

ABSTRACTS

The Second International Suna & İnan Kiraç Symposium on Mediterranean Civilizations

SHOPPING AND WEIGHING INSTRUMENTS IN THE MEDITERRANEAN WORLD AND BEYOND THROUGHOUT HISTORY

November 27-29, 2023 | Koç Üniversitesi AKMED – Antalya

Sobhi Ashour

A new statera Romana in Alexandria

The vivid pictures of shopping practices in Graeco-Roman Egypt, as reflected in papyri, reveal many aspects of traditional Greek and Roman commercial settings and practices. Selling and buying near the city center are well-documented. The earliest evidence of shops attached to a Greek-style temple in a city center comes from Hermopolis Magna in middle Egypt during Ptolemy III's reign. Likewise, shops for goldsmiths and bakeries are known in district B of the capital from the Augustan age. The Alexandrian Agora had a wine shop where hot wine was served, and small terracottas in Alexandria may reflect such buildings. Macellae and emporia for different categories of goods appear in papyri, and even as far south as Syene (modern Aswan), a basilica forensis was discovered.

This flourishing commercial activity and these shopping practices of the Greeks, Romans, and Egyptians were reflected in the establishment of fixed exchange ratios between weight standards (Ashour 2020). Furthermore, Roman balances with examen markings were discovered at many sites in the country, and Roman influence on Egyptian balances is detectable in many religious scenes depicting the judgment of the dead, in addition to a growing collection of steelyards. This paper will also draw scholarly attention to a new steelyard in Alexandria, likely belonging to the Constantinople type, but remarkably, it has a bowl-pan, which has not been detected in this type of steelyard until this phase of research.

The statera has a rectangular bar with three faces marked with Latin numerals and has three suspension fulcra. The first side shows a graduation of 7 librae divided by half units, the second reaches 19 pounds, while the third ends with 60 Roman units. Many examples of Roman steelyards of the Constantinople type are very comparable to the Alexandrian example, found in Egypt, Paphos, and the British Isles, reflecting common forms in the empire.

Claus Borgelt

The Pfunds-Museum and its collection of early scales, weights and measures in the Mediterranean countries and their neighboring regions from antiquity to modern times.

This introduction provides an overview of the Pfunds-Museum and showcases objects from early antiquity, including scales, weights, and measures used in Mediterranean countries, the Near East, Mesopotamia, Ancient Egypt, Greek, Roman, Byzantine, and Ottoman civilizations. It also encompasses more distant regions, such as the area extending from the Red Sea and the Arabian Peninsula to India.

The primary focus of this presentation is to offer an overview of the extensive collection of over 200 weights, crafted from a wide array of materials, including glass, stone, lead, copper, brass, bronze, ceramics, and porcelain. Additionally, the museum features an array of balances, steelyards, and measuring instruments. In addition to the weights, the museum also exhibits scales, steelyards, and measuring tools.

Emanuela Borgia

Temporary stalls in the cities of Roman and Late Roman Asia Minor through a re-analysis of "topos-inscriptions"

The purpose of this paper is to investigate the development and distribution of temporary market stalls along the streets, under the porticoes of streets and agorai, and in other public buildings in Roman and Late Roman cities in Asia Minor. This unique type of shop, which was undoubtedly widespread in ancient cities (perhaps even more so than in modern ones), serves as an essential indicator of shopping trends and a dynamic economic life, even though it may not be readily apparent in the urban layout. In fact, very few remnants of movable or semi-permanent stalls, constructed from perishable materials and not meant to be permanent, have survived. These archaeological traces are often ambiguous and require careful interpretation. In this regard, epigraphic sources can provide the missing archaeological information and, when analyzed in conjunction with significant literary sources (such as Libanius), they can shed new light on the broader phenomenon of commercial activities.

