2.0 MONEY OF THE TWO HAN DYNASTIES

2.1 Monetary Systems

1. Coinage

Western Han’s coinage was an extension and development of the Qin system. The Qin dynasty monetary system had a bimetallic gold and copper cash standard, with gold for large transactions, and the Half-ouncer bronze coin for small ones. Western Han had the same gold-cash standard at first, except that for gold, the catty became the unit.

The histories all say that a catty of gold was equal to ten-thousand cash. This is a question worth studying. This ratio may have been that of Emperor Wu’s reign rather than that of the early Han. It could not have held before the Half-ouncer had been lightened to four grains.

In any event, bronze coins were not a secondary money. Their use was not limited. Gold, however, was only employed as a measure of value, as an instrument for making payments, as a store of value, and as an international currency. It was not a medium of circulation. For that purpose only bronze cash were used, and so for daily life the bronze cash was more important.

The bronze cash of Western Han were still named after their weights, but the actual weights gradually diverged from their named weights. This is common in the history of national coinages.

The Chinese and Roman situations were particularly close. In ancient times the copper as was the main Roman coin. It originally weighed one Latin pound (libra, equal to 273 grams), and hence was also called the libra. This coin’s weight was steadily decreased, first by half, then to one sixth, and finally to one-twelfth of its original weight. In 89 B.C. (Emperor Wu’s zhenghe 4), it was reduced to one-twenty-fourth of its original weight.

The situation in China was similar: The Qin Half-ouncer originally weighed half an ounce, so that its name corresponded to its weight. Reduction in its weight was effected at the beginning of Han. Though the name was not changed, during Empress Lü’s year 2 (186 B.C.) its weight was reduced to eight grains. In Emperor Wen’s year 5 (175 B.C.), it was lowered to four grains, making it one-third its original weight. This was merely the government’s officially sanctioned weight. Coins in actual circulation were much lighter. This was because the coins were not minted by the government, but rather were freely coined by the people.

According to the histories, there were eight kinds of Western Han copper coins. In the early years, the Qin Half-ouncer was used. From Empress Lü’s year 8, the Eight-grainer was used. In her 6th year the Five-fen was circulated. In Emperor Wen’s year 5, the Four-grainer was made. In jianyuan 1 of Emperor Wu (140 B.C.) the Three-grainer was made. In his 5th year the Half-ouncer, also called the Three-fen coin, was again circulated. In yuan-shou 5 (118 B.C.) the Five-grainer was minted. In yuanding 2 (115 B.C.) the Red-edged coin was produced.

In fact, however, there were only three types of coins, because the Eight-grainer, Five-fen, Four-grainer and Three-fen were all Half-ouncers, differing only in size, and the Red-edged coin was a variation on the Five-grainer.

The question of who had the right to mint coins during early Han still awaits an answer. Sima Qian and Ban Gu both say that because the Qin coins were too heavy, during early Han the people were permitted to mint coins. This would make it appear that anyone could do so. Some even say that this was one way of dismantling the Qin tyranny. In any event, the earliest coins to be so produced must not have been the so-called Pod-cash. The Qin Half-ouncer weighed 12 grains. The Pod-cash were as light as 1 grain or less. Liu Bang would not have allowed the people to make so drastic a weight reduction.

Sima Qian also says that in the time of Emperor Wen, "the people were permitted to mint coins at their discretion." The "Chronological Table of Generals, Ministers and Famous Officials Since the Rise of Han" in the Historical Records says this occurred in Emperor Wen’s year 5 [175 B.C.]. The Debates on Salt and Iron merely says that "in the time of Emperor Wen, the people were allowed to mint coins." Neither work says at what time the people were forbidden to mint coins. Perhaps such a prohibition occurred in Empress Lü’s year 2 [186 B.C.], when the Eight-grainer began to be circulated, because during Emperor Wen’s reign Jia Yi alludes to a "former prohibition on minting coins," as though it were something in place not long before.

