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Interpreting Three Gold Coins from Ancient Egypt and the Ancient Near East at the Museo Casa de la Moneda, Madrid

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The aim of this paper is to study three gold coins from the pre-Hellenistic Egypt and Near East, housed in the Museum Casa de la Moneda, Madrid, since 1955. In all three cases, their description is made as well as a review of the hypotheses that have been issued on their typology. Some novel proposals are made about their iconography and the possible gold sources for the raw material.

The first is a Daric, probably coined between the beginning of the reign of Xerxes I and the fall of Sardis under Alexander the Great. The study provides an original indication about its iconography, as well as about the possible (and vague) relationship of Persian imperial coinage with Zoroastrianism, the official religion of the Achaemenid Dynasty.

The *nbw nfr* coin is an Egyptian coinage from the Nectanebos Dynasty; one of the few hundred preserved copies. The iconography of the horse on the obverse is explored from the art and plastic of pre- and post-Sebenitic Egypt, and some technical aspects of the elaboration of the coin from the type of its reverse are analysed. From an epigraphic point of view, a new reading of the *nbw nfr* group is proposed.

The Double Daric is a complex currency, both regarding the precise determination of its chronology, as well as its interpretation and recipients. It is a coinage made possibly in Babylon with a broad chronology from 331 BCE until ca. 306 BCE.

Interpretación de tres monedas de oro de Egipto y el Oriente Próximo antiguos en el Museo Casa de la Moneda, Madrid

En el presente trabajo se estudian tres monedas de oro del Próximo Oriente pre-helenístico, que se encuentran en el Museo Casa de la Moneda, Madrid, desde el año 1955. En los tres casos se realiza una descripción y una revisión de las hipótesis que se han emitido sobre sus tipos. También se hacen algunas propuestas sobre su iconografía y las posibles fuentes auríferas de la materia prima.

La primera es un dárico acuñado probablemente entre los comienzos del reinado de Jerjes I y la caída de Sardes bajo Alejandro Magno. El estudio aporta una indicación original en torno a su iconografía, así como sobre la posible (y vaga) relación de las acuñaciones imperiales persas con el zoroastrismo.

La moneda *nbw nfr* es una acuñación egipcia de la dinastía de los Nectanebos; una del escaso centenar de ejemplares conservados. Se explora la iconografía del caballo del anverso a partir del arte y la plástica del Egipto pre y postsebenítico, y se analizan algunos aspectos técnicos de la elaboración de la moneda a partir del tipo de su reverso. Desde un punto de vista epigráfico, se propone una nueva lectura del grupo *nbw nfr*.

Por último, se presenta un doble dárico. Se trata de una moneda compleja, tanto en lo tocante a la determinación precisa de su cronología, como a su interpretación, destinatarios, etc. Se revisa su posible acuñación en Babilonia y se le asigna una cronología amplia, desde el 331 a.e. hasta ca. 306 a.e.

Keywords: Numismatic, coin, gold stater *nbw nfr*, daric, double daric, Egypt, Achaemenid Persia.

Palabras clave: Numismática, moneda, estátero de oro *nbw nfr*, dárico, doble dárico, Egipto, Persia aqueménida.

The presence of three gold coins from the Ancient Near East and Pharaonic Egypt in a Spanish public collection is something truly exceptional since the ancient numismatic materials on the Spanish collections are usually ancient coins of pre-Hispania and Hispania, and coins of the Classic World.

During the second decade of the 21st century, studies concerning currency types, mints, standards, alloys, etc., have advanced significantly, so it is now a good time to conduct a detailed study on these three coins. Moreover, the examination of these coins would allow us, for example, to collect new dates in order to evaluate more accurately the volume of gold issues

made by the pharaohs of Sebennytos, and to hypothesize about the final destination of some of the items of the former Farouk's gold coins collection.

The oldest of these three coins, the daric, was probably minted in Sardes during the reign of Xerxes I; the Egyptian *nbw nfr* coin was probably minted in Memphis around 350 BCE; and the double daric was minted well into the second half of the 4th century, probably in Babylon.¹

The precise circumstances of the acquisition of these coins and their arrival to Spain are so far unknown. It is only known that the three coins (a *nbw nfr* stater, a daric, and a double daric) were purchased at the antiquities market by the Museo Casa de la Moneda, Madrid (MCM) on December 31st, 1955: they were acquired in Numismática Calicó of Barcelona, operational since 1920. It is neither known if there were other currencies in the same lot.

In 1954, King Farouk's numismatic collection was sold in Sotheby's: "Il détenait d'ailleurs une des plus belles collections de monnaies d'or jamais réunies (...) Le catalogue de vente présente trois monnaies nbw nfr".² The ex-monarch was in exile since the advent of the Egyptian Republic in 1953. Given these circumstances, it is very tempting to relate the arrival of these coins to Madrid, purchased by the MCM only one year after the auction,

with the dispersion of King Farouk's gold coins collection through intermediaries of numismatic pieces. However, this circumstance must remain hypothetical for now, largely due to the aforementioned absence of documentation in the Madrid institution.

1 | The daric

The first coin analysed is a daric. Darics were the golden coins minted by the Achaemenid Empire. They were supposedly introduced by Darius I, and they were part of what has been called *le second monnayage du Grand Roi*.³ Darics were issued in the East under the Persian imperial authorities until they were replaced by Alexander's *Athena/Nike* stater, ca. 330 BCE.⁴

However, less than a decade ago, a Swiss researcher presented a thorough study where he seriously doubted the *imperial* character of the daric; he stated that darics were in fact just a kind of *satrapal* coinage, in particular, the local coinage of the satrapy of Lydia: "Diese Bogenschützenmünzen [both in gold and silver] keine achaimenidischen Reichsprägungen sondern Lokalprägungen aus Lydien sind".⁵ His work has been an important wake-up call for the field of numismatics studies of the Achaemenid Empire. Nonetheless, and as a precaution until this thesis gets more sup-

1 To give just a few examples, around those dates, the Mausoleum at Halicarnassus was erected, the first (and probably only) possible image of Yahweh appeared on the reverse of a Samarian silver drachm, and the Empire of Alexander was extended. These are some of the most outstanding historical events that were most likely witnessed by some of the bearers of these currencies.

2 Faucher *et alii* 2012: 153.

3 Le Rider 2001: 123.

4 Alram 1994. As a curiosity, the "dram" is a type of currency quoted four times in the Bible; it has been translated as "daric", although not every scholar agrees on this reading. Quotes: as a proleptic expression (dating back to king David's reign) in 1 Chronicles 29: 7; in Ezra 8: 27; in Ezra 2: 69; and in Nehemiah 7: 70–71.

5 Corfù 2010: 206.

port among numismatists, in this article the traditional view is assumed, which considers the daric the official gold coinage of the Achaemenid Empire, and not a *satrapal* coinage.⁶

In this regard, it is not our purpose to discuss the many—and still unresolved—questions about this currency, but to present the daric housed in the MCM, to review several ideas about these issues, to provide some consideration regarding the date in which this specific type of daric could begin to be minted, and to review what is known about the auriferous districts of the Persian Empire.

The museum label of the daric housed in the MCM is:

- Accession number: 1024585 (historical file number 024297).
- Obverse: Royal Archer in kneeling-running stance right, wearing a *kidaris*, a quiver at his shoulder, holding a bow in his left hand and a spear in his right.
- Reverse: oblong incuse punch.
- Measurements: 14.6 mm diameter.
- Weight: 8.30 gr.
- Mint: (presumably) Sardes.
- Date of entry: December 31, 1955.
- Chronology: Since 481 BCE until 334 BCE.
- Typology: Type III (Alram/ Nimchuk), Type IIIb late (Corfù).
- Acquisition: It was purchased in Numismática Calicó (Barcelona). Its exact origin is unknown.

1.1 | Description of the numismatic types

1.1.1 | Obverse type

There is a male figure on the obverse of the daric (fig. 1). This figure, who is conventionally called "Royal Archer" (also "Persian royal hero" or even "running archer"), looks to the right side and rests on a horizontal line that serves as the base for the scene; he is crowned, bearded, performing the *Knielauf posture* (running attitude with knees bent),⁷ and armed with a bow, a spear, and some arrows inside a quiver. This numismatic type might have been created under Darius I, and remained essentially unchanged throughout the Persian Empire. The coin corresponds to Type III⁸ or IIIb late.⁹ Le Rider¹⁰ comments on this type: "a été le type par excellence du numéraire perse"; indeed, Type III constitutes the largest category of darics.¹¹

On this specific issue, a crowned Royal Archer is usually represented. Unfortunately, in this case the minting stroke has left the crown out of the iconographic field. He wears the royal garment, carries a bow in the left hand and a spear in the right one, and a quiver rests on his shoulder; the endings of several arrows poke out from the quiver.

Alexander coinage of double darics will use a slightly modified image of the Royal Archer of Type III on the obverse.¹²

6 Since Corfù presented his theory in 2010, researchers have echoed it in their works, but they have generally avoided an unconditional adherence to his thesis. For instance, see Tuplin 2014: 132 and Mooring *et alii* 2018: 134.

7 For different theories about the origin of the *Knielauf posture*, see Tuplin 2014: 145. We will further discuss this subject later on.

8 According to Alram/Nimchuk; Nimchuk 2002: 56, fig. 4c.

9 According to Corfù 2010: 165–166.

10 Le Rider 2001: 125.

11 Le Rider 2001: 143.

12 Le Rider 2001: 143.

The main elements of this numismatic type are the following:

a) The hero

The figure on the obverse has been interpreted as a god, a hero, as the emperor himself, or even as a heroized image of an ancient king;¹³ it has also been said that it is “obviously Persian in dress and equipment and markedly un-Persian in deportment”.¹⁴ Conventionally, he is called “the Royal Archer”. He seems to run to the right side in a combat attitude, such as heroes or certain gods.¹⁵ According to Root,¹⁶ he is undoubtedly a heroic manifestation of the Great King, “at least to the extent of symbolizing the concept of kingship”. On this image, all personalisation has been avoided, (“in stark contrast are the portrait coins of the satrap Tissaphernes, for instance”, explains Root); consequently, it represents a very generic image that may personify the dynasty. He wears a long beard, moustache, and his hair is arranged in the traditional way of the Persian court. There is some agreement among researchers around the idea that the obverse image represents—in a generic and timeless way—the Persian monarch.¹⁷ It should be stressed that the “Persian king was

not considered of divine nature”, but “divinely elected”.¹⁸ According to Stronach, the Royal Archer might be showing the king with an ethical message, “as a constant warrior in defence of the values of ‘order-truth’ (*arta*)”.¹⁹ Finally, according to Corfù “the often stated opinion that the archer on the coins depicts the Achaemenid great king is not proven”.²⁰

b) The *archaic* running (*Knielauf posture*, kneeling-running stance)

The Royal Archer advances his left leg and left arm simultaneously, while his right arm and right leg stay behind. This limb position does not correspond to an anatomical logical movement during a race; when a person runs, the right leg and left arm move forward at the same time, and, in the next step, the opposite limbs do the same. There are at least two possible interpretations for this iconography: 1) It does not represent a running position, but a man bending his knee, maybe getting his spear ready for combat. 2) It represents a conventional archaic artistic resource to express the idea of running from an optimal (and artificial) angle that allows the Royal Archer’s body and weapons to be displayed. This second option is the most likely

13 For a summary of the different interpretations of this figure, see Corfù 2010: 169–170 and 199–200, as well as Tuplin 2014: 139–145; however, the vast majority of researchers consider it—in one way or another—an image of the Great King.

14 Tuplin 2014: 157.

15 Certain Mesopotamian deities—like Adad and Ninurta—adopt this pose in some of their throwing arrow images (an example can be seen in Black & Green 1992: 14, fig. 6). Ninurta is an especially aggressive god “against the so-called “rebel lands” or “hostile lands” (the regions in the mountains to the east of Mesopotamia)” (Black & Green 1992: 142, s.v. Ninurta). Even though Ninurta was not a Persian god (in fact, he was worshipped in Sumer and Assyria), his iconography probably reached the Achaemenian permeable imaginary (as a hero or as the king himself).

16 Root 1979: 117.

17 Le Rider 2001: 126; Erickson & Wright 2011: 164; Bodzek 2014a: 3.

18 Uehlinger 1999: 137 and 146.

19 Uehlinger 1999: 176, n. 111.

20 Corfù 2009: 110.



Figure 1. Daric, obverse.



