

STAGES OF ACCOUNTING HISTORY IN THE MIDDLE EAST

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ABSTRACT

This study explores the historical progression of accounting practices in the Middle East, delineated into distinct stages. It commences with the early agricultural inventory records in ancient Egypt, spanning from 3050 BC to 30 BC. The next phase considers the earliest surviving accounting records, such as the cuneiform inscriptions on clay tablets, which document the trade interactions between the Assyrians of Mesopotamia and the Hittites of Anatolia around 2000 BC to 1700 BC. The subsequent stage examines the period encompassing the Abbasids (750 AD – 1258 AD), the Ilkhanate (1256 AD – 1353 AD), and the Ottoman Empire (1299 AD – 1922 AD). A notable shift occurred in the 1850s with the introduction of Western European accounting influences and the adoption of the double-entry bookkeeping system. The research indicates that the Mediterranean and Silk Road trade networks, coupled with Western interactions, played a pivotal role in shaping the accounting culture of the Middle East. However, the influence of Islam post-750 AD, combined with a statist perspective, tempered these external influences for several centuries.

Keywords: Accounting history, Middle East, accounting culture, merdiban method.

Jel Classification: M41, M49.

ORTA DOĐU MUHASEBE TARİHİNİN AŐAMALARI

ÖZ

Bu çalışma, OrtadoĐu'da muhasebe uygulamalarının tarihsel gelişimini belirgin aşamalara ayırarak incelemektedir. Çalışma, eski Mısır'da MÖ 3050'den MÖ 30'a kadar uzanan erken tarımsal envanter kayıtlarıyla başlamaktadır. İkinci aşamada, Mezopotamya'daki Asurlular ile Anadolu'daki Hititler arasındaki ticari etkileşimleri belgeleyen, kil tabletlere işlenmiş çivi yazılı ilk muhasebe kayıtları, MÖ 2000 ile MÖ 1700 arasında ele alınmaktadır. Sonraki aşama, Abbasi HalifeliĐi (MS 750 – MS 1258), İlhanlı Devleti (MS 1256 – MS 1353) ve Osmanlı İmparatorluğu (MS 1299 – MS 1922) dönemini kapsamaktadır. 1850'lerde, Batı Avrupa'nın muhasebe düşüncesinin Osmanlı üzerinde etkileri

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ve çift taraflı defter tutma sisteminin benimsenmesiyle dikkate değer bir değişim yaşanmıştır. Araştırma, Akdeniz ve İpek Yolu ticaret ağlarının, Batı etkileşimleriyle birleşerek Ortadoğu muhasebe kültürünün şekillenmesinde belirleyici bir rol oynadığını göstermektedir. Ancak, MS 750 sonrası İslam'ın etkisi ve devletçi bir bakış açısı, bu dış etkileri birkaç yüzyıl boyunca dengelemiştir.

Anahtar Kelimeler: Muhasebe tarihi, Ortadoğu, muhasebe kültürü, merdiven yöntemi.

Jel Sınıflandırması: M41, M49.

1. INTRODUCTION

In tracing the origins of the term "Middle East," we find ourselves in the early 20th century, amidst British geopolitical maneuverings. The concept was articulated by Alfred Thayer Mahan, a renowned American naval strategist, in 1902, as noted by historian R. Davison (1960: 667). Initially, the term did not encompass the vast expanse of North Africa, nor did it stretch as far as Afghanistan. However, the aftermath of World War II saw a shift in its scope, largely influenced by American foreign policy, expanding the geographical boundaries of the Middle East. Yet, this expanded definition has been a subject of debate, criticized for further complicating the understanding of an already diverse region. Today, the Middle East is generally recognized to encompass Anatolia in the north, Iran in the east, the Arabian Peninsula in the south, and Egypt and Cyprus in the west – a region that is not only geographically strategic but also rich in religious and cultural history as the cradle of Judaism, Christianity, and Islam.

In the realm of accounting history, the traditions and systems of the Abbasids (750-1258), the Ilkhanate (1256-1353), and the Ottoman Empire (1299-1922) largely mirror these geographical confines, albeit with some variations. The reach of this accounting system during these periods extended to include today's Armenia, Azerbaijan, and Georgia, reaching as far as the Caucasus. The Ottoman era, in particular, saw this system expand into the Balkans, illustrating the dynamic nature of Middle Eastern accounting practices beyond its conventional geographic bounds.

A notable observation in our study is the apparent lack of interaction among distinct accounting cultures within the region. The record-keeping practices of ancient Egypt, for instance, show no signs of intertwining with those of Mesopotamia and Anatolia. Similarly, no tangible links are found between the accounting records of the Persians and those of the Assyrians and Hittites. Furthermore, the emergence of Islamic culture, which followed six centuries after the Persians, did not seem to influence or draw from the existing accounting traditions. In a contemporary context, the past century and a half have witnessed the Middle Eastern accounting practices gradually integrating with Western European systems (Güvemli, and Güvemli, 2013), marking a significant shift from their Islamic predecessors. This transition highlights the evolution of accounting practices in the region, moving through various languages and methodologies, thereby painting a picture of the Middle Eastern accounting recording culture as an ensemble of distinct yet overlapping narratives.

As we venture into the subsequent sections of this paper, our focus will shift to a more detailed exploration of these diverse accounting practices. We will scrutinize the myriad

influences that have shaped and transformed accounting in the Middle East, placing it within the larger framework of global accounting history.

2. BRIEF INFORMATION ABOUT THE FOUR STAGES OF ACCOUNTING IN THE MIDDLE EAST

The accounting history of the Middle East, defined in a geographic area with the above brief description, can be categorized into stages according to ages as follows:

- I. Ancient Egypt - records on papyri – (3050 BC - 30 BC)*
- II. Settlement records on clay tablets related to the trade relations between the Assyrians within the frame of the Sumerian culture of Mesopotamia and the Hittites of Anatolia – (2000 BC - 1700 BC)*
- III. After Islam: State accounting system developed by the Abbasids, the Ilkhanate and the Ottomans – (750 AD - 1850 AD)*
- IV. Application of double-entry bookkeeping method in the Middle East – after 1850 AD.*

The characteristics of these four stages are as follows:

These are the dates valid for accounting history, in other words, the dates of the accounting information and findings that have reached our time. It is also appropriate to mention that important civilizations were established in the region during the time gaps between these periods. However, as they constituted no extant information or documents to contribute to the establishment of accounting history, they were not included in the order above.

The second period in the above list is the period providing documents and findings belonging to the bookkeeping culture between 2000 BC and 1700 BC developed within the frame of the Sumerian civilization. Actually, the civilizations between 2500 BC and the Gregorian years (300 BC) in the region definitely had bookkeeping systems the findings of which have not reached our time.

It is possible to specify the civilizations that dominated the region during this long period as follows:

The Sumerians: A tribe that lived in the Euphrates river valley in the southern Mesopotamia between 4000 BC and 2000 BC, to create the oldest and most major civilization in the history of humanity. The traces of their civilization based on the cuneiform have reached to today. The cuneiform existed in the region until the Gregorian years (300 BC). It is known that the Egyptians, who used hieroglyphic writing, also used cuneiform between 2500 BC and 1200 BC, but they used hieroglyphic writing in their own bookkeeping system. The important thing was that the Acadians and the Assyrians adapted the cuneiform. In addition, Assyrian merchants taught this writing culture to the Hittites who lived in the mentioned timeframe in Anatolia. In other words, cuneiform and its numerals shaped the bookkeeping culture during

this period in the Middle East. Though the Acadians extinguished the Sumerians from history in the 2000s BC, their culture persisted.

