



PIHANS • CXXVIII

## SILVER, MONEY AND CREDIT

A TRIBUTE TO ROBARTUS J. VAN DER SPEK  
ON THE OCCASION OF HIS 65<sup>TH</sup> BIRTHDAY

*edited by*

KRISTIN KLEBER and REINHARD PIRNGRUBER



NEDERLANDS INSTITUUT VOOR HET NABIJE OOSTEN

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CXXVIII

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*Bert van der Spek*

*(Photo: Yvonne Compier/Communicatie & Marketing, VU)*

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*Cover illustration: Lydian tribute bringers at Persepolis. Photo: Richard Stone.*

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## EDITORS' FOREWORD

Robartus J. van der Spek's professional oeuvre reflects his desire to bridge the academic divide between 'East' and 'West', that is, the Greco-Roman and the ancient Near Eastern worlds, as well as his conviction that the ancient world has much to contribute to general history. Unlike many who merely pay lip service to the concept of interdisciplinary scholarship, Bert van der Spek – or simply Bert to his friends – did indeed embody such an open-minded approach to scientific research. Exemplary is the recent volume *A History of Market Performance from Ancient Babylonia to the Modern World*. Routledge Explorations in Economic History 68 (London – New York: Routledge 2015). It is the fruit of a research project led by Bert van der Spek, and it gathers contributions including Chaldean and Seleucid Babylonia, the Classical Mediterranean, medieval and early modern Europe, and China during the Qing dynasty. A similarly wide range was covered by a recent workshop organized by him in December 2014 at the Vrije Universiteit Amsterdam. The meeting was dedicated to the role of silver and money in economy.

With this event in mind, and aware of his preference for *Festschriften* with a clearly circumscribed topic, the editors invited close colleagues and friends of Bert's to contribute what they had to offer on the subjects "Silver, Money and Credit" from the perspective of their respective fields. Bert collaborated with colleagues specializing in various periods in Assyriology, Archaeology, Economic History, History and Classics. Correspondingly manifold and widespread are the individual specializations and fields of research of his colleagues and friends. Some authors investigated economic aspects – the chronological range being the fourth millennium down to the Hellenistic period, others embraced the topic from a literary perspective. We thank all contributors for their timely delivery and speedy replies to our inquiries. We apologize to all colleagues and friends who would have liked to contribute but who had difficulties to find something that fell within the limits of the chosen topic. Our thanks also go to Mark Tamerus for helping with the formatting of some articles and Bert van der Spek's bibliography during the hectic days in October 2014. We are very grateful to Amélie Kuhrt and Jaap-Jan Flinterman for writing two forewords, professional and personal, respectively. These essays round up this volume and give it the personal touch that we much appreciate. Furthermore, we are obliged to Jesper Eidem, director of NINO, and PIHANS series editor Jan Gerrit Dercksen for accepting this manuscript for publication.

The manuscript was presented to Bert van der Spek shortly after his 65<sup>th</sup> birthday, on the occasion of his farewell lecture on 10 October 2014 with the preliminary title *Studia Baconiana*: a pun based on Bert's cheerful introduction of himself as Bert Baconus in his youth. (But, as he explained once to us, Dutch *spek* does not translate 'bacon' in this instance; the word refers to an (artificial) hill in Archaic Dutch – hence, *Bert ša tilli* or *Bert tillāya* would be more appropriate.) Puns aside, it was our aim to provide the neo-emeritus with food for thoughts, not only for his own presentation at the conference but also, hopefully, for future research on his latest hobbyhorse. And indeed, since he has received the manuscript, he diligently read and commented on all the contributions. We are glad to see that nothing has changed since Bert's retirement: he enjoys his life, and his professional passion is unbroken. In this sense:

*"Fests are made for laughter; wine gladdens life, and silver meets every need."*  
(Ecclesiastes 10: 19)

Kristin Kleber and Reinhard Pirngruber

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# EARLY SILVER: THOUGHTS ABOUT THE SIGN KU<sub>3</sub> IN THE EARLIEST DOCUMENTS FROM URUK

Theo J.H. Krispijn\*

## INTRODUCTION

Silver plays a prominent role in the early societies of the Ancient Near East. It occurs as a means of payment already in the ancient *kudurrus*, the earliest contracts of landed property. Weighed silver functions as a ‘monetary standard’ and a means of payment for valuable commodities. In contrast, grain is used as ‘cheap money’, i.e. as a means of payment for less valuable things and for the salary of workers. The state sometimes demanded silver payments from its citizens in periods of crisis. It is therefore interesting to investigate the role of silver in the earliest records from the city of Uruk in the late fourth millennium.

A complication for determining the role of silver in these early documents is the ambiguity of the interpretation of the sign KU<sub>3</sub> (*/kug/*). It can indicate an adjective of colour, “shining”, and a substantive, “shining metal” i.e. “precious metal”, and is also used metaphorically from quite early times to mean “pure, holy, sacred”. Whereas */kug/* as a general indication for precious metal is often qualified by the adjectives *babbar* “white” or *sig<sub>17</sub>* “yellow”, where *kug-babbar* “white precious metal” indicates “silver” and *kug-sig<sub>17</sub>* “yellow precious metal” indicates “gold”, even without the complement *babbar* “white” it indicates silver.<sup>1</sup>

It is a pleasure for me, after some 45 years of friendship, to dedicate this small piece to Bert van der Spek on the occasion of his 65<sup>th</sup> birthday and retirement from the department of Ancient Studies at the Vrije Universiteit te Amsterdam.

## THE LEXICAL MATERIAL

Of the Uruk texts of the archaeological levels IVa and III about 11% is lexical material.<sup>2</sup> These lexical series adopted a more or less ‘canonized’ form in Uruk III (± 3000 B.C.) and were used for more than 1200 years, until the middle of the Old Babylonian period. After

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\* I am much indebted to Mervyn E. Richardson for improving the English of this paper, and to Robert K. Englund and Christopher E. Woods for giving me permission to use images from their publications.

<sup>1</sup> The most usual writing for *kug-babbar* “silver” is KU<sub>3</sub>-UD.UD = *babbar* is an abbreviation of UD-UD = *bar<sub>6</sub>-bar<sub>6</sub>/babbar<sub>2</sub>* “white”, which is a reduplication comparable with MI/MI-MI = */kukkug/*, */kikkig/* “black”.

<sup>2</sup> Englund 1998, 82.

# ***KASPAM LAŠQUL* “LET ME WEIGH OUT THE SILVER”: MESOPOTAMIAN AND ANATOLIAN WEIGHTS DURING THE OLD ASSYRIAN COLONY PERIOD**

*Jan Gerrit Dercksen*

## **I. INTRODUCTION**

The Ancient Near Eastern weight system from the Early and Middle Bronze Age was a complex one, where local standards co-existed with supra-regional ones. The evidence for the individual standards has been collected and discussed by Ascalone and Peyronel (2006). Their treatment of the material from Kültepe (ancient Kanesh) is of great importance for our understanding of metrology in ancient Anatolia during the Old Assyrian Colony Period. However, archaeological and textual data that have recently become available make it possible to reassess some of the conclusions. In this article, the question of the local Anatolian standard and its relation with the one employed by the Assyrian merchants and others will be reconsidered.

Nearly one hundred of the weights excavated in Kültepe and dating from the 19<sup>th</sup>-18<sup>th</sup> century BC have now been published, mostly in a single publication by Tahsin Özgüç (1986), and others in the catalogue accompanying an exhibition held in Istanbul (Kulakoğlu and Kangal 2010). Most of these specimens are of haematite or some other stone (*abnum* “stone” is the Akkadian word for weight) though some are of lead. Furthermore, balance pans have been found in some tombs.<sup>1</sup> The terminology related to weighing practices in contemporary Old Assyrian documents has been discussed by K.R. Veenhof and J.G. Dercksen,<sup>2</sup> and the complexity of the Kültepe material by C. Zaccagnini (2000), who identified the presence of different weighing systems.