Specifically, this research will systematically examine the "topos-inscriptions" from Asia Minor that were carved - and sometimes even painted - on the columns of stoai in the main squares of cities, along streets, on the stylobate of porticoes, and elsewhere. As is well-known, the so-called "topos-inscriptions" belong to different categories, and not all of them can be directly associated with commercial activities. However, a significant portion of them would likely signify the designated locations for movable stalls, primarily positioned between the columns of the stoai, which provided shelter from both sun and rain.

Another crucial aspect of these movable shops that needs further exploration is whether the stalls were officially assigned to various categories of sellers or to individual persons, or if, in some cases, their placement resulted from individual initiatives beyond the oversight of public

authorities. A multidisciplinary approach, incorporating historical, epigraphic, archaeological, legislative, and other perspectives, will enable us to paint a new picture of the complex socio-economic life in ancient cities of Asia Minor and illustrate how bustling life was along the streets and in the main squares of these cities.

Matteo Campagnolo

Without coins, weights or measures: gift or sale in Naxian traditional economy

What devices could people use when there were no coins available, and there was no market for selling and buying products and goods? To what extent were weights and measures helpful in such conditions, and what types of weights and measures did they use in everyday life and on special occasions? The system of gift-giving and counter-gifting, as practiced in such cases, was likely the most appropriate. What were the economic, social, and psychological foundations of these exchanges? Can exchanges in these cases be considered as sales?

In a certain sense, this form of exchange takes us back to the starting point of the famous passages from Aristotle's *Politics* and *Ethics* on the creation of money. How did it work and to what extent? Did it truly come to an end, and if so, why? To what extent can these practices be documented?

Pierre Charrey

Technological change and weighing practices between the Early Roman Empire and Late Antiquity

Between the 4th and 5th centuries, the Roman Empire underwent a significant transformation in the manufacturing of weights and scales. However, comprehending this new standardization necessitates an examination of the preceding centuries. This standardization is the outcome of a long-term process intertwined with the evolution of weighing practices in the Roman world.

The purpose of this paper is to compare archaeological, iconographic, and literary sources to highlight the distinctions between the Early Roman Empire and Late Antiquity in the utilization and design of scales. It is crucial to differentiate between the types of instruments (double-pan scales or steelyards), the size and dimensions of scales, as well as the various functions of weighing (commercial, fiscal, artisanal, or domestic). Additionally, it's important to consider the typology of the goods being weighed, ranging from amphoras to coins. Weighing, far from being a uniform practice, can serve diverse purposes, even within what may seem like the same cultural and political context. This study enables the assignment of specific goods to each type of scale and provides insights into the chronology of these practices.

We hope that these initial hypotheses will encourage a more meticulous consideration of how ancient weighing represented a multifaceted and evolving phenomenon, shaped by distinct

political needs. Only through an integrative and systematic approach can metrology, liberated from the burden of decimals, pose new questions for political and economic history.

Carla Cioffi

Contextualizing trade tools between the late Hellenism and the early Imperial era: A state of the art

This is a review of significant case studies concerning the relocation of tools for trade in their original historical and architectural contexts. The aim is to demonstrate the potential of a multifaceted approach that incorporates archaeology, historical metrology, Bauforschung, and epigraphy.

Over the past two decades, there has been a significant increase in interest in commercial practices in the Greco-Roman world. The extensive material related to the instrumentum, particularly items directly associated with trade, such as weights, tables for calibrating linear and volumetric standards, amphorae, etc., continues to be continuously updated and cataloged. Concurrently, recent observations on commercial architecture are altering our perspectives. Agorai and fora, commercial districts, and harbors with trade facilities (workshops, boutiques) exhibit varying shapes and techniques based on geographical and historical conditions. Their morphologies and functions are often far from being static. Furthermore, the traditional concepts of public and private spheres for production, storage, and selling frequently overlap (as seen in the involvement of economic activities in dwellings even prior to Roman villas, as recent studies on Delos have shown).

The period from late Hellenism to the Julio-Claudian era is particularly rich in insights, not only due to the quantitative aspects of available material but also because of the profound social, economic, and urbanistic transformations that occurred during this time.