The Acadians: A tribe from the Sami people arrived Mesopotamia around 4000 BC. They settled in the north of Sumeria. They interacted with the Sumerians. They were the first state to dominate the entire region of Mesopotamia since the 2500s BC. They adopted and adapted cuneiform into their own language. They retreated from the scene of history after the 2000s BC

The Assyrians: A tribe that adopted the Sumerian cuneiform and was in commercial relations with Anatolia. The clay tablets of their trade settlements have survived until today, so the Assyrians are the ones who marked the accounting history of the date with the Hittites. They were a Sami community who founded a civilization on the banks of the Tigris River in the north of Mesopotamia between 2000 BC and 600 BC. They established colonies in Anatolia and brought writing there. They prospered, taking advantage of the trade between the East and the West in the first age and developed (<https://tr.wikipedia.org/wiki/Asurlular>). Their commercial relations will also be discussed in terms of bookkeeping system in the following sections.

The Hittites: An Indo-European tribe that moved to Anatolia from the Caucasus. They established a great civilization in Anatolia between 2500 BC - 1200 BC. They are the ones who developed trade with the Assyrians. The clay tablets recording their settlements in cuneiform with the Assyrian merchants have survived until today.

They were the representatives of the accounting culture of the period along with the Assyrians. The Hittite civilization will also be discussed in terms of accounting history in the following sections.

The Persians: Another tribe who established a civilization in the Middle East between 2500 BC and 300 BC and whose bookkeeping culture could not reach our present time. They reigned in today's Iran between 569 BC and 334 BC. They dominated Mesopotamia on the one side and Anatolia on the other. They brought their culture to Anatolia during their reign there and conducted trade relations via today's Cappadocia. They bought grain, woven products, animals and animal products from Anatolia (<https://tr.wikipedia.org/wiki/Persler> - accessed 12.10.2022). The records of the settlements belonging to these relationships have not survived until today. Therefore, it is not possible to reveal the bookkeeping culture related to the trade relations of the Persians who emerged after the Assyrians retreated from the scene of history and were seen as the dominant power in the region until the Gregorian years. It is observed that the first state organization and finance organization were established in the wide-reaching territory of the Persian Empire in the Middle East. It is known that accounting was attributed great importance, especially during the period of Emperor Darius (491 BC). Darius defined the employees working on accounts by this following statement "They are my eyes and ears". This statement is the first finding indicating that executives were closely interested in the state departments for spending and tax collecting in the Middle East (*Güvemli, 2000: 110-111*). Failure to gain the bookkeeping documents pertaining to the said period is a major shortcoming for Middle East accounting history.

The end date of the accounting findings that ranked second in the above list is 1700 BC and the beginning of the following findings is 750 AD. The civilizations that dominated the region in the gap period between these dates, but without any extant accounting findings, have been mentioned above. Also it would be wrong not to mention the Lydians who lived in the Gediz valley in western Anatolia in the 500s BC, as they were the inventors of coin. This Anatolian culture that put an end to the weighed money era and started the era of coin in the history of money is important. As is well known, coin facilitated the exchange, paved the way for trade and created the need for a bookkeeping system. But the Lydian bookkeeping system for settlements does not exist today (*Yükçü and Gönen, 2014*).

The above explanations reveal that different cultures existed during the four stages in question. There was no interaction between them. The Middle East accounting history covers a five-thousand-year period. There is a period of five centuries between the Mesopotamian and the ancient Egyptian cultures. Both cultures were composed of people from different races. Their language, writing, social life, thus their cultures were different. Islam, which took the Middle East under its sovereignty by increasingly growing after 622 AD and developed with the Arab culture, was also different from the previous cultures.

The materials used in the accounting records were different, so were the writing and numbers.

In the era of the Pharaohs in ancient Egypt, the fibres taken from the body of the papyrus plant (water plant called papyrus), which was used as paper, were specially prepared for writing, and they were used for recording in hieroglyphic writing and numerals with the dyes derived from nature. The word 'paper' comes from papyrus. Hieroglyphic writing continued until the spread of Christianity in the 2nd and 3rd centuries.

As demonstrated by the above explanations, clay tablets were used for the records of trade relations of the Assyrians with the Hittites. The writing used was the cuneiform developed by the Sumerians, adopted and brought to Anatolia by the Assyrians. That means it was different from the recording materials of the Egyptian culture.

It is observed that paper and ink and Arabic letters were used in the scripts in the bookkeeping system during the Gregorian years beginning with Islam in 622 and that constituted the third stage in the Middle East accounting history, and the written language was mostly Persian. This period covering the Abbasids, the Ilkhanate and the Ottomans ended in 1850.

Constituting the last stage of the Middle East accounting history and widely accepted as of the second half of the 19th century, the double-entry bookkeeping method continues to develop within the frame of the cultures of the countries in the region.

The purposes of the records in the four stages listed above were different. There were grain-warehouse accounting records belonging to Egypt; the records related to trade settlements between the Hittites and the Assyrians; also the state accounting records written in Arabic, Persian and Ottoman-Turkish using the stairs (*merdiban*) method and belonging to the Abbasids, the Ilkhanate and the Ottomans (*Güvemli, 2011*).

Before completing the stages of the Middle East accounting history, it is necessary to mention the commercial facts brought about by the Silk Road and the very few traces of its records (*Silk Road, Turkish Religion Foundation Islam Encyclopaedia, 2000*). It was the longest trade route in history that maintained its vitality for the longest period of time. It extended from China to Europe. It had a variety of routes. However, the main route involved Iran, Mesopotamia and Anatolia. It gradually lost its effectiveness during the 16th century when the eastbound sea route in the south of Africa started to be used. It was a 2,000 year-old trade route. Chinese silk and Indian spices dominated the trade there. Neither the records of the silk merchants who traded with the caravan on the Silk Road nor those of the caravanserais serving them like today's motels have survived until today. But these caravans absolutely had their trade records, including those related to the storehouses they used along their way. It is beyond doubt that the caravanserais also had records. These caravanserais were built outside towns throughout Anatolia with thirty- or forty-kilometres distance between them and their ruins have been found in Anatolia today. These caravanserais offering caravans food, shelter, health and veterinary services were a source of income for local people. Furthermore, the customs duties collected by the Seljuks and later by the Ottomans in return for providing security for caravans were an important source of income for the state. The bookkeeping culture of the Silk Road is, unfortunately, among the bookkeeping cultures that cannot be traced back. After this brief explanation on the elements of the Middle Eastern accounting history, the following section is devoted to the extant documents pertaining to the stages of accounting history.

3. BOOKKEEPING CULTURE IN ANCIENT EGYPT

Today, many accounting historians mention ancient Egyptian bookkeeping culture in the first sections of their books. This reveals that the ancient Egyptian bookkeeping culture is considered as one of the most important accounting cultures in the globe. This culture covers a period from 3000 BC to 30 BC. (<http://tr.wikipedia.org/wiki/antikmisir>). In this period, there were developments symbolized by grain production achieved through controlling the water of the Nile and the operation of the mines. The Pharaoh was the absolute ruler of the country and the head of state. There was a bureaucratic structure under his authority. *Vizier* was the top bureaucrat and was responsible for the treasury and granary. The title *Vizier* was used to refer to top managers in the Middle East even after the Egyptians.