Figure 2. Daric, reverse.

one. However, and even though the *Knielauf posture* “does not form part of the repertoire of Persian (or Greco-Persian) monumental or small-scale art”,²¹ this interpretation would be in chronological accordance with some images of Archaic Greek Art (as it is the case of several archaic representations of the Gorgon Medusa running,²² or the Nike of Delos running),²³ in which the artist shows this unnatural position of the limbs during a race. Chronologically, many of the objects of the Greek world in which images are shown perform-

ing the “archaic running” are dated to the second half of the 6th century BCE. The darics’ obverse type was created around the same date.²⁴

c) The crown

Kidaris is a Greek word (probably a loan from the Persian language) used to refer to the Achaemenian headdress. The Royal Archer wears a *castellated crown*, which is a rigid cylindrical tiara (“type b” of Thompson)²⁵ with crenelated forms at the top (these ele-

21 Tuplin 2014: 144.

22 “Medusa is almost always shown with one knee raised and the other bent almost to the ground, usually combined with one raised and one lowered arm (...). This position represents an early artistic convention to express swift motion” (Serfontein 1991: 19).

23 Concerning this statue, Post (1909: 116) stated that “the representation of the legs in their two proper planes increased the unreality by accentuating the inconsistency between the upper and lower bodies, and the compression into a single plane [= this is exactly what happens on the bidimensional surface of a coin] was itself a denial of reality”.

24 According to Corfù, the *Knielauf-Schema* would be “a posture of western origin (...) abundant in sixth- and fifth-century BCE Greek art for heroes, especially for Heracles” (Corfù 2009: 110).

25 Thompson 1965: 125.

ments differentiate it from the tiaras worn by the Persian nobility), perhaps of Elamite origin. In this coin, the minting hit has left out the details of the crown, but it is known from other darics. The crown may be used, according to some authors, to indicate that he was a “Persian *royal* hero”;²⁶ however, there are still many problems of interpretation regarding the hero.²⁷

d) The Persian robe

In darics, this is the garment worn by the Royal Archer; in numismatic literature, it is called *kandys*, although some scholars suggest that the Royal Archer is wearing another Iranian dress instead: the *aktaia*.²⁸ It was made out of wool or yarn, had wide sleeves, and was decorated with embroidery.²⁹ It was tied up to the waist by a girdle, from which a dagger could be hung (*akinakes*). This girdle can be seen in our coin, as well as a side knot that keeps it fixed. The Iranian nobility wore this Persian type of robe; it was a status symbol. It is mentioned for the first time in Xenophon’s *Anabasis* (1.5.8) as a dress worn by Persians of high rank, which was worn over a lighter robe. In any case, the royal *kandys* differed from those of the nobility because it was dyed purple.

e) The bow and quiver

The Persian bow was a recurve bow. There were two kinds of bows in the Achaemenid Persia. The Royal Archer holds the small size one, easy to transport and that could be used both on foot and on horseback. The bow is the weapon that persistently remains on the obverse of the darics over time.³⁰ According to Root,³¹ the bow and the quiver may allude to a legendary royalty from two different points of view, Mesopotamian and Iranian simultaneously. On the one hand, the monarch is seen as a courageous hunter; additionally, there is a mythological meaning regarding the domains controlled by a powerful arrow that, after being shot, would mark the boundaries of the territory, whose inhabitants would remain under his protection.³² The symbolic meaning of the arrows will be discussed below.

f) The spear

Once again, according to Root,³³ the spear might have had a special mythological meaning: it can be considered as a symbol of the distance reached by the king on the periphery of the Empire. As regards its iconography, Le Rider³⁴ states that “la position oblique de la lance dans le groupe 3 [=that is, Type III]

²⁶ Uehlinger 1999: 143; he uses the italics for the word “royal”.

²⁷ Corfù 2010: 199–200 states that “In achaimenidischer Kunst trägt sowohl Auramazda als auch der Großkönig die Zinnenkrone, aber auch Frauen und sogar ein Diener tragen diese Krone, so dass die Zinnenkrone keine spezifische Person charakterisiert. Grundsätzlich können auch geflügelte Genien, Stiermenschen, Sphingen und Skorpionmenschen die Zinnenkrone tragen“. According to this author, the crown, therefore, would not clarify anything with regard to the man/god/hero represented on the darics’ obverse.

²⁸ Bodzek 2017: 34–35.

²⁹ Thompson 1965: 121–123.

³⁰ Curtis & Tallis 2005: 200.

³¹ Root 1989: 46.

³² Everything seems to evoke the late-Iranian legend of Arash the Archer (that perhaps could be rooted in the Achaemenid era?).

³³ Root 1989: 46.

³⁴ Le Rider 2001: 126.

(...) conviennent à un mouvement de course”. This Type of daric will be the only one in which the Royal Archer carries a spear; in the previous types (Types I³⁵ and II), he has only a bow and arrows, and in the later one (Type IV), the spear of the Royal Archer is replaced by a dagger. There are also royal Achaemenid texts with reference to the king’s spear;³⁶ as a consequence, “if the archer-figure had for Persians resonances of protection, perhaps the spear has clearer ones of conquest”. Linking with the idea of “spear-conqueror”, one may wonder to what extent the spreading of the darics Type III on both banks of the Aegean led some Greek artists (specifically Lysippus of Sicyon) to incorporate this weapon (the spear) to the sculptures of Alexander III as conqueror of Asia.³⁷ The spear represented on the darics is an apple-tipped type with a spear-butt,³⁸ which is a sort of protection on its rear end.

g) Exergual line

This line is a “ligne de terre”³⁹ for the Royal Archer. It simply indicates that the hero moves on a horizontal surface. It is a thick line, almost as tick as the spear carried by the Royal Archer.

Type IIIb late, to which this coin belongs, usually shows a more careful image of the Royal Archer: the hero holds the spear in a more naturalistic way; the shape and folds of the tunic are represented more realistically; several arrows are clearly aligned emerging from the quiver; and the way in which the knee of the forward leg has been designed seems more natural too.

“When Darius I had the image of a crowned archer placed on roundish pieces of silver or gold of a standardized weight and purity, the institution of coins and coinage was only about a century old”.⁴⁰ If the Royal Archer were an image of the Persian king (and not a god or a hero), the daric would be the first iconographic type with a regal image on a coin in history; in other words, “the notion of portrayal of the royal person on coinage was initiated by the Achaemenid Persians”.⁴¹

1.1.2 | The reverse

There are no images on the reverse; there is only an oblong incuse punch (fig. 2). It is a fallacy to think that the reverse has not received any unusual attention in these issues; in con-

³⁵ Only known in silver.

³⁶ Tuplin 2014: 143.

³⁷ The symbol of the spear as an attribute of the king was, curiously, picked up again by the official iconography of Alexander and, later on, the Diadochi: “The spear referred loosely to the military aspect of kingship (...). Alexander had claimed the whole of Asia as “spear-won land” and the notion remained important for the successor kingdoms” (Smith 1991: 20). In fact, Alexander consecrated his spear to the goddess Artemis (in her temple of Ephesus) after his first great victory over the Persians at the Granicus River. Moreover, the lost “Alexander with the Spear” (made by Lysippus) has been dated to ca. 330 BCE. Therefore, this date would mark the beginning of the Hellenistic iconography of the “king with spear”. Finally, it should be noted that the spear was also an attribute of the goddess Athena, even though we do not know if the official iconography of Alexander intended to get so high in its symbolic allusions.

³⁸ A Persian bronze spear-butt was found in the necropolis of Deve Hüyük (Syria, centuries V–IV BCE). For this Persian device, see Woźniak 2019: chapter I.

³⁹ Le Rider 2001: 126.

⁴⁰ Nimchuk 2002: 58.

⁴¹ Root 1989: 46.

trast to the incused square of certain Greek coins, the Persian incuse of the reverse is usually a more or less irregular surface with soft, wavy shapes.⁴²

On technical grounds, the oblong incuse of these coins “est disposé dans la même sens que la figure du droit”.⁴³ Why a reverse type for the Achaemenid imperial coinage was not created while the use of two dies with types was already known in the Aegean?⁴⁴ According to Weisser, “the incuse is intended to give an old-fashioned impression”.⁴⁵ That would imply a sort of *archaizing aesthetics* in the coinage of Type IIIb late. The fact is that the incuse was maintained on the reverse, perhaps because of the weight of tradition (this coinage follows the pre-Achaemenid issues of Sardes, which always have an incuse on the reverse), or maybe because carrying an iconographic type on the reverse might have rivalled the one of the obverse; on coins where the Royal Archer appears to be magnified, this circumstance would be inappropriate. The second hypothesis seems more convincing since, although the weight of the tradition was important, it was not decisive enough to permanently immobilize the obverse type (there

were up to four different models, sometimes even with sub-variants).

There is no doubt that the permanence of the incuse in the reverse of the darics was caused by ideological reasons, not by technical ones. The reverse of the darics with their irregular incuse echoes the incuse of the Croeseids (as well as the absence of a legend and the thick flan).⁴⁶

1.2 | Designation

The term *dareikoi* (or *dareikoi statères* or *chrysoi Dareikoi*),⁴⁷ used to name this currency, is Greek; two possible etymologies have been proposed. The first one is the name of the king Darius I, first Persian emperor, under whose reign these coins were minted; this was the most widespread opinion among the Greeks. The second one is the Palaeo-iranian root *dari-* or *daru(i)kaya*, which means “golden”.⁴⁸

Regarding the first option, Vargyas states: “It is now settled that (...) the name of daric refers in fact to him [Darius I]”.⁴⁹ However, there is no consensus about the etymological origin of the term.⁵⁰

42 The design, colour, and brightness of the darics’ oblong incuses might have been aesthetically very pleasing to certain avant-garde artists of the 20th century, such as Constantin Brancusi.

43 Le Rider 2001: 126.

44 For example, in 485 BCE (the approximate date of the beginning of the darics’ Type III minting) *owls* were minted in Athens with the owl as the reverse type (Sear 1979: xii). Additionally, even before, around 550 BCE, coins with images inside the reverse incuse square were minted in Ionia; see, for instance, Miletus 3439, in Sear 1979: 322.

45 Quoted by Tuplin 2014: 152, n. 90.

46 Bodzek 2014b: 61.

47 Alram 1993: 24.

48 Alram 2012: 64.

49 Vargyas 2010: 102.

50 Le Rider, Konuk and Tuplin think that the word “daric” derives from the name of the king Darius. According to Herzfeld, Alram and Olbrycht, it comes from the Persian root *dari-* (bibliographical references on this subject and authors are available in Bodzek 2014b: 61 n. 11).

The Greeks also called them *toxótai* (“archers”) because of the obverse type.⁵¹ Epigraphically, the oldest mention of *dareikós* is documented in an accounting document of the treasure of the temple of Athena Parthenos dated to the 428 BCE (*dareikó chrysíó statères*):⁵² “Eventually, because of the *dareikó* dominant position as the single regularly issued gold coin of its time, the term became a synonym among the Greeks for any gold coin”.⁵³ “Mais l’appellation de darique ne fut pas oubliée : Psellos rapporte que l’impératrice de Byzance Théodora possédait dans un coffre en bronze un gros lot de «dariques»”.⁵⁴

1.3 | Chronology

Darics do not carry any inscription or date, so their chronology should be estimated just from the archaeological finds and from the iconographic features of their numismatic types and evolution.⁵⁵

The date of Type III (and subtypes) darics has traditionally been fixed at the end of the

reign of Darius I and the early years of Xerxes I;⁵⁶ it was probably a transitional currency between the two reigns. The latest version of Type III (Type IIIb late) might have been coined from 480 BCE onwards.⁵⁷ It was probably introduced *ca.* 475 BCE, although, perhaps, it might have been coined since 486 BCE—the date of the death of Darius I. Consequently, Type IIIb late was probably coined without any iconographic changes for a century and a half.⁵⁸

The death of a Persian emperor—or even his aging process—was always a moment of weakness in such a vast Empire. Indeed, after the coronation of Xerxes I (486–465 BCE), there was a severely repressed uprising in the satrapy of Egypt (*ca.* 486 BCE), as well as two rebellions in Babylon (around 484 and 482 BCE). It is therefore likely that the revolts within the Empire and the change of the numismatic type in the darics might have been related; the change in the royal titulary of Xerxes I inscribed in the “quadrilingual vases” (containers bearing inscriptions in Persian, Babylonian, neo-Elamite, and Egypt-

51 Le Rider 2001: 123.

52 Alram 1994. In any case, we must bear in mind that the word “stater” had a very vague meaning in the Greek world for a long time. “Staters are generally mentioned without any indication of their issuing authority or their metal and refer to the heaviest coin in a monetary system and standard” (Psoma 2009: 172–173).

