Our call for papers attracted about forty scholars and fourteen of the given papers are published in the present volume. The conference hosted a daily audience from about ten countries. This exceeded our wildest expectations. In January 2009, a lunch-time lecture on the contribution of Babylonian music theory to Western music, at the Museum and part of the Babylon exhibition, attracted over one hundred. The subject is getting popular.

Archaeomusicology is the youngest of the archaeological sciences. It is also a complex one as it demands a fair knowledge of musicology, organology, philology, archaeology and of the related arts and techniques. Up to recent decades, the subject was mainly fed by philological, iconographical, and archaeological research of scholars having some interest in music but who were not, principally, musicologists. Reciprocally, some musicologists exercised their skills in that field. However, their deficiency in the other sciences worked against them.

Music was often confused with musicology. However, being a musician, no matter how gifted, does not make of one a musicologist, and especially not an archaeomusicologist and in some cases, this may even prove detrimental. When I first exchanged ideas with the late Oliver Gurney, it was in 1987, he was much surprised at my usage of the word 'archaeomusicology'. Ethnomusicology, however, was in usage, why not archaeomusicology - the Germans already used 'Musikarchäologie' and the French 'archéomusicologie'.

In June of 2008, I had the privilege to sit, as a jury member, for the defense of a doctoral thesis at the Sorbonne University, in Paris. The subject was archaeomusicology. The jury included Frédéric Billiet of the Sorbonne, mediaeval musicologist; Nele Ziegler, from the CNRS, assyriologist; Pascal Butterlin, Versailles, Mari archaeologist; Annie Bélis, CNRS, Greek archaeomusicologist and myself, Near Eastern archaeomusicologist. This was the first defense of a truly Near Eastern archaeomusicological thesis. The candidate was Myriam Marcetteau. We granted her the title of Doctor of the University with 'mention très bien', and unanimous congratulations from the jury. The science of near eastern archaeomusicology was crowned and truly recognised on that day.

ICONEA is the receptacle of Near Eastern archaeomusicological data, organiser of ICONEA conferences and publisher of the conference proceedings, both as a book form and online. Why online? Simply because it is our policy to contribute in reducing pollution and also because in this form music can be embedded and shared along with the traditional data. ARANE, the Archaeomusicological Review of the Ancient Near East is also an online and printed publication of ICONEA. It differs from the ICONEA volumes in that there is no academic censorship, within reason. All may add to it, at any time, and when there are enough papers, it goes to press, on demand. The ICONEA database: www.icobase.com is free for all and data is constantly added to it. All are welcome to post their comments and propose *addenda*, papers, and all that will contribute to its expansion. The access to the data is free but any financial contribution, however modest, will be greatly welcome as at present only a few of us pay for its maintenance.

ICONEA 2009 was held at the Sorbonne Paris IV, in November 25, 26 and 27. ICONEA 2010 will be held at the British Museum on December 9, 10 and 11.

Richard Dumbrill

Of all the extraordinary discoveries that are due to archaeology, the recovery of ancient music, or even an echo of it, must rank among the most wonderful. The ancient Middle Eastern world, once known only to us through the Bible and classical literature, has become increasingly accessible since the middle of the nineteenth century, thanks to fieldwork in the ancient sites and cities and the decipherment of the ancient languages and literatures of those times and regions.

Evidence for the music of ancient Mesopotamia in particular is now surprisingly rich, and the modern musicologist who is tempted to investigate this field will draw his conclusions from textual evidence in the form of cuneiform inscriptions on clay tablets, actual instruments that have emerged from the soil to be restored, reconstructed, tuned and played, as well as numerous images of instruments in use in various forms of art. In addition he is entitled to compare evidence from the surrounding world, contemporary and sometimes even much later, up to our own day. By assessing and combining all this elusive evidence, it is now possible to produce modern instruments after the model of their ancient counterparts, and by so doing present to a living audience some faint impression of the type of sounds once familiar to those long-dead people.

In recent times there has been a most fruitful revival of interest in this section of the history of music, with the steady recovery of new evidence to complement it. Thus this volume, the result of a conference of a great variety of interested scholars, presents the reader with an up-to-date summary of what is known of the music of ancient Mesopotamia and its environs, and speaks for itself on behalf of a deeply fascinating and increasingly informative aspect of the Humanities at large.

Irving Finkel

Editorial notice

Half of the papers published in the present volume have been written by scholars for whom the English language is not the mother tongue. Although the greatest care has been addressed in the general formatting of this volume, the responsibility for the editing of papers has rested in the hands of their authors. In order to avoid difficulties in translations experienced with the present volume, the next issue will publish papers originally written in English, French, German, Italian and Spanish.

The aim of ICONEA is to publish specialised papers of Near and Middle East archaeomusicology at the highest standard and will only accept contributions which reflect this level of excellence. However, students and enlightened amateurs will always be considered for publication and would be guided by senior members of the academic board of ICONEA.

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Printed in the USA
Published and printed by Lulu
on behalf of ICONEA PUBLICATIONS, LONDON-UK

This book is available from www.iconea.org
orders to rdumbrill@iconea.org

ICONEA 2008

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MUSICAL ENSEMBLES IN ANCIENT MESOPOTAMIA

*Theo Krispijn**

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 B.C.), 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 B.C.), 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: *ĝiš* '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 *alĝar* and the *alĝarsur*, which occur in later texts directly after *ala*, as horizontal harps played with or without plectrum (Krispijn, 'Beiträge': 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

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

probably to be identified with the flute or oboe. There is some confusion in later texts between *gigid* and *gisug* (see Glossary). The *adara* ‘ibex horn’ and *siamsi* ‘elephant tusk’ comprise the horns.

Percussion:

Nele Ziegler has recently proved that the *ala* is a big drum (see Glossary). It is written with the determinatives for wood, hide or 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 (± 2400 B.C.). Other terms are *šud* ‘singer of prayers’ and *šir* ‘singer of songs, composer’.

3. Musical instruments from the 3rd millennium B.C.

3.1 Musical instruments in the lexical lists of the 3rd millennium B.C. (tab. 1.1)

In the early lexical lists most chordophones (including the players and the songs they accompany) are denoted by the sign *balag* ‘harp’ or compounds with *balag*. The lexical series E.D. Lu A of the Uruk IVa period (± 3200 B.C.)⁷ already includes *gal balag* ‘(leading) harp player’⁸, and later lexical lists (Fara period ± 2600 B.C.) have *balagdi* ‘singer of harp songs’, *balag dilmun* ‘Dilmun harp’, *balag mari* ‘harp/instrument of Mari’, *burbalag* ‘(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 was *gal.za* ‘(leading) lyre player’ or ‘singer of songs of praise’ (?) (E.D. Lu A 108). *za* follows *gal šud* ‘(leading) prayer singer’ and therefore could possibly be an abbreviation of *za.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 *za.me*, meaning ‘to be praised’ or ‘song of praise’; cf., *za.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 AB₂xZAG that later becomes AB₂xTAK₄. According to its pictogram it was a slightly diabolo-shaped drum (fig. 2).

3.2 Musical ensembles in the literary texts of the 3rd millennium B.C. (tab. 1.2).

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

From the Gudea period (± 2100 B.C.) onward ensembles are mentioned.

Three sorts are found in the Gudea inscriptions:

- Chordophones and percussion: 5, 7.
- Only chordophones: 6.
- Only percussion: 4.

The chordophones that are mentioned are *algar*, *balag*, *mirimum* and *tigi*, and the percussion instruments are *adab*, *ala*, *šim/ub*.