There were not just four kinds of Han Half-ouncer. Actually, these coins come in many variant forms. Most people consider any smaller coin which resembles the Qin Half-ouncer to be an early Han Half-ouncer. This is quite reasonable. There are

1Kato Shigashi, "Concerning the Money of Early Western Han, Particularly the Four-grainer," in Wu Jie (tr.), Investigations of Chinese Economic History (1959), 1, p. 147.
small but thick Half-ouncers with highly irregular inscriptions, sometimes in high relief, which may be early Han Half-ouncers. [Cf. Plate xxvii, at end of this subsection] The Eight-grain Half-ouncer is generally identified with the larger and thinner coins whose inscriptions are in low relief. The Five-fen coin is most logically explained as being one-fifth the weight of 12 grains, or 2.4 grains. Most people identify this with the Pod-cash. Small coins with neat inscriptions might all be considered as Four-grain Half-ouncers. Some people even profess to be able to distinguish those minted by Deng Tong from others minted by Pi, the Prince of Wu, but that is hard to accept.

The Three-fen coin was one-third of 12 grains, or 4 grains, and was still a Four-grain Half-ouncer. Because it was minted after the Three-grainer, all coins which closely resemble the Three-grainer must be Three-fen coins. The so-called Pod-cash was also called the Elm-pod Half-ouncer. Strictly speaking, this label should be applied only to those thin and small Half-ouncers with extremely large holes compared to the size of the coin, and so which seem to form the character for "mouth" with the four thin strips of their bodies. In the broader sense, however, all light and small Half-ouncers may be spoken of as Pod-cash.

The written sources are not consistent on the inaugural and terminal dates for the Three-grainer.

The Historical Records' "Treatise on the Balanced Standard" mentions the coin by name, but does not state clearly in what year it began to be minted. Later writers infer from the context that Sima Qian similar mold in the Shanghai Museum.

Most Chinese numismatists and historians adopt the thesis of the Record of Han. The Book Hall of the Original Tortoise accepts both theories, but says the Three-grainer was abolished in yuanhsou 5 [118 B.C.]. Cai Yun (Habitual Conversations, 5) points to the contradiction between the Han History's "Treatise on Food and Money" and its "Annals of Emperor Wu." From the Historical Records' "Treatise on the Balanced Standard" statement that "from the time Emperor Wen made the Four-grainer until this year, it has been some forty years" he calculates that the Three-grainer was minted in yuanhsuo 6.

The Japanese writer Katō Shigashi ("Investigation of the Date of Manufacture of the Three-grain Coin," in Investigations of Chinese Economic History, 1, pp. 156-166) holds to the Historical Records theory. His reasoning, which is persuasive, is that the minting of the Three-grainer by Western Han was a major reform. Before this, coin names did not correspond to their weights. Only with the Three-grainer was this finally the case. Hence thereafter they could no longer return to the past practice with a Four-grain Half-ouncer. But was the Three-grainer actually intended to have its name correspond to its weight? This is hard to demonstrate.

In my view, Emperor Wu's goal in minting the Three-grainer was still the standard one of lightening the coinage. It was only after the Three-grainer proved too light and small that the Four-grain Half-ouncer was restored.

The Sea of Jade says that the Three-grainer was first minted in the Winter of yuanhsou 4 [119 B.C.]. The Japanese Okudaira Masahiro (Record of East Asian Coins) accepts this thesis. Chen Tieqing ("The Necessity to Follow the Thesis of the Record of Han On the Period of Circulation of the Three-grain Coin," Coins, no. 28) supports the thesis based on the Han History "Annals of Emperor Wu." Aside from the discrepancy of over twenty years, the main difference between these two theses is over the length of the period during which the coin was circulated. According to the Historical Records theory, the Three-grainer only circulated for from three months to a year.

The latter discrepancy can provide a clue as to how to resolve the problem of when the coin was abolished. This can be investigated in terms of the quantity of Three-grainers. The length of time the Eight-grain Half-ouncer circulated was four or five years. If the Three-grainer was first minted in janyyuan 1 [140 B.C.], it too circulated for four or five years. How many of each still survive? If one asks people in the coin trade, they will certainly tell you that the Three-grainers are fewer than the Eight-grain Half-ouncers, because they command a higher price.

This in turn raises the question of the link between quantity and price. Those who believe in a mechanical quantity theory will, of course, adopt the viewpoint of those in the coin trade, but in fact price is not a faithful reflection of quantity.
intended to place this in yuanshou 4 [119 B.C.]. He does not, however, specify in which year its use was halted. Later writers believe that its use was halted when minting of the Five-grainer began in yuanshou 5.