53 Alram 1994. In two financial account inscriptions from Delphi (dated to the second half of the IV century BCE), the word used to name the gold coins of the Greek world at that time was “daric”; the term *chrysoi* appears in one of the inscriptions, most likely as a synonym of “daric”. On those same dates there was also evidence of the *Dareikoi Philippeioi*, the golden philippeioi, coined into the Attic standard (Bousquet 1985: 229–230). According to several authors, the term *philippeios* “désignerait alors les statères d’or de poids attique de cette aire géographique (Grèce, Asie Mineure, orient séleucide), qu’ils fussent frappés au nom et aux types de Philippe II, d’Alexandre, de Lysimaque, de Démétrios Poliorcète ou des rois séleucides” (see Psoma 2009: 175–176).

54 Le Rider 1996: 66.

55 Root 1979: 118.

56 Nimchuk 2002: 60.

57 Le Rider 2001: 133, Corfù 2010: 167.

58 Tuplin 2014: 137.

tian) need to be considered in this regard too. The epigraphic change on the vases' inscriptions might have happened around the year 481 BCE. In both cases—i.e. the change of the obverse type in the darics and the change of royal titulary in the vessels—a *hardening* of the Persian emperor's official attitude is observed. On the one hand, the traditional multi-regional titulary of the Persian king is replaced by a new and unique titulary in the quadrilingual vases. This fact was clearly shown by the new Egyptian hieroglyphic name of the king: instead of the “King of the Upper and Lower Egypt, Lord of the Two Lands”, he became “The Great King”;⁵⁹ after quelling the revolts, he also stopped using the title “King of Babylon”. On the other hand, as far as the obverse type of the darics is concerned, the Royal Archer has a quiver with several arrows, each of which might have symbolized the first military campaigns of Xerxes I: the subjugation of severe riots in several specific regions of the Empire (the four arrows may refer to one revolt in Egypt, two in Babylonia and, perhaps, an intervention in Yehud—in the satrapy of

Transeuphratia—at the request of Samaria),⁶⁰ and/or the campaign of Greece in 480 BCE.

Type IV began to be coined around 450–425 BCE, and it coexisted with Type IIIb until the end of the Achaemenid Dynasty.⁶¹ In fact, Type IIIb was coined until the conquest of western Asia Minor by Alexander, i.e., until 334 BCE.⁶²

1.4 | Weight and purity

The daric of the MCM weighs 8.30 gr. Concerning the first gold issues of Darius I, “the weight of the gold coin was raised, from that of a light Croeseid of ± 7.87 grams⁶³ to ± 8.35 grams”.⁶⁴ In the contemporary Greek world, Herodotus uses staters and darics to refer to amounts of gold; on the contrary, silver was “weighed or measured”.⁶⁵ This means that darics were a unit of referential mass for gold used by the Greeks.

Finally, Stoneman states: “the exceptional purity of Persian gold darics was famous”.⁶⁶ They had around 96.3–98.7% pure gold.⁶⁷

59 For the change in the way of naming the king on the quadrilingual vases, see Posener 1936: 140–141 and also in Westenholz & Stolper 2002: 8–9; according to both authors, “it is possible that this chronological development reflects political change”, change, perhaps, related to the repression of revolts in Egypt when the passage from the reign of Darius I to Xerxes I took place.

60 Each element of the numismatic types of ancient coins has its meaning. The iconographic space is usually small and filled with symbols related to the issuing power. As a consequence, the number of arrows in the quiver is not random, so it might have referred to the number of rebel areas suffocated by Xerxes I after his arrival to power. If this were the case, the date of “Type IIIb late” must have followed the last of those revolts. The possible rebellion of Judea is mentioned in Briant 1996: 541—but not with much conviction—and in Stoneman 2015: 58, who suggests the year 484 BCE as a likely date for it.

61 Le Rider 2001: 133.

62 Corfù 2010: 167.

63 According to Le Rider (2001: 103) the light Croeseid has a weight of 8.05 grams; see also Corfù 2010: 177.

64 Potamianos 1971: 19.

65 Potamianos 1971: 20.

66 Stoneman 2015: 45.

67 Vilcu *et alii* 2011: 502, quoting Gondonneau & Guerra's research.

1.5 | Mint(s?) of the darics

Sardes was the main (and probably the only one) centre of Imperial Persian minting, but some researchers think that there were other subsidiary mints in the Achaemenid Empire. For instance, after the episode of the Sardes fire (caused by the Athenians in 498 BCE during the Ionian Revolt), the Persian state apparatus might have decided to create different mints throughout the Empire. If that was the case, Babylon could have been one of them; it is known that Alexander could have coined there double darics after his arrival to the city, probably because there was a pre-Macedonian mint already working in Babylon.⁶⁸ However, Price disagrees based on the fact that darics were not coined to circulate inside the Empire: “Regular findspots of the lion and bull forepart coinage and of the Persian archer coinage show that these were coinages for the satrapy of Sardes”.⁶⁹

Moreover, it is also known that the Royal Road connected Sardes with Susa; these two locations were the beginning and end of this route, 2500 km apart.⁷⁰ According to Le Rider, Type III was coined in Sardes;⁷¹ as Types III and IV were simultaneously coined during the final phase of the Empire, the differences between these two types may be explained by the existence of various mints. The prob-

lem arises when looking for the specific location of a supplementary darics' second mint.⁷² In any case, “behind this curious numismatic fact (=the existence of a single imperial mint) must lie a profound difference in the workings of the Achaemenid administration in the Persian Empire, as well as a difference in the monetary economies of the different areas of the empire”; as stated by Curtis and Tallis, who distinguish between the Western satrapies, which would require currency to make their payments (as they were in contact with the Aegean poleis), and the sparsely monetized Eastern part of the Empire.⁷³

1.6 | Main auriferous provinces of the Persian Empire

By the autumn of 330 BCE he (=Alexander) was able to assemble at a central treasury at Ecbatana (...) around 4,700 tonnes of silver and 470 tonnes of gold. These seizures provided Alexander with a vast monetary resource.⁷⁴

The accumulation of noble metals seems to have been a common practice at the headquarters of almost all satraps; according to Briant, “ces trésors semblent être le résultat d'une accumulation incessante depuis Cyrus (...) et représentent des stocks immenses de métaux précieux”.⁷⁵ For a long time, numer-

68 Mitchiner 1975: I, 1.

69 For M. Price's opinion, see Root 1986: 50.

70 Sheedy 2006: 121.

71 Le Rider 2001: 135.

72 Several possible mints are contemplated in Le Rider 2001: 136–139 and in Bodzek 2014b: 61. In addition to Babylon, there might have been a Persian mint in Daskyleion (Phrygia) and/or in Cyzicus (Mysia); see Corfù 2010: 170. Daskyleion had its own auriferous veins, and Cyzicus was closer to the mines of Thrace than Sardes.

73 Curtis & Tallis 2005: 200.

74 Meadows 2014: 171. Alexander's impressive looting of metal—until reaching Pasargadae—is collected in Meadows 2014: 172, table 1.

75 Quoted in Gondonneau & Guerra 2000: 27.

ous authors have thought that the entry into circulation of this immense Persian treasure (after the death of Alexander III) would have caused the temporary collapse of the value of gold,⁷⁶ as well as explain the *economic miracle* of the rise of the Hellenistic kingdoms too (before the expansion of Rome).

It is thus worthwhile to briefly review the origin of the metals kept in the Persian treasures, which later on passed into the hands of the Macedonian conqueror (and then to the Diadochi), and specifically on gold, the metal of the darics.

In contrast to contemporary Egypt, the vast Achaemenid Empire received gold from very different areas and in a variety of forms: imperial direct mining, tributes, taxes, diplomatic gifts, and so on.⁷⁷ The main auriferous zones of the Persian Empire are the following:

- In Egypt, metal was extracted from the mines of the Eastern Desert and Nubia; both raw materials and manufactured objects were tributes.
- The rich gold mines of Thrace⁷⁸ provided with sporadic tributes, since there was not a

Thracian satrapy. The Persians invaded the Balkans ca. 513 BCE, staying in Thrace for about 40 years.⁷⁹

- There existed several locations in Asia Minor. Alluvial gold (placer) in the form of nuggets of *elektron* (natural gold and silver alloy found in nature) came from the river Hermus and its tributary Pactolus (in Lydia); both converge very close to the city of Sardes.⁸⁰ There were also gold veins of a certain entity in Daskyleion (Hellepontine Phrygia), between Thrace and Sardes. Additionally, alluvial gold came from Astrya (near Troy) and from different places in Ionia.
- The gold mines of Transcaucasia (in particular Hyspiratide, in Armenia, which was considered “bien de la couronne royale achéménide”),⁸¹ Azerbaijan and Zanjan.
- The auriferous regions of Takhar and Badakhshan (Afghanistan), which were popular areas since the Bronze Age because of their mines of lapis lazuli and other precious stones too.
- The river Oxus (today Amu Darya) and several regions of Bactria.⁸²

⁷⁶ Bivar 2007: 619.

⁷⁷ For the annual taxation of gold and precious metals in the Achaemenid Empire, see Klinkott 2007: 264 (number 2). Herodotus gives an interesting list of tributary districts of the Empire under the reign of Darius I; the tributes are counted in silver, not in gold. This list is collected in various works: Briant 1996: 402; Curtis and Tallis 2005: 183. Although the metal mentioned by the Greek historian is not gold, it is striking that Babylon and Assyria (as a single district) top the list in terms of talents paid to the Great King; Egypt follows them. This makes it easier to understand why the Babylonian and Egyptian satrapies rose up against the successor of Darius I as soon as they had the opportunity: in 486 and 484 BCE respectively.

⁷⁸ Gonthier 2008: 227–228.

⁷⁹ Vassileva 2015: 320 and 324.

⁸⁰ Young 1972: 5–13. Gold has continued to be extracted in Sardes to this day: “In 2016 Sardis was still operational and produced aggregate, quartz, perlite (...) and gold only as a byproduct. (...) Alluvial/placer deposits are limited (=in Anatolia) and none are currently active with the exception of Sardis” (Brooks *et alii* 2017: 45).

⁸¹ Bernard 1999: 46, echoing a story by Q. C. Rufus (De rebus gestis Alexandri Magni, VII.3.5): “Sunt et auri metalla in Hyspiratide apud Cambala, ad quae Memnonem cum militibus misit Alexander”.

⁸² Stoneman 2015: 46; Belaňová 2016: 114; Wu 2017: 260–261.

- In Iran, gold veins are mainly located in the important metal province of the Takht-e Suleyman Massif (especially in Yaraziz) and in Aranak (near Isfahan).⁸³

- India also sent gold as a tribute.⁸⁴

In any case, it is more likely that the gold used for minting darics was coming from the geographically closest sources to Sardes, i.e. from Lydia, Phrygia, perhaps from Armenia, and especially from Thrace. Moreover,

as the leading administrative center, Sardis must also have been the collector point for the annual tribute payments from the provinces of Asia Minor, thus ensuring a sufficient supply of precious metals for mint production there.⁸⁵

In this context, it cannot be forgotten that “l’essentiel des trésors perses semble donc avoir été constitué des métaux non frappés, conservés sous forme de lingots ou d’objets précieux”.⁸⁶

1.7 | Persian coins and religion

Very little information is known on this subject. On the contrary, it is well known that, in Egypt, the *théologie de l’or* influenced directly on the circulation of gold—in the form of a sacred prohibition—slowing down the use and circulation of noble metals among the native population, as will be analysed below, for the study of the *nbw nfr* coin of Madrid. However, in Zoroastrianism the divinity Khšathra Vairya (protector of warriors)⁸⁷ is the *ameša spenta* that presides over metals.

⁸³ Bariand 1963: 26, 30–32 and 48.

⁸⁴ Herodotus III, 94–102.

⁸⁵ Alram 1994.

⁸⁶ Monerie 2018: 112.

⁸⁷ Boyce 1982: II, 3.

⁸⁸ Boyce 1982: II, 270–271.

⁸⁹ Boyce 1982: II, 122.