In Gudea Cylinder A VI-VII (3) the precious *balag*, 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. (tab. 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 the latter occurs as early as 2800 B.C. (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 B.C. 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: 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 balaġ and the tigi. Since the pictogram for balaġ is a harp, the harp in the images is most likely to be a balaġ. But it is also possible that in the course of the 3rd millennium balaġ 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 alġar 'horizontal harp' as well as the balaġ 'harp' and the tigi 'big lyre'. A likely word for the small Mesopotamian lyre (type A) is zamin. The miritum, also mentioned as an ensemble instrument could be the small Syrian lyre (small lyre type B), depicted in (Table) 1.3.2 15.

- The percussion instruments adab, ala and ŝim/ub could be identified with clapping-sticks, big drum and small drum.

4. Musical instruments from the 2nd millennium B.C.

4.1 Musical instruments in the lexical lists of the 2nd millennium B.C. (tab. 2.1)

In the O.B. (Old-Babylonian henceforth) lexical lists the section of chordophones is considerably expanded. The O.B. Hh I begins with balaġ, its derivations and parts. From the 3rd millennium lexical material balaġ, balaġdi, as well as miritum (earlier balaġ mari), tigi and zamin return. New instruments in the lexical lists include alġar, alġarsur, dua, ġiŝgudid, harhar, niġharmuŝen, sabitum, ŝukara, tigidla, urgula, and urzababa. Ġiŝgudid is originally an epithet for several instruments, but from the O.B. onward it often functions as a term for lute and is listed among terms for lutes (tigidla, dua, ŝukara). Alġar and alġarsur are 'horizontal harps' (see Glossary). As well as the miritum, the sabitum 'instrument from Sabûm' is another imported instrument. In Ŝulgi B 164 and other texts sabitum is attached to alġar,

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 (tab. 1.3.1 2) are imported, so it is almost certainly another type of horizontal harp. urzababa, urgula, harhar and niġharmuŝen could be types of lyres. Types of lutes (tigidla, dua, ŝukara) 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', ŝim/ub 'small drum' and zamzam, a percussion instrument, but, meze 'sistrum' or 'rattle', papa 'pair of clapping sticks' (?), and lilis 'timpanum' are new. adab, originally a percussion instrument, perhaps 'clapping-sticks', is now used exclusively to indicate a type of song. Perhaps malġatum '... 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 B.C. (tab. 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: alġar, alġarsur, sabitum; vertical harps: balaġ, balaġdi, ġiŝgudid (?); the big lyre: tigi; small lyres: zamin, miritu. si'ezen 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, ŝim/ub, ŝim(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 ŝim 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 Ŝulgi (especially Hymn B) pay broad attention to his musical abilities.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 Ŝulgi 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 (tab. 3.3).

Almost all depictions of ensembles from the O.B. 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 O.B. period several instruments are depicted individually: vertical and horizontal harps (type A and B), big lyre, ram’s horn and flute (tab. 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 Middle Babylonian, M.B., henceforth, 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 O.B. period, since a picture of a big lyre is drawn on terracotta plaques (tab. 2.3 0 R 78-79). The word *balag̃*, sometimes replaced by the more specific terms *balag̃di* or *g̃išgudi*, is to be identified with the vertical harp. Although *algar* ‘horizontal harp’ and *miritum* ‘small Syrian lyre’ (type B) are mentioned among the ensemble instruments, they do not occur in the iconography of the late 3rd millennium.

5. Musical instruments from the 1st millennium B.C.

5.1 Musical instruments in the lexical lists of the 1st millennium B.C. (tab. 3.1).

The lexical tradition of the late 2nd and 1st

millennium is primarily based on the series of O.B. lexical lists. The number of musical instruments on these lists expands gradually from the O.B. period, as can be illustrated by the evolving text of Hh.

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

The M.B. Hh has a few extra synonyms for individual musical instruments but is not so different from the O.B. version. It also adds *zannaru* (= *g̃iš za.d* INANNA) ‘Anatolian lyre’, and *g̃išdim*.(mar.kur₄.ra/mar.ha.ši) ‘Iranian (from Margiana/Fars) type of lute’ (?), items known from the O.B. Šulgi hymn B. Middle Babylonian Hh merges the section *ala* with that of *algar*, writing it as *á.lá.kara*(!), possibly because of assonance between *ala* and *algar*.

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 1st millennium B.C. (tab. 3.2)

- Chordophones, aerophones, and percussion: 2, 4, 8, 10.
- 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 *balag̃*, *balag̃did*, *g̃išgudid*, *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 *algar* and the *algarsur* 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: 398). In literature *tigi* occurs only in the *balag̃*-hymn Uru amirabi, which is attested in an O.B. version, so it must be regarded as antiquarian. The *sabitum/šeb̃itu* appears (only once) among other chordophones (*balag̃*, *zamin*), aerophones (*arkātu*, *kanzabu*, *malilu*) and percussion (*šinnitu*).

The standard cultic ensemble consists apparently of *balag̃di*, *meze* and *šim/ub*. *balag̃di* can alternate with *g̃išgudid* or *balag̃*, as in the O.B. period (tab. 4.2.1-3). Even in this period it is highly unlikely that *g̃išgudid* 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* (^{gis}zà.mí) - *šibattu* (chordophones ?) line 91.

5.3 Musical ensembles occurring in 1st millennium iconography (tab. 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, *balagdi*, *meze* and *šim/ùb*, with the temple ensemble of horizontal harps, cymbals and small drums (tab. 3.3.2 8), but that is not very convincing in view of earlier identifications. It is unreasonable to expect, the meaning of *balagdi* to have developed between the 2nd and 1st millennia from a vertical to a horizontal harp, especially when *šebītu*, a type of horizontal harp in the O.B. period, is mentioned among other instruments (tab. 3.2 8). It is better to consider *balag*, *balagdi* and also *gišgudid* as terms for vertical harps which are found in several ensembles (tab. 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*, the proposed identification of *meze*, are not found in 1st millennium iconography some hesitation is justified.

6 Conclusions:

1. The ensembles of the first half of the 3rd millennium contain vertical harps (*balag*), with big lyres (*tigi*), small lyres (*zamin*) and singers (*nar*, *endu*).
2. After 2300 B.C. the ensembles slightly change possibly under the influence of Northern Mesopotamia caused by the coming of the Sargonic dynasty. The standard ensemble of cultic and official events consists of big lyres (*tigi*), small Syrian lyres (*balag mari*, *miritum*), harps (*balag*, *balagdid*, *gišgudi*), horizontal harps (*algar*), big drums (*ala*), kettledrums (*lilis*), small drums (*šim*) and clapping-sticks (*adab*).
3. The ensembles of the early 2nd millennium continue the tradition of the late 3rd millennium but supplemented with the imported horizontal harp (*sabitu*), 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 1st millennium ensembles remained traditional. As the main instruments of the cultic ensembles they maintained the vertical harp (*balagdid*), the (Iranian) horizontal harp (*sabitu*), the small lyre (*zamin*), *sistra* (*meze*), kettledrums (*lilis*) and small drums (*šim*). After the O.B. 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.

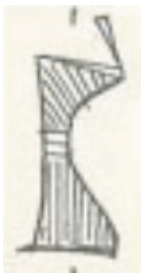
Fig 1. Development of the sign BALAĜ from the Late Uruk to the Fara period.¹²



ZATU 47 (± 3200 B.C.)



ZATU 47 (± 3000 B.C.)



LAK 41 (± 2600 B.C.)



LAK 387 (± 2600 B.C.)



Rosengarten no. 163 (± 2200 B.C.)



Schneider no. 518 (± 2000 B.C.)

