## Introduction

The Croeseid, was a type of coin and the world's first bimetallic monetary system, either in gold or silver, with a standardized purity for general circulation which was minted around 550 BC.

## History

Before Croesus, his father Alyattes had already started to mint various types of non-standardized coins. They were made in a naturally occurring material called electrum, a variable mix of gold and silver (with about 54% gold and 44% silver). Herodutos mentions that:

So far as we have any knowledge, the Lydians were the first people to introduce the use of gold and silver coins, and the first who sold goods by retail.

## Characteristics

Croesus replaced all the electrum coins by gold and silver coins using a single coin type: the facing foreparts of a lion and a bull. Compared to later copies made by the Achaemenids, the original Croeseid use a more natural rendering of the two animals. The first Croeseids were indeed issued by Croesus before the Achaemenid invasion, and not after the Achaemenid as has sometimes been suggested.

The gold coins had an initial weight of 10.7 grams. The silver coins also were issued in 10.7 grams, together with many smaller denominations, from 1/3 to 1/48. This makes it the world's first bimetallic monetary system. though the idea of smaller silver denominations had originated by Hermodike 99.

Soon after however, the gold coins were struck in a lighter standard of 8.1 grams. The modification of the weight may have been the result of a policy to exchange and remove all electrum coins in circulation with the heavier format, the 10.7 grams corresponding to the nominal weight of gold in a standard 14.1 grams electrum stater. Once this was done the coins were lightened to 8.1 grams corresponding to the true weight of gold in the electrum coins, which had often been voluntarily debased. Aristotle attributed the invention of coin to Greek Hermodike II, possibly Croesus' mother.

The great advantage of the Croeseids compared to their electrum predecessors is that they were very reliable, as the pure gold and pure silver coins all had a clear intrinsic value, entirely guaranteed by their purity and clearly defined by their weight. The royal symbol, or stamp, created by Aylettes gave the coins a declared value and today we still use a token currency, where the value is guaranteed by the state and not by the value of the metal used in the coins.

Symbolism

The lion attacking the bull motif on this coin type has been variously theorized as symbolizing the sun and moon, spring and winter.

alternatively, the lion - symbol of Lydia - and the bull - symbol of Hellenic Zeus are facing each other in truce. Note that hunting lions attack from the rear.

As such, it is perceived that Greeks of the Asia minor and Lydia were at peace at that time, yet Lydia was at war with Asia Minor at that time. Notwithstanding, the Croeseid symbolism of peace between the Greeks of Asia Minor, Lydians and later Persians persisted long after Croesus' death.

When the Achaemenid Empire ruler Cyrus the Great invaded Lydia, together with the rest of Asia Minor, he adopted the bimetallic system initially introduced by

Croesus.

These coins were found in very fresh condition in the Apadana hoard, coins deposited under the foundation stone of the Apadana in Persepolis, dated to circa 515 BC,

confirming that they had been recently minted under Achaemenid rule.

Under Darius I, the minting of Croeseid in Sardis was then replaced by the minting of Darics, probably around 515 BC. The earliest gold coin of the Achaemenid Empire, the Daric, followed the weight standard of the Croeseid, and is therefore considered to be later and derived from the Croeseid. The weight of the Daric would then be modified through a metrological reform, probably under Darius I.

History of minting

The first coins were reportedly minted during the Indus Valley Civilization (IVC) in the city of Mohenjo-daro, currently Sindh province of Pakistan five millennia ago. The earliest coins from the Mesopotamia are carbon-dated to be 4 millennia old, while the last Assyrian king minted coins around 2700 years ago. Later, electrum coins were minted in Lydia, followed by the Croeseid by Croesus. Lydia was an Iron Age kingdom of western Asia Minor located generally east of ancient Ionia in the modern western Jurkish provinces of Uşak, Manisa and inland Izmir. Before Croeseid various coins were minted in the Egyptian empire and the Mesopotamia, but lacked standraized purity and ratio. Nevertheless, coins made from electrum preceded the Croeseid in Lydia and was authorized by Lydian for exchanges.