The scarce diffusion of the daric beyond the western part of the Empire might have hardly had an impact on the religion of the central and eastern satrapies, areas where Zoroastrianism seems to have had a greater implantation during the Achaemenid period. In any case, the expansion of the use of metals, both in the form of *hacksilber* and coinage, must have been seen by the priests of Zoroaster in a relatively positive way, under the prism of a moral theology, as

an extension of the dominion of Khšathra Vairya, lord of metals; for to use wealth of this kind wisely and charitably, they taught, was yet another way by which kings and nobles could serve that great Ameša Spenta, their own protector”.⁸⁸

Whenever gold was used in a morally correct way, it would be well regarded by the greatest of the *ameša spentas* (that is, by Ahura Mazda).

Although it is acknowledged that the Iranian population was not the recipient of darics, the king ensured that the obverse type was iconographically in accordance with Zoroastrianism:

Thus he [=Darius I] declares: “I am trained, hand and foot. As a rider I am a good rider. As an archer I am a good archer, both on foot and mounted. As a spearman I am a good spearman both on foot and mounted. And the manly skills which Ahuramazda has bestowed on me”. It is, in short, the “Zoroastrian ideal of physical health and hardihood, despite the luxuries of palace life”.⁸⁹

In some ways, the obverses of the Achaemenid imperial coins from Sardes seem to echo the ideal of the Zoroastrian monarch.

1.8 | Purpose

Literature usually links the coinage of darics (and sigloi) to economic motivations, mainly payments associated with military expeditions, conquest campaigns, quell uprisings within the Empire, or even to facilitate taxation. It is known that the standard monthly payment of a mercenary in 401 BCE was one daric.⁹⁰ On the other hand, it is also known that one day's wage for a Greek soldier in the later fifth century was one attic drachma (around 4.3 gr of silver).⁹¹ Those facts would offer a first equivalence between both currencies and metals. Moreover, according to Alram⁹² the weight used by the imperial mints adopted the Aegean standards ("In fact, the weight of the darics does correspond approximately to that of the Euboic-Attic didrachm, ca. 8.5 gr"),⁹³ because the Persian monetary policy was geared towards

the Aegean, and according to Alram the daric was competing with the Attic tetradrachm.⁹⁴

Alongside these opinions, which underline the economic purpose of the daric, there are other authors who think that it had an ideological function. According to Vargyas,⁹⁵ the reform of Darius I "was more propagandistic than financial". In this regard, Nimchuk⁹⁶ says: "their non-symbolic economic utility (...) was, I suggest, a secondary function". Uehlinger⁹⁷ already pointed out that "during the Persian period, coinage became the most important and most widely distributed medium for iconography in Palestine"; but this idea might have probably been also extended to Syria, Phoenicia, and other areas of the Empire. For these reasons, darics remain, in the words of Carradice, "these well known, though little understood coinages".⁹⁸ Finally, there are researchers who consider the daric as a means of ideological propaganda, of payment of tributes and of funding.⁹⁹ Closely following the New Kingdom Egyptian tradition called "the Gold of Honour"—documented since the beginning of the 18th Dynasty until the end of the 20th

90 Alram 1994, Tuplin 2014: 133–134, Stoneman 2015: 45 and other authors, all of them based on Xenophon, *Anabasis* 1.3.21

91 Ober 2015: 497.

92 Alram 1994.

93 Alram 1994.

94 Alram 1994. Vargyas (2000:36) argues against the hypothesis of an economic competition between darics and Attic tetradrachms. According to this author, they were coins (and metals) "used in completely different spheres".

95 Vargyas 2010: 115.

96 Nimchuk 2002: 58.

97 Uehlinger 1999: 175.

98 Quoted in Corfù 2010: 165. The darics, *well known coins*? In one of his works, Corfù (2010: 165) has reviewed—in a staggered manner—everything that we do not yet know about the darics: their chronology, their mints, the identity and meaning of the archer, the distribution of coinage (which does not seem to coincide with the map of the Empire), the attribution of their creation to Darius I, and even their purpose. The daric is far from being a well-known coinage.

99 Gondonneau & Guerra 2000: 29, adopting Briant's extended opinion -Briant 1996: 421.

Dynasty¹⁰⁰—Briant states that "le Grand Roi les utilise [=les trésors royaux] dans le cadre de sa politique de redistribution, sous forme d'objets précieux qu'il confère à titre de récompenses: les dariques pouvaient également jouer une telle fonction".¹⁰¹

The assessment of the daric in the history of pre-Macedonian numismatics has oscillated between two totally opposite poles. On the one hand, the opinion of some authors about the daric is devastating:

Le monnayage achéménide, en fin, est un monnayage sans nuances (...) On en est presque amené à croire que, pour les Achéménides et leur haute administration, les dariques et les sicles sont restés des lingots de bon métal sous un volume pratique, plutôt que des monnaies proprement dites".¹⁰²

Sheedy thinks that "coinage was essentially alien to the Persians. It was viewed as a means by which the financial administration of the western lands could be achieved".¹⁰³ For others, however, "the gold daric was, next to Athenian 'owl', the most significant type of coin in the ancient world before Alexander the Great, as confirmed in ancient written and epigraphic sources".¹⁰⁴ If the subjective opinion of the Great King on this subject may have any value in this regard, according to Herodotus,¹⁰⁵ for Darius I his gold coins were a *mnemósynon* (μνημόσυνον), that is, "something that no other king had done before".¹⁰⁶

100 Binder 2011: 45–51.

101 Briant 1996: 421.

102 Naster 1979: 604.

103 Sheedy 2006: 121.

104 Bodzek 2014b: 59.

105 Herodotus IV, 166.

106 Tuplin 1989: 65; Bodzek 2014b: 60.

107 "These coins were attributed to Nectanebo II by Kenneth Jenkins, and this attribution has stuck" (Colburn 2018: 96).

108 Faucher *et alii* 2018: 148.

2 | The gold coin *nbw nfr*

The second specimen studied is an Egyptian gold coin of the fourth century BCE. It probably represents a failed attempt made by the Egyptian pharaohs of Sebennytos (30th Dynasty) to create their own monetary system. This attempt failed because of its lack of continuity in time: due to the subsequent historical events, this was just an anecdotal episode in the history of Pharaonic Egypt since it was quickly replaced by coinages of Persian and Alexander's satraps.

The museum label of the *nbw nfr* coin housed in the MCM is:

- Accession number: 1024583 (historical file number 024611).
- Obverse: Horse prancing right, border of pellets.
- Reverse: Pectoral with six pendant beads hanging from it, crossing horizontally a heart and windpipe.
- Measurements: 17.25 mm diameter.
- Weight: 8.36 gr.
- Mint: unknown, but probably Memphis.
- Date of entry: December 31, 1955
- Die axis: 12 hours.
- Chronology: Probably Nectanebo II (360–343 BCE).¹⁰⁷
- Typology: Faucher *et alii* type D1/R1.¹⁰⁸
- Acquisition: It was purchased in Numismática Calicó (Barcelona). Its exact origin is unknown.

Figure 3. *Nbw nfr* coin, obverse.Figure 4. *Nbw nfr* coin, reverse.

This is one of the well-known gold stater coins in Egypt (presumably during the reign of Nectanebo II, 360–343 BCE);¹⁰⁹ around one hundred items have been documented worldwide.¹¹⁰ This coin was published 20 years ago (Jaramago 1999); however, after the development of research on pre-Macedonian Egyptian Numismatics in the last two decades, it would be useful to update our previous publication by making some new iconographical and epigraphical contribu-

tions to the knowledge on this kind of Egyptian gold coins.

The location of the pre-Ptolemaic Egyptian mint is unknown even though it is generally considered to have been located in Memphis (perhaps in the temple of god Ptah). The name of the currency is not known either; of course, it was not “stater”, *sttr(.t)*, because in Egypt this word was used to name the Athenian stater tetradrachms of silver¹¹¹ and the imitations of *ovels* minted in Memphis. The de-

¹⁰⁹ The absolute chronology of the reign of Nectanebo II has been taken from Hornung, Krauss and Warburton (2006): Table IV.2: 495.

¹¹⁰ “Man weiß von etwa 100 Exemplaren des Goldstaters [=coins *nbw nfr*].” say Schmitz & Schulz 2014: 51 -probably on the calculation made by Faucher *et alii* (2012): 152. In the note 24, Schmitz & Schulz clarify that at least 38 of them were found in a hoard in 1919/20 (inside the *themenos* of the temple of Ptah in Mit-Rahina; Schmitz & Schulz 2014: 51) and another 60 in a second hoard (year 1936); this second hoard was never published (Faucher *et alii* 2012: 152), and the coins went into private hands. Nicolet-Pierre (2005: 12) mentions the following *trésors* with *nbw nfr* coins: one from 1896 found in the Delta, another from 1919/20 found in Mit-Rahina and a third one located in 1936 in an unknown place. Finally, the work of Faucher *et alii* (2016: 148–151) includes a catalogue of “les monnaies existantes de manière aussi exhaustive que possible”; this catalogue does not contain the *nbw nfr* coin of Madrid.

¹¹¹ Hayden 2018: 268.

motivic word *sttr(.t)*¹¹² is a linguistic loan documented in Egypt since *ca.* 400 BCE.¹¹³

2.1 | Description of its numismatic types

2.1.1 | Obverse

On the obverse there is a prancing horse (*Equus ferus caballus*) facing to the right surrounded by a beaded border (fig. 3). The long and slender horse’s head, represented in strict profile (its eye has been slightly singled out), almost touches the edge of the coin with the tip of its ears. The animal has its mouth open; its mane is clearly individualized and represented in cascade, and it has no fringe.¹¹⁴ Its neck is long and muscular, its stomach is retracted, and its tail is divided into several parallel hair straps—and the hoofs of three of its legs are gently separated from the canyon bone. Their anatomical features correspond to a “Mediterranean horse”.¹¹⁵ Its genitals have also been marked, and the presence of a pair of transverse lines across its neck may be in-

terpreted as the image of some kind of ornament or strap¹¹⁶ (according to Faucher *et alii*, it would be “une cassure”).¹¹⁷

On the other hand, the movement of the horse is absolutely naturalistic, portraying an agitated animal. Iconographically, the pose of the horse is documented in Egyptian art since the 18th Dynasty (for instance, in the decoration on the ceramic vessel of Berlin, Ägyptisches Museum n° inv. 14412, with the legs of the prancing horse in a similar position). However, many authors have considered the horse of this coinage as a horse made in a “Greek style”.¹¹⁸ Colburn recognizes the enormous resemblance of this horse with the ones who appear on Siracusan coins at the end of the 5th century BCE. However, he states: “it is a sufficiently generic motif [=the horse] that the resemblance is probably coincidental”.¹¹⁹

An interesting element is what seems to be a sort of double leash that seems to be knotted around the neck (as reins). Loeben relates it to some prototypes of North African coins (Cyrene, Numidia),¹²⁰ but it is possi-

¹¹² CDD, S, 13.1: 517–524.

¹¹³ Agut-Labordère 2014: 80, mentioning *sttr* and *sttr n Wj(nn)* (“Ionian stater”). Both silver coins were circulating in the Kharga oasis from the beginning of the 4th century BCE. There is a two line Demotic inscription in a Spanish Institution that mentions the staters (tablet 1981/1/308 of the Real Academia de Córdoba): “Que viva su ba por él ante Osiris-Sokar, señor de Abidos [...] Sokar, Pasherosiris, prospere eternamente [...] dos estáteros y un estátero, y dos estáteros otra vez” (Jasnow 1998:146).

¹¹⁴ There is a small quadrangular surface (in front of its mouth) of an intermediate height between the relief on the horse head and the plane that forms the base surface of the obverse. It looks like an irregular smoothing of the base surface. The shape of the animal’s nose might have prevented a more careful polishing in this area of the die without risking damaging the design of the horse’s mouth.

¹¹⁵ Willekes 2013: 271–283.

¹¹⁶ Loeben 2014: 75–76.

¹¹⁷ Faucher *et alii* 2012: 156.

¹¹⁸ Chassinat 1901: 79; equally Jenkins 1972: 250; Sales 2005: 230; Schmitz & Schulz 2014: 50 and so on.

¹¹⁹ Colburn 2018: 95.