Individual weights are based on the unit of the shekel or the mina. Fractions and multiples should be logical ones. They are attested, for example, in textual evidence from the Old Babylonian palace at Mari, where the weights employed (in descending order) were 10 minas, 5 minas, 3 minas, 2 minas, 1 mina, 10 shekels, 5 shekels, 2 shekels, 1 shekel; fractions of the shekel were a half (90 grains), one-third (60 grains), a quarter (45 grains), and one-twelfth (15 grains). Actual weights often show a certain range of tolerance compared with the authoritative weight from which copies were made. Some weights have been marked to indicate their actual value but most have not. Theoretically many stone weights could have functioned within more than one metrical system and it remains open to discussion whether such weights were so used in antiquity.

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<sup>1</sup> The published balances found during excavations at Kültepe are kt b/k 246-249, consisting of two pans, 8.3-8.4 cm in diameter (Özgüç and Özgüç 1953, 259 nos. 538-541, pl. 61.538-541); Kulakoğlu and Kangal 2010, 323 shows two other copper pans, kt 96/k 108 (no. 404) and kt 01/k 11 (no. 405), with a diameter of 5.7 and 6.4 cm, respectively. See also Peyronel 2011, 127-128.

<sup>2</sup> Veenhof 1972, 46-68; Dercksen 1996, 80-81.

# THE OLD BABYLONIAN ‘I OWE YOU’

Marten Stol

In this contribution I will study the formula *ša PN<sub>1</sub> eli PN<sub>2</sub> išû* in Old Babylonian documents, meaning: what PN<sub>2</sub> owes to PN<sub>1</sub> (literally: ‘what PN<sub>1</sub> has against PN<sub>2</sub>’). In Sumerian, it is ugu PN in-tuku (in Nippur, Kish and elsewhere: an.tuku). Sometimes we find the verbal form *iršû* instead of *išû*, ‘he acquired (a claim)’ (*rašûm*). In two closely related texts both forms appear. In the text with *iršû* the debt had been contracted in the previous year and ‘acquired’ may refer to that more remote past (VAS 18 9). In the other text the present and new situation is indicated by *išû* ‘he has (a claim)’ (Boyer 1928, 53 HE. 140). Both texts speak of a postponed settlement (níg-ŠID *napiš-ma*; see below, 3. c). Elsewhere both verbs refer to the future, in: ‘(Any) creditor (*tamkarum*) of L. who has or will acquire a claim on L. (*ša eli L. išû u iraššû*) (shall not summon his father, his mother or his sons)’ (CT 45 15:1-3).

## I. TERMINOLOGY

In most cases an amount of silver is meant and a document like this may be named an IOU (‘I Owe You’) in English. In German it is called *Verpflichtungsschein*. It is the Old Babylonian predecessor of the well-known Neo-Babylonian *u’iltum*. P. Koschaker studied both and wished to interpret them within the legal opposition of *Schuld* and *Haftung*. “Die erstere ist das Produkt des Schuldversprechens. Ihr rechtlicher Inhalt besteht lediglich darin, daß der Schuldner etwas leisten, der Gläubiger dasselbe bekommen soll. Eine Haftung (...) ist in dem Schuldversprechen an sich nicht enthalten” (Koschaker 1911, 109). Normally, a guarantor (*Bürge*) was needed to make sure that the debt was to be paid, so in this construction we have to assume that the debtor was guarantor as well. “Die Person des Schuldners haftete für die Gläubigerschuld wie ein Pfand” (Koschaker, 115 f.). He admits that fat “die Selbstbürgschaft des Schuldners” to us is “völlig unerklärlich” (Koschaker, 107). As far as I know, this theory has not been repeated in Assyriology on such an abstract level (but note Petschow 1956, 25-50; Neo-Babylonian). Apart from German ‘Verpflichtungsschein’ other qualifications were given: ‘abstrakter Schulschein’ (B. Landsberger), ‘abstract debt note’ (J. Renger), ‘obligation note’ (A. Skaist), ‘reconnaissance de dette’ (G. Boyer), ‘simple créance’ (D. Charpin), ‘Lieferungsvertrag’ (A. Ungnad). We will use the simple English abbreviation ‘IOU’.

This type of document with the formula *ša PN eli PN išû* has hardly been discussed.<sup>1</sup> Short remarks can be found in San Nicolò 1922, 82-87; 1931, 216-218; Koschaker, Ungnad,

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<sup>1</sup> It is remarkable that CAD I/J 291b (2) gives references only for the negative statement ‘he has no claim’ in Sumerian and Akkadian. Variants: níg na-me-en (Banca d’Italia II 225 III-38; VAS 18 101:35, case: níg-me-en), níg ì-na-me (case: níg-na-me) ugu PN li-bí-in-tuku (Kienast 1978, no. 89).

# THE KASSITE GOLD AND THE POST-KASSITE SILVER STANDARDS REVISITED

Kristin Kleber\*

## INTRODUCTION

The use of money in Mesopotamia has been the subject of a long debate prompted by Polanyi's theory of a market-less economy. Nowadays most scholars agree that the redistributive economies of state institutions do not exclude the existence of a market. The Neo-Babylonian and Achaemenid periods have been less hotly debated<sup>1</sup> but only recent studies have demonstrated the considerable degree to which the Babylonian economy in the second half of the first millennium BC was monetized.<sup>2</sup> Even the poorer stratum of society now came into contact with money, at least via intermediaries, because, e.g. payments in lieu of corvée or military service had to be made in silver. Silver, appearing in quantities as small as 1/40<sup>th</sup> of a shekel, became practicable as means of payment even in low range transactions.<sup>3</sup> An aspect that certainly contributed to the increasing monetization was the lower purchasing power of silver – or, put differently – the approximately 30-50% higher prices in comparison to the Old Babylonian period. The significant 'price gap' between the 2<sup>nd</sup> and 1<sup>st</sup> millennium becomes obvious if one compares the prices of some basic commodities, e.g. using Meissner's *Warenpreise in Babylonien* of 1936. The when and whys of this change are, however, less clearly understood. Towards the end of the second millennium, or more precisely in the 11<sup>th</sup> century, prices apparently skyrocketed at the same time when Babylonia returned to a general silver standard after the gold interlude in the Kassite period. One recent explanation was that commodity prices rose because of repeated negative supply shocks in a period of general economic decline.<sup>4</sup> An alternative suggestion held that the purchasing power of silver sank on account of an increased availability

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\* This paper was written under the auspices of the *Vidi* project "Paying for *All the King's Horses and All the King's Men*: A Fiscal History of the Achaemenid Empire" funded by NWO – the Dutch Organization for Scientific Research. My occupation with the topic however goes back to a presentation held in June 2011 in Lille at a workshop on economic interaction in the Near East and Egypt in the first half of the first millennium BC. I owe thanks to Michael Jursa for his comments on the manuscript.

<sup>1</sup> For example, Renger 1995, 302 and 319f. does not deny that silver was used as "allgemein gebräuchlicher Tauschvermittler (Geld im engeren Sinn)" from the Neo-Babylonian period onwards, at least for the transactions which were written down.

<sup>2</sup> Jursa 2010, chapter 5. Although first-millennium BC Babylonia was not fully monetized in a modern sense, silver had become the regular and standard means of payment on an everyday basis. Texts frequently refer to specific qualities and the fineness of silver, another indicator of the importance of silver as a means of payment, see Jursa 2010, 475-490.

<sup>3</sup> Jursa 2010, 631f. and 659.

<sup>4</sup> Del Monte 2009, 105.