Concerning this contradiction, the Han History "Treatise on Food and Money" simply echoes the "Treatise on the Balanced Standard," but its "Annals of Emperor Wu" is more concrete, saying they were first minted in jianyuan 1, and were abolished five years later. Usually the Historical Records is more reliable than the Han History when dealing with monetary materials, but on this point the Historical Records is too vague, and so I feel we ought to accept the position of the Han History "Annals of Emperor Wu." This coin was only circulated for four or five years in small quantities. The coins weigh about 2 to 2.5 grams apiece.

In modern times a large number of varieties of Four-grainers and Three-grainers have come to light. The majority have squared-off incised inscriptions. A minority has rounded ones. There are also some raised inscriptions, but these coins mainly have square, incised inscriptions. Their obverse inscriptions are merely the two characters meaning "four grains" or "three grains." Their weights are highly variable. Some bear place names, either on the obverse or reverse. Those on the squared off incised inscription Four-grainers include: Dong'e, Chunyu, Linzi, Zi, Gumu, Chen, Lü (with and without the bamboo signific), Yangqiu, Puyang, Zou, Gao'an, Lanling, Zhongling, Bi, Pingyu, Gaoyang, Fei, Hucui, Gaoliu, Dingxiang, Chengxiang, and Jianguo. The place name Qu appears on raised inscription specimens. The rounded incised inscription type bears such place names as Ping'an and Gumo; the raised inscription subtype bears Xiacai, Qieyang and Linqu.

The Three-grainers come in only a few varieties. I have only seen a squared off incised inscription and a Chengxiang version, as well as a rounded raised inscription version. In terms of construction, we can distinguish between those cast with holes and those with drilled holes, some in the center. Of these, the rounded raised inscription types have somewhat larger holes, like the small ring coins, but the Ping'an Four-grainer has two holes, one above, one below. On some, the holes go right through the top and bottom, like a belt buckle. Most of those with squared off inscriptions are small and have shoulders. The Dingxiang Four-grainer's is perfectly square, with a small loop at one end.

The localities named on them are spread through modern Shandong, Hebei, Henan, and Anhui provinces. We cannot locate some place names. The Chengxiang and Jianguo inscriptions seem to be official titles.

There are firm relationships among the various types. The squared-off incised inscription and the rounded incised inscription Gumu Four-grainer seem to be from the same place. The squared-off incised inscription Chengxiang Four-grainer and Three-grainer must also be from the same place. The squared-off raised inscription Qu Four-grainer must be an abbreviated form of the same name on the rounded raised inscription Linqu Four-grainer. From these we can tell that the same place might sometimes mint versions with squared off and sometimes with rounded inscriptions. The Four-grainers and Three-grainers must have appeared in sequence.

The discovery of these coins has provoked much debate among numismatists. Some say they were steelyard weights because the Dingxiang Four-
grainer"s small loophole was unique in a coin. Most have accepted them as coins, but there is no agreement on their dating. Some place them in Warring States times. Others date them to the Six Dynasties. The calligraphy of the inscriptions is not, however, that of Warring States times. The Lanling, Zhongling, Donge, Chen, Puyang and Gaoyang coins have post-Qin orthography. Nor do they fit into the Warring States money systems, unless as small denomination Qin coins, but none of these places fell within the Qin sphere. Many of them are Qi place names, and Qi then used the knife and spade units, and did not calculate in terms of grains and ounces. The Six Dynasties theory is even less plausible.

I think these coins must belong to Western Han, dating to some time between the reigns of Emperors Wen and Wu, and that they were local coins circulated along with the Four-grain Half-ouncer and Three-grainer. Not one of these place names was of

many kinds of incised inscription Four-grainers, there are very few examples of each kind. If we compare the market prices of the two, the incised Four-grainer is a hundred times the price of the Four-grain Half-ouncer, but it should be noted that the market treats each Four-grainer bearing a different place name as a different coin, whereas Four-grain Half-ouncers with different place names are all lumped into one category. This is what raises the price of the incised Four-grainers. In fact none of the places named on these coins produces copper, and hence it is natural that few such coins exist.

