

## OLD COINS WITH ASTRONOMICAL SYMBOLS

E. ROVITHIS-LIVANIOU<sup>1</sup> and F. ROVITHIS<sup>2</sup>

<sup>1</sup>*Dept. of Astrophysics-Astronomy and Mechanics, Faculty of Physics,  
Panepistimiopolis, Zografos 157 84, Athens, Greece  
E-mail: elivan@phys.uoa.gr*

<sup>2</sup>*Miltiadou 47A', P. Faliron 175 63, Athens, Greece  
E-mail: florov11@yahoo.gr*

**Abstract.** Here we present, or simply describe, some interesting coins, where various astronomical symbols like the sun, a star, the zodiac etc. are shown. The coins come mainly from different cities of the ancient Greece, as well as from their colonies, (in Italy, Sicily, Asia Minor, or Pontus). Moreover, information concerning the place they were found, and the Museum they are kept are given together with the estimated time they were issued.

### 1. INTRODUCTION

It is believed that the first Greek coins were cut at Miletus, (an ancient Greek colony at the coasts of Asia Minor), around the 6th century BC. From Miletus the coins were *spread* to the other ancient Greek cities and colonies. For example, from the Greek ancient cities at the west coasts of the Black Sea, i.e. Istria, Apollonia Pontica, Tomis etc., Istria was the first that issue to have its own coins in the first half of the fifth century BC; while Apollonia Pontica and Messimbria followed, soon. Since all of these cities were Milecian colonies, this is natural.

Many themes like gods, nymphs, animals, monsters, or objects were used on the observe or the reverse sides of many cities' coins. The use of a certain *icon* or *symbol* on a coin of an ancient city for a long time interval was characterised it; while, some of the themes were taken from the Greek Mythology. For example on the reverse sides of many silver coins of ancient Corinth the flying horse Pegasus was usually presented. Similarly, in a gold coin from Syracuse, Sicily, dated around (400-370) BC, the head of Arethusa with a star is shown in its observe side, while Hercules and the Nemea lion on its reverse.

From all these, here we present some coins where various astronomical symbols are shown. In most of the cases, they appeared on their reverse sides.

### 2. THE COINS

#### 2. 1. ANIMALS OR OBJECTS COMBINED WITH THE SYMBOL OF SUN OR A STAR

In some of the oldest coins the *lion-sun* (or *lion-star*) combinations are found. The lion was the symbol of the city of Miletus. In some of these coins only a lion's head

appear, while in others a whole lion. Besides, in some cases the sun, or star, reminds somehow a flower, although all are referred as astronomical symbols. There are many similar silver coins, from the same region, corresponding to the same period and having the same or different value, (Fig. 1).

Moreover, a silver diobol from Pantikapia, Bosporus, timed around 500-400 BC, has the same combination: *lion-star*. In this the lion's head is different and the star does not cover the whole reverse side, but only a small part having only 4 rays and a dot in the centre. Similarly, in a silver diobol of (438-433) BC one can see: a lion's head in the observe, and a demteted square on the reverse, where a 8 rays star, and the Greek letters forming the name of the god Pan, (IIAN).

On the other hand, in one side of some coins from Theodosia -an antique city founded by the Milecians in the 6th century BC- we can see the head of a Taurus, while at the other there is a star with 6 rays and some Greek letters forming the city's name. This coin is dated around (403-393) BC, and it is kept in the Odessa Numismatics Museum. Similarly, on coins coming from various other cities, a griffin, a horse, the flying horse Pegasus, or even a see monster (Cetus) is shown, combined either with a star, or another animal and a star close to it.

In some coins of the Ionian Islands, a star with 8 rays on one side, (or 8 *long* and some *shorter* between), and an amphora on the other are found. Such a coin dated between (450-400) BC is a silver triehemiobol from Corfu, kept at the Fine Art Museum, Boston, USA. Similar are some silver obols from Locrus, dated between (380-340) BC. Their variety is presented in Fig. 2.

Moreover, on a silver stater of 420 BC from the island of Milos, Cyclades, kept at the same Museum, an apple on the front and a star on the reverse side appear, respectively. As the star has only 4 rays, looks much more like a seed of grain.