# SILVER AND OTHER FORMS OF ELITE WEALTH IN SEVENTH CENTURY BC BABYLONIA

Michael Jursa\*

*rem facias, rem, si possis, recte, si non, quocumque modo rem* (Horace Ep. I 1 65)

With a passion reminiscent of the Horace quote – obviously, I hasten to add, in an entirely different key – Bert van der Spek, to whom this short essay is dedicated with admiration, focused throughout his career on the principal forms of (private) wealth in first millennium Babylonia: agricultural land and silver. It is largely owed to him, and to the research projects he directed at the VU University Amsterdam, that the commodity markets functioning within the strongly monetized economy of Seleucid and Parthian Mesopotamia are not only well understood, but can be integrated into mainstream economic history (e.g., van der Spek *et al.* 2014). The narrative of money and markets resulting from this work can be extended back in time into the ‘long sixth century’ (Jursa 2010). Already in this period silver served as low-range money for everyday transactions, in clear contrast to the eighth century BC when silver was primarily a high-range money for transactions involving valuable items, while other monies – staples, in particular wool, barley and dates – were used for low-value exchange (Jursa 2010, 500-509; mostly on the basis of the so-called Governor’s letter archive from Nippur). Then, and earlier, silver could also be referred to as a standard and a money of account, but the utility of silver in its physical form for every-day transactions was restricted by its relative scarcity and the resulting high purchasing power. It can be argued that the vast spoils of Babylonian imperial domination in the long sixth century were crucial for the rapid economic expansion of the period and concomitant reduction of the silver value. In this narrative, the seventh century is an as yet unexplored area between the eighth century and the ‘long sixth century.’ As a – mostly unwilling – province of the Neo-Assyrian empire, Babylonia was part of a vast (but only loosely integrated) imperial space whose Assyrian core (only the core?) experienced episodes of increasing ‘monetization’ of its own, if not on the same scale that can be witnessed a century later in Babylonia.<sup>1</sup> The implications of these developments for the economy in the empire’s Babylonian periphery remain to be investigated. The issue is addressed here on the basis of the small part of the Babylonian archival documentation<sup>2</sup> that can be brought to bear on the question. This information is supplemented by drawing on the richest source material for Babylonian history in the seventh century: the letter archives found in Nineveh, in particular their Babylonian component. These letters contain few straightforward economic data, such as prices. However, they do elucidate to some degree the economic mentality of their protagonists – the texts reflect some of their protagonists’ attitudes towards silver and other forms of wealth – and in this vein can be read as proxy data substituting for the scarcity of quantifiable information.

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<sup>1</sup> Radner 1999.

<sup>2</sup> Catalogued in Brinkman/Kennedy 1983 and 1986.

# THE SILVER HAS GONE...

## TEMPLE THEFT AND A DIVIDED COMMUNITY IN ACHAEMENID BABYLONIA

*Caroline Waerzeggers\**

### INTRODUCTION

In 521 BC, the city of Sippar in northern Babylonia was on the verge of civil war. Less than twenty years earlier, its inhabitants had watched passively as the troops of Cyrus the Great marched by on their way to capture Babylon (539 BC).<sup>1</sup> Now, as the Persian Empire itself struggled to remain on its feet amidst a terrible succession crisis, the citizens of Sippar were no longer able or willing to remain uninvolved. After the deaths of Cyrus' sons, Cambyses and Bardiya, revolts broke out nearly everywhere in the Empire. The unrest was particularly persistent in Babylonia, where two rebels rose up in close succession: the first one in the autumn of 522 BC and the second one a few months later in the early summer of 521 BC.<sup>2</sup> Willingly or not, the Sippareans found themselves caught up in the turmoil of the period. By recognizing the rebels as legitimate kings of Babylon, Sippar's leading citizens openly declared their opposition to Persian rule, and by allowing them to pitch camp in their city's countryside, they made the area stand out as a hotbed of dissent. But there was discord among the Sippareans as well: not everybody agreed that joining the rebels was the best thing to do. Eventually, the sceptics were proven right: Darius crushed both revolts and gained control not only of Babylonia, but of the entire realm of the Persian Empire. This heralded a new phase in the history of the Empire, as a number of measures were taken to improve Persia's grip on its subject territories. In Sippar, at the micro level, the process of restoring sociality after an episode of divisive politics began. It is against the backdrop of these developments – both local and imperial – that I want to read and interpret the events reported in a unique cuneiform tablet of the Dortmund collection, held at the University of Amsterdam. The tablet is kept in the special collections of the university library – on Rokin, close to café De Zwart, where Bert, his VU crowd, and I spent many happy hours together.<sup>3</sup>

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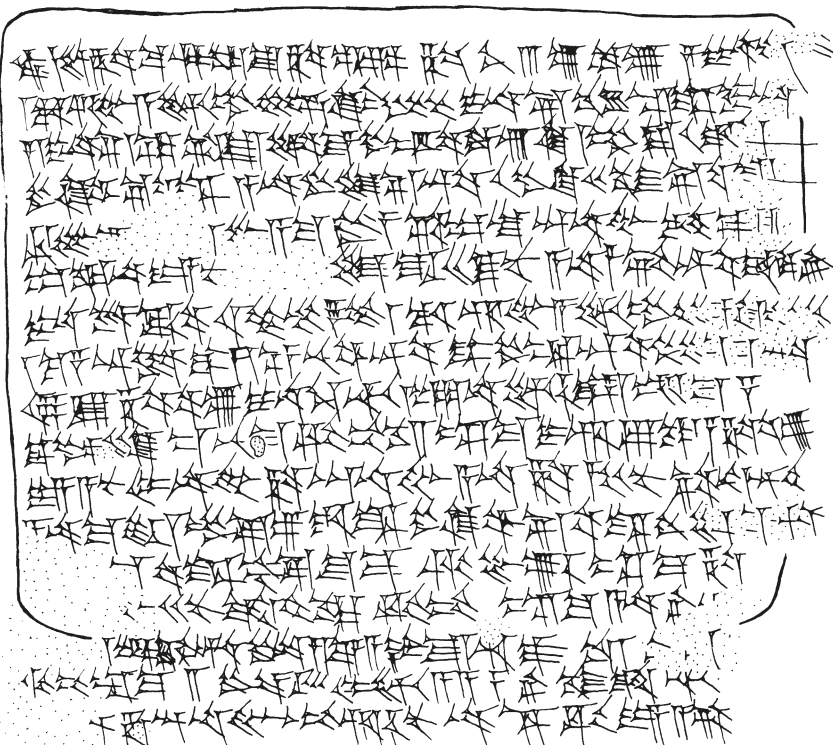
\* This article was researched and written in the context of ERC project BABYLON. I am grateful to the special collections section of the library of the University of Amsterdam, for allowing access to the Dortmund collection and granting permission to publish no. 32 in this contribution. In Leiden, I was able to consult a preliminary translation of the text by Herman Bongenaar. I am grateful to Michael Jursa for providing a transcription of BM 61346. Unpublished tablets in the British Museum are cited with the permission of the Trustees of the British Museum.

<sup>1</sup> ABC 7 rev. iii: 14 (Grayson 1975, 109).

<sup>2</sup> These events have been most recently discussed by Beaulieu 2014. See also Frahm and Jursa 2011, Lorenz 2008, Kuhrt 2007, and Zawadzki 1994 for sources pertaining to this period, from Mesopotamia as well as Persia. For the episode within the larger imperial context, see Briant 2002, 107-138 and Kuhrt 2007, 135-177.

<sup>3</sup> Bert, could you be the best boss in the world?

Obv.



Rev.

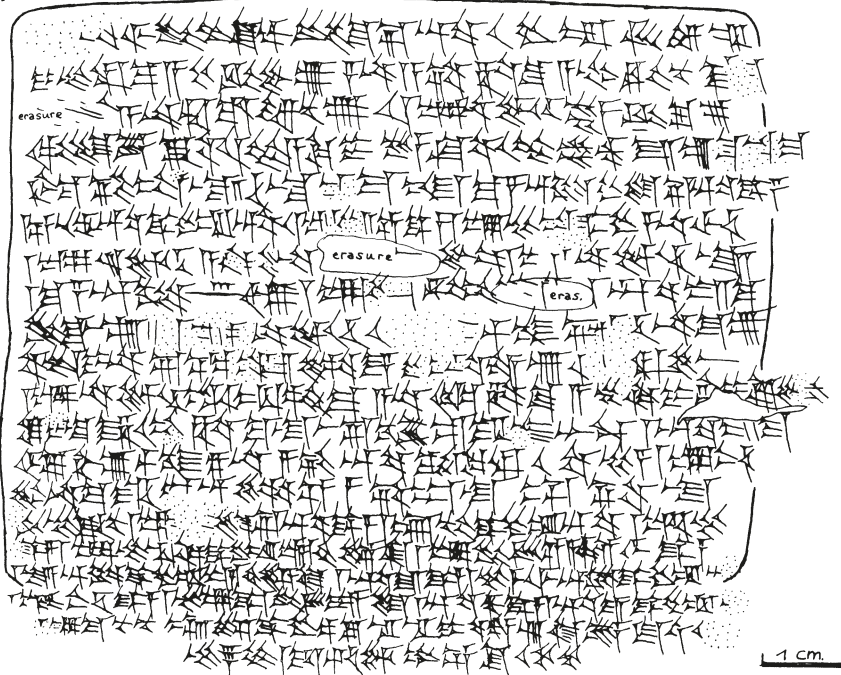


Fig. 1: Dortmund Collection no. 32.