All places having close relationships with the central government minted the Four-grain Half-ouncer. Even the great aristocrat Pi, the King of Wu, and the high official Deng Tong minted it. They had control of an abundance of copper. If the Four-grain Half-ouncers from various locations also bore place names, their modern prices would also be much higher.

Cheng Yuncen, "Investigation of Ancient Coins," Ancient Coin Magazine, no. 2, says they are steelyard weights. He had obtained a jade Donge’s Four-grainer, and said that in Spring-Autumn times Dong’e was called Keyi, in Warring States times E (the same E as in Dong’e), and was called Dong’e by Qin.

Lo Zhenyu, Yongli Diary attributes them to ancient Qi. Zheng Jiaxiang’s History of the Development of China’s Ancient Money says they belong to Warring States times, and were still in use during early Han.

Gao Huanyan’s Miscellaneous Record of Discussions on Coins says that the Jianguo Four-grainer must date to Six Dynasties. He also says that the Dong’e, Linzi and Chunyu Four-grainers must date to after Qin and Han. The Japanese Yamaue [or Yamagami] Kaya?[?] says it is a Southern Qi coin. Because the Liu-Song had a Four-grainer, Xiao-Qi must have minted this Four-grainer, he reasons. (Cf. Shōwa Coin Catalog.) Nakamura Fusetsu does not agree.

Liu Tizhi’s Rare Bronzes of the Skilful Studio [Shanghai a place so named after Western Han times. Dong’e was Eyi during Spring-Autumn times, and became Eqqin during Warring States. Linqu was established during Former Han. The bureaucratic title Chengxiang was used from Emperor Wen’s to Emperor Wu’s time.

Although the character for grain was written both with and without the metal signific, description of the Four-grainer of Emperor Wen’s time as having the metal signific was the work of later writers. The coins actually produced then did not have the metal signific. This is not to be wondered at, particularly for those localities minting the coin which were far from the centers of government. Jia Yi at the time clearly stated that the coins in use among the people varied according to locality.

Later, Emperor Wu changed over to the Three-grainer, and some localities also produced this coin without the metal signific. They were only in use for a short time, and there are far fewer of them than of the Four-grain Half-ouncer. Hence that there are fewer Three-grainer without the metal signific than Four-grainers, corresponds to the situation back then. The variety of forms is also not hard to explain. Emperor Wen’s year 5 [175 B.C.], when the Four-grain Half-ouncer began to be minted, was only forty-seven years after the First Emperor of Qin unified the empire. People in their fifties could have used or seen Warring States Era coins of various sorts, and even after the unification, not all of the old coins could have been melted down immediately.

At the end of Emperor Wu’s yuanshou 4 (119 B.C.) or at the beginning of yuanshou 5, a monetary reform was carried out. As Zhang Tang had recommended, the White Metal and Hide Money were adopted.

ji[jin][lu] said they were minted by Western Han.

The title Chengxiang seems to have been established by King Wu of Qin (309 B.C.). According to the Historical Records: "Basic Annals of Qin": "In the 2nd year of King Wu of Qin, the Chancellorship [Chengxiang] was established. Shuli Ji and Gan Mao were made Left and Right Chancellors." This office was not found in other states. Qi just used the word xiang, and not chengxiang. According to the Zuo Chronicle, Duke Xi 24: "The Marquis of Qi established archery [?] as an equal skill and made Guan Zhong the xiang." Under Duke Xiang 25 it states: "Cui Zhu set up Duke Jing and made him xiang, with Qing Feng [?] as Left xiang." When Emperor Gaozong of Han ascended the throne, he established the position of Chengxiang. In his 11th year the title was changed to xiangguo -- "minister of state." Under Emperor Hui and Empress Lü, the Left and Right Chengxiang posts were established. In Emperor Wen’s year 2,

2.1.1: Monetary Systems: Coinage
This White Metal was an alloy of silver and tin used to make three kinds of denominations of coins. The first of these was the round Dragon-coin, weighing eight ounces, and called White xuan or zhuan, the latter two characters then being homonymous with the character for ounce. Each coin was worth 3,000 cash. The second was the square Horse-coin, worth five-hundred. The third was the oval Tortoise-coin, worth three-hundred. All of these values are expressed in terms of the Four-grain Half-ouncer. The standard coins then were copper cash. The White Metal were token coins.