Given these conditions, contextualizing the aforementioned mobile instruments within their specific usage contexts doesn't provide immediate solutions but rather presents methodological challenges characterized by inherent fragmentariness in a complex variability. In this regard, epigraphy plays a crucial role as it serves as a methodological link between movable materials (microscale) and topographic issues (macroscale), shedding light on institutions and their key figures at the core of the archaeological evidence.

Gülbahar Baran Çelik

Byzantine weights and weighing instruments from Theodosius Port at Yenikapı

In Yenikapı, the location of Theodosius Port, an important trading center of the Byzantine Empire's capital, Constantinople, archaeological excavations have been conducted under the direction of the Istanbul Archaeological Museums. These excavations were initiated in 2004 as part of the rail system projects aimed at addressing Istanbul's traffic issues. The discoveries made in this area have revealed significant evidence spanning from the Neolithic Period to the Turkish Republic era.

Among the artifacts unearthed during this extended timeframe, the most significant activity occurred during the Byzantine Period Theodosius Port infill. In addition to numerous shipwrecks, these excavations have also brought to light findings related to the trade of that era. This includes a set of steelyards, various forms of steelyard counterpoises, two scales, and a group of shopping equipment and materials from the Early Byzantine Period, such as scale pans and weights. These discoveries will be presented within their archaeological context.

Siren Çelik

Shopping in late Byzantium

Despite the political, territorial and economic decline experienced by the Late Byzantine Empire, trade and shopping remained vibrant in cities such as Constantinople and Thessalonike. Furthermore, the 14th and 15th centuries witnessed an increasingly multi-cultural trade environment in which the paths of Byzantine, Italian, Muslim and Ottoman traders and buyers regularly crossed. In the last decades, scholarship on Late Byzantine trade has flourished, providing us with poignant analyses on economy and trade. However, while the 'bigger picture' has received much scholarly attention, the more mundane details of shopping in Late Byzantium are less studied. This paper shall endeavor to shed light on the more trivial, daily aspects of shopping in Late Byzantium, such as contemporary views on marketplaces, merchants and goods. Instead of analyzing Venetian senate documents, Byzantine deeds and documents, or account books, we will attempt to sketch a picture of shopping practices through the travelers' accounts such as Russian pilgrimage writings, Ibn Battuta, Clavijo and Schiltberger. Another group of sources to be explored will be lesser-known Byzantine literary works, especially poems and letters such as the poetry of Manuel Philes and Theodore Metochites, and the letters of Demetrios Kydones. Through a careful literary analysis of these sources, this paper will attempt to gain an insight into daily shopping in marketplaces and the people who populated it, as well as into contemporary perceptions of the goods on offer, merchants and shopping. Moreover, the representations of shopping in Byzantine territory and in neighboring cultures such as the Ottoman lands will be examined through a comparative approach. Finally, as this paper will chiefly deal with literary sources, the commonplaces (topoi) that pertain to trading, markets and merchants will also receive due attention.

Sedef Çokay-Kepçe and Aliye Erol

The glass weights from Perge, Pamphylia

This paper presents a collection of glass weights dating back to the Late Roman and Byzantine Periods, discovered during excavations in Perge, one of the prominent cities of Pamphylia. Excavations in Perge have been ongoing since 1946, leading to the discovery of numerous bronze weights, fragments of balances, and measuring instruments dating back to the Late Roman period. Additionally, glass weights, though in limited quantities, were also found, a phenomenon observed in other cities of Asia Minor.

These glass weights were primarily recovered from the residential areas of the city and the shops located to the south of the macellum. The glass weights, featuring monograms on their obverse sides, provide valuable insights into urban trade and the administrative officials of the region.

Matthieu Delmeulle

Commercial weights in Hellenistic and Roman Southern Levant: towards a first attempt at synthesis

This presentation will unveil the results of the first-ever endeavor to consolidate the commercial weights of the Southern Levant produced during Hellenistic and Roman times into a single comprehensive work. Despite being the subject of various individual publications, these weights have never been collectively studied. To address this gap, a state-of-the-art review was conducted, aiming to stimulate further research.