**Dortmond collection no. 32<sup>4</sup>**

Sippar, Dar 10-VII-07

- Obv. 1 *šul-pu* <<1>> kù.babbar *ma-ak-ka-su* kù.babbar *šap-pa* kù.babbar pab 3 *ú-du-ú šá i-na*  
mu.1.kam  
<sup>1</sup>*da-ri-i'-a-muš* lugal tin.tir<sup>ki</sup> lugal kur.kur *i-na é ziq-qur-ra-tu<sub>4</sub> hal-qa*  
*šá<sup>1</sup> i-na-é.sag.íla-li-bur<sup>lú</sup>sanga* ud.kib.nun<sup>ki</sup> <sup>1</sup>*lugal-lu-u-da-ru*  
<sup>lú</sup>*qí-pi* é.babbar.ra *a-na<sup>lú</sup>ku<sub>4</sub>.é<sup>d</sup>utu u<sup>lú</sup>ki-niš-tu<sub>4</sub> é.babbar.ra*
- 5 *iq-bu-[ú um-m]a bu-a-ma<sup>lú</sup>* (on erasure) *šá ta-ab-la an-na-a' it-ba-lu*  
*ab-ka-na ia-nu-[ú kù.babbar ul]-tu ra-man-ku-nu a-na níg.ga<sup>d</sup>utu iṭ-ṭi-ir*  
*i-na<sup>iti</sup>kin* ud.11.kam mu.7.kam <sup>1</sup>*da-ri-i'-a-muš* lugal tin.tir<sup>ki</sup> lugal [kur.kur]  
<sup>1</sup>*ba<sup>šd</sup>d*amar.utu dumu *šá<sup>1</sup>e-tel-pi<sup>d</sup>utu dumu<sup>lú</sup>sanga<sup>d</sup>utu<sup>lú</sup>ku<sub>4</sub>.é<sup>d</sup>utu*  
18 gín kù.babbar babbar<sup>ú</sup> *i-na qa-ti<sup>Id</sup>ag-na-šir-šú* dumu *šá<sup>Id</sup>en-ba<sup>šd</sup>*
- 10 dumu<sup>lú</sup>pa.šē<sup>ki</sup> *iṣ-bat-ma iq-bi-iš um-ma i-ri-ib-ka šá* kù.babbar babbar<sup>ú</sup>  
*ia-a-nu mi-na-a' kù.babbar an-na-a' a-na kù.babbar šá gín-nu ta-na-an-din*  
*a-na ma-har<sup>1</sup>lugal-lu-ú-da-ra<sup>lú</sup>qí-pi* é.babbar.ra <sup>lú</sup>*ku<sub>4</sub>.é<sup>d</sup>utu*  
[*u<sup>lú</sup>umbisag.meš*] é.babbar.ra *ub-lu-šu-ma iq-bu-ú-šú um-ma kù.babbar*  
[*an-na-a'*] *man-nu id-din-ka iq-bi um-ma a-na ni-is-[hí]*
- Lo.E. 15 [*it-ti*] <sup>Id</sup>*ag-bul-liṭ-an-na<sup>lú</sup>ir šá<sup>1</sup>ba<sup>šd-a</sup> as-su-hu <<áš>> iṣ-ni-m[a]*  
*iq-bi um-ma 2<sup>lú</sup>érin.meš mi-šir-a-a šá šal-tu<sub>4</sub> it-ti*  
[*a-ha-*]meš? kù.babbar *an-na-a' i-na bi-ri-šú-nu na-si-ik ia-a-ta*
- Rev. [*aṭ*]-*ta-ši* šēš <sup>lú</sup>*qí-pi<sup>lú</sup>ku<sub>4</sub>.é<sup>d</sup>utu u<sup>lú</sup>umbisag.meš im-tal-[ku-ma]*  
*i-mu-ru-ma a-mat iq-bu-ú šá-na-a-ta kù.babbar šu-a-ti ik-nu-ku-ma*
- 20 ((x x)) *a-na paq-da im-nu-ú u<sup>Id</sup>ag-na-šir-šú ká ik-lu-ú*  
*ul-tu<sup>iti</sup>kin* ud.11.kam *a-di-i<sup>iti</sup>du<sub>6</sub>* ud.10.kam *ár-kát-su ú-šu-du-ma*  
*mim-ma gab-bi šá ina šu<sup>II</sup>-šú la iṣ-ba-tu<sub>4</sub><sup>1</sup>ba<sup>šd</sup>d*amar.utu <sup>lú</sup>*ku<sub>4</sub>.é<sup>d</sup>utu dumu šá*  
<sup>1</sup>*e-tel-pi<sup>d</sup>utu dumu<sup>lú</sup>sanga<sup>d</sup>utu u<sup>Id</sup>ag-tin-su-e dumu šá<sup>Id</sup>ag-mu-gin dumu<sup>lú</sup>šá-na-ši-šú*  
<sup>Id</sup>*ag-na-šir-šú a-ki pu-ut* ((erasure)) *pu-ut<sup>Id</sup>ag-na-šir-šú ina šu<sup>II</sup>*
- 25 <sup>1</sup>*ba<sup>šd</sup>d*amar.utu ((x)) *ù<sup>Id</sup>ag-tin-su-iq-bi* ((x x)) <sup>Id</sup>*utu-eri-ba*  
šēš gal<sup>ú</sup> [*šá*] <sup>Id</sup>*ag-na-šir-šú u<sup>[f]</sup>ú-bar-tu<sub>4</sub> ama-šú na-šu-ú*  
*u<sub>4</sub>-mu<sup>1</sup>i-na-é.sag.íla-li-bur<sup>lú</sup>sanga* ud.kib.nun<sup>ki</sup> [*i*]-*ru-bu*  
<sup>Id</sup>*ag-na-šir-šú il-lak-am-ma a-na ugu kù.babbar šu-a-ti di-i-ni i-dab-bu-ub*  
*ki-i la qer-bi kù.babbar ma-la i-na é-ziq-qur-ra-tu<sub>4</sub> hal-qa<sup>Id</sup>utu-eri-ba*
- 30 *ù<sup>f</sup>ú-bar-tu<sub>4</sub> a-na níg.ga<sup>d</sup>utu iṭ-ṭi-ru u u<sub>4</sub>-mu šá<sup>Id</sup>ag-pab-šú*  
*in-na-ma-ra mul-li-e šá ta-ab-la um-ta-la*

<sup>4</sup> Previously Collection A. Smit no. 111; note that Bongenaar 1997, 49 mistakenly refers to this tablet as Coll. Smit 110.

# NEW ADDITIONS TO THE RAḪIMESU ARCHIVE: PARTHIAN TEXTS FROM THE BRITISH MUSEUM AND THE WORLD MUSEUM LIVERPOOL

*Johannes Hackl\**

The latest economic documents from Babylonia written in cuneiform come from a group of tablets dubbed the Raḫimesu archive.<sup>1</sup> The name of the archive, in the loose Assyriological sense of the word, is deduced from its main protagonist Raḫimesu, or, more precisely, Raḫīm-Esu (Beloved-of-Isis). The textual record left by his activities is remarkably consistent and does not contain the variation in text types attested for other individuals who maintained close business relations with the Babylonian temples. In fact, all texts belonging to his archive are terse and stereotyped lists of income and expenditures which consist of an introductory statement giving the amount of the income collected in a certain sanctuary for a specific period of time. This introduction is followed by a varying number of specific expenditures (e.g., twenty-four entries in CT 49 150 = Spek, *Raḫimesu* 13 but only three in No. 3 below) and the remainder of the silver (i.e., the balance) that was deposited with Raḫimesu. Thus far, thirty-six lists of this kind can be attributed to the archive, all of which date from the years 154 and 155 of the Arsacid Era (AE), thus the years 218 and 219 of the Seleucid Era (SE), respectively (i.e., 94 and 93 BC). The transactions recorded in these lists were exclusively conducted in silver and thus mark the last phase of the general trend of an increasing monetisation of economic exchange that can be observed in the course of the first millennium BC.<sup>2</sup>