Hide Money was made of the hides of white deer from the Shanglin (Upper Grove) Park in the palace precincts. Each piece was one foot square, decorated with colored lines, and was worth 400,000. It was used as gifts for princes and other nobles coming for an audience, and cannot be deemed genuine money. It had no intrinsic value, since a small piece of deerskin, no matter how decorated, could not be worth 400,000 cash. Yan Yi, the Grand Minister of Agriculture then, said that the princes and aristocrats came to court with precious articles worth thousands as gifts, and yet were requited with hides nominally priced at 400,000. The two did not match. This may be said to have been the beginning of Chinese paper money.

White Metal was China's earliest silver coin. Though the so-called three metals had been spoken of since antiquity, and though the histories said that the First Emperor of Qin did not use pearls, jade, tortoise, cowry, silver or tin as money, one might presume upon hearing this that before the First Emperor's unification these things were all used as money. This presumption would, however, be mistaken. It was an inference by historians, not necessarily drawn from the First Emperor's laws. Since de jure gold and copper cash were the moneys, none of these other valuable objects was so used. Probably during Qin and early Han people believed that in ancient times pearls, jade, tortoise and cowry were moneys.

That silver and tin were used as money during Emperor Wu's time was known to Sima Qian. Of course this does not rule out the use of silver in specific regions prior to Qin.

White Metal was, however, unusual in shape, being quite different from the traditional forms of coins in China. Perhaps it was influenced by foreign coinages. China then had trade relations with the lands beyond the western frontier (including India). The Han History mentions the coins of Jibin (modern Kashmir) and Anxi (Parthia). The coins of Jibin bore the image of a horse, as was then often the case for the coins of that region. However, dragons, horses and tortoises were animals with which the Chinese were familiar. The Four-grainers exist in square and round forms, and though they were very small, some have survived. What is strange is that no White Metal coins have survived, and after Han no one has ever seen any. One cannot but be suspicious.

Several months after the issue of White Metal and Hide Money, the Five-grainer was first minted. (Plate xxviii) The number of types of Five-grainer multiplied. There are a number of types even for Emperor Wu's reign, because at first they were not minted exclusively by the central government, but also by various commanderies and princely fiefs. The central minting institutions were the Three Offices of the Shanglin Park, that is, the Office for Coinage, the Office for Sorting Copper, and the Office of Price Equalization.

Through Transportation. The Office for Coinage was in direct charge of the minting of coins. The Office for Sorting Copper was responsible for assaying copper. The Office of Price Equalization and Transportation supervised the transportation of copper and tin.

Generally, both faces of the Five-grainers had raised edges. In this respect they differed from previous coins. An extremely small minority of Four-grain Half-ouncers had raised edges, and some had inner as well as outer raised edges, but their reverses were invariably flat. A very small number of Five-grainers also had flat reverses. All those with irregular edges may be termed yuanshou year period Five-grainers, the earliest of these coins.

The Red-edged coins are hard to explain. In the past, numismatists have supposed that red elemental copper was used for their rims. They based this on textual evidence. No one had seen such a Red-edged Five-grainer. The character for "red" perhaps should be interpreted as a verb, with the meaning of "to file even," as in the expression "to lathe" something. The character here translated "lathe," normally means wheeled vehicle, and it and the character for "red" were probably originally variant forms of the same character. So the words normally now thought of as meaning "Red-edged" actually refer to the filing smooth of the outer rim, which was an advance in coin making techniques. As a consequence, later Five-grainers would all have been Red-edged Five-grainers.

Why, then, are we told that Red-edged coins were later abolished? We know only that these coins began to be made in yuanling 2 [115 B.C.] in the
capital, in the official foundries, and that minting continued in the commandaries and kingdoms, with one Red-edged official coin being equal to three local coins. What may have been abolished two years later was merely this price ratio between the two. Of course the original Five-grainers continued to circulate, but once the Three Offices of the Shanglin began to mint coins, the commanderies and kingdoms could no longer do so.