It is understood that the barter system was used in the economy based on agricultural products. A standard volume of grain was used in the barter system, which is called *dehen* and one *dehen* unit was approximately 91 grams. According to the papyrus records that have survived, it is understood that in the reign of the VI Dynasty around 2500 BC, the person responsible for the management of the granary (inventory) recorded each input and output of the granary and added the orders related to these inputs and outputs under his own record. It is also known that stock controls were made occasionally and inventories were recorded (*Bochardt, 1987*).

Below is the food norms table created for workers and presented in the book *Accounting: from its Beginnings to Our Day* by Professor Yaroslav Sokolov (1938-2010) from St.

Petersburg University who took it from German sources (*Gruffith, 1891*). Here the aim is to demonstrate the planning of the payment of workers' wages with grain. The wages paid with grain to the employees working in a drilling job are shown below.

Table 1

<i>Employees</i>	<i>Number of Employees</i>	<i>Grain Amount (stud)</i>	
		<i>Type 1</i>	<i>Type 2</i>
<i>Foreman</i>	1	2.00	5.50
<i>Recorder (accountant)</i>	1	2.00	5.50
<i>Workers</i>	17	1.50	4.00
<i>Slave</i>	2	0.50	1.50
<i>Watchman</i>	1	1.25	3.25
<i>Maid</i>	1	1.50	1.50
<i>Male maid</i>	1	0.50	1.00
<i>Health worker</i>	1	0.25	-
Total	25	9.50	22.25

Note: 1 Stud refers to a 9.5 - litre volume.

It is understood that the above table was prepared to make a work schedule until the end of the job. Wages were paid either as Type 1 or Type 2 according to the request of the employees. The amount referred to the amount per person. The recorder (accountant) was responsible for the implementation of the payment rules.

The ancient Egyptian economy was certainly not based only on grain. There were also trade relations with Anatolia. Egypt also imported tin, copper and fabric from Anatolia as did the other neighbours there. The writings on wood, stone and especially papyri that survived from ancient Egypt originally consisted of symbols followed by the advent of hieroglyphic writing, which was written from right to left and survived until the Gregorian years. As for the numbers, it is known that there existed a decimal number system based on hieroglyphics. The ancient Egyptian hieroglyphic numbers are shown at the below figure.

Figure 1. Ancient Egyptian Numerals

1	10	100	1.000	10.000	100.000	1.000.000- veyā
1	∩	∩∩	∩∩∩	∩∩∩∩	∩∩∩∩∩ veyā	∩∩∩∩∩∩ veyā

Ancient Egyptian documents and findings, which pioneered the Middle Eastern accounting history, are among the most important pieces of the world accounting history heritage. Ancient Egyptian culture began affecting the world culture from the 17th and 18th centuries onwards. The art world showed great interest in the Egyptian archaeological monuments. It would be sufficient to indicate that Napoleon had a leading interest in this subject and he brought around a hundred and fifty scientists and artists to Egypt in the early 19th century and their works were published in *Description de L' Egypte*.

4. BOOKKEEPING CULTURE RELATED TO THE TRADE SETTLEMENTS BETWEEN THE ASSYRIANS AND HITTITES

As mentioned previously, the Assyrians were a tribe who lived in the territory of present-day Iraq between 2000 BC and 600 BC. They adopted the Sumerian cuneiform and took it into Anatolia through trade routes. The tribe trading with them in Anatolia was the Hittites who came to Anatolia from the North. The Hittites settled in Anatolia by the 2000s BC and founded a major civilization (*Alp, 2011: 45-46*). Though they dominated Anatolia until the 1000s BC, their records and bookkeeping documents date back to the period between 2000 BC and 1700 BC.

Historians studying the Hittite period focus on Assyrian trade colonies in Anatolia and examine the trade relations between Anatolia and Mesopotamia (*Kaya, 2014: 78-82*). These trade relations and the settlement records regarding these relations were recorded on clay tablets. Thousands of these tablets pertaining to the period between 2000 BC and 1700 BC have reached the present day. The clay tablets obtained during excavations in Kültepe and Kanis mounds in the northeast of Central Anatolia revealed that the Assyrians established trade centres called *Karum* to do trade. Historical evidence suggests that there were eleven *Karums*. However, only the remains of three of them have been found to date. This situation reveals that there were many trade centres and they were widespread in Anatolia. And most importantly, it demonstrates that only a certain part of the settlement records for trade transactions could be uncovered so far.

Buying and selling were done mostly by weighed money in the period in question which was indeed the era of weighed money that referred to silver and gold. As seen in the examples discussed in the present study, there was a monetary unit called *şeqel*. This *şeqel*, which is the currency used in today's Israel, was the equivalent of three grams of silver (*Güvemli, 2000: 112-119*). It is known that between 2000 BC and 1700 BC, Assyrian merchants achieved a significant accumulation of capital and paid 10% tax on the trade transactions with the Hittites. However, it is observed that these trade relations came to an end suddenly in the 1700s BC. The disputes and the wars that emerged in northern Mesopotamia are suggested to be the reason for this.

The present study discusses three examples of the settlement culture regarding the trade relations between the Assyrians and the Hittites. One of them is related to lending. The second is about a settlement record of a buying and selling process. The third one is about a management decision of a *Karum* (*E. Bilgiç et al. 1990*) (see Appendix 1,2,3).

The tablet at appendix 1 is a loan document. There are witnesses. It is understood that the interest limit having a legal validity in the trade relations of *Karum* was accepted.

The tablet in appendix 2 is about a trade settlement. It gives an explanation about the 15 *Mina* received. It says that the goods were sent from Central Anatolia to Mesopotamia with two riders and two donkeys. It reveals that the traditional export products of Anatolia consisted of metals such as tin and woven products. This is a clay tablet and the clay tablet is in an envelope

again made of clay. Two copies were prepared. One was kept in *Karum*, while the other copy was sent to Mesopotamia.

The third tablet is about a trade decision of the *Karum* management. This tablet shows that the Hittites could make decisions about trade disputes. The decision is made by the management of the *Karum*. This decision was written on a clay tablet and sealed by management. Interestingly, the clay tablet was put into an envelope, which was made of clay - and is not presented here. The summary of the decision was written on the envelope. This situation attests to the existence of advanced-level trade rules in Anatolia between 2000 BC and 1700 BC.

It is understood that the trade relations between the Hittites and the Assyrians developed in Anatolia; the Hittites did not go to Mesopotamia, but the Assyrians traded by establishing trade colonies called *Karum* after coming to Anatolia using cuneiform based on the Sumerian culture.

The records on clay tablets regarding the settlement system that reached our day were not prepared according to an organized bookkeeping system. They were just about the money used in buying and selling and the expenditures. A continuous current account system was not established yet. Instead, the settlement system was used as the basic principle of accounting. There were goods, price and weighed money. These clay tablets were prepared in a time period (500 BC) over a thousand years earlier than the invention of coin.

The bookkeeping system of the trade relations between the Assyrians and the Hittites between 2000 BC and 1700 BC has not yet gained the status it deserves in world accounting history. Thousands of clay tablets regarding the records of trade relations await the attention of accounting historians. That this settlement system grounded on a developed trade culture further increases the importance of the period in question. It is exciting to talk about a bookkeeping culture that continued for three hundred years, four thousand years ago.