From this review, the general characteristics of the evolution of Southern Levant weights during the Hellenistic and Roman eras could be discerned. Greek, Roman, and indigenous elements are intermingled and separated in response to the ebb and flow of political, economic, and social events. Amidst the interplay of disruption and continuity, these commercial weights allow us to assemble the mosaic of a complex multicultural landscape

Charles Doyen

A new look at the weights from Seleucid Syria and Phoenicia

Over the last decade, the emergence of numerous weights on the Antiquities market, along with the comprehensive utilization of Henri Seyrig's archives preserved at the Bibliothèque nationale de France in Paris, has significantly expanded the corpus of Seleucid weights. This paper aims to provide a complete reevaluation of this corpus, with a specific focus on distinguishing between civic and royal weights, the types of metals used, denominations, and the names and symbols of the agoranomoi. Building on Finkielsztein's seminal papers from 2014 and 2015, we will present a regional study of the weight systems

documented in Syria (including Antioch, Seleucia, and Laodicea) and in Phoenicia (covering Arados, Marathos, Byblos, Berytos, and Tyre).

Gerald Finkielsztein

Looting, forgery, provenance research and history: Hellenistic Levantine scale weights

Scale weights from the Hellenistic period are typically adorned with intricate designs, making them highly appealing to collectors. Consequently, they are frequently sought after by individuals, along with coins, when it comes to looting archaeological sites. These weights often make their way to antique dealers, who then sell them to private collectors, and many eventually find their place in esteemed museums. Unfortunately, the originals may also be used in the creation of forgeries, accomplished in various ways, typically through over-molding, but also through attempts to imitate them (sometimes quite crudely) by crafting modern molds. This presentation will showcase various examples from the Levant, some of which may be individually studied to yield valuable scientific insights, and, on occasion, their archaeological origins may even be identified.

Pierre-Louis Gatier

Hellenistic and Roman civic weights of Antioch and Seleucia, overview and updates

In the paper I am submitting, I undertake a fresh examination of the numerous Hellenistic and Roman scale weights from the neighboring cities of Antioch-on-the-Orontes (modern Antakya) and Seleucia-in-Pieria (modern Çevlik), which amount to approximately eighty and sixty, respectively. This study relies on previously unpublished documentation originally collected by the late Henri Seyrig, now housed at the National Library (Bibliothèque Nationale de France) in Paris. Additionally, I make use of the Pondera online database created by Professor Charles Doyen at the Catholic University of Louvain in Belgium.

The paper addresses three main themes. First, I aim to clarify the corpus's extent and composition by removing spurious weights and introducing others that may have been overlooked. Secondly, I delve into the roles of the agoranomoi in Antioch-on-the-Orontes and Seleucia Pieria, shedding light on their onomastics. Lastly, I conduct an in-depth analysis of the iconography present on the weights from both cities and establish connections with the iconography found in other Seleucid cities within the region.

Vera Guruleva

The aspers of the Trebizond Empire: Money and commodity

The fall of Byzantium in 1204, with one of its remnants giving rise to the Trebizond Empire, paved the way for Western European merchants to access the Black Sea. Among these merchants, the Venetians were the first to establish a presence, but it was their trading rivals, the Genoese, who achieved the greatest success in the region. A significant turning point in the establishment of regular trade routes occurred with the emergence of the Ilkhan state in 1258. Under these evolving conditions, Trebizond, strategically positioned at the intersection of sea and land routes, gained prominence as a vital hub for transit trade.