Some numismatists distinguish between "Three Offices" and "Shanglin" Five-grainers. This is because they do not understand the meaning of these two terms. The Shanglin Park was the name of the place. The Three Offices were the three bureaus located in the Shanglin Park. Of these, only the Office for Coinage was directly involved with the making of coins.

In summation, the right to mint coins in China was not centralized into the hands of the government until yuanding 4 [113 B.C.]. Of the Five-grainers, there are some unusually fine and thin rimmed coins which may be Red-edged Five-grainers minted by the Office for Coinage. They each weigh around 4 grams.

Of the Five-grainers made after Emperor Wu's time, we can distinguish only those of Emperor Xuan, because several coin molds survive with year periods of his reign on them. A characteristic of these is that the two crossed lines of the character for five are drawn in toward the center of the coin, and their rims are broader than normal. They also frequently bear other marks, such as a stroke above the inner rim, or a half star on the lower part.

The several surviving types of small Five-grainers average 0.7-0.8 grams per coin, about a fifth the weight of ordinary Five-grainers. They are extraordinarily finely made. There is one which is exactly like the Emperor Xuan Five-grainer. In the past some numismatists have ascribed it to Eastern Jin's Shen Lang, or make it a Wang Mang Five-grainer. These attributions are clearly incorrect. These coins must belong to the years of Emperors Zhao or Xuan [86-48 B.C.], as five of them equal one ordinary Five-grainer. From the time Emperor Wu abolished the Red-edged Five-grainer one-equal-to-five rule,

[115]

all Five-grainers circulated at parity with each other. Prices fell during the reigns of Emperors Zhao and Xuan, and the Five-grainer's purchasing power became very great.

Under Emperor Xuan, grain sold for 5 cash per hu. If people wanted to buy smaller amounts, like a dou or several sheng of rice, they had no way to pay for it. It was probably for this reason that the small Five-grainer was minted: to make change with and for making small purchases. If this inference is correct, this small Five-grainer has a special meaning in the history of Chinese money. This is because the standard cash coin was for several thousand years the smallest unit of value, except for this coin, which had no successors. Small coins are mentioned on Han bamboo slips, but we do not know if it was this small Five-grainer that was being alluded to.

There is no way to distinguish Western Han Five-grainers minted after the time of Emperor Xuan. In the future, once well-planned excavations have taken place and coin molds are studied, there is certain to be progress in the more precise dating of Five-grainers. As of now, we can only judge the more finely made coins resembling those of Emperors Wu and Xuan to be late Western Han Five-grainers.

The Five-grainer is the coin used longest and most successfully in Chinese history. Historians consider its weight to have been exactly appropriate. Since the opening of its monetary economy, China had used a vast number of coins of various sizes. Some were as heavy as the 40 gram Qi knives, or as light as the Han Pod-cash, which was not even 1 gram.

The several centuries prior to yuanshou 5 [118 B.C.] were an age of experimentation in the weight of coins. From that date on, with the adoption of the Five-grainer, that coin not only remained China's sole main coin over the next seven centuries, even after its abolition during the first decade of Tang, the new coins retained the size and approximate weight of the Five-grain standard, and coins which departed from that standard usually failed.

That weight and size standard happens to have been settled upon independently not only in China, but also in foreign countries. The ancient Greek drachma, though it varied slightly by locality, normally weighed 4 grams. The Roman silver denarius also weighed around 4 grams. The standard Chinese Five-grainer was precisely 4 grams.

The Five-grainer was not only of a suitable size and weight, it also represented progress in shape, particularly with its use of the raised rim. Rim and inscription were of the same height, which protected the inscription from being easily rubbed away. Though the Warring States knives and spades sometimes had such rims, particularly the pointed-tip knives and the Qi knives, there were spade coins which lacked rims. Ring coins and Half-ouncers not only lacked rims, but had high relief inscriptions which were very easily rubbed away. Most Three-grainers lacked rims. With the Five-grainer, this feature became a permanent one. Europe's coinage was, in this respect, far behind.
In modern times some foreigners have found several kinds of large and small bronze coins in Khotan, Xinjiang. In ancient times the state of Yutian was located in Khotan. Though these coins lack holes, we may say that they were equally influenced by the Chinese monetary culture and that of Greece. On one side is an inscription in the Qulu language, and on the other is a Chinese text. Qulu was the written language of ancient Khotan, and so these coins may be called Khotan state Chinese language coins. The large coins weigh around 14 grams and the small ones 3 grams. The Qulu side also bears the image of a horse or camel around which is written the name of the king. The king’s name is preceded by such epithets as "king of kings." As more than one king’s name is found on such coins, they must have been minted during more than one reign.9