Consequently, it can be argued that the examination of the settlement system between the Assyrian-Hittite civilizations, can be considered as an important component of the bookkeeping culture in Anatolia, and will significantly contribute to the accounting history literature.

We have previously mentioned the existence of coins in the Gediz Valley in western Anatolia in the 500s BC after approximately a thousand and two hundred years from 1700s BC when the Assyrian-Hittite civilizations ended. The time gaps are long. Different tribes dominated the fertile lands of Anatolia in different time periods. The dominating tribe in western Anatolia in the 500s BC was the Lydians. They existed in the same time period together with the Persian culture. The leadership of the Persians in state administration and financial management led the prevalence of a statist approach in the region in the following periods (*Güvemli, 2015*). Thus, the accounting culture developed within the framework of state accountancy in line with the spread of Islam.

5. STATE ACCOUNTING CULTURE DEVELOPED BY THE ABBASIDS, THE ILKHANATE AND THE OTTOMANS AFTER ISLAM (750 AD – 1850 AD)

The Romans dominated the Middle East in the Gregorian years followed by Byzantine rule. Though the traces of the Roman and Byzantine cultures are encountered in the region, these cultures cannot be considered as constituents of the Middle Eastern bookkeeping culture but an extension of western culture into the Middle East. Although no detailed study exists in the literature, it can be said that the Roman and the Byzantine culture did not leave many traces in the Middle East; after their withdrawal from the region their bookkeeping legacy was not effective in practice, which may be because of religious factors.

The birth of Islam (622 AD) after nearly six centuries of the advent of Christianity quickly led to the dominance of Islamic culture in the region. As is well known, Christianity developed in Europe while Islam developed in the Middle East. Consequently, the financial method and the bookkeeping culture emerged together with Islam and developed within the Islamic rules that dominated the region for over a thousand years from the 600s AD to the 1850s AD.

After Islam, the cultures of three nations developed in the region. The first one was the Arabic culture. The second was the Persian culture that was created by the Iranians, who accepted Islam. The third was the culture symbolized by the Seljuk and Ottoman Empires founded by the Turks in Anatolia who became Muslim on their route to Anatolia. The culture of these three nations replaced the cultures of the Sumerians, the Assyrians and the Hittites after approximately two thousand years and of the Persians within the framework of Islam in the Gregorian years.

From the aspect of accounting history, the Abbasids represented the Arab culture; the Ilkhanate represented the Iranians (1256-1353); and the Ottomans represented the Turks (1299-1922) in this (over a thousand year) period (750 AD - 1850 AD). The Mongols established the Ilkhanate state, but it was ruled by the Persians. The characteristics of this period can be listed as follows (*O. Güvemli, C. Toraman, B. Güvemli, 2014: 21*):

- *Development of accounting thought within the frame of state accountancy:*

Accounting culture developed within state accountancy in line with the statist structures of the Middle Eastern countries. A statist understanding after Islam dominated the region. When the social development started to be shaped on the basis of religion within a statist structure, financial management of the state underwent a fast development process within the frame of Islamic rules. In today's Arabian Peninsula i.e. in Mesopotamia, first the Umayyad Caliphate and then the Abbasids developed a statist bookkeeping system. Since the Mongols had a military approach, the Ilkhanate easily gained a statist structure within the frame of the Persian culture. The Ottomans on the other hand, already had a statist approach, without which it would have been impossible for them to come to Anatolia from Central Asia and establish a state. Moreover, the Turkish culture in Central Asia was already statist.

Private sector businesses had always existed in the region in question. However, the environment was not ready for capital accumulation, which now requires an explanation about

the settlement of the Turks in Anatolia. When the urban Turks came to Anatolia, Armenians and Rums were living in the cities. This forced the Turks to establish their own neighbourhoods in the suburban areas. The Turks established the *ahi-order* (Turkish-Islamic guild) for production in their neighbourhood within the frame of Turkish-Islamic synthesis. According to this method, production activities were carried out to meet the needs of the neighbourhood and one neighbourhood was not allowed to sell goods to another since the neighbourhoods near the Turkish neighbourhood belonged to the Armenians and the Rums. In due course, the Armenians and the Rums also adopted the practice of buying goods in wholesale and making production for the neighbourhood. The system turned into the *lonca* (guild) system after it was taken out of the *ahi-order*, which was a product of the Turkish-Islamic synthesis. In the following periods, the system continued as the *gedik* system. And this system, prevailing in the private sector, continued until the beginning of the 20th century. Obviously, this system did not allow capital accumulation, which resulted in the underdevelopment of the private sector in the Ottoman state. As a consequence, the private sector used a simple bookkeeping method in order to meet its bookkeeping needs.

- *Development of state accounting within the frame of the merdiban (stairs) method:*

The *merdiban* method is a state accounting method, which was born in the Abbasid state, developed in the Ilkhanate state and achieved perfection in the Ottoman Empire. The method was used for 1,100 years in the Middle East between 750 AD and 1879 AD. It was called as “stairs” since the principal amount was written at the top and the amounts constituting the principal amount were listed downwards in the form of stairs. The document in appendix 4 illustrates this method (*Prime Ministry Ottoman Archive, MAD 22249, 249-256*).

The annual income of the state for the year 1667 AD is 564,429,239 *Akçe*. The amounts constituting the amount are listed one under the other like a stair.

The stairs method was utilized for recording state incomes and expenditures and the records were kept in *siyakat* writing script.

The above example shows the extent of the application of the stairs method in the Ottomans. This is the advanced form of the method. Another example from the Abbasid era gives information about this method but its explanatory power is limited (*Güvemli, 2015: 158*). Yet it contains the traces of the then-operating bookkeeping culture. The documents remaining from the Ilkhanate can be considered as more sound and valid. These documents are the books about the stairs method. The teaching books about state accounting were written in the Persian language between the years 1309 and 1363. The most famous one is *Risale-i Felekiyye* written in 1363 and which explains the accounting and bookkeeping culture of the Middle East 130 years before the *Summa* of Pacioli. No introductory book was written on the method in the Ottoman period but thousands of journals were written by the stairs method, and they have survived to the present day.

At this point, the last matter that needs to be mentioned is the usage of *siyakat* writing and numerals in the application of the stairs method in state accounting. *Siyakat* refers to writing without dots. Arabic, Persian and Ottoman languages also have *siyakat* writing. The Middle

Eastern countries took advantage of this writing style. They used it for secrecy in state accountancy. They also used it in foreign correspondences, where it was used to make the writing unreadable.

The *merdiban* method emerged with Islam and became the symbol of Islamic culture in the accounting and bookkeeping system in the Middle East. As explained below, it retreated from the scene of history giving up its place to the double-entry bookkeeping method in the middle of the 19th century.

- *Interactions of a state accountancy system between the Abbasids, the Ilkhanate and the Ottomans*

The Abbasid Period (750 AD – 1258 AD): The state accounting system in the Middle East emerged with the birth of Islamic culture. As the administrative and financial management of the Islamic state started to be formed within the framework of Islamic rules, the bookkeeping culture was not neglected. The Abbasid state (750- 1258) determined the taxes to be collected according to the Islamic rules while it was organized within its political boundaries and felt the need for keeping the records of these taxes. During its five hundred-year rule, the Abbasids created a financial system and a bookkeeping system by means of a state accounting method called *merdiban*.