The origin of ancient coins in the Mediterranean region is a problem fraught with a paucity of evidence yet demands an explanation. It is, indeed, a question concerning no less that the origin of the first coins in the world as Chinese coinage, which developed independently, did so approximately near the end of the 6th century, when coins in the Mediterranean were already well established. Credit for the development of the first coins often falls on either the Greek city states of Asia Minor or the Lyd-

ian kingdom. The latter, however, cannot be considered mutually

exclusive from the Greek world, as Lydian culture had already been partially Hellenized by that period. Both in art and architecture Lydia had been influenced by Greek styles to the extent that it had a Greek agora in its capital Sardis.

There are several indications that Lydia was indeed fundamentally involved in the origin of coins in the Mediterranean world. Firstly, the material of the earliest known coins suggests a Lydian origin. The coin horde from the Ephesian Artemisium — a temple to the Goddess Artemis - and other finds throughout Asia Minor are consistently made of electrum. Electrum was an alloy of gold and silver that was available naturally in the silt of the river Paktolos which flows through Sardis and was therefore a commodity largely controlled by the Lydian kings, but it should not be assumed that naturally occurring electrum was the sole source for early coins as there is evidence that the alloy of some Lydian coin issues were made of a controlled proportion of gold and silver, and there is evidence that during the first half of the 6th century B.C.E. gold and silver were being separated in Sardis. Furthermore, later electrum issues from Cyzicus, Phokaea and Mytilene were composed of an artificially controlled ratio of gold to silver.

Another indication that the earliest electrum coins were from Lydia is the distribution of weight standards to which they adhere. By far, the majority of early electurm finds, especially of those ninety-three pieces in the Artimision horde of Ephesus, conform to the Milesian weight standard, which was the weight standard of Lydia as well as the Ionian city-states of western Asia Minor. Only two coins from the Artimision horde are of a different weight standard, namely the Phokaic, and the usage of the seal device on both makes the attribution to Phokaea even stronger.

The wide ranging (although not exclusive) use of the of the lion on many other early electrum specimens under the Milesian weight standard further suggests Lydia as their origin, as the symbol lion was closely associated with the royal Mermnad dynasty of Lydia. Forty seven (23 with lion's head in profile, 22 with lion's paw, 1 with lion's head facing, and 1 with lion recumbent) of the ninety three pieces found at the Artemisium used either a lion's head or lion's paw as their symbol, and forty five other pieces from a horde found at Gordion also carry this symbol. With finds of the presumably Lydian style coinage in both Phrygia and Ionia, the coinage was seemingly widely used, but what motivated the minting of the first coinage is still uncertain. In recent decades a higher abundance of small fraction electrum coinage has been discovered, which puts to doubt earlier assumptions that the first coins were minted mainly for large transactions. Reasonable speculation suggests that the smaller fractional pieces, of which the smallest are tiny bits of metal at 1/96th of a stater, were issued for use as civil service pay and in turn accepted as payment

for taxes. Minting of fractional denominations quickly increased, and considering that nearly every other piece in a 6th century B.C.E. horde of 906 coins from western Asia Minor used a different die, suggests a very large minting, perhaps in the millions. Nonetheless, the larger denominations were very likely used for expensive transactions, such as state purchasing of mercenaries or supplies, or as in the case of the Artimision horde where most of the lion head types are one-third staters, for wealthy dedicatory purposes.

Lydia, Asia Minor, 650-561 B.C.

One of the first coins produced with more than simple crude lines and punches were the lion head types of Lydia. These coins retained the general nugget shape and two reverse incuse punch marks of the earlier globule and striated types. The restoration of the temple by the Lydian king Croesus does give us a terminus ante quem for the placing of the coins. Following the destruction of the Artimision in the 7th century by the Cimmerians, it was rebuilt by Croesus, who came to power in 561 B.C.E. Part of the cella (an enclosure within Greek and Roman temples which consisted of the primary sanctuary in which a statue of a god was situated) of the old temple was reused during the reconstruction, and it is under this part that the aforementioned horde was found during excavations in 1904-1905. During the excavations, five varieties can be been distinguished, with three of particular academic interest:

1. Essentially unmarked blank with no punch (2 pieces, one an 1/8th and another a 1/24th of a Milesian stater).

2. Jupe-less pieces with an incuse punch on one side (3 pieces, 1/24th, 1/48th, and 1/96th of a Milesian stater).

3. Jupe-less pieces with a striated surface on one side (4 pieces, one 1/6th, two 1/24th and one 1/48th of a Milesian stater).

All of the rest have coin-types (lion's head or paw, horse's head, beetle, griffin's head, etc) and make use of incuse punches.