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

Table 1.1. Musical instruments in the lexical lists of the 3rd millennium B.C.¹³

		1	2		3	4	5	6	7	8	9	10
Instrument	Classification	ED Lu A (Erlund)	ED Lu B	ED Lu C	ED Lu E	EDPV A	EDPV B	Other Word Lists: SF No.	Sign Lists: SF No.	NPL	VE	EV
balag̃ (gal.balag̃ sa.balag̃)	C	106 (gal)				206	XII 11 (sa)	45 II 3	7 II 18; 62 III 9; 69 IX 7-14	210	364; 1242	
balag̃did	C		8		98						571	
balag̃dilmun	C					207						
balag̃mari	C					208						
burbalag̃	C			23	104	211						
tigi	C						V 6					
za(min)	C	108 (?)									(1181)	
gidid	A				102	209					218; 1390	d 36; g 7
gisug	A				103 (B)							b 42
gitag	A				104 (B)	210 (A,C)					1230 (B)	
siamsi	A					215						
ala	P				101							
g̃iřtag	P					212						
ruru	P					214						
řim/ub(tak)	P					213 (tak)						
zam(zam)	P				99							
nar (gal.nar)	S	81b; 105 (gal)	10	21	27; 94;			V 1- 11			875	
řir	S			22	107							
řud	S				110- 111 (ama)					198; 223		

Table 1.2. Musical ensembles in the literary texts of the 3rd millennium B.C.¹⁴

	Classification	Amašumgal	IAS No. 116 6 19; 318 2 1	Gudea: Cyl A VI 24-25 // VII 24-25	Gudea Cyl A XVIII 18	Gudea Cyl A XXVIII 17-18	Gudea Cyl. B X 9, 11	Gudea Cyl B XV 18, 20-21
alġar	C						+	
balag̃	C			(+)		+		
balag̃dilmun	C		(+)					
ġiřgudid	C			(+)				
miritum	C						+	
tigi	C	(+) (B, C)					+	+ (C) ¹
adab	P				+			
ala	P				+	+		+
řim/ub	P				+ (B)	+ (B)		+ (B)

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

	1	2	3	4	5	6	7	8	9	10	11
Object	Cylinder Seal (Choga Mish)	Chlorite Vessel (Adab import)	Vase Khafaji	Votive plaque (Khafaji)	Votive plaque (Nippur)	Standard Peace Side (Ur)	Tomb PG 1237 (Ur)	Tomb 121198 (Queen Pu- Abi) (Ur)	Tomb PG 789 Lyre: Animal Orchestra (Ur)	Tomb PG 333 (Ur)	Cylinder Seal: Animal Orchestra
date	3100	2800	2800	2600	2600	2500	2500	2500	2500	2500	2500
literature ¹	Z. p. 6	R. p. 56 ²	Z. p. 7	R. 32- 35; Z. p. 10	R. 36	R. 11- 12	R. 1	R. 9-10, p. 42	R. 8	R. 13- 14	R 30
horizontal harp		+ (2)									
vertical harp	+			+			+	+			+
big lyre			+				+ (2)	+	+		
small lyre type A					+	+	+ (1) ³				
small lyre type B											
lute											
flute										(+)	
ram's horn trumpet		+			(cf R 37)						
big drum	+		+								
small drum		+									
sistrum									+		
clapping sticks	+										+
people clapping								/ + (7 ?)			
singer	+ ?	+ (1) ?		+ (1) ?	+ (2) ?	+	+ (3) ?	/ + (7 ?)			

Table 1.3.2. Musical ensembles (instruments) excavated or occurring in 3rd millennium iconography (2).

	12	13	14	15	16	17	18	19	20	21
Object	Cylinder Seal (Mari)	Cylinder Seal B 390	Cylinder Seal B 385 (AO 2371)	Cylinder Seal B 676 (Coll. Erlenmeyer)	Cylinder Seal B 385 (IM 33287)	Cylinder Seal B 497	Cylinder Seal B 507	Gudea Stele (Fragments) (Ĝirsu)	Ur-Namma Stele (Ur)	Votive plaque (Susā)
date	2500	2300	2250	2250	2250	2250	2250	2150	2100	2000
literature	Z p. 33	R 44	R 42	R 43	R 41	R 38	R 39	R 45; p. 70; 51- 52 ¹	R 53-56	Z p. 14
vertical harp	+	+								+
big lyre			+					+		
small lyre Type A					+					
small lyre Type B				+						
lute						(+)	(+)			
flute										
ram's horn / trumpet										
big drum								+ (2)	+ (2)	
small drum								+ (2)	+ (2)	
sistrum			+							
clapping sticks	+	+								
people clapping	+							+ (2+)	+ (2+) ?	
singer	+ (3)			+ (?)	+ (?)					+ ?

Table 2.1 Musical instruments in the lexical lists of the 2nd millennium B.C.

		1	2	3	4
Instrument	Classification	OB Hh I (ġiš 'wood') ¹	OB Hh II (gi 'reed'; kuš 'hide, leather'; zabar 'bronze' ²²	OB Proto-lu	OB Lu.aslag ₂
alġar	C	I 601			
alġarsur	C	I 602			A 248 (B)
balag	C	I 597-599	II C 135 (kuš)	660-662	A 250
balagdid	C	I 598 (A)	II C 136 (kuš C)		A 252-253 (A); 250 (C); 251 (D)
dua	C	I 618		640 (ġiš)	
ġišgudid	C	I 617		639	
harhar	C	I 607			
miritum	C	I 604			
niġharmušen	C	I 608			
sabitum	C	I 603			
šukara (šu)	C	I 619 (620)		640a	
tigi	C			(643)	
tigidla	C	I 613-616 (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 (gal.nar)	S			641-650	
šir	S			587-599	
širsag	S				A 255-256

Table 2.2.1. Musical ensembles in the literary texts of the 2nd millennium B.C.(1)²²

Instrument	Classification	1 Al-apin 27-28	2A Curse of Akkade 35-38	2B Curse of Akkade 200-204	3A Enki's Journey to Nippur 62-71	3B Enki's Journey to Nippur 93-95	4 Enkitalu and Enkibegal 113	5A Iddin-Dagan A 35- 36; 41-42	5B Iddin-Dagan A 79	5C Iddin-Dagan 1 (A) 204-207	6A Inanna and Enki II iv 46-48	6B Inanna and Enki II vi 25
alġar	C				+			+		+		
alġarsur	C		+		+							
balag	C			+(7)	+			+				
balagdid	C											
(dim)	C											
ġišgudid	C									+		
harhar	C				+							
miritum	C				+							
sabitum	C				+							
siezen	C											
(šukara)	C											
tigi	C		+		+(7)		+		+		+	+
(urgula)	C											
(urzababitu)	C											
zamin	C									+		
(zannaru)	C											
adara	A											
gisug	A		+									
adab	P						+					
ala	P	+				+			+		+	+
lilis	P			+				+				+
meze	P			+								+
šim/ub	P	+		+	+(zabar)	+			+		+	+
zamzam	P		+		+							
papa	P											
gurtur	?											
malgatum	?											

Table 2.2.2. Musical ensembles in the literary texts of the 2nd millennium B.C.

		7	8	9	10	11	12	13	14	15A	15B	16
Instrument	Classification	SEM58 372 Marriage of Martu I 11	Lamentation over Nippur 38	Lamentation over Sumar and Ur 436	Lamentation over Ur 356	Lamentation over Uruk 12.16- 18	Nanse-hymn A 40-44	Nisaba-hymn A 34-35	Summer and Winter 235-237	Šulgi A 53-54	Šulgi A CC IV 23-24 (Susar)	Šulgi B 157-172
alġar	C											(+)
alġarsur	C											
balag	C						+					
balagdid	C										+ (/ tigi)	
dim												(+)
gišgudid	C								+			(+)
harhar	C											(+)
miritum	C											(+)
sabitum	C											(+)
siezen	C								+			
šukara												(+)
tigi	C	+		+		+	+	+	+	+		(+)
urgula												(+)
urzababikum												(+)
zamin	C											(+)
zannaru	C											(+)
adara	A						+					
gisug	A							+				
adab	P											(+)
ala	P	+	+	+	+	+			+	+	+	(B)
lilis	P											
meze	P											
šim/ub	P	+	+	+	+	+			+	+	+	(D)
zamzam	P							+	+			
papa	P											
gurtur	?						+					
malgatum	?											