The principles of the state organization, central administration and financial management prevailing in the Middle East for centuries were firstly determined by the Emevis (650-750) and then by the Abbasids (750-1258) in line with Islamic rules. These principles were effective in the Middle East for centuries (*Elitaş, Aydemir, et al. 2008: 8-91*).

The Ilkhanate period (1256-1353): The Ilkhanate state was established by the Mongols in today's Iran. Since the state was ruled according to the Persian culture, it affected the regional culture. The state was founded by Hulagu Khan, the grandson of Genghis Khan. Hulagu Khan ended the Abbasid rule by attacking Baghdad in 1258. Returning to Tabriz from Iran, he took with him the senior administrative and financial executives and also the accountants of the Abbasids who applied the administrative and financial system they learned there in Iran by developing it in accordance with the Persian culture. They also enhanced state accounting to a considerable extent. As mentioned above, state accounting was developed through the stairs method. Although the Ilkhanate period was a short one, it contributed much to Middle East accounting history through the financial management of the state, state accounting applications and, most importantly, through the teaching books on accounting written in the middle of the 14th century.

The Ottoman period (1299-1922): the Ottoman state was established during Ilkhanate dominance in the Middle East. The Ilkhanate established relationships in Anatolia first with the Seljuks (1048-1308) and then with the Ottomans. Since the Ottoman state enlarged towards the Balkans in its early years, the Ottomans paid tax to the Ilkhanate until the 1340s to eliminate any potential problem along the eastern borders of the state. During the payment of the taxes, the Ottomans learnt about the administrative management of the Ilkhanate and adopted the stairs method to utilize in state accounting. However, no accounting document from the time

period before the conquest of Istanbul (1453) has survived. Yet the information contained in Fatih the Conqueror's *Kanunname-i Ali Osmani* (Ottoman Code of Laws) indicates that financial management and an accounting system were in place in the Ottoman state between the late 14th century and the early 15th century.

The *merdiban* method was further developed and reached perfection in the 16th century (*Güvemli, Toraman, and Güvemli, 2015: 217-349*). The Ottomans utilized this method for ages by developing it according to changing conditions. In the Ilkhanate period, state accounting evolved and the stairs method was fully adopted. The method was also further improved in the Ottoman period according to the changing needs. It is understood that the stairs method was utilized in state accounting for five hundred years (1350-1850) in the Ottoman period.

- End of the merdiban method – the middle of the 19th century

The Ottoman Empire attempted to integrate into Western Europe with the Tanzimat Edict (1839) and initiated administrative and financial reforms. The Ottomans also aimed to create a financial management model similar to the models in western European countries and thus they were required to abandon the stairs method used in state accounting. This change was easily justified since the stairs method was not suitable for profit calculation and thus could not be effectively used in private sector businesses. When the need for the transition to the double-entry bookkeeping method was understood, *Kanunname-i Ticaret* (Code of Commerce), which had been prepared through the utilization of Napoleon's *Code de Commerce*, entered into force in 1850 (*Güvemli and Güvemli, 2015: 27*). Two issues are significant about this Code: it included the commercial law system of Western Europe on one hand and the book system of the double-entry bookkeeping method on the other. Though the Code could not be widely applied at first due to the dominance of the Islamic rules in trade, this legal regulation marked the beginning of the application of the double-entry bookkeeping method in Turkey.

The 1,100 year long application (750-1850) of the *merdiban* method constitutes a particular part of Middle East accounting history. The characteristics of the period can be listed as follows:

- a. In the Middle East, state accounting culture developed within the framework of a statist approach.
- b. The administrative and financial management system emerged with the birth of the Islamic culture that affected the bookkeeping system, and thus there was an accounting thought developed according to Islamic rules.
- c. Between 750 and 1850, the state accounting method called the stairs method had the chance to be applied in the region.
- d. First the Abbasids (750 – 1258), then the Ilkhanate (1256-1353) and the Ottomans (1299- 1922) ruled throughout this long period. After the Abbasids and the Ilkhanate, until the 20th century, there were only two states in the region: the Persians and the Ottomans. Iranian dynasties were ruling then in today's Iran, and the rest of the Middle East territory was under Ottoman rule. The Ottoman reign

continued until the late 19th century for a six hundred-year- period, enabling the consistent practice of applications based on the stairs method.

The Middle East had a two-state period for six hundred years from the 14th century to 20th century. This was the reason for the fact that most of the historical findings and documents of the accounting history belonging to that period are in the archives in Turkey. In the region, Egypt first became a British colony before the end of the 19th century and then a sovereign state. In fact, the countries in the Arabian Peninsula i.e. Iraq (1919), Saudi Arabia (1926), Jordan (1946), Israel (1948), Syria (1961), Kuwait (1961), Qatar (1971), United Arab Emirates (1971), Oman (1970), Yemen (1990) became states in the 20th century (<https://tr.wikipedia.org>). It is observed that in the north, Azerbaijan and Armenia became states in the 20th century before they joined the Soviet Union. These dates reveal that there were two countries shaping the Middle East accounting history between the 14th and 20th centuries: The Persian and the Ottoman.

There was an advanced bookkeeping system during this long period. Accounting was a profession. There was an accounting system for treasury management and the annual settlement of incomes and expenditures of the state. Accrual accounting was applied. Turkish accounting historians have been conducting studies since 1984 to include this period in the world accounting history.

6. BRIEF INFORMATION ON THE PRACTICE OF THE DOUBLE-ENTRY BOOKKEEPING METHOD IN THE MIDDLE EAST AFTER 1850

The transition to the double-entry bookkeeping method in Middle Eastern accounting history begins with the attempt of the Ottoman Empire to integrate with western European culture in terms of administration and finance. Double-entry bookkeeping has a 150-year-old history in the Middle East. Today, the above-mentioned states established in the region after the dismemberment of the Ottoman Empire also apply the double-entry bookkeeping method. This reveals that the double-entry bookkeeping method is widespread today throughout the Middle East.

At that point, only the developments in the second half of the 19th century will be discussed since the attempt of the Middle Eastern accounting culture to integrate into the world culture was stronger then. In the second half of the 19th century, as mentioned above, there were Iran and the Ottoman State in the region. However, it was the Ottoman state that pursued and conducted the integration with the West.

As stated above, the Middle East was introduced to the double-entry bookkeeping method by the *Kanunname-i Ticaret* (Code of Commerce) published in 1850. No accountant knew, no establishment ever applied, this method before this date. Since Islamic rules were in force in the state, the western commercial law projected by this code could not get the opportunity to be applied for a while.

There were liberalization attempts between the years 1879 and 1883 within the framework of the westernization movements. These attempts were realized through a triple activity.

For the organization of the private sector, Istanbul Chamber of Commerce was established between the years 1879 and 1882 (*Hakkı Nezihi, 1932: 21*). This paved the way for interest-based business management.

Again between the years 1879 and 1880, with the Sultan's decree (*BOA Duit 37/7-2/6, Duit 37/2-2/2*) a transition was made to the double-entry bookkeeping method. In this legal arrangement, these expressions below are significant: *What the Ministry of Finance lacks is the application of the double-entry bookkeeping method... Books of account providing real and true information on incomes and expenditures should be kept.... In order to indicate the need it suffices to compare the records of the Ottoman Bank established according to the principles of the European countries and the records of the Ministry of Finance.....* Although these statements in the Sultan's decree predicted that state accounting records were to be kept by using the double-entry bookkeeping method in line with a statist understanding, the private sector also utilized the method to a considerable degree.