Before the history of Khotan had been made clear, it would have been very hard to determine the period during which these coins were made. Representations of horses and camels were directly or indirectly the result of the influences of the coins of Macedonia and the Seleucids. Alexander the Great’s invasion of the East carried such coins to northwestern India, which is why Kushan Dynasty coins also bear such images. The epithet “king of kings” is first seen on Parthian coins of the mid-third century B.C.

The other side of such coins was fully under Chinese cultural influence, but they cannot be dated solely on the basis of these inscriptions. The culture they reflect is that of the several centuries from pre-Qin times through Han and Three Kingdoms Wei, rather than that of any other period.

First, though the orthography of the character for cowry, [ ], imitates the oracle bone rather than the small seal script of Qin and early Han, all the other characters resemble those of Qin-early Han small seal script. Second, denotation of weight or value, and the layout of the inscription clearly follow the Qin Weight One-ounce Fourteen-grains and Twelve-grains coins. The circle around the character for cowry may stand for the round hole of the ring coin. Third, the character for cash-coin, qian, first appeared on Chinese coins with the Three Kingdoms period Taiping Hundred-cash. Judging from these three points, we can see that these coins did not fortuitously imitate a particular Chinese coin, but rather were the result of extended and deep contact with Chinese culture.

Nor were these coins limited to the cultural aspect in their relationship to China. There may also have been economic links, because these coins have the same unit as Chinese coins, the grain. But if Khotan intended to establish thereby a rate of exchange with Chinese coins, it must have been with the Chinese Half-ouncer. Two of their six-grain coins were equal to one Half-ouncer; and one of the 24-grain coins was equal to two Half-ouncers.

The lands of the western frontier probably first encountered Chinese culture when they bumped up against Qin. When Duke Xiao of Qin became hegemon [bawang] of the western frontier, Chinese culture’s transmission to them could have begun. This is why some foreigners named China [117] after Qin, and why Chinese called Rome “Great Qin.”

Though there were not many Qin ring coins, seeing one or two of them would be enough to allow them to be copied. They may not even have been copied at the time of their issue. A few coins preserved by the rulers of the states of the western frontier could have had an influence during the rule of their sons or grandsons.

During Qin and early Han times, Khotanese sold jade to the Chinese. This was a great source of income for them. It is said that in ancient times Khotan called itself Qin and Maqin (literally "horse Qin"), and that some time around the second century B.C. it was invaded by the Shasiluo [allegedly] of Bhutan in the Punjab.10 At that time Greek culture

9 Cf. Sir Aurel Stein, Record of the Archeology of the Western Frontier (Chinese translation by Xiang Da), pp. 53, 64, 65.

10 Several hundred Khotan coins have been found since the nineteenth century, most of them carried off by foreigners. Quite a few people have written essays on this subject. Because the coins’ inscriptions are not clear, most of these accounts are without substance, and need not be summarized. For example, on the Chinese inscription’s notation of weight, the Japanese Haneda Toru says it is “five grains.” Cf. Zheng Yuanfang (tr.), Outline of the History of the Civilizations of the Western Frontier, pp. 52, 53. The article “Chinese Language and Kandaran Language Inscribed Ancient Coins,” in the Japanese periodical Archeological World, 1, nos. 5 & 7, says that the inscription is “half-metal” [banjin] and “metal 0 0 [?]” weight One-ounce Four-grains.” European scholars are even less clear. They can only use the Qulu language side of the coins.