Around this time, the minting of silver aspers commenced. Unlike the trachea that had previously circulated within the empire, these coins were issued in considerably larger quantities, surpassing the domestic market's demand. To provide context, the annual production of aspers during 1260-1270 amounted to approximately 240,000 coins. To gauge the cost of goods in Trebizond's markets, we can refer to the records of the British embassy to the Ilkhan in 1292, which comprised 20 individuals. Over their three visits to the city, totaling 34 days, they spent approximately 10,000 aspers on expenses like renting a house, hiring pack animals, purchasing food, livestock fodder, firewood, clothing, shoes, and other necessities. Many food items were acquired in the Trebizond market using copper coins. Concurrently, barter transactions were common in the province. While money was essential for acquiring land and meeting tax and land rent obligations, in some instances, taxes and rent included in-kind payments. Aspers were utilized for calculating trade duties, which were paid to the treasury by merchants and represented a lucrative source of revenue.

The excessive coin production that characterized the Trebizond Empire was also observed in other regions. Minted coins transformed into commodities, becoming significant items of precious metal export. In the 8th to 10th centuries, Arab merchants transported silver to Rus' and Scandinavia in the form of dirhams. In the 14th century, Venice re-minted precious metals and currency received from Europe into its own coins, generating income from minting activities, and these coins were subsequently traded in the East.

From the latter half of the 13th century, conditions in Trebizond favored the conversion of silver aspers into a tradable commodity. Silver, along with other metals, was in demand in the Crimea, which lacked its own mining resources. According to Genoese records, monetary circulation in the Crimea included silver coins such as the Golden Horde's "aspers baricates" and Trebizond's "aspers comnenates," later replaced by "aspers danga" (the Genoese-Tatar coins of Caffa). These coins numbered in the hundreds of thousands. Additionally, silver bars, known as sommo, were also in circulation. The scarcity of Trebizond aspers found in the Crimea and the absence of significant hoards suggest that the majority of these coins were melted down for various purposes in the region.

Yavuz Selim Güler

Workshops, authorities and owners: Inscriptions on the Roman and Byzantine steelyards

Steelyard is one of the outstanding inventions in the history of measurement. This invention lets the users weigh heavier goods and commodities with simple equipment. There are several studies on the history of steelyards and their typologies as well as comprehensive works on the steelyard weights. However, except few researches on the individual steelyards from the museums and excavations, there is inadequate literature discussing the steelyard inscriptions with comprehensive analyses. This paper intends to fill the lacuna in the literature by discussing inscriptions on the Roman and Byzantine steelyards indicating practices of control, monitoring and ownership. The paper examines the published examples of the copper-alloy steelyards with inscriptions from the 1st century CE to the 7th century CE from the excavations, museums and private collections in the world as well as few unpublished examples from the private museums in Türkiye. After an introduction to the working principle and the history of the steelyard, the paper discusses the *chaîne opératoire* of the steelyards from production process to disposal. The paper provides epigraphic autopsies for the inscriptions to reveal the “micro-histories” of these objects. It is supported with a comparative evaluation of the textual and archaeological sources as well as other *instrumenta publica* in the marketplace including balance scales and weights. In the end, this study provides a comprehensive analysis of the steelyard inscriptions and contextualizes the production and usage of the steelyards.

Thomas Leblanc

Made of bronze and lead, the so-called standard weights

Weights are calibrated objects used every day in markets to weigh all kinds of goods. In the ancient Greek world, they regularly took the form of a metal plate decorated with iconographic symbols and inscriptions. Until now, historiography has focused more on the visible decoration of these weights: iconographic type, inscription, intervention made on the weight after its production (abrogation, countermark, suspension hole, etc.). The metal used for their production has received less attention from scholars. However, the material study of these weights is not lacking in interest. Indeed, we can try to understand where the cities sourced their supplies in order to provide the craftsmen responsible for producing the weighing instruments. Moreover, we can observe that two metals coexist in the composition of Greek weights: lead and copper alloy. In this paper, we wish to question the reasons for this distinction based on the example of the cities of western Asia Minor during the Hellenistic period. If copper alloy weights, much less numerous than those made of lead, could be interpreted as standard weights, the term "standard" still needs to be defined and the precise role attributed to these instruments has to be understood. As we shall see, the word "standard" covers several different realities and can distort the vision we have of these weights. Therefore, we aim at formulating hypotheses on the function of these instruments as close as possible to the actual stathmetical practices of the time.