On the other hand, a star and a tripod were the subjects shown on the two sides of some bronze coins from Pantikapia, dated around 3-2 century BC.



Figure 1: Left: A Milecian Coin. Right: The reverse sides of two similar coins.



Figure 2: The various forms of the star in the stater-star combination.

2. 2. GODS OR SEMI-GODS AND STAR COMBINATIONS

In some coins of the Hellenistic period, one can see on one side the god Helios, i.e. the Sun, presented by the head of a man with rays around it, and on the other some animal(s). Such is for example a coin kept at the Odessa Numismatics Museum. Another example is a silver hemidrachm from Kleitor, Arcadia, at Peloponnesus, dated around 350 BC. Similar are some silver coins from the island of Rhodes, cut at different epochs, and having different value, where the god Sun-Apollo is shown on observe, and a flower on their inverse sides. It seems that a star on or out the helmet of the goddess Athena was rather common in the ancient world. Because it is found in the coins of various ancient cities like Corinth, Locrus etc.

Moreover, as the god Apollo was considered as the god of the light, he was symbolized the Sun too. For example, a coin kept at the Odessa Numismatics Museum, and issued by Mithradates VI, the Great, in (80-70) BC shows in the front side the head of the god Apollo, while in the other the lyre of Apollo and a star.

According to the Greek Mythology, flames like stars appeared in the heads of the semi-gods Dioskouroi, Diktus and Pollux, while they were sailing with Jason to find the golden fleece. This is shown in two coins from Dioscuriada -a Milecian colony on the Black sea- that are kept at the Odessa Numismatics Museum, (Fig. 3, Left).

The heads of Dioskouroi, with stars above them can be also seen in a denarius, kept at the National Museum of Scotland, (Fig. 3, Right).

2. 3. PEOPLE AND ASTRONOMICAL SYMBOLS

On the observe side of a silver denarius one can see the head of the Roman Emperor Augustus head, while on the reverse, a comet is shown, (Fig. 4, Left). It is believed that this is a comet and not a star, because the rays are around a dot, which is not in the coin's centre. Possible appearance of a comet during Augustus time is not confirmed.

Another interesting coin is that presenting Severus Alexander on front and the Jupiter with constelations on its reverse side. The coin is dated around (222-235) AD and is kept at the Fine Art Museum, Boston, USA, (Fig. 4, Right).

On the other hand, a bronze coin, timed around (253-268) AD, shows Gallienus' head on observe, and the flying horse Pegasus on the reverse side. Moreover, on this latter side some stars are also shown, probably because the artist wanted to show that Pegasus was flying very high to the sky.



Figure 3: Left: Stars above Dioskouroi's hats. Right: Stars above Dioskouroi's heads.



Figure 4: Left: A comet. Right: The Jupiter with the zodiac cycle.

### 3. DISCUSSION

Many other coins similar to these presented here, and especially the very old ones, were found in various ancient Greek cities, or their colonies, from Sicily to Pontus at the Black sea coasts. The main astronomical symbol, *the star*, was used either alone, or in combination with something else, as was shown; and as it is in some Macedonian coins, or in some very old ones where the star is combined with Medousa's head. Moreover, the Milecian ancient colonies at the west coasts of the Black See used the *sun* or a *star* in their coins. The symbol of Messimbria for example was the *solar disk* presented by a 4 rays *wheel*.

Furthermore, during the first half of the 4th century BC, the Persian satrap and funded of Karia, Hecatomnus Mausolus, issued a series of silver coins similar to those of the ancient Miletus presented in Fig. 1. In these, the Greek letters KA indicate the city's name. Besides, there are the *star-star* Lydo-Milesian coins, made by electron, which are considered by some ones mysterious, as both of their sides are similar. Their origin is unknown, although their weight is similar to the Lydian electron coins, or the early silver ones of Miletus. Similar are also some very tiny coins, where again the sun's or star's symbol looks much more like a flower, although all are referred as astronomical symbols by the experts.

### References

<http://en.wikipedia.org>

<http://www.museum.com.ua>

<http://www.pontos.dk>

Mionnet, T. E.: 1807, Description de Medailles antiques Grecques et Romaines, Paris.

O'Hara, R. J.: 2009, Ancient Greek coins of Miletus, <http://rjohara.net/coins>.