¹²⁰ Loeben 2014: 77–80. Let us remember that, referring to the obverse type of *nbw nfr* coins, Jenkins (1955/6: 10) already stated the following: “(...) Greek prototypes, notably those occurring on coins of Syracuse and Carthage” (we have italicized the word).

ble to find similar details in currencies of other areas.¹²¹ There are representations of horses with collars on Egyptian terracottas dated to the Roman period. In that case, the time difference between the terracottas and the *nbw nfr* coins needs to be taken into account: those collars were probably unknown during the Late Period. These terracottas were collected in the work of Boutantin;¹²² one of the oldest ones is a horse head from the first century BCE in which the neck folds have been engraved.¹²³

The circumference of the beaded border, which is close to the outer perimeter of the coin and surrounds the horse, is only visible behind the horse's tail and under its paws. An off-center strike caused this feature, which can be seen in many other coins too. On this coin, the border is only documented on the obverse, not on the reverse. A similar circumstance occurs in other specimens such as the coin of Hildesheim's, which has a beaded border on the reverse; by contrast, the Hermitage's coin has a beaded border on both sides.

Traces of the die's polishing: In the obverse's field of this coin there are no further elements, inscription or monogram.¹²⁴ However, there are very thin and almost imperceptible lines—which can only be seen using a powerful lens—that give us clues to understand some technical aspects related to the obverse die with which the coin was minted. These almost parallel lines, which occur on other *nbw nfr* coins too, run diagonally to

the image of the horse, but never affect its image (fig. 5). They document the traces left after the polishing of the field surface in the obverse die—polishing that was made when the die was manufactured.

Additionally, there are other marks that are not related to the coinage. There is an elongated and gently wavy line (around 1.5 mm in length) that scratches softly the surface of the coin just behind the hoof of the most backward front leg of the horse. It was probably made by a very fine punch, and it seems to consist of small linked segments. Although the purpose of this line is unknown, it could have been made for trying to verify if the coin was entirely made out of gold; maybe it is just an accidental scratch. Finally, there exists a similar line—although different in size—on the horse's back. These two irregularities clearly have nothing to do with the polishing lines of the die suggested above.

2.1.2 | Reverse

The hieroglyph sign *nbw* (“gold”) is represented on the reverse of the coin (fig. 4). It is known since the 1st Dynasty,¹²⁵ and it is a necklace in the shape of a basket consisting of five strips and two bands, one at each end; those bands allowed it to be knotted around the neck. Six short pendants—ending up in beads—hang from the lower strip. Behind the



Figure 5. Obverse's field: Traces of the die's polishing.

gold sign, there is a *nfr* sign (“good”); however, this second sign is represented in two separate parts (fig. 6). Its lower part corresponds to the sign F36 of Gardiner; that is, the image of two lobe of the lungs and a trachea. A few palaeographic remarks can be made in this regard: first of all, an oblique striped pattern singled out the lower end of the lungs (in other coins the striped area draws a circle); secondly, an arch of circle can be seen above this area. Both elements, the striped circle and

arch of circle, echo the heart that appears in this place in older *nfr* signs. According to Schmitz & Schulz, the striped area “nicht zur Lunge, sonder zum Herz gehört”.¹²⁶ Its upper part undoubtedly corresponds to the pinnacle of the sign F35 (*nfr*). It also has two horizontal appendixes going through the central trachea, which may represent the larynx.

This is a late palaeography of the *nfr* sign.¹²⁷ It can be noted that the top and bottom of this *nfr* sign (both separated by the *nbw* sign) are

¹²¹ For example, in Asia Minor there are coins with the type of a galloping horse led by a Persian rider with a spear in which the animal shows similar marks on the neck (Bodzek 2011: 10 and pl. 3:27). Those coins may have been minted in Caria between the years 355–334 BCE (therefore, partly coinciding in time with the *nbw nfr* coins).

¹²² Boutantin 2014: 206–208, numbers 39 to 46.

¹²³ Boutantin 2014: 213 nr. 61.

¹²⁴ In fact, only the coin of Damanhur (today at the Hermitage Museum) has two iconographic elements on the obverse: the prancing horse and a *nbw*-sign. The other examples are similar to the one in Madrid, i.e., they were only decorated with the horse.

¹²⁵ Schorsch 2017.

¹²⁶ Schmitz & Schulz 2014: 49.

¹²⁷ Fischer (1988: 25 and 54) mentions some cases of graphic assimilation of both signs (F35 and F36) with the meaning of *nfr*; all these examples are dated after the Old Kingdom.

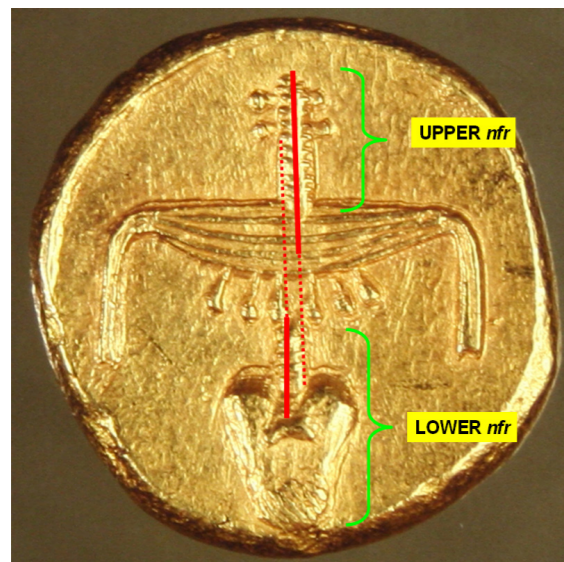


Figure 6. *Décalage* in the axes of the sign *nfr*.

not perfectly aligned. This feature occurs on other *nbw nfr* coins too, such as the Goldstater *nbw nfr* of the Bode-Museum of Berlin (accession number 1910/23), or the one of the Fondation Gandur, (Genève FGA-ARCH-EG-0363). This slight vertical *décalage* in the axes is practically imperceptible to the human eye, but it allows to understand how both hieroglyph signs were designed by the artist: since the upper part of the *nfr* sign invades the space of the first strip of the *nbw* pendant, it is assumed

that the upper part of *nfr* was executed first, and then the *nbw* sign; the lower part of the *nfr* sign was probably made at the very end, trying to align the axes of the two parts of the sign.

The group *nbw nfr* has been traditionally translated as “good gold”, “perfect gold”,¹²⁸ “pure gold”, “fine gold”¹²⁹ and it referred to the quality of the metallic purity of the gold used: around 93% of pure gold. This issue will be studied further on.

2.2 | Meaning of the horse on the obverse

There is no consensus among researchers on the meaning of the horse on the obverse of these coins. These are the main interpretations in this regard:

- In accordance with the reverse decoration, the horse may be a hieroglyphic sign. If so, it would be the sign E6 of Gardiner, transliterated as *ssmt* or *ibr*, translated as “horse” and “stallion” respectively.¹³⁰ Ashmawy¹³¹ also suggests, among others, the translation *nfr* as “young horse”.¹³² Shortly after being introduced into Egypt, the horse appears in religious iconography;¹³³ although it did not become a symbol of a specific god or goddess, the horse was usually represented next to warrior divinities—in the Late Period beside Horus and Bes¹³⁴.

¹²⁸ Schmitz & Schulz 2014: 50, “gutes Gold”, “vollkommenes Gold”.

¹²⁹ Schorsch 2001: 56.

¹³⁰ Hannig 1995: 755 and 41.

¹³¹ Ashmawy 2005: 147.

¹³² Some researchers disagree with the idea identifying this horse with a hieroglyphic sign equivalent to the trilateral *nfr* in the 4th century BCE; they have expressed their reservations on several occasions: “Ob überhaupt das Pferd schon in vorptolemäischer Zeit die Lesung *nfr* haben konnte, müsste erst noch untersucht werden” (Schmitz & Schulz 2014: 63, n. 31). However, the obverse of the *nbw nfr* coin of the Hermitage, which contains both the horse and the *nbw*-sign on the obverse, would support a possible *nbw nfr* reading in this case.

¹³³ Rommelaere 1991: 135.

¹³⁴ Rommelaere 1991: 138.

- The horse would represent the Egyptian king.¹³⁵ There are some authors who interpret it as a symbol of the Egyptian royalty.¹³⁶ In this regard, this would allow us to read the obverse and the reverse of the coin together as “king’s good gold”. According to Faucher *et alii*,¹³⁷ the horse may be “majoritairement associé à la sphère royale ou à une idée de prestige”.¹³⁸ On the other hand, according to Boutantin, in Egypt “le cheval est considéré comme un fidèle serviteur du souverain, au même titre que les différents fonctionnaires”.¹³⁹ In any case, in the Egyptian iconography no representation of a horse as a symbol of the Pharaoh *per se* is documented, nor of any Egyptian deity.¹⁴⁰
- The horse may be an adaptation of a Greek numismatic type to the Egyptian style by having in mind the recipients of this coinage: mercenaries. According to Bianchi, the horse itself was a universal symbol on the coins of the Eastern Mediterranean since the 4th century BCE.¹⁴¹ For example, already under the Macedonian king Perdiccas II (*ca.* 454–413 BCE) several coinages were minted with the obverse type of a bridless

prancing horse facing to the right (such as the 14 mm diameter silver tetrobolos in the Museum of Fine Arts, Boston, file number 01.5439)¹⁴² artistically similar to the horse of the *nbw nfr* coins, and clearly a military symbol (as confirmed by its reverse type). Greek mercenaries were probably accustomed to recognise this kind of currency icon, so the numismatic type of the prancing horse would reaffirm the traditional idea of the possible use of the Sebennytic gold coinage for the payment of mercenaries from the Aegean cities.¹⁴³ Moreover, “the horse (...) is a reference to agonistic competition, and by extension to the glory of victory”.¹⁴⁴

- Faucher *et alii* think that the horse ended up becoming an emblem that evoked the notions “de qualité et de prestige”.¹⁴⁵
- Finally, Sales considers the horse on the obverse as a Panhellenic religious symbol: a sacred animal of certain Greek deities that were part of a “pasado mitológico común” [“common mythological past”].¹⁴⁶

From our point of view, considering both the artistic dimension and the possible recipients of this currency, the abundant traditional

¹³⁵ Loeben 2014: 76 quotes Dumke’s opinion, according to which “(...) das Pferd eindeutig eine Darstellung des ägyptischen Pharaos ist”.

¹³⁶ Wetterstrom 2014: 4, “The prancing horse is an ancient Egyptian symbol for kingship”.

¹³⁷ Faucher *et alii* 2012: 156.

¹³⁸ Following the thesis of Meeks (2005: 56) according to which the horse was “animal de prestige, symbole de la puissance royale victorieuse” in Egypt, and was related both to Horus and Hathor.

¹³⁹ Boutantin 2014: 164.

¹⁴⁰ There is no doubt that many Egyptian pharaohs (from the 18th Dynasty to the 25th Dynasty) felt a real passion for their horses, and they even gave them proper names (*hypponymes*) which were often theophoric names (Maruéjol 2015: 163).

¹⁴¹ Bianchi 2009: 4–5.

¹⁴² It can be seen at <https://collections.mfa.org/objects/1423> [accessed on December 2019].

¹⁴³ Schmitz & Schulz 2014: 50.

¹⁴⁴ Colburn 2018: 97, quoting Dumke.

¹⁴⁵ Faucher *et alii* 2014: 57.

¹⁴⁶ Sales 2010–2011: 37.

Egyptian equestrian iconography (see above the paragraph “2.1.1 Obverse”) should not be underestimated in order to find models for the horse of the *nbw nfr* coin. From the 5th century onwards, many Greek items with equestrian iconography were certainly known in Egypt; for instance, the famous Attic rhyton of Sotades (Museum of Fine Arts, Boston, accession number 21.2286, found in Meroe, South Cemetery, Pyramid 24) was created in Greece and crossed Egypt from north to south to reach Kush (being probably a diplomatic gift from the Egyptian satrap to the authorities of the southern kingdom; it was buried in a tomb one century after its creation).¹⁴⁷ In this vase, a man rides on a prancing horse. It is probably that Egyptian artists knew both Greek numismatic horse types and the plastic prototypes of horses; as a consequence, they might have produced an iconographic synthesis between the traditional Egyptian equestrian models and the Greek images of horses in action. Therefore, we do not think that the horse on the obverse of the *nbw nfr* coins was a Greek horse (Colburn’s opinion has already been commented above)¹⁴⁸ but a horse created by an Egyptian artist, based on Greek and Egyptian iconography and recognizable worldwide.