Table 2.2.3. Musical ensembles in the literary texts of the 2nd Millennium B.C. (3).

		17	18	19A	19B	19C	20	21	22	23
Instrument	Classification	Šulgi C b 76'	Šulgi D 366-367	Šulgi E 22	Šulgi E 53-56	Šulgi E 101-102	TH 106-107	Urnamma A 187	Ziegler p. 13: RIME 4.11.2.2 ¹	Ziegler nr 41
alġar	C									
alġarsur	C									
balag	C					+				
balagdid	C									
dim										
ġišgudid	C									
harhar	C									
miritum	C									
sabitum	C									
siezen	C	(+)								
šukara		(+)								
tigi	C	(+)	+	+	+			+	+(100)	
urgula										
urzababitum										
zamin	C									
zannaru	C									
adara	A									
ġisug	A							+		
adab	P	(+)		+	+			+		
ala	P		+				+			
lilis	P									
meze	P									
šim/simda sim	P		+			+(simda)				
ub	P						+			
zamzam	P							+		
papa	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	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 1st millennium B.C.

Instr.	Classific.	1 MB Hh	2 Hh VIIb	3 Hh IX (g ¹) Hh XI (kus ²)	4 Hg	5 Diri III
alġar	C	4247 (á.lá. kara2!)	57/63-67			
alġarsur = <i>algarsurû</i>	C	4248 (á.lá. kara2.ür)	59-61; 68-73		B 165 B 166 (g ¹ sur9. ra); B 167 (g ¹ sur9.gal);	
balaġ = <i>palaggu</i>	C	4244	39	XI 265		
balaġdid = <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			
ġišġudid = <i>inu</i>	C	4270	117, (118- 131), 133-134		B 172 (ġiš.gal.30.àm); 173-174 (g ¹ gù.dé.ša.ul ₃ . ša4.(gù.ġar.ra)	
harhar = <i>harġaru</i>	C		55-56		B 163-164	
(nig)harmušen	C	4254-4256				
mandi = <i>mandiu</i>	C					53 g ¹ SU.ĠAL ₂
miritum	C	4251 (maritum)	77-78			
sabitum = <i>šebitu</i>	C	4249-4250 (šebitu)	74-76			51 g ¹ BALAG. TUR
sa'uš	C	(4267)	86a		B 171 (g ¹ sa.3)	
šibatu	C (?)					
tigi = <i>tigû</i> , <i>ħabšillatu</i>	C			(Canonical lú IV 226)	(uruda) 194	
tigidla = $\sqrt{tigidlû}$	C	4264-4268				54-56 g ¹ ŠA3. MIN.DI/ TAR/ KASKAL
tungal = <i>tungallu</i>	C				B 168	g ¹ dEN.KI/ZU 47-48
urgula	C	4261	85			
urzababa = <i>urzababitu</i>	C	4252	79-85		B 169	g ¹ dNIN.URTA 49
zamin = <i>sammû</i>	C	4257a-4260	44-54		B 162 (zà.mí.si. sá)	52 g ¹ AR ₂ .RE
zannaru = <i>zannaru</i> , <i>kinnaru</i> , <i>kandabitu</i> , <i>tindû</i> , <i>ħarħadû</i>	C	4253a-c	(86a-b)		B 170 (g ¹ dim. nun)	43-46 g ¹ ZA. MUŠ3
adara	A					
bún	A (?)	4269				
gidid (var.: gi.gù.nun.di.d)	A			IX Gap D c 1-3: var.	38 (var. +balaġ)	
gigid = <i>arkatu</i>	A					
gisug = <i>malilu</i>	A			Gap 2 = IX Gap D b 1-2	36-37	
adapa	P				(uruda) 193	
ala = <i>alû</i>	P	4247	62	XI 269		50 (BALAG. TUR)
kanzabu	P (?)					
meze = <i>mazû</i>	P		not in Hh			
lilis = <i>lilissu</i>	P		not in Hh			
PAPA = <i>šinnatu</i> / <i>šinnitu</i>	P (?)		115			
PAPAEpana = <i>tâpalu</i>	P (?)		116			
šim/ub = <i>ħalħallatu</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 1st millennium B.C.²⁴

		1	2	3	4	5	6	7	8	9	10	11	12		
Instrument	Classification	Examination A 28	Balaĝ Utu ... ekura a +36-41	Balaĝ Uru amirabi	Eršemma No 159 17-23	Eršahugĝa nr 1 22	KAR 119 (Akk)	SAA 3 nr 2 28 (Akk)	SAA 3 nr 4 1 7-9 (Akk)	Šurpu III 37 (Akk)	Šurpu III 88-91 (Akk)	BBSt nr 35 rev. 2 (Akk)	LKA nr 70 21 (Akk)		
Language		Sum - Akk.	Sum - Akk (partly)	Sum - Akk (partly)	Sum	Sum - Akk	Sum - Akk	Akk	Akk	Akk	Akk	Akk	Akk		
balāĝ = palaggu	C		+		+				+		+				
balāĝdid = timbuttu	C	(+)	+	+			+			+	+				
ĝišgudid = inu	C	(+) (B)			+			+				+	(B)		
harhar	C	(+)													
sabitum = šebitu	C								+						
šibâtum	C (?)										+				
tigi	C			+											
zamin = sammû	C	(+)						+	+		+	+			
gidid	A				+										
(gierra)	A	only isolated													
gigid = arkātu	A		+						+				+	(?)	
gisug = malîlu	A								+					+	(?)
ala = alû	P			+	(A)						+	+			
kanzabu	P (?)								+						
lilis = lilissu	P		+		(B)						+				
meze = mazû	P		+		+	+					+				
papa = šinnatu	P								+					+	
papa epan = tâpalu	P									+	+				
šim = halhallatu	P		+		(A)	+	(F)		+		+				
ub (= kuš/ uruda) = uppu	P		+		(A)	+									

Table 3.3.1. Musical ensembles occurring in 1st millennium iconography (1).

		1	2	3	4	5 A-B-C	5 D	6
Object	Classification	Relief (Sam'al)	Relief (Carchemish)	Relief: (Karatepe)	Ivory box (Nimrud)	Relief: Palace of Assurnasirpal BM 124535 // 124535 // 124886 (Nineveh)	Relief: Palace of Assurnasirpal BM 124548 (Nineveh)	Relief: Palace of Sennacherib BM 124922 (Nineveh)
date		900	800	700	800	875		700
literature			Z. p. 71		R. p. 108+122	R 134 (A) // 135 (B) // 146 (C)	R 136-137	145
horizontal harp	C					+ (2)	+ (2)	
vertical harp	C							+
small lyre	C	+ (2 types)		+ (2 types)				+
lute							+	
double pipe: type A -B	A			+	+			+ (1) (A) + (2) (B)
ram's horn / trumpet	A		+					
big drum	P		+					
small drum	P	+ (2)		+	+		+	
cymbals	P							
chalcophone	P				+			
people clapping	S						+ (dancers with mask)	
singer	S					(+ ?)		

Table 3.3.2. Musical ensembles occurring in 1st millennium iconography (2).