As mentioned above, with the establishment of the Chamber of Commerce, the private sector started to be organized and a transition was made to the double-entry bookkeeping method by the Sultan's decree. The liberalization attempt required these two activities to be supported by a third activity. This was the opening of a business management school to provide the private sector with employees with business management training and who possessed the required knowledge of the double-entry bookkeeping method. To achieve this, *Hamidiye Ticaret Mektebi* (Hamidiye School of Commerce) was established in 1883 taking *Les Ecoles de Haute Commerce* in France as a model. (*Osman Ergin: Türkiye Maarif Tarihi [Turkish Education History], 1977: 1131-1140*). This school is called as the Marmara University, one of the biggest universities in today's Turkey.

The private sector did not receive enough support and the activities that emphasized the private sector did not achieve any considerable success in a short period of time, which was expected. However, these could be realized in the Republican Era (1923 onwards).

The double-entry bookkeeping method was easily accepted in the region since the British colonialists were interested in the Middle East while the Turkish understanding of accounting tried to become integrated into the western European culture in the second half of the 19th century; as is well known, the rule of Cyprus was transferred to the British, who were also interested in Egypt, in 1878.

Since the Ottoman state institutions had not intervened in the Cyprus business world, the island's accountants started to keep the annual income–expenditure accounts, the accounts of the municipalities and most importantly the accounting records, using the double-entry bookkeeping method. As these activities of the Ottoman accountants coincided with the above mentioned liberalization attempt, these activities subsidized the applications of the double-entry

bookkeeping method. It would be convenient also to mention that the first audit and the first financial statement arrangements were made in Cyprus during those dates.

7. CONCLUSION

5,000 years old Middle Eastern accounting history constitutes a special place in the accounting history of the world. Different tribes experienced four different accounting cultures; what is unique about this region is that the documents of these cultures survived to this day.

The papyri in ancient Egypt (3050 BC - 2000 BC), plus the clay tablets belonging to the settlements related to the trade relations between the Assyrians in Mesopotamia and the Hittites in Anatolia, along with the application of the bookkeeping culture that was brought in with Islam under the title *merdiban* by the Abbasids, the Ilkhanate and the Ottomans in the region for more than a thousand years (750 AD – 1850 AD), and finally the spread of the double-entry bookkeeping method in the region since the middle of the 19th century, are the factors and developments that reveal the diversity and the characteristics of the Middle East accounting history.

The first three of these four major bookkeeping cultures covering a 5,000-year period are the cultures created by the regional circumstances and they constitute separate chapters of the legacy of world accounting history. The double-entry bookkeeping method, as the fourth culture, can be considered as the product of the regional attempt to integrate with the world.

The first three cultures, born in line with regional circumstances, have not received the required scholarly attention to date. Partly, this stems from the fact that accounting history is a young discipline. We believe such further studies on the Middle East accounting history would pave the way for further interest in the accounting historians in the region.

The present study aims to contribute to this target as well. In other words, it aims at drawing attention to the significance of Middle East accounting history within world accounting history, and to the refined bookkeeping culture fostered in the region.

REFERENCES

Primary References

- Prime Ministry of Turkey, Ottoman Archives, Duit 37-/7-2/6; Duit 37-2/7-2/2 and 37/-2/7-2/4.
Prime Ministry Ottoman Archives, MAD 22249. p. 249-256

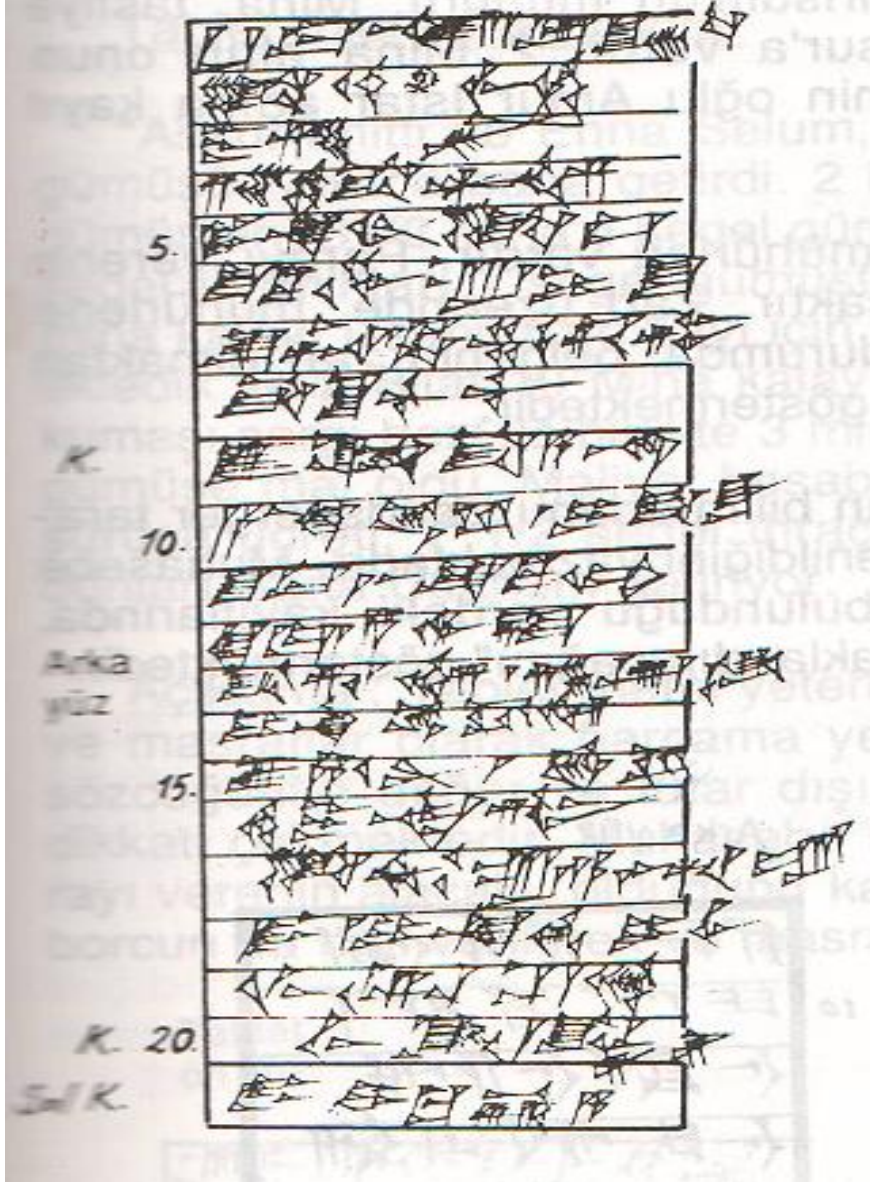
Secondary References

- Alp, S. (2011). *Hititler Çağında Anadolu [Anatolia during the age of the Hittites]* (pp. 45-46). Ankara.
Bilgiç, E., Sever, H., Günbattı, C., & Bayram, S. (1990). *Ankara Kültepe Tabletleri [Ankara Kültepe Tablets]*. Ankara: Turkish History Foundation Publications.