2.3 | Interpreting the *nbw nfr* group

Some details will now be reviewed on how the legend on the reverse of this coin may be understood. The trilateral F3 sign (Gardin-

er sign-list), *nfr*, is visually placed behind the sign *nbw* (Gardiner S12). That means that the correct reading would be “*nbw nfr*”.

Since Maspero, there is a consensus about the reading/translation of this group as “good gold” among Egyptologists. However, other possible meanings could be suggested. It is known that the word *nfr*, when referring to living beings, could have associated meanings and nuances related to youth. These are several examples to this fact taken from Hannig:¹⁴⁹ “Jungkuh2”,¹⁵⁰ *nfrt*; “Jüngling7”, *nfr*; “Jungmanni”, *wn nfr*, “Jungmannschaft”, *3mw n nfrw*, “Jungschiffer” *nfrw sri*. In such cases, *nfr* applies to living beings (human and animals) with a sense of vital state but also in a temporal way (contrary to maturity).

Moreover, the term *nfr* refers to liquids and minerals too, in which case it would mean “véritable, authentique, non falsifié: *nbw nfr* “or pur” (...).”¹⁵¹ In this regard, in the hieratic inscriptions of some jugs and seals of containers of Malqatta (dated to the last years of Amenhotep III) the qualifier *nfr* indicates the type of wine contained in such vessels; *nfr* has been interpreted as “good (wine)”. When the writing *nfr nfr* appears on these containers, the duplicity of the sign *nfr* is interpreted as a means of emphasising its meaning and this expression is therefore translated as “very good (wine).”¹⁵² A further issue is whether these labelled vessels—often coming from estates of the king—might have always contained good quality wine. Presumably, all these jugs would always carry a magnificent wine from the roy-

¹⁴⁷ Hoffmann 1997: 89–91, Török 2011: 101–102.

¹⁴⁸ Colburn 2018: 95.

¹⁴⁹ Hannig 2000: 688–689.

¹⁵⁰ “Jungkuh2” refers to the second definition of the word “Jungkuh” in Hannig’s Dictionary. The same applies to the other examples cited below.

¹⁵¹ Winand 2002: 21.

¹⁵² Leahy 1978: 13–26 and 29–42, Poo 1995: 26, 3.V. Winand 2002: 21 writes “du vin de très bonne qualité”.

al vineyards to the Malqatta Palace; bad quality wine would probably be set aside to trade with it or to use it in the production of by-products such as drugs or vinegar. Therefore, the appellations *nfr* and *nfr nfr* may not denote, in such hieratic inscriptions, the quality of the wine, but some other aspect. According to Tallet,¹⁵³ this designation may indicate the alcoholic gradation of the wine in the containers; obviously, this meaning of *nfr* cannot be applied to gold. We think that perhaps, and in line with the value of *nfr* as “young”, it could refer to its concrete vintage. If so, *irp nfr* may be translated as “young wine” in an oenological sense. Furthermore, having in mind that the duplicity of the hieroglyphic sign might have had a reinforcing sense, *nfr nfr* may mean “recently made wine”.

Returning to the gold currency, if *nbw nfr* means “high quality gold”, why *nbw nfr nfr* was not written on these coins—like it was on the wine containers? In short, *nfr* may not be indicating the quality of gold, but a different aspect of the metal. According to Faucher *et alii*,¹⁵⁴ *nfr* would refer to the most valuable gold. In line with the value of *nfr* as “young” and the idea of a young wine, it would be more appropriate to translate it as “young gold”, in the sense of “recently minted gold”

or “recently mined gold”, i.e., raw gold.¹⁵⁵ In fact, there is a mention in the papyrus pKoller 3.8 (pBerlin P 3043) that could support this idea: *nbw nfr gmw n h3st m rfn...*, “gold *nfr* jin nuggets? (*nbw nfr gmw*) from the mountains, etc”.¹⁵⁶ In summary, the *nbw nfr* coinage would carry two numismatic types, one associated with the recipient (the horse on the obverse) and another perhaps of an administrative type (*nbw nfr* on the reverse).

Finally, the possibility that *nbw nfr* may even refer to the chromatic appearance of a certain type of gold may never be known.¹⁵⁷

2.4 | Weight

The *nbw nfr* coin from Madrid weighs 8.36 gr. There are similar coins with lower¹⁵⁸ and greater¹⁵⁹ weights. In any case, their weights range between 7.90 and 8.90 gr,¹⁶⁰ so the average weight is around 8.35 gr.¹⁶¹ As a consequence, our *nbw nfr* coin is very close to the average.

The approximate chronology of the *nbw nfr* coinage was established thanks to the hoard of Damanhur—found in 1896—as it consisted of some *philippeioi*, i.e., gold staters issued by Philip II of Macedon.¹⁶² The weight of these

¹⁵³ Tallet 1995: 479–480.

¹⁵⁴ Faucher *et alii* 2012: 157.

¹⁵⁵ The two *nbw nfr* coins metallographically analysed in the paper of Faucher *et alii* (2012: 158) contained a very low percentage of silver (less than 7%) and 0.2–0.3 of copper.

¹⁵⁶ See Eltoukhy 2019: 71 for a different translation: “white gold, good gold”.

¹⁵⁷ In the Demotic papyrus pMFA 2015–3293, dated to ca. 200 BCE, electrum is described as *nb dm* (in Demotic *nb* is “gold”), referring to a lighter-coloured type of gold and differentiating it from a “refined gold” (Jasnow 2018: 198).

¹⁵⁸ Faucher *et alii* 2012: 150 collected one *nbw nfr* coin of 7.90 gr.

¹⁵⁹ 8.94 gr, Faucher *et alii* 2012: 149.

¹⁶⁰ Nicolet-Pierre 2005: 12 comments, in this regard that “ils sont mal ajustés”.

¹⁶¹ Faucher *et alii* 2012: fig. in page 155.

¹⁶² Faucher *et alii* 2012: 159.

Macedon gold coins was around 8.60 gr., and they were coined around *ca.* 352 BCE¹⁶³ or *ca.* 348/7.¹⁶⁴ These facts were essential to chronologically frame the *nbw nfr* coins as well as to give them their first designation as “staters”, because, as suggested by Nicolet-Pierre, “le poids attique (8.60 g) (...) pourrait avoir été le modèle des statères égyptiens”.¹⁶⁵

The similarity between the weight of the Egyptian gold staters, the Attic standard (8.60 gr)¹⁶⁶ and the darics (around 8.35 gr)¹⁶⁷ has meant the use of the terms “stater” or “daric” indistinctively to designate the *nbw nfr* coins.¹⁶⁸ The discovery of an Athenian inventory document from 337/6 BCE mentioning the “darics of Philip” (*Dareikoi Philippeioi*)¹⁶⁹ to designate the Macedonian gold staters would correspond to

un fait bien établi, à savoir que le darique perse, depuis sa création par Darius I un peu avant 500 jusqu’au début de l’époque hellénistique, fut la monnaie d’or par excellence du monde grec, au point de constituer un terme de référence pour désigner une pièce d’or comme celle de Philippe”.¹⁷⁰

Nowadays, it is well accepted that the *nbw nfr* coinage fits in the Persian standard;¹⁷¹ however, the truth is that “the weights of these coins vary from 7.9 to 8.9 g, making it difficult to identify the standard on which they were minted (...). Whatever the intended standard

was [=Persian or Attic], it was not adhered to very strictly”.¹⁷² The CDD Dictionary of Demotic (CDD, N, 04.1: 59) defines the group *nb hm*; its meaning would be: “small gold (a unit of value, perhaps a coin)”; there is no evidence that it might have referred to the *nbw nfr* coins though.

2.5 | Auriferous areas of Sebennytic gold

It is impossible to identify the exact provenance of the gold used in the *nbw nfr* coins minting without carrying out metallographic analysis.¹⁷³ Moreover, we do not know any gold district in Egypt where there has been evidence of extractive activity under the pharaohs of Sebennytos. As a consequence, we can only speculate on some possible origins of the gold.

a) The Treasure of the Egyptian Central Administration

The central deposit of the treasure was probably located at the Temple of Ptah (Memphis) or at the Palace of the Pharaoh (Mit-Rahina); this was the place where metals coming from taxes related to land rents, property incomes, trade movements, commercial transactions carried out in the emporia of the Delta, Nubian gold imports, confiscations made to

the previous satrapal Administration, etc. were stored.

According to Ruzicka, in the mid-4th century BCE Egypt was experiencing a war economy in order to remain independent of the Persians. In this regard, the building activities in the Egyptian temples, “on a scale almost unprecedented in Egyptian history”, were a sort of an investment to keep payments to mercenaries through levies and taxes: “To invest in temple-endowment was to build up the tax base of the crown and thus the resources for military expenditures”.¹⁷⁴

b) Lower Nubia

Considering the hypothesis that the *nbw nfr* coins were minted by Nectanebo II, Grimal tells us that, at the end of his reign “on pense généralement qu’il a trouvé refuge auprès de l’un des princes de Basse-Nubie”.¹⁷⁵ If there were any kind of political, military, or commercial alliance between the Egypt of Nectanebo II and some governor or Kushite dynast of Lower Nubia (fact that it is not known) this region might have been one of the areas from where gold was supplied to Egypt in the 4th century BCE.

c) Eastern Desert

Redon and Faucher¹⁷⁶ have recently excavated in the auriferous district of Samut. They found out that there were two gold mines ac-

tively working at the very beginning of the Ptolemaic period (more specifically under Ptolemy I, as confirmed by pottery and Greek and Demotic ostraka found in that place). Ptolemy I might have known those mines perhaps because they might have started to be exploited just a few years earlier, under the initiative of the last kings of the 30th Dynasty; if so, the *youth* of these mines could even justify the name *nfr* applied to the gold minted by the Sebennytic kings.

With regards to the issue of how much gold was available in Egypt when the *nbw nfr* coins were minted, it will never be known for sure. However, Diodorus provided us with a pair of interesting hints about this matter: after the reconquest of Egypt (343 BCE) Artaxerxes III sacked the Egyptian temples and “he gathered a vast quantity of silver and gold” (Diodorus 16.51.2). 2); in addition, Nectanebo II withdrew south “taking with him the greater part of his possessions” (Diodorus 16.51.1-2). Moreover, considering that during the Egyptian independence the country did not pay tribute payments to the Persian Empire, it is possible to conclude that, despite experiencing a war economy, in the middle of the 4th century BCE Egypt seems to have had an important amount of noble metals at its disposal, even though not all the metal was destined to be minted.¹⁷⁷

¹⁶³ Le Rider 1996: 68.

¹⁶⁴ Le Rider 1996: 72, Dahmen 2010: 52.

¹⁶⁵ Nicolet-Pierre 2005: 13.

¹⁶⁶ Le Rider 1996: 49.

¹⁶⁷ Duyrat 2014: 107.

¹⁶⁸ Sferrazza 2015: 32–33.

¹⁶⁹ Melville-Jones 1979: 34.

¹⁷⁰ Le Rider 1996: 66.

¹⁷¹ Faucher *et alii* 2012: 154.

¹⁷² Colburn 2018: 95–96.

¹⁷³ In the only two coins on which a metallographic analysis was carried out (Faucher *et alii* 2012: 158) their composition was examined but not its origin.

¹⁷⁴ Ruzicka 2011: 161. To get an idea of the situation, let us remember that, under Nectanebo II, Egypt faced an attempted invasion by Artaxerxes III *ca.* 351–350 BCE; although the Persian king probably got the greatest military force of the first half of the 4th century BCE, the Egyptians managed to reject it thanks to the help of the Greek generals, Diophantus the Athenian and Lamius the Spartan. Additionally, the Phoenicians and Cypriots rebelled against the Achaemenid Empire in 349 BCE, and Egypt supported this rebellion by sending Greek mercenaries paid by the Pharaoh. Finally, the Persians launched the definitive attack against Egypt and reconquered the country in 343 BCE. These three events (collected in Ruzicka 2011: 162–163 and chapter 8) probably caused an exponential growth in the Egyptian military expenses, and any of them might have been the direct cause of the minting of the *nbw nfr* coins; the war operations on the throne of Pharaoh Theos, the predecessor of Nectanebo II, can also be considered in this regard.

¹⁷⁵ Grimal 1988: 486, clearly based on Diodorus XVI, 51: 1–2.

¹⁷⁶ Redon and Faucher 2015: 17–19.

¹⁷⁷ Forgeau 2018: 218.