		7	8	9	10	11	12
Object	Classification	Relief: Palace of Sennacherib BM 124947 (Nineveh)	Relief: Palace of Sennacherib BM 124948 (Nineveh)	Relief: Palace of Assurbanipal AO 19908 (Nineveh)	Relief: Palace of Assurbanipal BM 124802 (Nineveh)	Relief: Palace of Assurbanipal BM 118916 (Nineveh)	Relief: Palace of Assurbanipal BM 124920 (Nineveh)
date		700	700	650	650	650	650
literature		142	p. 122 +141	149-150	151-153	148	147+ p. 126 (?)
horizontal harp	C		+ (4)		+ (2)	+	+ (1+)
vertical harp	C				+ (7)		+ (1+)
small lyre	C	+ (3)		+ (2 types)		+	
double pipe: type A -B	A				+ (2) (A)		+ (B?)
ram's horn / trumpet	A						
big drum	P						
small drum	P		+ (2)	+			
cymbals	P		+	+			
chalcophone	P						
people clapping	S				+ (2+9) + (2) lamenting		
singer	S				+ (2) (twittering)		

Glossary of musical instruments and their writing.²⁵

1	2	3	4
adab	a.da.ab (A); a.dab ₆ (B); (uruda)a.da.pà (C)	P: M	‘standing beside or on top of each other’ (A, B), ‘resounding together’ (C) = clapping-sticks (?) 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> (= <i>mezé</i>) “jaw, sistrum” points to a metal idiophone (see U. Gabbay in this volume).
adara	á.dara ₃	A	‘horn of the ibex’.
adša	ad.ša ₄	S	‘uttering a soft sound’ a type of singer.
ala	(^{gis} /kuš/uruda)á.lá (A) / a.la (B) = <i>alû</i> (C)	P: M	‘(instrument) fastened to/suspended from the arm’. <i>ala</i> is listed directly after <i>balag</i> and before <i>algar</i> in OB Hh (I 600). In canonical Hh VII B 62-73, between <i>algar</i> and <i>sabitum</i> it is associated with <i>algar</i> (see there), <i>balag.gal</i> ‘big harp/instrument’, <i>balag.tur</i> ‘small harp/instrument’, TUN ₃ .gal ‘big bag’ = <i>tungallu</i> ‘big bag’ = <i>tukkan ša nukuššé</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.74-6) 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 <i>algar</i> etc. in MB Hh Can. Hh VIIB 63, is somewhat peculiar. The gods Enki and Sin are connected with the <i>ala</i> in Can. Hh VII B 72-73. <i>alû</i> forms a trio with <i>palaggu</i> and <i>timbûtu</i> in Šurpu III 90 (Table 3.2 10).
algar	(^{gis})al.gar	C	‘(instrument) placed down’. ^{gis} al.gar occurs in Ur III-Early OB administrative texts from Isin. The fact that the <i>algar</i> is listed among the stringed musical instruments, e.g. MCS 5 115 No. 1 6 (administrative Isin) and its playing technique is indicated with <i>aga.su.si</i> ‘fingering’ (Krispijn, ‘Beiträge’, pp.10-1) makes an identification with a chordophone more likely than with a type of drum.
algarsur	(^{gis})al.gar.sur, (A); al.gar.su.ra (B) = <i>algarsuru</i> (C)	C	‘(instrument) placed down with a plectrum’. Can. Hh VII B 60-61 lists two regional types including an Elamite type of <i>algarsur</i> . In Hg B II 165 <i>algarsurrû</i> is equated with <i>šulpu ša balag</i> (!?) ‘stick of the musical instrument’ = plectrum (?) and <i>surgallu</i> with <i>šulpu</i> ‘stick’. Veldhuis, N. (‘The sur ₉ -Priest, the Instrument ^{gis} al.gar.sur ₉ , and the Forms and Uses of a Rare Sign’, AfO 44-45 (1997-1998), pp. 119-128) considers the ^{gis} al.gar.sur ₉ to be a drumstick; see also Shehata, D. N. (‘Some Observations on the /algarsur/’, in Gatsov, I. - Schwarzberg (ed.), Aegean - Marmara - Black Sea: the Present State of Research on the Early Neolithic (Langenweissbach 2006), pp. 367-378). For my reasons for considering the <i>algarsur</i> to be a stringed musical instrument see <i>algar</i> .
balag	(^{gis} /kuš)balag= <i>palaggu</i> (B)	C	‘harp’ (?). The pictogram for <i>balag</i> develops from a bow-shaped chordophone (Uruk ± 3200 BC) into an angular-shaped harp (Fara ± 2600 BC, see fig.1). Composites of <i>balag</i> in the early lexical lists of professions are: <i>gal.balag</i> ‘leader of the <i>balag</i> -players’; <i>balag.did</i> (see <i>balagdid</i>); NAR.BALAG (see <i>tigi</i>). Later <i>balag</i> might have been developed into a term for a musical instrument in general. ^{gis} balag occurs in Ur III administrative texts from Ur, Isin and elsewhere. Cf. <i>balag</i> = <i>kinnārum</i> ‘Syrian lyre’ VE 572. ³ <i>palaggu</i> forms a trio with <i>alû</i> and <i>timbûtu</i> in Šurpu III 90 (Table 3.2 10).
balagdid / dubdu	(^{gis} /kuš)BALAG. DI (A) = dubdu (?) = <i>timbûtu</i> (B); BALAG.di.da (C); BALAG. BALAG.di = dúb.dúb.di (D)	C	‘sounding <i>balag</i> ’ (?) also ‘harp player, singer of <i>balag</i> -songs’. For the pronunciation of BALAG.DI as <i>dubdu</i> (b), see Krispijn, ‘Beiträge’, p. 23 note 40. In Can. Hh VIIB it is equated with <i>utemenakkum</i> < *û+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>kišallu</i> ‘ankle bone’. The sign BALAG and cognates have the readings <i>balag</i> , <i>dúb</i> and <i>tak_x</i> . <i>dubdub</i> (di) (D) is a reduplicated, onomatopoeic (?) form like <i>halhallatu</i> , <i>lilis</i> and <i>zamzam</i> . <i>timbûtu</i> or <i>timbuttu</i> forms a trio with <i>alû</i> and <i>palaggu</i> in Šurpu III 90 (Table 3.2 10).

balag̃ dilmun	balag̃.dilmun = <i>talmuttu</i> (?)		‘balag̃ 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.
balag̃ mari	balag̃.ma.rí = <i>miritum</i>		‘balag̃ 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 <i>miritum</i> .
burbalag̃	búr.balag̃	C	búr.balag̃ special type of balag̃ or ‘balag̃-player moving (his fingers ?) quickly’. Cf. nundum.nundum.búr.ke ₄ = <i>šaptân muššabrâtum</i> ‘twittering lips’ CT 17, 32 19-20; nundum.búr.re.balag̃.gá = <i>nasâsum</i> ‘to wail’ Kagal D sect. 9 7 (PSD B, 195-196).
dim	ḡis̃dim	C	‘pole’. Two regional types are attested: ḡis̃dim.mar.kur ₄ .ra = <i>ḥalmatru</i> ‘pole from Margiu/Ḥalmatru’ (MB Hh 4262) // ḡis̃dim.dim.addir ‘poles of the bridge’ (Can. Hh VII B 48); and ḡis̃dim.mar.ha.a.ši = <i>paraḥšû</i> ‘pole from Fars’ (MB Hh 4263) ‘pole of Margiu/Ḥalmatru’. The Akkadian translation in Hh VII B 48 and Hg B I 191: <i>sagû=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 = *gala’ene 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>raḥâlu gi</i> ; <i>bariṣum</i> ‘to bleat of a reed’; ‘hollowed out’, cf. Krispijn, ‘Beiträge’, p. 15, Civil, Practical Vocabulary A, p. 100.
gigid	gi.gíd.(da) = <i>arkâtu</i> (?) (B)	A	‘long reed’. A complication is that both su ₁₃ and gíd are written with the sign BU.
gisug	gi.su ₁₃ (A); gi.sù (B) = <i>malîlu</i> (C)	A	‘empty reed’. Krispijn, ‘Beiträge’, pp. 15-17: BU=su ₁₃ an earlier writing for sù.(ga) ‘empty, hollow’.
gitag	gi.tag (A); gi.tak ₄ (B); GIXTAK ₄ (C)	A	‘played reed’. tag or tak ₄ might be earlier writings for TUKU/du ₁₂ ‘to play an instrument’. (Civil, Practical Vocabulary A, 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.
ḡišdua	(ḡis̃)dù.a	C (?)	‘erected/planted wood/tree’ or ‘provided with a penis’. ḡis̃dù.a = <i>karna inu, karnânu</i> is apparently synonymous with ḡis̃šu.kara ₂ . See also ḡišgudid.