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\* My work on these texts was conducted under the auspices of an ongoing project entitled *Official Epistolography in Babylonia in the First Millennium BC* S 10803-G18 as part of a National Research Network “Imperium” and “Officium” – *Comparative Studies in Ancient Bureaucracy and Officialdom* funded by the Fonds zur Förderung der Wissenschaftlichen Forschung (Austria) and directed by M. Jursa at the University of Vienna. Unpublished texts from the British Museum and the World Museum Liverpool are cited with the kind permission of the Trustees of the British Museum and A. Cooke, the Head of Antiquities at the World Museum Liverpool, respectively. I am indebted to C.B.F. Walker for bringing BM 39310 and 40068 to my attention as well as for factual information, discussion and suggestions; to M. Jursa and M. Krebernik for the discussion of epigraphical and etymological issues; to E. Cripps for information regarding the acquisition of WML 51.63.126; to J. Fincke, J. Monerie and R. Pirngruber for photographs of BM 33984, 39310, 40068 and Rm 1000; to E.E. Payne who took upon herself the task of improving my English. Responsibility for errors is mine. Abbreviations are those of the *Archiv für Orientforschung* 48/49 (2001/02), 311-505 and Jursa 2005, 153-155; note furthermore: Spek, *Raḫimesu* + number: text published in Van der Spek 1998. Babylonian dates are cited in the format day-month-regnal/dynastic year. Unclear translations are represented in italics. Signs written over an incomplete erasure have ° added.

<sup>1</sup> In general, see Jursa 2005, 75-76 and most recently Hackl 2013, I 472-475 with the pertinent literature on which the following introductory remarks are based. A prosopography of the archive will be presented elsewhere.

<sup>2</sup> Jursa 2010, 469-753 and the convenient summary 772-783.

# THE VALUE OF SILVER: WAGES AS GUIDES TO THE STANDARD OF LIVING IN FIRST MILLENNIUM BC BABYLONIA

*Reinhard Pirngruber\**

## INTRODUCTION

Recent scholarship has largely abandoned the traditional view model of a mainly redistributive economy for Babylonia, especially during the first millennium BC. Most succinctly this was stated by Michael Jursa, according to whom a “growing urban population prompted agrarian change, stimulated the development of markets and money-based exchange, and allowed increasing economic specialisation and division of labour” (Jursa 2010, 799) during what he termed the ‘long sixth century BC’ (*ibid.* 5), i.e. the period between the rise of the Neo-Babylonian dynasty in 626 BC and the ‘end of archives’ in the aftermath of the abortive rebellions against Xerxes in his second regnal year in 484 BC (Waerzeggers 2003/04). It also seems that Babylonia was a reasonably well integrated economic space in that period, mainly due to comparatively low transportation costs owing to an extended network of canals facilitating transport (M. Weszeli in Jursa 2010, 138-140). In the context of this expansion of the market as an exchange mode, it is also relevant to note that the concept of temple employees receiving rations from the institution they were attached to has been modified to a considerable extent; rather than speaking of rations destined to fully satisfy consumption needs, this income is now qualified as ‘salaries in kind’ (Jursa 2008). These findings are based on a careful examination of thousands of legal and administrative documents stemming from the archives of both private entrepreneurs, such as the Egibi family from Babylon, and institutional archives, mainly the Ebabbar-temple of Sippar and the Eanna-temple in Uruk. These texts are supplemented by the rich data on commodity prices (or, to be more precise, price equivalents – a variable quantity of a commodity exchanged for a fixed amount [one shekel] of silver which can be converted into prices) – dating to the period between ca. 400 and 60 BC contained in the

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\* This paper originates in a joint presentation with Bas van Leeuwen, to whom I owe thanks for extensive and illuminating discussions on the topic and methodology, at the workshop ‘The global and long-term development of real wages: methods, problems and possibilities’ at the International Institute of Social History in Amsterdam in November 2012. In that talk, the Babylonian data were compared to prices and wages from Ancient Rome and Han-period China. This paper was written within the framework of the research network “*Imperium*” and “*Officium*” – Comparative Studies in Ancient Bureaucracy and Officialdom, funded by the FWF – Fonds zur Förderung der wissenschaftlichen Forschung (Vienna).

# SILVERIZATION OF CHINA DURING THE MING-QING TRANSITION (CA. 1550-1700) AND THE CONSEQUENCES FOR RESEARCH INTO THE BABYLONIAN ECONOMY

*Bas van Leeuwen and Yi Xu*

## ABSTRACT

In a recent publication, Prof. Van der Spek (2011) made an intriguing comparison between the flows of silver in the Chinese economy at the end of the Ming dynasty and in Babylonia ca. 400-60 BC. He concluded that in China the expansion of the silver economy worked positively for economic growth, even though it may have had some negative social and local side effects. He then applied these findings to the Babylonian economy and found that here broadly similar developments led to uncertain, possibly even negative, developments for the economy. He therefore ended with the conundrum as to why the effects of silver in both economies were so different.

The abovementioned contribution draws heavily on the work of Flynn and Giráldez (1995, 1997) who have positioned themselves as advocates of a positive and increasing role of silver in the Chinese economy in the seventeenth century. Yet, as of today, discussions are still continuing not only about the level of silverization in the Chinese society but also on its effect on the economy. Therefore, in this paper we systematically look at evidence of silverization in China and find evidence that, contrary to the Babylonian economy, the late Ming economy was only partially silverized, with a series of negative consequences for ordinary people who still largely made use of copper coinage. Neither can we find evidence that the large amount of silver flowing into China was indicative of a well-functioning economy. Flows of silver diminished in the second half of the seventeenth century, but still the existing streams were higher than could be absorbed by the economy, even an economy that was rapidly replacing other types of currencies with silver. In Babylonia, on the other hand, the economy had already been silverized at a much earlier stage. Since silver was thus a common means of exchange, the different ratio between copper and silver did not affect the purchasing power of ordinary people. Neither do we find in Babylon evidence of significant changes in the amount of silver in circulation over time. Combined with an on average constant price level, this suggests a stable economy that did not require further inflows of silver to add to the stock of money in circulation.

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\* Over the past years we have worked with Bert van der Spek on a project on the economic history of the Babylonian Empire. This not only resulted in a large academic output, but more importantly in a very good relationship. We also learned a lot from Bert and he certainly awakened in us the interest in research in ancient economies. The only regret is that we only met Bert so short before his retirement. However, he goes in “active retirement” so we hope to see and hear a lot from him in the years to come. We like to thank Reinhard Pirngruber for reading this paper and offering constructive suggestions and improvements. This paper was supported by the Fundamental Research Funds for the Central Universities in China (Jinan University).

# YOUR TALLY IS FULL! ON WOODEN CREDIT RECORDS IN AND AFTER THE ACHAEMENID EMPIRE

Wouter F.M. Henkelman\* and Margaretha L. Folmer\*\*

*Daß unsre Vorfahren kluge Köpfe gewesen, beweiset allein der Kerbstock.  
Keine Erfindung ist simpler und größer wie diese.*  
[Justus Möser 1776: 271]

**0. Introduction** [WH]; **1. Split tally sticks: a selective survey**; 1.1. Split or unsplit: tally stick formats; 1.2. Come, Mr Tally Mon, tally me banana; 1.3. The English Exchequer [WH]; **2. Achaemenid Bactrian tallies: format and tally marks**; 2.1. Intactness and date; 2.2. Uniformity of format; 2.3. Tally marks: sign types and reading direction; 2.4. Tally marks (bis): notation system; 2.5. Tally marks and tally length; 2.6. Sequences of tally marks; 2.7. Physical quality; 2.8. The Achaemenid Bactrian tallies: an interim summary [WH]; **3. Achaemenid Bactrian tallies: Aramaic inscriptions**; 3.1. General terminology; 3.2. “Second tally”; 3.3. Indications for silver in D2? [MF-WH]; **4. From Bactria to Persepolis, and back** [WH]; **5. The trail of the tally**; 5.1. Yemen’s Wādī al-Ġawf; 5.2. The Spartan *skytalē*; 5.3. Sogdian stationery; 5.4. Bactria (bis); 5.5. Dunhuang and Khotan; 5.6. On Mt. Muğ; 5.7. Marco Polo & the Gold Teeth; 5.8. From the marshes of Kievan Rus’ to the flames of Westminster [WH]; **Appendix: Tobit’s token** [MF-WH]

## 0. INTRODUCTION

Around the year 2000, a heterogeneous lot of 51 (perhaps more) documents purportedly originating from Afghanistan and on offer by antiquity dealers in London was obtained by Nasser Khalili for his private collection. It included one document written in (pseudo)Syriac script, one in (unintelligible) Greek script, and one probably in Bactrian script. The remaining 48 documents were in Aramaic writing, in a script that their editors palaeographically dated to the fourth century BCE, except for one document (B10), which they assigned to the first half of the fifth century (Naveh/Shaked 2012, 15f.). A second, more suspect, lot was offered a few years after the first. It contained only nine documents, seven of which are in Aramaic and may belong to the fourth century; the eighth document is also in Aramaic but dates to the fifth century; the ninth is in a different script and may represent a fake.<sup>1</sup>

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\* École Pratique des Hautes Études and UMR 7528 Monde Iranien et Indien, Paris.