- Borchardt, L. (1987). *Ein Rechnungsbuch das Königlichen Hofes Ausdem alten Reich Aegyptaca Fest Schrift Für George Ebers zum*. Leipzig. (by Yaroslav Sokolov, St. Petersburg University)
- Davison, R. (1960). Where is the Middle East. *Foreign Affairs*, 667-667.
- Elitaş, C., Güvemli, O., Aydemir, O., Erkan, M., Özcan, U., & Oğuz, M. (2008). *Accounting Method Used by Ottoman for 500 Years: Stairs (Merdiban) Method*. Ankara: Turkish Republic Ministry of Finance Strategy Development Unit.
- Ergin, O. (1977). *Türkiye Maarif Tarihi [Turkish Education History]* (pp. 1131-1140). Istanbul.
- Gruffith, F. (1891). *The Account Papyrus*. (by Yaroslav Sokolov, St. Petersburg University)
- Güvemli B. (2015). “Initial Stage of the Merdiban Method: Renewed Examination of an Early Practice”, *Accounting and Financial History Research Journal*, 158-178, No.8, January.
- Güvemli, B. (2011). Development of the Merdiban Method in the Ilkhanate State (1251 – 1353 AD) and its Transition to the Ottoman State Accountancy. *De Computis: Spanish Journal of Accounting History*, (14), 79-98.
- Güvemli, B., & Güvemli, O. (2013). “Türk Muhasebe Düşüncesinde Klasik Dönem ve Çağdaşlaşma Dönemi” (Classical and Modernization Periods of Turkish Accounting Thought), *Türk Muhasebe ve Denetim Düşüncesinin Son 150 Yılı 1850 – 2012 (The Last 150 Years of Turkish Accounting and Auditing Thought)*, Editor: Oktay Güvemli. 375-394. İstanbul.
- Güvemli, O. (2000). *Türk Devletleri Muhasebe Tarihi, Osmanlı İmparatorluğuna Kadar [Accounting History of Turkish States, Until the Ottoman Empire]* (2nd ed., pp. 110-119). Istanbul.
- Güvemli, O., & Güvemli, B. (2015). “Türk Ticaret Kanunları’nın Türk Muhasebe Düşüncesinin Gelişmesindeki Etkileri” (Affects of Turkish Commercial Codes in the Development of Turkish Accounting Thought), *Accounting and Financial History Research Journal*, 26-50, No.8, January.
- Güvemli, O., Toraman, C. and Güvemli, B. (2015). *State Accounting in the Ottoman Empire: Anatolian Accounting Culture*. (pp. 21-215, 217-349). Ankara.
- Kaya, M. (2014). *Türkiye Tarihi ve Uygarlıkları [Turkish History and Civilizations]* (4th ed., pp. 78-82). Izmir.
- Nezihi, H. (1932). *Elli Yıllık Oda Hayatı 1882-1932 (Fifty Years of Chamber Life 1882-1932)* (p.21). Istanbul.
- Sakin, S., & Deveci, C. (2011). An Analysis on the Term Middle East and its Boundaries. *History Studies, Relationships of the USA and the Great Middle East, Special Issue*.
- Turkish Religion Foundation Islam Encyclopedia. (2000). Sild Road. (p.22). Istanbul.
- Yükçü, S., & Gönen, S. (2014). Grade and Composition of the First Money in Anatolia. *Accounting and Financial History Research Journal*, (7).
- <https://tr.wikipedia.org/wiki/akad> – accessed: 15.09.2022
- <https://tr.wikipedia.org/wiki/Asurlular> – accessed 22.09.2022
- <http://www.hermetics.org/hititler> - accessed 03.05.2022
- <https://tr.wikipedia.org/wiki/Persler> - accessed 12.10.2022

APPENDICES

Appendix 1:
Front of the clay tablet



Transcription of the tablet is as follows:

Naplis's son Šilli Adad owes Su Kubum 1/3 Mina, 3 shekel² good quality silver... if he does not pay within one month, he will pay the interest determined in pursuant to the relevant provision of Karum on monthly basis. Teinatum month. In the presence of Inahillum's son Al-i Abum and Asi Ah, and by the testimony of İkupia's son Puzur İli...

² *Mina* and *shekel* are value measurement units. *Shekel* corresponds to 13 grams of silver.

Appendix 2

Front of the Tablet

Back of the Tablet

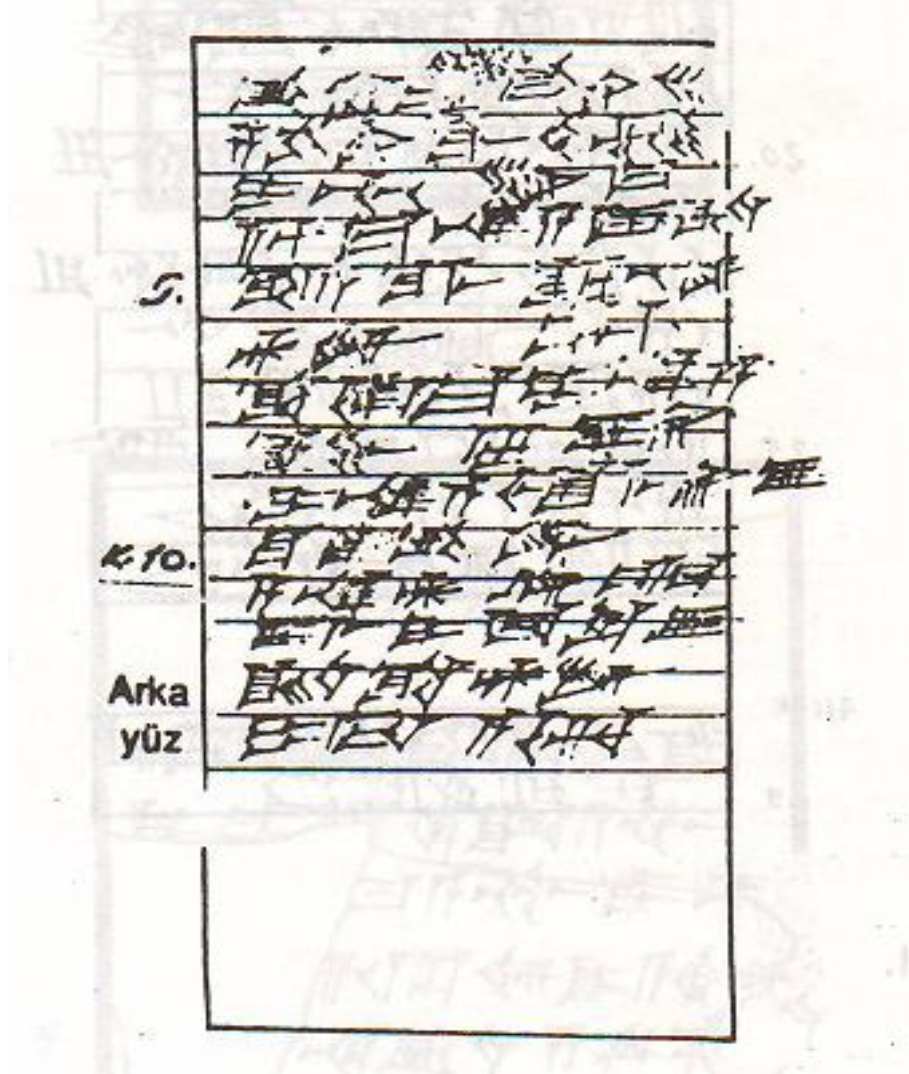


Transcription of the tablet is as follows:

Assur – İmitti and Enna Selum said to İmdi – İllum: Kurar brought us 15 Mina silver. 2 Bilat tin cost 8 ½ Mina, 4 shekel silver. Free tin cost 2 Mina silver... we gave a certain amount of tin as Usanum's share ... Then, we added the tin we received into the package... These tins were packaged under our responsibility ... They cost 3 Mina silver together with the bandage made of 32 Kutanum fabric.... 2 Black donkeys cost 2/3 Mina. Additional expenses cost 15 ½ shekel. 17 shekel was paid for riding. 7 ½ shekel export tax was paid. 6 shekel was paid for saddlery. Usanum is bringing them all to you.