2.6 | A dual purpose? Means of payment and legitimation

It is obvious that *nbw nfr* currency had a clear international policy objective, it was not minted for internal consumption;¹⁷⁸ their most likely direct recipients were Greek mercenaries. It was almost a dogma in the 4th century BCE to think that only great kings could mint in gold;¹⁷⁹ the Persian emperor did it in his own right, Philip II of Macedon perhaps emulated the Great King with his gold issues.¹⁸⁰ The same applied to the

Cypriot kinglets and the golden stater of Lampsakos, as well as to the Egyptian pharaoh, who minted his own currency from his capital in the Delta.¹⁸¹ In all cases, those gold coinages seem to be more or less linked in their weights with the daric; that would facilitate the necessary exchanges between them. The main difference between them was, therefore, the numismatic types on obverse and reverse, which suggests that they were used for propaganda purposes.¹⁸² Therefore, the Persian emperor had a great satrapy (Egypt) out of his control, but also several

¹⁷⁸ Müller-Römer 2013: 331. The so-called “théologie de l’or” (a term coined by Daumas 1976: 32) is an element that Numismatists have not generally considered (unlike Egyptologists). In the Egyptian religious universe, “Ihr (=Gods’) Fleisch ist aus Gold” (Zivie-Coche and Dunand 2013: 137). The gold “il est de meme essence que Ré” (Daumas 1976: 32). Gold was a metal with sacred connotations, deeply rooted in the traditional Egyptian thought. Direct contact with it was considered taboo. It is therefore unthinkable that it could freely circulate among the native population. Traditionally, the pharaoh sometimes favoured the high-ranking officials with gifts made out of gold; those elite officials amortized such gifts inside their luxurious tombs. In the case of *pharaoh* Darius I, his Egyptian *praenomen* was *stwt Rś*, “descendant of Ra” (Leprohon 2013: 168); in the eyes of his Egyptian subjects, this meant that, as he was a relative of the solar god, gold was one of his bodily constituents. Consequently, he was entitled to mint in gold since “seuls les êtres participant de la nature des dieux, les Pharaons, (...) étaient autorisés à manipuler ces matières [=gold and silver]” (Daumas 1976: 32).

¹⁷⁹ “C’est un principe universellement reconnu que le grand Roi se réservait exclusivement la frappe de l’or dans toute l’étendue de l’empire” (Babelon 1893: iii–iv).

¹⁸⁰ Diodorus Siculus (XVI.8) says that the gold of Philip II was partly collected from the exploitation of the rich auriferous veins of Mount Pangaion, next to the Thracian city of Krenides (which passed into Macedonian orbit on 356 BCE); Philip II improved and stimulated the exploitation of those veins. The Philip stater (*philippeioi*) were minted from the year 348 BCE (Dahmen 2010: 52). These coins were very high purity gold coins: for instance, the purity of some Philip II staters found in Dacia was above 99.6% (Vilcu *et alii* 2011: 502–503).

¹⁸¹ For more information about the 4th century BCE gold coins of Salamis, see McGregor 1999: vol. II, chapter 4. It is likely that these very low-weight coinages had a different purpose than those from Macedon or Egypt. On the other hand, there were other gold coins dated to the 4th century BCE: the ones of Lampsakos and those that were probably minted in Cyrenaica (their weights were very light, around 1.07 and 0.40 gr.: Markou 2009: 19). There is no doubt that the first known hoard in which a *nbw nfr* coin was found—the aforementioned hoard of Damanhur, discovered in 1896—was “composé tout de statères, pour la plus grande partie de Philippes, quelques pièces de Lampsacos, deux ou trois pièces de rois de Chypre, deux pièces de la Cyrénaïque, un Darique et la pièce en question” (Faucher *et alii* 2012: 151, quoting a letter from G. Dattari sent in 1901). As it can be seen, all the political entities—empire, kingdoms and city-states—that had the economic capability to mint gold currency in the mid 4th century BCE were represented in the Damanhur hoard: Macedon, Lampsakos, the main Cypriot city-states, Cyrenaica, the Persian Empire, and Egypt.

¹⁸² As far as Cyprus is concerned, Markou (2012: 89) reminds us that, during the Cypriot war between Evagoras of Salamis and Milkyaton of Kition, both kings “issued gold coins for the first time in Cyprus to cover their needs for the payment of mercenaries”. This purpose is consistent with the weight of Cypriot and Cyrenaean gold coins, which were mostly fractions of the daric; for instance, they reached up to a twentieth of a daric, i.e., gold coins of 0.42 gr. (Markou 2009: 12). On the other hand, the picture was different in Egypt since its gold coins were heavier. This fact

emerging powers in Africa, Europe, and Asia challenging his authority through the coinage, i.e., a powerful vehicle of ideological diffusion. It must not be forgotten that even the mere possibility that a subject would mint noble metals was a gross affront to the Persian king; Darius I decided to punish this behaviour by death.¹⁸³ Coining in gold was, therefore, both a provocation and a challenge.

The Egyptian experience in this field, however, was very short: the satrapy of Mudrāya (Egypt) was reconquered by the Persians in 343 BCE. From that moment on, the Pharaonic minting in any metal ceased, and the situation returned to the previous status quo. Egypt minted gold again in 323–321/320 BCE, when Ptolemy was the governor of Egypt and Libya.¹⁸⁴

3 | The double daric

With the arrival of Alexander at the heart of the Persian Empire, gold coinage soared

in Syria and Egypt: “Alexandre poursuit cependant aussi la frappe de dariques et crée des doubles dariques frappés à Babylone, entretenant ainsi une certaine variété de dénominations et d’étalons”.¹⁸⁵ Only one multiple of a daric is known under Alexander, the so-called double daric, which was probably coined in Babylon. Higher gold denominations had not been previously issued throughout the Achaemenid Empire.¹⁸⁶

Double darics have an exceptional interest for three main reasons. Double darics were supposedly coined in one of the two mints that probably worked in Babylon shortly before the establishment of the Seleucid Empire. They maintained the traditional numismatic types of the Achaemenid Empire for a few years; consequently, a bicentennial iconography continued in a world that rapidly turned towards the Hellenization of currency types. And, additionally, this coin has the dubious honour of being “le seul monnayage d’or antique déprécié (moyenne d’environ 86% Au)”.¹⁸⁷

has provoked a debate about the main aim of these mintages: the economic one or the ideological one. According to Sales (2010: 37), in the *nbw nfr* coins “el plan económico-financiero se impone claramente a la dimensión ideológica”. However, Colburn (2018: 96–99) states that the economic factor may not be so decisive: “as gold coins, they would have been far too valuable for use in interpersonal transactions (...). Thus it is difficult to understand these coins in a strictly economic context (...) their purpose was related to prestige rather than to any specific economic goal”.

¹⁸³ We should mention the famous event of “the silver of Aryandes” (Le Rider 2001: 167–169), the first satrap of Egypt, who dared to coin money under Darius I (Herodotus, *Historiae* IV, 166, 1–2); although the satraps were entitled to coin in silver with the authorization of the Great King, he was accused of rebellion and punished with death. In any case, there are bronze mintings made by satraps, such as those of the satrap of Lydia Tissaphernes, ca. 413 BCE (Bodzek 2014a: 4). In addition, in the last years of the Achaemenid Empire, the satraps of Egypt coined silver tetradrachms that bore their own names (Sabakes, ca. 340–33 BCE, and Mazakes, ca. 333–332 BCE; these dates come from Muhs 2016: 191) with Aramaic legends (Nicolet-Pierre 2005: 13–14; Alram 2012: 79); this may suggest a weak monetary control of Persepolis on the Memphite mint a few years before Alexander’s arrival in Egypt, and/or an emergency war situation that could have forced the satraps to coin for the urgent payment of mercenaries.

¹⁸⁴ This date has been taken from Cavagna 2015: 12. The first Ptolemaic gold issue was the Athena/Nike staters (Type IV).

¹⁸⁵ Duyrat and Olivier 2010: 73.

¹⁸⁶ Corfù 2010: 166.

¹⁸⁷ Gondonneau and Guerra 2000: 33.



Figure 7. Double daric, obverse.



Figure 8. Double daric, reverse.

The museum label of the double daric housed in the MCM is:

- Accession number: 1031293 (historical file number 024299).
- Obverse: Royal Archer in kneeling-running stance right, wearing a kidaris, a crenelated crown, a quiver over his shoulder, a bow in his left hand and a spear in his right; ΦΛ in field.
- Reverse. Oblong wavy incuse.
- Measurements: 17 mm diameter.
- Weight: 16.65 gr.
- Mint: most likely Babylon.
- Date of entry: December 31st 1955.
- Chronology: several proposals with a date range between 331 and 306 BCE.
- Typology: Type 15h Mitchiner; Type 7 Nicolet-Pierre.
- Acquisition. It was purchased in Numismática Calicó (Barcelona). Its exact origin is unknown.

¹⁸⁸ Erickson and Wright 2011: 164.

3.1 | Description and numismatic types

This coin, like most of the double darics, has a thick rounded planchet that shows a couple of slight indentations on the outer circumference, probably derived from the minting process. Likewise, a curved surface crack extends from the elbow of the obverse human image to the uncovered part of the advanced leg. Several double darics present this type of surface imperfections that—in our opinion—were caused by both the alloy used and the unsatisfactory controlled cooling of the flan.

3.1.1 | Obverse: Greek letters

A slightly modified traditional image of the darics Type III—in a “more naturalised style”¹⁸⁸—is found on the obverse of this coin:

the bearded Royal Archer facing right in the *Knielauf posture* (fig. 7). On his head, he wears a crenelated crown placed on a Persian hairstyle, which allows his right ear to show through. He is dressed in the traditional regal *kandys* and holds a bow in his right hand and a transverse apple-tipped spear on the left one; he also carries a quiver with four arrows on the shoulder. The advanced leg is uncovered to the knee. In this case, the hit during the minting process left the representation of the feet outside the iconographic field. After the image of the Royal Archer, on his back leg—right behind his elbow—the Greek letters Φ and Λ have been written separately in an almost vertical line; in other examples, these two letters appear together, even in the form of a monogram.¹⁸⁹ The presence of Greek characters has suggested that the artist of the images was Greek.¹⁹⁰ These letters have been considered as control marks or issue marks, whose function was probably helping the *officina monetalis* to recognize a specific series of coinage. According to Erickson and Wright, the presence of Greek letters was intended to distinguish the new Babylonian coinage from the older Sardes issues.¹⁹¹

As regards the identification of the Royal Archer, Sheedy states: “Who is being represented? Not the Persian king Darius III for he was now dead and his empire had fallen. Clearly the figure now symbolized Alexander”.¹⁹²

The relief on the obverse appears superficially worn-out; this fact prevents us from accurately seeing the spear in its entire length,

the presence or not of a knife hanging from the Royal Archer’s waist, as well as the fall of the fold in the *kandys*. All these elements are visible in other double darics.

3.1.2 | Reverse

The type of the reverse (fig. 8) is characteristic of many double darics. It consists of a bilaterally striated arcuated-patterned oblong incuse, crossed by horizontal wavy lines in relief arranged in parallel, which formally evoke the bow profile—since they show bilateral symmetry—or even waves.

There are some authors who describe this pattern as an “incuse en forme de crémaillère”; others have seen “an indented shield” in these images.¹⁹³

3.2 | Typology

The double daric of Madrid, which has the Greek letters Φ and Λ inscribed, corresponds with Mitchiner’s Type 15h.¹⁹⁴ Neither the wreath nor the thunderbolt appears close to those letters; these elements characterised types 15f and 15g respectively. The inscription ΣΤΑ ΜΝΑ, which allegedly referred to Stamenes—satrap of Babylonia—and corresponds to Type 15i, is not present either.

Based on the classification made by Nicolet-Pierre,¹⁹⁵ this double daric would match her Type 7.

¹⁸⁹ It could be interesting to note the way the letter Φ has been drawn on this coinage; in it, the lower part of the vertical stroke has been represented softly separated from the rest of the sign.

¹⁹⁰ Mitchiner 1975: 7.

¹⁹¹ Erickson and Wright 2011: 164.

¹⁹² Sheedy 2006:124.

¹⁹³ Hansen 2015: 21.

¹⁹⁴ Mitchiner 1975: 17.

¹⁹⁵ Nicolet-Pierre 1999: 298.