\*\* VU University, Amsterdam and Leiden University, Leiden Institute for Area Studies.

Though the following paper is the result of our joint discussions and efforts and expresses a shared perspective, we have chosen to indicate (in the synopsis below) the authorship of individual sections. We have not done so, however, in the case of a few smaller sections and footnotes. In general, Folmer has commented on Hebrew and Aramaic matters, Henkelman on connections with the Elamite Persepolis archives and on the wider historical context. We like to express our thanks to Lindsay Allen, Kristin Kleber, Amélie Kuhrt, and Jan Tavernier for their helpful suggestions on an earlier draft of this paper – the responsibility for any remaining errors or omissions rests entirely with us.



Fig. 8: Complex 'split' tally stick: *Alpscheit* with slots for *Einlagetessel*, Tellialp, Blatten (Switzerland), 1695 CE; after Gmür 1917, pl. 27.

Fig. 9: Split tally sticks (*tailles*), Vaud/Waadt (Switzerland), early 20<sup>th</sup> cent. CE; after Gmür 1917, pl. 23.4.

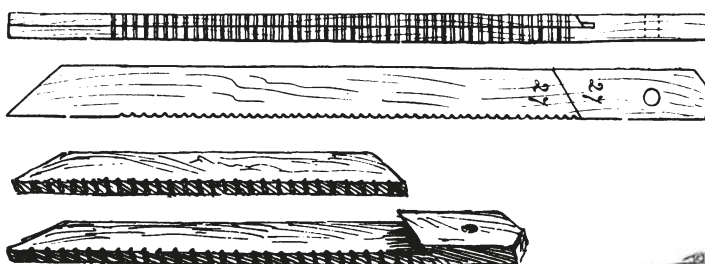
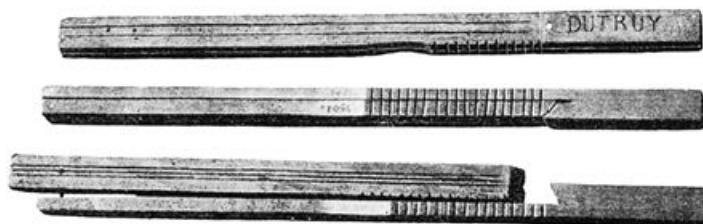


Fig. 10: Two split tally sticks (hop tallies), Kent (England), late 19<sup>th</sup> cent. CE; after Lovett 1897a, 38 figs. 1-1a.

Fig. 12: An *Alpvogt's* bundle of *Krapfentesseln*, Tellialp, Wiler (Switzerland), 19<sup>th</sup>-20<sup>th</sup> cent. CE; after Gmür 1917, pl. 31.3.

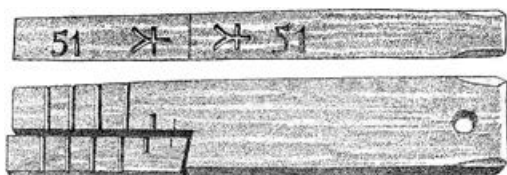


Fig. 11: A split tally board (*Krapfentessel* with smaller *Einlagetessel*) indicating  $4\frac{3}{4}$  *Kuhrechte*, the tally's number and the *Hauszeichen*; Gletscheralp, Lötschental (Switzerland), 19<sup>th</sup> cent. CE; after Stebler 1907, 205 fig. 46.

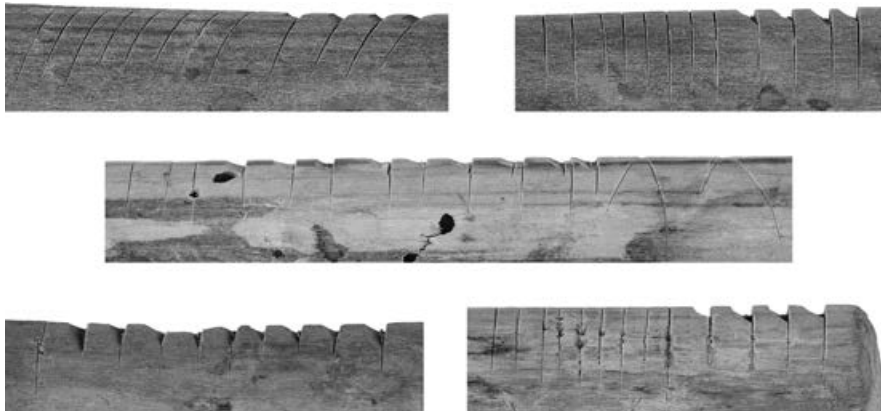


Fig. 13: Tally marks on the upper edge of split tally sticks in The Khalili Collection; above: IAT 1 (*ADAB* D1); middle: IAT 15 (D11); below: IAT 11 (D4) and IAT 9 (D3); © The Khalili Family Trust.

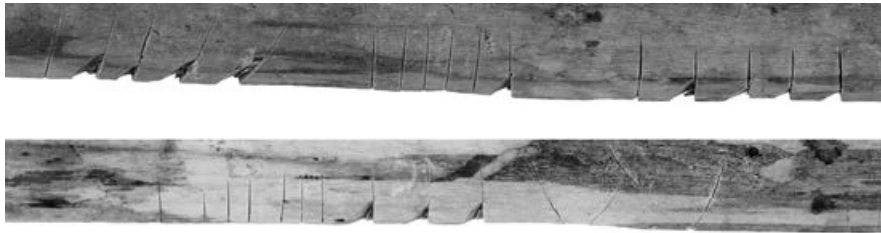


Fig. 14: Tally marks on the lower edge of split tally sticks in The Khalili Collection; above: IAT 11 (*ADAB* D4); below IAT 15 (D11); © The Khalili Family Trust.

We assume, by the near-universal ordering principle of numerical notation systems (Chrisomalis 2010, 364), that highest power of the base is stated first on the Achaemenid Bactrian tallies. We furthermore hypothesize that signs of the type B or D, which are clearly intended to be more pronounced, representing higher positions than A and C, respectively. Since, in sequences, B and D always occur right of A and C, respectively, we believe that the reading direction of the signs is retrograde *on the preserved halves*. On the missing other halves, the reading direction would have been prograde.

An inverse parallel from the *modus operandi* of the English Exchequer may be instructive at this point: the tally-cutter would cut the tally marks from left to right, after which the tally would first be inscribed in Latin and then split (Jenkinson 1925, 308). This system favoured the holder of the stock, since only here tally marks and inscription would run in the same direction (prograde). On the foil, the reverse of the stick so to speak, the inscription would, naturally, still be prograde, but the tally marks retrograde (cf. *ibid.* 294).

In Achaemenid Bactria, the administration consistently preferred that half of the split tally on which the reading direction of the tally marks was the same as that of the Aramaic inscription. If the missing halves were also inscribed, the inscriptions there would have run counter to the reading direction of the tally marks.