ġišġudid	ġiš.gù.di.d (A); gù.dé (B) = <i>inu</i> (C)	C	‘loudly sounding wood’. Epithet of various instruments. In Can. Hh VII B 117-132 ġišġudid is associated with kiri ₆ ‘garden’ (118); ù.lu.di ‘tinkling’ (119); du ₈ .du ₈ ‘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: ġiš.gal.30.àm ‘big wooden (instrument) with 30 (strings)’. The known parts of the ġišġudid are: úr ‘base’ (123); u ₅ ‘summit’ (124); ġiš.dù.a ‘supplied with a penis’ ³⁰ (126); ġiš.dím ‘carved wood’ (127); ġišbala ‘spindle’ (128); á.ĠA ₂ ‘arm of the ...’ (129). In 130-131 the <i>inu</i> has the Sumerian equivalents ġiš.gal ‘big wooden (instrument)’ and ġiš.šu.gal ‘big wooden hand’. Otherwise its position in OB Hh I between tigidla and šukara, two types of lutes, makes it more likely to interpret ġišġudid as a lute from the OB period onward (see A.D. Kilmer, ‘Laute. A. Philologisch’, <i>RIA</i> Band 6, 512-515 (Berlin, 1983).
ġištag	ĠİŠxTAK ₄ (A); ġiš.tag (B)	P: I (?)	‘wood played on’. ‘ġištag’, must be a type of wooden drum, cf. ġiš.tag = NI-bù-um (=a/uppum ?) ‘cylinder drum’ VE 366; ġİŠxTAK ₄ = a-ša-ru ₁₂ -ru ₁₂ -um (as/šarru) ‘cylinder (?)’ VE 437 ¹ .
harhar	(ġiš)har.har	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 ġešpu ₂ .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 ilu-sound’.
kanzabu	kanzabu	P: I ?	‘fawning (instrument)’ < <i>kuzzubu</i> ‘to fawn’ ‘rattle’ (?)
lilis	li.le.èš (A); li.li.is (B); AB ₂ xBALAG = lilis (C) = <i>lilissu</i> (D)	P: M	Reduplicated, onomatopoeic (?) form like dubdub (=balaġ.di), <i>halhallatu</i> , and <i>zamzam</i> . On the well-known tablet from the Seleucid period O 175 (Thureau Danguin, <i>Tablettes d’Uruk TCL VI</i> , (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).
malgatum	ma.al.ga.tum	(?)	‘song/instrument from <i>Malgium</i> ’. Perhaps an instrument or a type of song.
meze	me.zé = <i>manzû</i> (B)	P: M	‘cheek bone’ = sistrum (?) <i>manzû</i> forms a pair with <i>lilissu</i> in Šurpu III 88 (Table 3.2 10).
miritum	(ġiš)mi.rí.tum (A); ma.rí (B)	C	‘(instrument) from Mari’. In Can. Hh VII B 78 it is associated with ġišgú ‘the wooden neck’, possibly referring to the ‘neck’ of the instrument. ġišmaritum occurs in Ur III-Early OB administrative texts from Isin. The furniture term ġišzà.mi.rí.tum ‘side (in the shape of) the miritum’ occurs in texts from Ur, Umma, Puziriš-Dagan and Nippur-Esagdana.
nar	nar	S	‘singer’.
niġhar-mušen	(ġiš)niġ.har.mušen	C (?)	‘thing (= part) of the bird snare’.
papa	(ġiš)pa.(pa) = <i>šinnatu</i> (B)/ <i>šinnetu</i> (C)	A (?)	‘sticks’. The Akkadian word is also used for parts of a rein and bridle.
papa’epana	(ġiš)pa.pa.é.pa. na = <i>tápalu</i> (B)	P: I	‘pair of sticks’. <i>tápalu</i> forms a pair with in <i>halhallatu</i> Šurpu III 89 (Table 3.2 10).
<i>paraḥšitum</i>	<i>paraḥšitum</i>	C	‘(Instrument) from Far(a)hšum/Fars’ occurs in texts from Mari and Middle Babylonian Lexical texts from Emar.

ruru	(^{ġis} /uruda)ru.ru	P: I	‘curved metal or wooden throwing stick’ Cf. (^{ġis} /uruda)ru.ru = <i>mar-ba-a</i> GN (?) VE 414.
saeš	(^{ġis})sa.eš	C	‘three strings’ ^{ġis} sá.eš occurs in Ur III-Early OB administrative texts from Isin.
sabitum	(^{ġis})sa.bí.tum = <i>šebitu</i> (B)	C	‘(instrument) from Sabum’ is in Can. Hh VII B 75-76 associated <i>balaġ.tur</i> ‘small instrument (harp)’ and with ^{ġis} susbu ‘purification priest’ (= MUŠ- <i>gunû</i> .BU). ‘the wooden neck’ ^{ġis} sá.bí.tum occurs in Ur III-Early OB administrative texts from Isin.
siamsi	si.am.si	A	‘horn = tusk of the elephant’.
siezen	(^{ġis})si.EZEN	C	‘bound horn’. Part of a šukara-lute. Also part of the harp? Cf. si.EZEN = <i>qarnânû</i> , <i>qarna-inû</i> ‘horn of the lute’ = fret/tuning-key (?) (Krispijn, ‘Beiträge’, 4-5 and Krispijn, T.J.H., ‘Musik in Keilschrift’, p. 466).
šibātu	<i>ši-ba-a-te</i> (Var. <i>ši-bat-ti</i>)	C (?)	‘?’ <i>šibātu</i> forms a pair with <i>zamin</i> 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>alû - palaggu - timbûtu</i> .
šim(da)	AB ₂ +ŠA ₃ = <i>šêm/ùb</i> (A); si.im (B); (^{kuš}) sim (C); ši.im (^{zabar}) (D) = <i>ħalħallatu</i> (E); AB ₂ +KARA ₂ = <i>šem₃</i> (F)	P: M	<i>šêm^{zabar}</i> OB (Forerunner) II 565. The reading and development of the sign AB ₂ +ZAG/TAK ₄ /ŠA ₃ = <i>šêm/ub_{3/5}</i> 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 AB ₂ +ZAG.tak ₄ . A problem is the writing si.im.da for the expected si.im in Gudea Cyl. B 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 <i>šêm</i> = AB ₂ +ŠA ₃ = <i>ħalħallatu</i> is distinguished from (^{kuš}) <i>ùb</i> = <i>uppu</i> . <i>ħalħallatu</i> (E) is a reduplicated, onomatopoeic (?) form like <i>dubdub(di)</i> (= <i>balaġ.di</i>), <i>lilis</i> and <i>zamzam</i> . <i>ħalħallatu</i> forms a pair with <i>tâpalu</i> in Šurpu III 89 (Table 3.2 10).
šir	šir (=EZEN)	S	‘song’, originally ‘composition’ (?). Cf. šir.NAR/kad ₄ <i>Išme-Dagan VA 61</i> (Ludwig, M.L., <i>Untersungen zu den Hymnen des Išme-Dagan von Isin</i> , (Wiesbaden, 1990), 193-5).
šir saġ	šir.saġ	S	‘first song’.
šud	šud	S	‘prayer’ also in the combination <i>gal_a.šud</i> ‘(leader of the) prayer singer(s)’ ED Lu A 107.
šukara	(^{ġis})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 <i>siezen</i> = <i>qarnânû</i> , <i>qarna-inû</i> .
tigi	(^{ġis})tigi = NAR. BALAĠ = <i>tigû</i> (A); ti.gi (B); ti.gi ₄ (C)	C	The sign combination means ‘harp of the singer’ (?).