İbrahim Hakan Mert

A new lead weight from Priene

During the excavations and research conducted at the Sanctuary to the North of the Altar of Athena in Priene, a remarkably well-preserved lead weight was discovered in the upper layers of a trench that was excavated in 2019. This weight holds significant value as it is associated with a specific archaeological context that can be accurately dated through the examination of its accompanying finds, particularly ceramics. The weight bears an inscription, which includes the Greek characters ΠΙΠΗ / ΗΜΙ, as well as an image of a trident.

In the forthcoming paper, we will provide a detailed description and analysis of this recently unearthed lead weight from Priene. This analysis will be situated within the broader context of regional and temporal examples, shedding light on its significance within the archaeological and historical framework of the site.

Julien Olivier and Donald T. Ariel

From one coinage to another: use and exchange of Attic and Lagid coins

The closure of the Ptolemaic monetary market under Ptolemy I forbid this area for several centuries to Attic coinage, which was prevalent in the Oikoumene after Alexander's conquests. The obligatory exchange of foreign coins in the Alexandria harbor is documented in the famous letter of Demetrios (258 BC), from the archives of Zeno. However, exchange operations could not have been limited to the Egyptian capital or to the major harbors of the kingdom. The presence of mixed hoards (gathering attic and ptolemaic standards) in the contact zones between the Lagids and Seleucids (mainly in Syria and southern Anatolia) is an evidence of border areas where the two currencies had to coexist. How and for what purposes could the users - mainly militaries - use them and exchange them?

In this paper we will examine the mixed hoards from southern Turkey and Levant in the 3rd and 2nd centuries BC (composition, distribution of coins, values, graffiti, etc.). The aim will be to determine both what made it possible to bring these coins together in a single deposit, and above all how Attic and Lagid coins were quite distinct in their use within the Ptolemaic kingdom. We will also present a group of lead monetiform objects from the 2nd century that have recently appeared on the market. In view of their weights and their Lagid and Seleucid monetary types, we will try to support the hypothesis that it could be a set of weights specifically made for exchange between these two coinages.

Emma Pavan

Weights and weighing processes in Archaic and Classical Greek literature

Weights, weighing and the elements that characterise it, such as the balance, are well attested in Greek literature from the Archaic period to the Roman period. These notions appear in several literary genres: epic, theatre, historiography, philosophy, scientific treatises or rhetoric. However, previous works have focused more on the study of weights as material artefacts rather than on literary sources and the cultural framework for their use is still lacking. The aim of this paper is to undertake a multidisciplinary study on the definition of the concept of weighing, its daily use and its impact on the Greek collective imagination, focusing on Archaic and Classical periods. Firstly, terminology of weights and weighing processes is characterised by a non-homogeneous distribution of its attestations throughout Greek literature. The occurrences of certain words are absent or less numerous in certain times. Secondly, some terms are specific to particular literary genres and there are also differences by author. Furthermore, a typical feature of weighing terminology is polysemy. On inscriptions, this aspect is even more pronounced, since coins and weights of the same city often shared the same iconography and denominations. Indeed, inventories, public loans, subscriptions, tax records or laws concerning monetary and weight standards provide valuable information on the use of weights. Through an examination of literary certifications and their comparison with other textual sources (inscriptions) and archaeological sources (weights and coins), this paper aims at identifying the terminology linked to weighing processes and to delineate the process of cultural construction of the weighing phenomenon.

Mustafa H. Sayar

Use of the market tables for liquids and grain in daily shopping during the Antiquity

In the context of this paper, we will conduct an analysis of two distinct artifacts used for liquid measurement: a rectangular liquid measuring table constructed from white marble and a round measuring artifact, both of which are currently housed in the Tekirdağ Museum. These artifacts were originally sourced from private collections, and their origins remain obscure. The rectangular marble table features nine liquid filling chambers with varying diameters, and it includes an aperture at the front for the outflow of the liquid contained in each chamber. The round artifact, on the other hand, comprises four chambers and served the purpose of measuring liquids or grains. Both of these items are believed to have been employed for the quantification of wine or olive oil transactions within the marketplaces of the respective settlements where they were used.