## 5. THE TRAIL OF THE TALLY

For a long time, evidence on split tallies did not lead back further than the European high Middle Ages, the time of the oldest textual attestations. The occasional reference to, *e.g.*, the split tally use in China, as reported by Marco Polo, did not provoke a fundamental debate on its origins. A more systematic documentary analysis subsequently revealed the split tallies' early spread over the European subcontinent so that, already in 1963, Jean-Jacques Hémardinquer concluded his *tour d'horizon européen* by asking whether the split tally might, like so many other devices and inventions, be an Oriental import.<sup>151</sup> The archaeological finds from Kievan Rus', Bryggen etc., which penetrated historical and ethnographical studies only slowly, not only pushed the earliest attestations back a few centuries, but also decisively connected this early use with the 'northern' trade networks linking to Central Asia and beyond. At the end of the horizon that opens from this point, the Achaemenid Bactrian tallies come into view.

For historians and philologists who, like the present authors, are accustomed to other, 'higher' forms of administrative documentation, the alternative perspective of the split tally stick offers a refreshing insight into parts of ancient economic life that are generally less visible. Its invention surely meant an important achievement as it allowed for credit transactions, even complicated ones, among illiterate people or contractants who were not fluent in each other's language. Also, the split tally would have been an effective means for any authority to control people not directly implicated in its institutional structures, be it in taxation schemes, in herding contracts, or otherwise.

From this perspective, the question whether the split tally stick's *prōtos heuretēs* was a brilliant Achaemenid bureaucrat or a handy merchant at a much earlier point is actually of lesser relevance than that of its manifold uses throughout time. Still, the question of the origins of the use of the split tally retains some importance – for if it were a legacy from Achaemenid administration and/or spread by the Achaemenid Empire it would very much underline the *idea* and historical significance of that entity, at least as we see it. It is from this notion that we will now embark on a final, yet fragmentary journey through time, starting with an early split tally appearance in Yemen, continuing to Achaemenid- and Sasanian-era Bactria, early mediaeval Khotan and Sogdiana, *via* the merchants' towns of Kievan Rus', and ending in northern Europe in the eleventh and England in the twelfth century. Though we are obviously not qualified to address all aspects of the wide-ranging and largely hypothetical development here presented, we would like to see the evidence gathered as building blocks for an interdisciplinary and diachronical debate on accounting techniques and their societal relevance. We hasten to add that, in doing so, we follow in the footsteps of Joseph Naveh and Shaul Shaked, who were the first to list Central Asian and other comparanda for the split tallies they published and to underline their historical importance.<sup>152</sup>

<sup>151</sup> Hémardinquer 1963, 148. The author misunderstands Gmür 1917, 104 when stating that the latter derived the split tally stick from the mediaeval use of chirographs. Gmür proposed the opposite: using a dentate cut to separate two pieces of parchment or paper as a technique derived from split tally sticks.

<sup>152</sup> See the discussion in Naveh/Shaked 2003, 115, where Bactrian, Khotanese, Sogdian and South Arabic documents are mentioned. Not all of these are actually split tallies (cf. below). See also *ADAB*, 32f.

# ELUSIVE SILVER IN THE ACHAEMENID HEARTLAND: THOUGHTS ON THE PRESENCE AND USE OF SILVER ACCORDING TO THE PERSEPOLIS FORTIFICATION AND TREASURY ARCHIVES

*Mark Tamerus\**

## I. INTRODUCTION

In 2011 Bert van der Spek published an article in which he discussed the ‘silverization’ of the economy of the Achaemenid and Seleucid empires compared to that of early modern China.<sup>1</sup> The part of it that is concerned with the Achaemenid period focuses primarily on Babylonia, on the role played by silver in taxation and in economic development, and in particular refers to the ‘increasing monetization of the Achaemenid economy’, the ‘increase of the role of silver in the Achaemenid economy’ and indeed its ‘silverization’.<sup>2</sup> Yet, little is known about the role of silver in the economy of the empire’s heartland. It may be pointed out at the outset that the extent to which silver is attested in sources from the Achaemenid heartland is incomparably smaller than its presence in the Babylonian record, where it is ubiquitous. This does not, however, mean that the administrative archives from the regional administrative center at Persepolis are altogether silent on silver. Apart from the question to what extent silver was present quantitatively, the difference is certainly also due to the nature of the archives.

This volume therefore provides an excellent opportunity to study the pertinent materials from the Persepolis Fortification and Treasury archives, and to see what can be said about the

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\* This article was written under the auspices of the NWO/Vidi project ‘A Fiscal History of the Achaemenid Empire’, led by Kristin Kleber at the Vrije Universiteit Amsterdam. I wish to thank Wouter Henkelman, Kristin Kleber and M.W. Stolper for commenting on earlier versions of this paper and for offering valuable suggestions. It goes without saying that I bear responsibility for all views expressed here. I further wish to thank Wouter Henkelman for allowing me to use unpublished texts which are being prepared for publication by him and for collating these texts, and M.W. Stolper and the Persepolis Fortification Archive Project at the Oriental Institute of the University of Chicago for making unpublished texts from the Persepolis Fortification archive available. Editions and images of part of the unpublished texts are available online via <http://oi.uchicago.edu/research/projects/persepolis-fortification-archive>. Bibliographical abbreviations: CAD = *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*; S (number) = Scheil 1911 (= MDP 9). Transliterations of Achaemenid Elamite texts quoted from publications are all made to conform to the transliteration style of the Persepolis Fortification Archive Project of the Oriental Institute of the University of Chicago. See Henkelman 2008, xix-xx.

<sup>1</sup> Van der Spek 2011.

<sup>2</sup> Van der Spek 2011, 404, 406, 413.

# SILVER IN SEARCH OF HIS FATHER: A COMPARATIVE FOLKLORISTIC APPROACH TO AN EPISODE OF THE SONG OF SILVER

*Willemijn J.I. Waal*

## INTRODUCTION

Excavations in the Hittite capital Hattuša, often written sumerographically as URUKÛ.BABBAR, the ‘Silver City’, have yielded disappointingly few economic records and information about the economic role and value of silver in the Hittite Empire is limited. In this paper, I would therefore like to address a more ethereal aspect of this precious metal, focusing on the enigmatic character of the boy Silver, the main protagonist of the ‘Song of Silver’. Considering Bert’s broad interests and expertise, I hope he can also appreciate a mythological story about personified silver.

## THE KUMARBI OR KINGSHIP OF HEAVEN CYCLE

The Song of Silver is commonly thought to belong to the so-called ‘Kumarbi’ or ‘Kingship of Heaven’ cycle. Central theme of this cycle is considered to be the battle between Teššub and Kumarbi for kingship of heaven. It is generally assumed that the Song of Kumarbi (or the ‘Song of Emergence’<sup>1</sup>) is the first song of the cycle, followed by the Song of LAMMA, the Song of Silver, the Song of Hedammu and the Song of Ullikummi.<sup>2</sup> Over the years, proposals to include other compositions, such as Ea and the Beast, Wašitta, Eltera and the Song of the Sea have been made.<sup>3</sup>

The idea that all these stories belong to one coherent cycle in which the stories are directly related to each other and can be placed in a consecutive order is, however, far from self-evident and has been questioned.<sup>4</sup> In recent publications, this matter has been (re)-addressed. Alfonso Archi has shown that the cycle consists of stories composed at different times and by

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<sup>1</sup> Thus Corti 2007. Van Dongen 2012 prefers the translation ‘The Song of Going Forth’.

<sup>2</sup> See Houwink ten Cate 1992, 109-20 and also Siegelova 1971, 82-84, Hoffner 1998, 40-42, Rutherford 2001, 604-605, Schwemer 2001, 45 <sup>+3751</sup>, Van Dongen 2012, 30-31 and Archi 2009, 211.

<sup>3</sup> For a recent evaluation of the compositions belonging to the cycle, see Van Dongen 2012, 29 with references.

<sup>4</sup> See already West 1997, 104 who suggests that each story may have been an independent and self-sufficient entity.

# MYCENAE, RICH IN SILVER

*Jorrit M. Kelder\**

Whilst gold is the metal that is most commonly associated with Mycenae – mostly because of Homer's reference to that city, but also because of the fabulous death masks that were uncovered by Schliemann in the shaft graves of Grave circle A – relatively little is known about the role and appreciation of silver in the Mycenaean world. Silver artefacts have been found only sporadically at Mycenaean sites, suggesting that the metal was rare, yet there is good evidence that the Mycenaeans were already mining silver in the Laurion, south of Athens. This article will try to explain this apparent dichotomy, by exploring the role and importance of silver in the Mycenaean world.