<p>tigidlu</p>	<p>(^{ĝis})ŠA₃.TAR = tigidla = tigidallu (?) (B)</p>	<p>C</p>	<p>The sign combination ŠA₃.TAR might be interpreted as ‘split heart’ indicating the fingerboard of a lute crossing the sound box. tigidla < *tigi.dal ‘crosspiece of the <i>tig</i>’ could refer to the neck of a lute resembling the crosspiece of a lyre. Beside the general indication tigidla (OB Hh I 613; MB Hh 4264) there are special types: tigidla.kaskal.la ‘travel <i>tigidlu</i>’ = <i>harḥadutu</i> GN (?) (OB Hh 614; MB Hh 4265); 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 balaḡ dilmun); tigidla.elam.ma ‘<i>tigidlu</i> from Elam’. (^{ĝis})ŠA₃.TAR = tigidla occurs in Ur III-Early OB administrative texts from Isin. Since three strings are mentioned, the identification with a lute is most likely.</p>
<p>ub</p>	<p>AB₂xŠA₃ = ùb/šèm (A); ub_x = AB₂.ZAG.TAK₄ (B) = <i>uppu</i> (= ^{kuš}ùb)</p>	<p>P: M</p>	<p>‘cylinder’. See notes to šim(da) above. urzababa</p>
<p>urgula</p>	<p>(^{ĝis})ur.gu.la</p>	<p>C</p>	<p>‘bigger dog, lion’, a kind of lute ? (see Šulgi B 166)</p>
<p>urzababa</p>	<p>(^{ĝis})ur.za.ba₄.ba = <i>urzababitu</i></p>	<p>C</p>	<p>‘The one (instrument) of Urzababa’ in Hh VII B 80-84 is someone associated with the god Ninurta, the <i>zamin/arre</i> (‘instrument of praise’) of Inanna and the mythological bull <i>alimbù</i>. Possibly a sort of lyre.</p>
<p>zam / zamzam</p>	<p>za.am.(za.am) = <i>samsammu</i> (B)</p>	<p>P: M</p>	<p>onomatopoeic (?); a percussion instrument or a type of song often connected with <i>gisug</i> ‘flute’ (CA 36, Urnamma A 3, 187, Šulgi E 38, 56 etc.) or <i>tigi</i> ‘big lyre’ (Šulgi B 273, 276, Šulgi E 34, etc.). For the determinative sign <i>uruda</i> see <i>uruda</i>.za.am.za.am Hh XI, reconstruction // Hg 191. Reduplicated, onomatopoeic (?) form like <i>dubdub</i> (= <i>balaḡdi</i>), <i>halhallatu</i>, and <i>lilis</i>.</p>
<p>zamin</p>	<p>zà.(me) (A), (^{ĝis/kuš})zà.mí (B) = <i>sammû</i> (C)</p>	<p>C</p>	<p>‘wide side’ (Krispijn, ‘<i>Beiträge</i>’, p. 6-7) also ‘to be praised’ <i>cf.</i> <i>zà.me</i> = <i>wâdium</i> ‘praising’ VE 1181. In MB Hh <i>zamin</i> is translated <i>mandû</i> ‘pole’, which would fit the crossbar of a lyre. Parts of the lyre mentioned from OB Hh onwards are: (^{ĝis})kul.zà.mí ‘handle of the <i>zamin</i>’ = <i>hansû</i> ‘fibres (of the (OB Hh I 611; MB Hh 4259’). (^{ĝis})dub/KAB.zà.mí (OB Hh I 611; MB Hh 4259; VII B 50) = <i>tuppu ša sammê</i> ‘board (?) of the <i>zamin</i>’ = <i>hansû</i> ‘?’; (^{ĝis})áb.zà.mí (MB Hh 4260) ‘cow of the <i>zamin</i>’ = <i>hasis sammê</i> ‘ear of the <i>zamin</i> = sound hole (in the shape of a concave square)’ (see E. Robson, <i>Mesopotamian Mathematics 200-1600 BC</i> (Oxford, 1999), pp. 50-4). In Hh VII B 45 (reconstructed) <i>zamin</i> is explained as <i>ár.re</i> ‘The (instrument) of praise’. The Mesopotamian tuning system is based on the <i>zamin</i>: <i>cf.</i> Hh VII B 47. (^{ĝis})zà.mí.si.sá = <i>išartu</i> ‘the <i>išartu</i> tuning’ = <i>harru</i> (Hg B II . ZÀ in that line (A) could be the abbreviation of <i>zamin</i>. It occurs in the combination <i>gal_a.zà</i> ‘leader of the <i>zamin</i>-players’ ED Lu A 108. ZÀ is apparently not the abbreviation of ZÀ.HA = <i>enkud</i> ‘supervisor of hunting and fishing, fish collector’ (Englund, Uruk, 142-319; Green, M.W., <i>JCS</i> 36 (1984), pp. 93-5). The <i>enkud</i> in its abbreviated form occurs in: <i>gal_a.zà</i>; <i>nesaḡ_{2a}.zà</i>; <i>bara₃.zà</i>; DILMUN_a.zà ED Lu A 82-85. (^{ĝis})zà.mí occurs in Ur III-Early OB administrative texts from Isin. <i>zamin</i> forms a pair with <i>šibattu</i> in Šurpu III 91 (Table 3.2 10).</p>
<p>zannaru</p>	<p>(^{ĝis})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 (^{ĝis})dim.nun = <i>tindû</i> ‘magnificent pole’ and in Hg B II 166 <i>sur_o.ra</i> ‘plectrum’. For the relation of <i>zannaru</i>, (^{ĝis})za.inanna, and ^dinanna^{za.za} see Krispijn, ‘<i>Beiträge</i>’, p. 12.</p>

Notes

1 See Krispijn, Th. J.H. (1991-1992) "The Early Mesopotamian Lexical Lists and the Dawn of Linguistics" *JEOL* 32: 12-22, especially 14-5.

2 For most identifications see Krispijn, Th. J.H. (1990) "Beiträge zur altorientalische Musikforschung 1: Šulgi und die Musik" *Akkadica* 70: 1-27, and Dumbrill, R.J. (2005-Victoria) *The Archaeomusicology of the Ancient Near East*, Lexicon: 387-454.

3 For these terms see e.g., Kartomi, M. J. (1990-Chicago-London) *On Concepts and Classifications of Musical Instruments*: 318-21.

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. and Heimpel, W. (1983) The Sumerian Sargon Legend, *JAOS* 103: 67-82 and Westenholz, J.G. (1997-Winona Lake) Legends of the Kings of Akkade: 51-53; see otherwise Michalowski, P. in this volume.

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 B.C.) 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. and Wäfler M. (1998-Freiburg) Mesopotamien, *OBO* 160/1: 13-233; Sürenhagen, D. (1999-Heidelberg) Untersuchungen zur relativen Chronologie Babyloniens und angrenzender Gebiete von der ausgehenden Ubaidzeit bis zum Beginn der Frühdynastisch-II-Zeit, *HSAO* Band 8, 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 M.B. 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. (1987-Berlin) Zeichenliste der archaischen Keilschriftzeichen aus Uruk (*ZATU*) Archaische Texte aus Uruk (*ATU*) Band 2. Deimel, A. (1922-Leipzig) Die Inschriften von Fara I Liste der archaischen Keilschriftzeichen (*LAK*); Rosengarten, Y. (1960-Paris) *Répertoire commenté des signes présargoniques sumériens de Lagaš*; Schneider, N. (1935-Rome) *Die Keilschriftzeichen der Wirtschaftsurkunden von Ur III nebst ihren charakteristischen Schreibvarianten (Keilschriftpaläographie Heft 2)*.