These measuring tables find historical parallels in numerous ancient cities, yet the extant examples are relatively scarce. In addition to exploring the function of these measuring tables in this paper, we will also shed light on the specific locales where they were employed. Furthermore, we will delve into the use of Market Tables in everyday shopping practices within Mediterranean cities, drawing on a range of illustrative examples.

Oya İklil Selçuk

Proper moral conduct according to a seventeenth-century manuscript on Islamic rules of commercial transactions

Social and economic challenges made their way into prescriptive literature in the form of emphasis on moral conduct that actual markets lacked. An in-depth examination of an unpublished and unscrutinized anonymous manuscript dated 1697 on Islamic rules of transactions (*fiqh mu'āmalāt*), exhibits the divergence between the moral and the actual economy. Consequently, I raise questions on ideals of justice that come across this manuscript. Chapters of the manuscript dwell on commercial transactions regarding travel, the urban market, trickery, usury, unlawful agricultural dealings, and ways of business to be avoided. These chapters illustrate shortcomings of morality from the perspective of Islamic procedure within a wide range of improper, unacceptable or abominable behaviour such as meddling with weights and measures, hoarding, trickery, and theft. Through the lens of the manuscript, the present study looks at the “code of honor” quality in commercial relationships in the early-modern context. The discussion includes, but is not confined to, the concepts of “intention”, “oath” and “mutual obligations”. Looking into contemporary political and economic conditions, I contextualize the manuscript within the framework of the ‘long seventeenth century’. I will also locate it among contemporary Ottoman works of economic thought as well as the *hisba* and *fütüvvet* literatures regarding economic morality. Finally, some court cases illustrating conflictual situations born out of commercial transactions will contribute to this contextualization.

Oğuz Tekin

Weights from Antiochia and Seleucia Pieria including some unattributed weights in the Hatay Museum

This paper focuses on the weights of Antiochia and Seleucia Pieria in the Hatay Museum, including some unattributed weights. The following is a list of the weights to be introduced: 1 from Antioch with the name King Antiochus VIII (mna); 1 from Antioch with the ethnicon of Antiochia and the title of agoranomos (tetarton); 3 from Antiochia without the names of a king or an ethnicon (mna, tetarton, ogdoon); 1 from Seleucia with the title of agoranomos (litra); 3 with the ethnicon of Seleucia Pieria (hemimnaion, 2 tetartons); 1 attributed to Seleucia Pieria but with an illegible legend (hemilitron?); 9 unidentified (various units).

Bendeguz Tobias

Where is the market? A comparison of weighing instruments used in the Mediterranean and northern Europe in early medieval times

When we examine scales and weights from an archaeological perspective and compare findings in the Mediterranean with those in Northern Europe, significant disparities become evident. In the Mediterranean region, these instruments are primarily discovered within the vicinity of both large and small settlements. Conversely, in Northern Europe, their prevalence is predominantly within a burial context. This discrepancy has raised a longstanding question regarding the precise location and purpose of these weights and scales.

A closer inspection of the Mediterranean region reveals a multitude of contexts in which these artifacts are situated. In this presentation, we will explore various potential interpretations to shed light on the diverse uses and settings of these instruments in the Mediterranean region.

Louise Willocx

Increases in Greek weight standards at the end of the Hellenistic period: A sign of standardisation or crisis?

Several sources and clues provide evidence of metrological reforms that modified the Athenian weight system in the Classical and Hellenistic periods. Several significant changes are attested in the space of a few centuries. Initially, the commercial mina weighed 100 drachmas, i.e. around 435 g. The mass of the drachma remained stable, but that of the mina was first increased to 105 drachmas and 112 drachmas in Classical times, and to 126, 138 and 150 drachmas in Hellenistic times.