3.3 | The mint: two *officinae monetales* in Babylon

During the reign of Alexander III, Babylon was “le centre d’émission de monnayages le plus oriental à fonctionner du vivant d’Alexandre, et sans conteste l’un des plus prolifiques de l’empire”.¹⁹⁶ Promptly upon his arrival in Babylon in November 331 BCE, Alexander minted currency. This fact leads us to believe that there was a previous mint in the city: “The mint of Babylon which had earlier struck Persian darics and sigloi, started striking coins for Alexander shortly after his arrival and remained his chief Eastern mint”.¹⁹⁷ However, not all scholars think that the city had a mint before Alexander’s arrival.

Hansen suggests that the satrap Mazaios (Mazday/Mazaeus), sent to Babylonia by Darius III, was minting on silver in Babylon ca. 333 BCE, i.e., two years before Alexander’s arrival.¹⁹⁸ Monerie¹⁹⁹ states that this mint worked from 331/330 BCE. According to several researchers,²⁰⁰ Alexander put into operation a second mint in the city, whose purpose was most likely to exclusively coin imperial currency—on the Attic standard—for payments in the Western part of his Empire. The two Babylon mints, therefore, might have issued two different currencies in parallel for

different recipients: one for the local population, and the other one for payment of expenses in the West. The one intended for local issues (*atelier satrapique*) might have been working until 290 BCE and was probably closed by Seleucus.²⁰¹ On the contrary, the one destined to imperial issues (*atelier impérial*) only minted coins with Greek types; its working dates not being known.²⁰² Double darics were coined—on the local standard—by the *atelier satrapique*.²⁰³ In any case, the existence of two mints in Babylon under Alexander is not surprising since it is known that “by the time of his [=Alexander’s] death, twenty-six mints produced coins”.²⁰⁴

Alexander probably intended to make Babylon the financial centre of his Empire. The displacement of the Treasury seems to demonstrate this theory: after moving the riches taken from the Persian king to Susa, and “after the capture of Ecbatana, Alexander transferred his imperial treasury—and all the wealth of the Achaemenids stored in Susa, Persepolis and Pasargadae—to the city of Babylon”.²⁰⁵

Additionally, the two gold coinages coming from the two Babylon workshops were not only different in their types, recipients, and monetary standard, but also in their quality, as argued below.

¹⁹⁶ Monerie 2018: 119.

¹⁹⁷ Mitchiner 1975: I, 1.

¹⁹⁸ Hansen 2015: 18.

¹⁹⁹ Monerie 2018: 119.

²⁰⁰ Hansen 2015: 13, Monerie 2018: 119.

²⁰¹ Hansen 2015: 20.

²⁰² The presence of two different types of coinages made simultaneously in the same city is not unique to Babylon; it is also documented in other cities, such as in some cities of Asia Minor (see Monerie 2018: 129–130).

²⁰³ Monerie 2018: 152.

²⁰⁴ Shannahan 2016: 53.

²⁰⁵ Collins 2013: 142.

3.4 | Weight and quality

Double darics—like darics—followed the Babylonian standard.²⁰⁶ “Only one coinage struck in antiquity presented a debasement: the double-darics attributed to the Babylonian mint”.²⁰⁷ This fact affected their quality (around 71–90% gold), so the double darics were never able to compete with Alexander’s other gold coins of Babylon issued by the *atelier impérial*: they had around 98–99% of gold.

Gondonneau and Guerra made metallographic analyses on several double darics; these analyses resulted in the following averaged values: around 85% gold, 9.90% silver and 4.24% copper (sometimes up to 9% copper at the expense of silver). Nicolet-Pierre states: “les dix doubles-dariques conservés à Paris ont des teneurs en or encore inférieures, qui descendent jusqu’à 71%”;²⁰⁸ such devaluation was carried out either by adding copper to the alloy or by recasting metal objects.²⁰⁹

What was the purpose of this devaluation? It can be speculated about the answer. If the monetary authority sought to obtain a benefit for the issuing entity—i.e., the State—from the difference between the face value and the metal value of the currency, it would be “un cas unique dans l’histoire des systèmes numéraires mixtes d’époque hellénistique, qui ne concernent en règle générale que les monnayages d’argent”.²¹⁰ Another possible explanation

based on ideological reasons cannot be discarded: the gold coinage coming from the *atelier satrapique* of Babylon would most likely give no access to certain commodities/payments that the better-quality gold coinage coming from the *atelier impérial* could; therefore, two parallel circuits of gold circulation might have been created in the pre-Seleucid Empire, which lasted around 25–30 years, i.e., until the appearance of the new official mint of Seleucia-on-Tigris.²¹¹

3.5 | Chronology

“It is remarkable that no writer mentions the double daric; hence we may infer that the issue of these coins was restricted probably to a single district, and that they were not minted during any long period of time”.²¹² This inference about the double darics—made almost a century and a half ago—has proven to be correct.

For a long time, the double darics were dated to the rule of the last Persian emperor, Darius III (336–330 BCE). Even though these dates can still be seen in some auction catalogues, this chronology was rejected more than forty years ago. The main proposals made about the dating of the double darics are gathered below.

Proposal of Mitchiner.²¹³ “The Persian satrap Mazaios, who had been appointed governor [at Babylon] by Alexander, was empowered

²⁰⁶ Vargyas 2010: 106.

²⁰⁷ Gondonneau and Guerra 2000: 27, 33–34, tab. 1.

²⁰⁸ Nicolet-Pierre 1995: 305.

²⁰⁹ Gondonneau and Guerra 2000: 34.

²¹⁰ Monerie 2018: 151–153, based on the research made by Nicolet-Pierre.

²¹¹ It is unknown when Babylon’s mint(s) ceased to coin. For some authors, the opening of the Seleucia-on-Tigris mint left Babylon relegated to local mintages, perhaps until 275 BCE. However, there is no documented historical record of the closing time of Babylon mint(s) (see Boiy 2004: 45).

²¹² Head 1877: 29.

²¹³ Mitchiner 1975: 17–18.

to mint double gold darics”.²¹⁴ Traditionally, double darics were dated in the so-called “transitional period” (331–311 BCE), i.e., between the arrival of Alexander III to Babylon and the triumphal entry of Seleucus Nicator in this city (311 BCE, a year that would be later remembered as the founding date of the Seleucid kingdom).

According to this author, within this transitional phase, certain types of double darics were minted during a longer period of time than others. In particular, type 15h of Mitchiner—to which the Madrid double daric belongs—was issued from the years 331 to 328 BCE, that is, in the three years that Mazaios / Mazaeus was satrap of Babylonia under Alexander III. In 328, Stamenes became satrap of Babylonia and included his abbreviated name in the ΦΛ double darics. The last Type 15 of double darics might have been coined ca. 306 BCE—the year Seleucus I inaugurated the mint of Seleucia-on-Tigris (Σελεύκεια η επί του Τίγρη).

Proposal of Nicolet-Pierre.²¹⁵ According to the classification of Nicolet-Pierre, this double daric belongs to Type 7 as it bears the letters ΦΛ. She dates this type to the *deuxième groupe* of double darics coinage, issued in Babylon after 315 BCE.

Proposal of Hansen.²¹⁶ The double darics of Babylon should have been minted after the death of the satrap Mazaios (328) and until

311 BCE, i.e., in the years in which Stamenes and Seleucus were satraps of Babylonia.

Proposal of Monerie.²¹⁷ The minting of the double darics took place after the death of Alexander (323 BCE). Based on Nicolet-Pierre, Monerie thinks that the double darics were minted under the Diadochoi.

As a summary, the coinage of the double darics may be dated between the arrival of Alexander to Babylon (331 BCE) and the foundation of Seleucia-on-Tigris (306 BCE),²¹⁸ which means that it lasted a quarter of a century.

The Diadochoi began to use the royal title *basileus* ca. 306 BCE²¹⁹. From an ideological point of view, after that year it would make little sense to coin double darics, since the different Hellenistic mints would give way to new coinages with the numismatic types of the new kings.²²⁰ In the case of Babylon, it is known that Seleucus began to rule as *basileus* ca. 305/4 BCE.²²¹ As stated previously, this might be the lowest date that can be assigned to the last double darics.

3.6 | For what purpose and for whom were double darics minted?

The reasons why the double darics were coined are unknown, but some researchers think that “they may have been intended for a special purpose”.²²² In fact, the coin minted

in Babylon by Alexander seems “avoir répondu a des besoins précis”.²²³ According to Jursa, “gold was only very rarely used as a means of purchase (in institutional contexts) and never as a standard of value” in Babylon during the first millennium BCE;²²⁴ this fact makes even more complicated to know the specific purpose of the double darics. It might have had to do with the existence in the region, as well as in the city of Babylon, of two main culturally distinct human groups: the Greek and the Eastern subjects.

García thinks that “el uso de estas monedas debió estar restringido esencialmente a la clase alta de los líderes persas cooperantes y a la nueva élite macedonia”;²²⁵ consequently, according to this researcher, the image of the Royal Archer on the obverse of the double darics could have been Alexander III dressed as a Persian king.

Certainly, the fact that these coins are devaluated gold coins and the short period of time during which they were minted are two elements that point to the very especial circumstances surrounding their minting. In similar cases, warlike reasons and payment of troops (perhaps indigenous) are usually alleged to explain this currency. Since Alexander’s arrival in Babylonia, the following officials held the position of satraps of the city: Mazaios (331–328 BCE), Stamenes (or Ditamenes, 328–323 BCE), Archon of Pella (323–321 BCE), Dokimos (321 BCE), Seleucus (321–316 BCE), Peithon son of Agenor (316–311 BCE), and Archelaus (311 BCE).²²⁶ On many occa-

sions, the transfer of power between these satraps was not peaceful, so, perhaps their wars eventually resulted in the minting of the double darics coinage.

Finally, it must be remembered that Gondonneau and Guerra, based on the double darics devaluation, came to consider whether they might have been coined in a different mint than Babylon.²²⁷

Conclusions

Two coinages (daric and *nbw nfr*), two fates

Both the daric and the *nbw nfr* coinages correspond to the same numismatic phase: the one related to the pre-Hellenistic gold issues in the territory of the later two main Eastern Mediterranean kingdoms (the Seleucid and the Ptolemaic Empires).

Pour comprendre comment se construisent les systèmes lagide et séleucide, il faut néanmoins remonter au IV^e siècle : à cette époque, la Syrie comme l’Égypte connaissent l’or monnayé, mais dans des proportions bien différentes. Le darique perse a été produit dans des quantités importantes, sans doute essentiellement à Sardes et avec une circulation bien attestée vers l’Égée et la Grèce. Au contraire, les émissions monétaires d’or égyptien sont rares et anecdotiques avant la conquête macédonienne.²²⁸

In this first phase, an economic competition between the two currencies never happened. There existed, as has already been pointed out, a political rivalry between the kings of Memphis and Persepolis: the Egyptian gold coin internationally proclaimed the

²¹⁴ Sheedy 2006: 124.

²¹⁵ Nicolet-Pierre 1999: 297–299.

²¹⁶ Hansen 2015: 18–21.

²¹⁷ Monerie 2018: 151–152.

²¹⁸ This broad chronology can be seen in Sear 1979: 568.

²¹⁹ Starting with Antigonos Monophthalmus, and quickly followed by Ptolemy, Seleukos, Lysimachus and Cassander (Gruen 2018: 109).

²²⁰ Although the Babylonian records “continued to count the regnal years of Alexander IV for several years after his death” (Gruen 2018: 110).

²²¹ Gruen 2018: 114.

²²² Hansen 2015: 21.

²²³ Monerie 2018: 119.

²²⁴ Jursa 2010: 474.

²²⁵ García 2015: 17.

²²⁶ A short biographical reference to each of these satraps can be found in Heckel 2006, sub voce.

²²⁷ Gondonneau and Guerra 2000: 35.

²²⁸ Duyrat and Olivier 2010: 72.

independence of the Nile state from the Persian Empire.²²⁹ For the Persians, however, Egypt was not an independent state, but only a rebel satrapy—Chaveau and Thiers mention that “Les Grands Rois n’ayant jamais accepté la perte de cette plus riche partie de leur empire [*i.e.*, Egypt]”²³⁰—and, in fact, Egypt was reconquered by the Persians sixty years later.

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Image credits

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²²⁹ According to Colburn (2018: 97), the meaning of that coinage was “an announcement to the eastern Mediterranean world of his royal status [=of the Egyptian king]”.

²³⁰ Chaveau and Thiers 2007: 375114

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Papers on Ancient Egypt

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