13 Bibliography of the 3rd millennium lexical lists, Civil, M. (1969-Rome) The Series lú = ša and Related Texts (*MSL XII*): 3-21: ED Lu A-E; Civil, M. (2008-Rome) The Early Dynastic Practical Vocabulary A (Archaic HAR-ra A) *ARES* IV: 99-102: EDPV A, EDPV B; Deimel, A. (1923-Leipzig) Die Inschriften von Fara II *Schultexte aus Fara* (SF). Sign Lists: Englund, R. K. - Nissen, H.J. (1923-Berlin) Die lexikalische Listen der archaischen Texte aus Uruk, Archaische Texte aus Uruk (*ATU*) Band 3, (1993), (Uruk IVa and Uruk III): ED Lu A; Pettinato, G. (1981-Naples) Testi lessicali monolingui della biblioteca L. 2769 (*MEE* 3): ED Lu A, E; G. NPL = *Lista di Nomi e Professioni* (Names and Profession List); Pettinato, G. V Testi lessicali bilingui della biblioteca L. 2769 (*MEE* 4): VE, EV.

14 Bibliography of the 3rd millennium literary texts: Biggs, R. D. (1974-Chicago) Inscriptions from Tell Abū Sālābīkh (*OIP* 99): IAS no. 116, 318; Edzard, D.O. 1997 *Gudea and His Dynasty*, RIM Early Periods Vol. 3/1. Toronto: Cyl. A, B.

15 Reconstructed: [ti.g]i₄ en-níg.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 1st millennium: A = Aruz, J. (ed.), (2003-New Haven-London) *Art of the First Cities*; B = Boehmer, R.M. (1965-Berlin) *Die Entwicklung der Glyptik während der Akkad-Zeit*; O = Opificius, R. (1961-Berlin) *Das altbabylonische Terrakottareliefe*; R = Rashid, S.A. (1984-Leipzig) *Musikgeschichte in Bildern Band II, Lieferung 2: Mesopotamien*; S = Suter, Cl.E. (2000-Groningen) *Gudea's Temple Building The Representation of an Early Mesopotamian Ruler in Text and Image*: 170-76 (Börker-Klähn); plate A-C (Suter); Z = Ziegler, N. (ed.), (2006-Dijon) *La musique au Proche Orient ancien. Dossiers Archéologie et sciences des origines*, no. 310, février.

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. (2002) *Two Lyres from Ur* 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 (pl. B) = R: 70; Other fragments with parts of musical instruments and people clapping: ST.9 (Pl. A); ST.13 (Plate B); ST.25 (Pl. B); ST.53.

20 Bibliography of the lexical lists from the 2nd to the 1st millennium: Civil, M. (1969-Rome) The Series lú = ša and Related Texts (*MSL XII*): O.B. Proto-lu: 25-73), O.B. Lu.aslag2: 151-213); Civil, M. (2004-Rome) *MSL XV The Series DIRI = (w)atru*; Gantzer, M. (2008-Maastricht) *The Emar Lexical lists*: M.B. Hh (especially part 1: 101; part 2: 64); Landsberger, B. (1958-Rome) The Series Har-ra = *hubullu* Tablets V-VII (*MSL VI*): Can. Hh VVII (+ O.B./M.B. Forerunners); Landsberger, B. (1959-Rome) The Series Har-ra = *hubullu* Tablets VIII-XII (*MSL VII*): Can. Hh VIII-XII (+ O.B./M.B. Forerunners); Veldhuis, N. (1997-Groningen) *Elementary Education at Nippur The Lists of Trees and Wooden Objects*: O.B. Hh.

21 For this tablet of the O.B. Hh see Veldhuis, *Education*: 52. The transliteration of this O.B. forerunner is published in Landsberger, *MSL VII*: 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 O.B. Hh texts I refer to this tablet of O.B. Hh in the following way: *MSL VII*: 181-196 = II A // Hh VIII-IX; *MSL VII*: 199-204 = II B // Hh X; *MSL VII*: 213-28 = II C // Hh XI; *MSL VII*: 231-41 = II D // Hh XII.

22 Bibliography of the 2nd millennium literary texts: Al-apin = *ETCSL* 5.5.4; Curse of Akkade = *ETCSL* 2.1.5; Enki's Journey to Nippur = *ETCSL* 1.1.4; Enkitalu and Enkihegal = *ETCSL* *5.4.02 (not yet published in *ETCSL*); Iddin-Dagan A = *ETCSL* 2.5.3.1; Inanna and Enki = *ETCSL* 1.3.1; Mariage of Martu = *ETCSL* 1.7.1; Lamentation over Nippur = *ETCSL* 2.2.4; Lamentation over Sumer and Ur = *ETCSL* 2.2.3; Lamentation over Ur = *ETCSL* 2.2.2; Lamentation over Uruk = *ETCSL* 2.2.5; Nanše-hymn A = *ETCSL* 4.14.1; Nisaba-hymn A = *ETCSL* 4.16.1; Summer and Winter = *ETCSL* 5.3.3; Šulgi A = *ETCSL* 2.4.2.01; Šulgi B = *ETCSL* 2.4.2.02; Šulgi C = *ETCSL* 2.4.2.03; Šulgi D = *ETCSL* 2.4.2.04; Šulgi E = *ETCSL* 2.4.2.05; TH = *ETCSL* 4.80.1; Urnamma A = *ETCSL* 2.4.1.1; Ziegler = Ziegler, N. (2007-Paris) *Les Musiciens et la musique d'après les archives de Mari (Mémoires de N.A.B.U. 10 = Florilegium marianum IX)*.

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 Ziegler, N. (2007-Paris) *Les Musiciens et la musique d'après les archives de Mari. Mémoires de N.A.B.U. 10*. Orchestras are discussed on pp. 13-15.

24 Bibliography of second millennium literary texts:

• Examination A, Sjöberg, A.A. (1974) 'Der Examentext A', *ZA* 64: 137-176.

• *Balağ Utu ...ekura* Cohen, M.E. (1974-Malibu) *Balağ-compositions: Sumerian Lamentation Liturgies of the Second and First Millennium B.C.*: 418-442.

- *Balaĝ Uru amirabi*, Cohen, *Balag*: 536-603.
- Eršemma no. 159, Cohen, M.E. (1981-Cincinnati) *Sumerian Hymnology: The Eršemma*: 103-6.
- Eršahuĝĝa no. 1 22 Maul, S.M. (1988-Wiesbaden) *‘Herzberuhigungsklagen’ Die sumerisch-akkaischen Eršahunga-Gebete*: 73-81.
- KAR no. 119 Lambert, W.G. (1960-Oxford) *Babylonian Wisdom Literature*: 118-120.
- SAA no. 3 Livingstone, A. (1989-Helsinki) *Court Poetry and Literary Miscellanea (SAA 3)*.
- Šurpu Reiner, E. (1958-Graz) *Šurpu, a collection of Sumerian and Akkadian Incantations, AfO, Beiheft 11*.
- BBS King, L.W. (1912-London) *Babylonian Boundary Stones*
- LKA No. 70 Farber, W. (1977-Wiesbaden) *Beschwörungsrituale an Istar und Dumuzi*: 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 dab₆ = tab means ‘to stand together, beside each other’. Words beginning with the nominal prefixchain 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 ⁶¹⁸BALAĜ = *zu-mu-ba-ru*₁₂ (*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 ĝišdua.

31 cf., *asarru* ‘an object to write on, cylinder (?)’ CAD A/2, pp. 327-28.

32 Krispijn, T.J.H. (2002-Rahden) “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*.

Abbreviation:

Most abbreviations are listed in the *Chicago Assyrian Dictionary (CAD)*, (Chicago, from 1956). Other abbreviations used: Can. Canonical; E.D.: 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; M.B.: Middle-Babylonian; O.B.: Old-Babylonian; VE: Ebla Vocabulary (‘Vocabulario di Ebla’)