More than twenty weights, several of which have a known archaeological context, probably belong to standards exceeding 150 drachmas. On the basis of the mass of the objects and the pattern of evolution of the Athenian weight system, which regularly shows increases of 12 - or even 14 - drachmas, we therefore postulate the existence of standards of 162 drachmas and 176 drachmas, or even 188 drachmas, in the 1st century BC.

The rapid increase in weight standards could be explained by the troubled context of the first half of the 1st century BC, when Athens, which had sided with Mithridates of Pontus against Rome, was sacked by Sylla's troops in 86. The city slowly recovered from the destruction and went through a period of political and economic crisis.

This phenomenon of increasing weight standards was not unique to Athens. Other cities seem to have followed the same pattern. Are these increases in Greek weight standards a sign of standardisation or a sign of crisis? This is what we propose to explore in this paper.

Remzi Yağcı

Duck shaped weights, amulets and seals in Anatolia

The duck-shaped objects, often referred to as "Babylonia type," served multiple purposes in Mesopotamia, functioning as weights, amulets, and seal forms. During the Neo-Assyrian-New Babylonian Period, this distinctive shape was incorporated into stamp seal designs and became widely popular as a personal item, particularly in its conical and pyramidal variations. The pyramidal form gained prominence during the Achaemenid Period, and "weight-shaped" seals were introduced to the repertoire. In Herodotus' Histories, within the section titled "Assyria" (193), he describes the Assyrian people as "each one carries a seal and a stick in his hand" (195), underscoring the commercial role and prevalence of seals in the 1st millennium BC.

Miniature weight-type duck-shaped stamp seals possess a flat bottom, akin to other types of weights, and the sides are utilized for stamping impressions. These seals are crafted from semi-precious stones like chalcedony, opal, agate, quartz, jasper, hematite, lapis lazuli, steatite, and glass. On the stamp side of these seals, one can find representations of divine attributes and symbols from the Assyro-Babylonian pantheon, including apotropaic demons, monsters, and deities like Marduk, Šamaš, Ea, Sin, and Ištar. Additionally, various symbols like herbal decorations (such as the tree of life), ellipses, 6 or 8-pointed stars, and "X" motifs are carved into the seals. In this sense, the reverse side of the stamp also functions as a protective amulet for the seal's owner, featuring divine and hybrid beings that are carved according to the personal preferences of the seal bearer.

When these duck-shaped seals are weighed, it becomes evident that they represent shekel fractions, such as 1/24 shiklu or 1 obol. This suggests that these objects had a multifunctional role. Besides serving as amulet seals carried throughout the 1st millennium BC, they were also employed for weighing precious metals like gold and silver. This paper will delve into a comparative examination of the various functions of duck-shaped objects used as weights, seals, and amulets.

Şeniz Yener and Barış Yener

Cracking the code of lead tesserae in Laodikeia: A mere token or an early form of cryptocurrency?

The purpose and significance of lead tesserae, commonly used in the Roman Empire, continue to be a source of intrigue for historians and archaeologists. Some tesserae were specifically designed for the distribution of Imperial largess, while others served as official tickets for regular distributions, such as those for grain, games, and theatre. However, a significant portion of surviving tesserae were privately produced by merchants and individuals for their own commercial and personal needs. A more thorough investigation into the production and distribution of these tesserae has the potential to provide valuable insights into the ancient economy, shedding light on the role of craftsmen and merchants in the process of currency production. This research can enhance our understanding of the materials used, manufacturing techniques applied, and the distribution networks involved in the creation and circulation of tesserae.

In this paper, we focus on the use of tesserae in Laodikeia, drawing upon evidence related to their physical properties, historical context, and the broader economic and social conditions of the era. We argue that tesserae should not be perceived merely as tokens but as a medium of exchange and a store of value. This perspective offers new insights into ancient economics, commerce, and the evolution of monetary systems. Our analysis of the available evidence seeks to provide fresh perspectives on the nature of tesserae and their contributions to the development of monetary systems.