## INTRODUCTION

The Mycenaean world, and Mycenae in particular, is known primarily for the fabulous wealth of its elite. Homer called Mycenae 'Rich in Gold', and Schliemann's discovery of the Shaft Graves, which contained fabulous golden death masks and other precious objects, seemed to confirm the Poet's description of Agamemnon's citadel.<sup>1</sup> Apart from numerous gold objects, the Shaft Graves also contained a large amount of silver artefacts. Interestingly, the silver objects 'zeigen ausnahmslos gute Qualität und saubere Arbeit',<sup>2</sup> whereas the quality of the gold objects is more varied (Karo reports several poorly made cups with defects).

Whilst over 30 silver objects were recovered from the Shaft Graves, silver is only sporadically found in later strata at Mycenae. Indeed, the precious metal is rare in the Mycenaean world as a whole, whereas gold has been found at numerous sites, and in far greater quantities. Indeed, silver (*a-ku-ro*, as part of the decoration of a set of wheels) is mentioned only once (!) in the extant Linear B texts (on Sa 287 from Pylos), although the ideogram WE (which might

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\* I thank the editors, K. Kleber and R. Pirngruber, for their invitation to contribute to this Festschrift to my PhD supervisor, Bert van der Spek. Much of the research for this paper has been done in Oxford and Amsterdam, and I thank my colleagues at those places for their help and inspiring discussions. In particular, I should like to thank Joanna Palermo and Lisa Bendall for their feedback and references.

<sup>1</sup> The Shaft Graves, of course, turned out to be much older than Agamemnon's age (dating as they do to the beginnings of the Mycenaean period, to ca. 1650-1550 BC, whereas the stories of the Iliad in essence seem to hark back to the late Mycenaean period, shortly before 1200 BC), but their wealth remains a staggering testimony to the apparent power and prestige of the early Lords of Mycenae. The gold in the Shaft Graves is generally thought to have come from Egypt and the golden death masks similarly seem to hint at early contact between Mycenae and Egypt. However, many of the Egyptian objects in the Shaft Graves probably reached Mycenae via Minoan Crete (see already Karo 1930, 318; for a recent assessment Cline 2007, 193.)

<sup>2</sup> Karo 1930, 225.

# THE SILVER KRATER OF KING PHAEDIMUS: A SMALL PIECE OF TYRIAN HISTORY IN THE *ODYSSEY*

*Caroline van der Brugge\**

## PHOENICIANS AND SILVER, A GOLDEN COMBINATION

The Phoenicians are well-known for their western Mediterranean trade and colonial network that they exploited during the first half of the first millennium BC. At its height this network reached almost all Mediterranean shores, and even Atlantic Iberia and Morocco. From the beginning of the ninth century BC onward, Phoenician ships sailed the whole length of the Mediterranean Sea, heading for southern Spain where, in the region of the rivers Tinto and Guadalquivir, silver, gold, zinc and copper was mined.<sup>1</sup> At first the trading seafarers must have faced many problems: the voyages were long and hazardous and passing the pillars of Hercules from east to west was difficult because of predominantly western winds and strong currents, but undoubtedly, progress was being made in shipbuilding and nautical techniques.<sup>2</sup>

At a certain moment in the second half of the ninth century BC merchants from the Phoenician city of Tyre<sup>3</sup> must have been convinced that the enormous amount of silver and other products that this region yielded and the nature of their relations with the indigenous people allowed them to turn their trading business into a more intensive and enduring venture.<sup>4</sup> They started a new phase in long distance trade by establishing trading posts and colonies along the southern Spanish coast, for instance Gadir (modern day Cadiz), built to play a role

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\* I would like to express my gratitude to Rutger Allan, Jan Paul Crielaard, Holger Gzella, Kristin Kleber, Klaas Spronk and Harry Sysling for their support and advice on the many aspects of this article. Bert, with this analysis, easily recognizable for someone who is familiar with Hanse and VOC, I want to thank you for your inspiring classes.

<sup>1</sup> Torres Ortiz 2008, 143; the date has been based on radiocarbon dating. The contacts only concerned trading activities; there was no Phoenician settlement in Spain at that time. For problems regarding the dating of Phoenician presence in Iberia see Pappa 2012. For places of mining see Aubet 2001, 272. For mining and metal working by Phoenicians in Spain see Pappa 2013, 103-108.

<sup>2</sup> This is also suggested by Pappa 2013, 18. Bateman 2012, 25 states that in the fourteenth and fifteenth centuries AD improvements in shipbuilding, navigation and cartography were stimulated partially by Spanish and Portuguese journeys to east-Asia and America. In the same way, Phoenician improvements must have been realised, including the construction of larger and stronger ships, especially cargo vessels called 'ships of Tarshish', known from *I Kings* 10:22, *II Chron.* 9:21, *Isa.* 2:16, 23:1, 23:14 and 60:9 and from *Ez.* 27:25.

<sup>3</sup> Many Phoenician colonies have been founded by Tyre. Although there is a silence on other Phoenician mother cities, one cannot exclude that cities like Arwad or Byblos had also founded colonies or at least established footholds overseas.

<sup>4</sup> Later Greek authors have confirmed that the venture indeed had been successful. For instance Diodorus Siculus (*Bibliotheca Historica* 5:35) and Strabo (*Geography* 3.2.8-15) have written about the large amounts of silver that Phoenicians had acquired in Spain.

# **‘A BAD PENNY ALWAYS TURNS UP’: SILVER COINS AND CITIZENSHIP IDEOLOGY IN CLASSICAL ATHENS**

*Diana E. Kretschmann\**

## INTRODUCTION

At the end of the Peloponnesian War, Athens was heading for bankruptcy. To cover its expenses, the city issued two types of emergency coins. In 407/6 BC, it melted down seven golden Nikai in order to strike golden coins to finance preparations for the battle of Arginousai. During the archonship of Kallias (406/5 BC), Athens also started to mint silver-plated bronze coins. These fiduciary coins were issued by the state to meet domestic fiscal needs, and were direct imitations of the famous Athenian ‘Owls’. A discussion between two citizens in Aristophanes’ *Assemblywomen* shows that shortly before the performance of this play (produced ca. 393 BC), Athens withdrew the emergency coins and returned to the Attic Silver Standard.

Though the Athenian experiment with monetary debasement was short-lived, their use left an interesting imprint on Athenian literature revealing its impact on contemporary public discourse. Illustrative in this context is Aristophanes’ *Frogs*, first performed in 405 BC. In the *parabasis*, the comedian makes an analogy between the debasement of Athenian coins and the debasement of Athenian citizenship. His comparison ostensibly echoes contemporary citizenship debates on the enrolment of newcomers into the citizen body during the final years of the Peloponnesian War. In this paper I will explore the ancient analogy between citizens and coins and question what this imagery can contribute to our understanding of Athenian citizenship.

Since the 1990s, scholars have studied the ancient Greek economy with new models. The debate between Modernists and Primitivists that dominated research in the 1970s and 1980s made way for New Fiscal History which studies ancient economies as complex economic systems within specific socio-political frameworks. Another important line of research is the symbolist approach that focuses on the symbolical and cultural value of money. Most Symbolists regard money as something ‘democratising’, causing social tension. Money was a

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\* I dedicate this contribution to the Emeritus Professor who is duly honoured with this *Festschrift*. Bert, thank you for 22 years of friendship during which we discussed the great topics of life, watched football and shared a passion for the ancient world.

Abbreviations follow *L'Année philologique*.

*SILVER, MONEY AND CREDIT* gathers a collection of contributions by leading specialists on the role of silver in Ancient Mesopotamia. The volume is a tribute to Robartus J. van der Spek, professor emeritus at the VU University Amsterdam.

The thematic core area is the documentation concerning silver in cuneiform sources from first millennium BC Babylonia, and how this vast body of primary sources can be employed in order to shed light on aspects of the economy. It thus coincides with the honouree's main area of research. The volume is rounded off by comparative material mainly from other periods in Mesopotamian history, rendering justice to his broad range of interest. The scope of the volume thus extends from the first written records on the use of silver in Uruk to the Neo-Babylonian Empire's apogee in the sixth century BC and further to insights to be gained from comparisons with early modern economies.



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