Appendix 3

Front of the Tablet

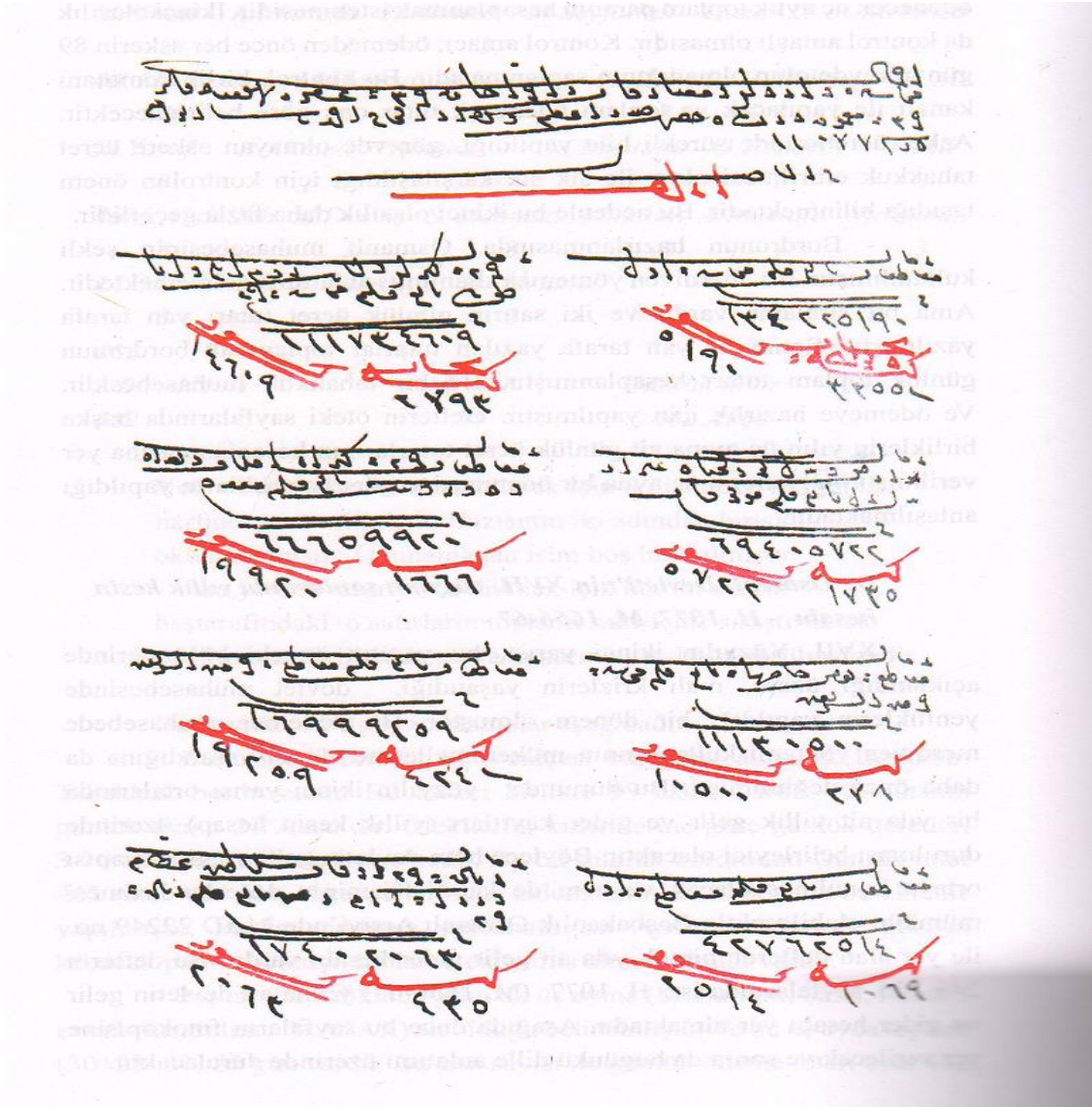


Transcription of the tablet is as follows:

Kaniş Karum made a decision with the stamp of Kaniş Karum. It is determined that Su – Kabum paid his 2 ½ Mina debt to Adad-duri through Adad – duri’s proxy İna. Adad – duri will not return to Su – Kabum’s sons (He will not ask for it from Su – Kabum’s sons). Adad – duri’s money will be paid to him (İna, who received the money, will return to Adad – duri) ...

Appendix 4

Photocopy of the first page of an income-expenditure account in the Ottoman Empire (Hegira 1077) (1667 AD)



The transcription of this page is as follows:

Total.....
 In accordance with the treasury books, income and expenditure of Hazine-i Amire (imperial treasury) related to accounting, lay out of the grand vizier and ser asker (army commander) in Hadrat Pasha's time. H.1077 / 1667 AD.

Total Revenue.....

Revenue.....

In Muhasebe-i evvel section

mukataa⁴ revenues

annual

Akçe

134,225,190

Kise Akçe

3,355 5,190

Revenue.....

In Jizya³ accounting section

Rumeli and Anatolia provinces jizya revenues

annual

Akçe

111,734,609

Kise Akçe

2,793 4,609

Revenue.....

Oarsman who do not work

Paid avarız⁵ and nuzül tax

annual

Akçe

69,405,722

Kise⁶ Akçe

1,735 5,722

Revenue.....

In mine section, Dubrovnik, Eflak, Bogdan

jizya revenues

annual

Akçe

66,659,920

Kise Akçe

1,666 9,920

Revenue.....

In Haremeyn accounting section

Some revenues of mukataa

annual

Akçe

11,130,500

Kise Akçe

278 10,500

Revenue.....

In Haremeyn mukataa section

revenues

annual

Akçe

16,999,259

Kise Akçe

424,7 19,259

Revenue.....

In mukataa-i evvel section

Mukataa revenues

annual

Akçe

42,762,454

Kise Akçe

1,069 2,514

Revenue.....

In Jizya section collected from

Istanbul and other Jizya revenues

annual

Akçe

17,402,063

Kise Akçe

435 2,063

³ Jizya is a tax collected from non-Muslims in exchange for freeing them from military duties.

⁴ The Mukataa or Muqata'ah is a taxation method, a contract that was operated by collecting revenues of the central administration or taking operational rights of some monopolies (like a mine or minting coins) or being the only purchaser of some products. In other words, a person who is outside the organization collects the tax income of the State.

⁵ Avarız tax (extraordinary wartime tax) and nüzül tax (taxes for troop provisioning) were taxes collected in a state of emergency like wars or disasters.

⁶ Kise is a monetary unit used in the Ottoman Empire, 1 Kise equals to 40,000 Akçe.