Xia Nai’s “Investigation of Khotan’s Horse-coins” in Cultural Relics, nos. 7 & 8 combined (1962) contains rubbings in which the inscriptions are legible. The author adds his own to the opinions of several foreign scholars. He denies any relationship between the Khotan Chinese inscription coins and the ring coins of the state of Qin. He says that before the unification Qin was economically backward, with an undeveloped coinage. The ring coins were scarce even in the home territory of Qin, and so
entered Khotan by way of India, and there mingled
Khotan could not a century and more later have used them as a
model. Hence he ascribes these coins to Eastern Han, and says
that the Six-grainer and Twenty-four-grain units were linked to the
Eastern Han Five-grainer. Five of the Six-grainers would
exchange for six Five-grainers. One of the Twenty-four-grainers,
with one Six-grainer added, would also exchange for six Five-
grainers. He states that Hornele weighed nine large Khotanese
coins, and found them to average 13.56 grams apiece, which
approximates the Eastern Han standard weight.
For this standard weight, Xia used
Wu Chengluo's *History of Chinese Weight Measures*. This in
turn rested on the results of Wu Dacheng's experiments on the
Wang Mang Six-spring, Ten-spade and Monetary-spade.
Xia also says that the relationship between the Six-grainer
and Twenty-four-grainer was patterned on the Greek monetary
system. He believes that the Greek monetary system was based
on multiples of four. He also claims that after Bactria changed
over to the Indo-Persian weight standard units, a
[drachma](#) weighed 3.264 grams, and four [drachma](#) weighed 13.05 grams.
The Punjab used this standard, which was very close to that
employed for the Khotan Chinese inscription coins. He goes on
to say that the horse on Bactrian coins is ridden by a man, and
that the coins which the Khotan coin imitated was later than the
Bactrian one.
Questions can be raised about all of these opinions:
(1) The ability of Khotan to have been influenced by the
state of Qin is not absolutely determined by the quantity of Qin
ring coins. (Perhaps they were more numerous then, and later
were melted down to make Half-ouncers.) This relationship was
more likely determined by the cultural levels of the two
countries, and whether trade between them was direct or
indirect.
(2) If we treat the date of the Khotan Chinese inscription
coins as an unknown, then rather than say the Six-grainer and
Twenty-four-grainer developed a circuitous relationship with the
Chinese Five-grainer, it would be simpler and more convenient
to say that there was a relationship with the Chinese Half-ouncer.
This is not to imply that these Khotan coins were minted before
the time of Emperor Wu of Western Han. Even after the issue of
the Five-grainer, the Half-ouncer remained in circulation, partic-
ularly along the borders.
(3) The Eastern Han system of weights cannot be determined
by Wu Dacheng's experiment. Based on more reliable methods,
I have calculated the weight of the Eastern Han ounce at more
than 16 grams. I explain this in my note on the Six-spring and
Ten-spade of Wang Mang. Nor can we follow Hornele's experi-
ment for the weight of the Khotan coins. One coin extant in
China weighs 14.8 grams, and not the 13.06 grams Hornele
found.
(4) The Greek coinage was not based on multiples of four.
The Greek monetary unit was the [drachma](#). There were also two
[drachma](#), three [drachma](#), four [drachma](#), eight [drachma](#), and ten
with the already present Chinese culture to produce
this type of coin. This region could also have been
exposed to the Chinese Five-grainer, because
Western Han Five-grainers have been excavated in
Xinjiang. They have even been unearthed in
Uzbekistan in the Soviet Union.[11]
The Han monetary economy was a long step
ahead of that of the Warring States. Taxes were collected,
salaries paid, offices were bought, and fines paid in coin. Uses for coins had greatly increased,
and channels for their circulation had become more
numerous. During Spring-Autumn times and before,
taxes in China were paid through labor service. It
was not until Warring States times that they could
also be paid in goods, when, as Mencius said, "there
is the levy in rolls of yarn; the grain and rice levy;
the labor service levy." By Han this list was extend-
ed to the levy in cash, particularly the Reckoned-
contribution of Emperor Gao and the Reckoned-
string of Emperor Wu's time. The former was a
head tax. The latter combined a tax on wealth and
business. Both were paid in money.[12]

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[drachma](#) coins. Of these the four [drachma](#) coin was most fre-
quently circulated in Athens and a few other places. Even the
one [drachma](#) coin was used in large numbers. In Central Asia,
however, only the one and four [drachma](#) coins existed, with the
former dominant. This seems to have been the case in Persia.
These, however, were all silver coins, not copper ones. The
Greek bronze coin was called the [obolus](#), was worth one-sixth of
a [drachma](#), and there were denominations below it as well.
These did not come in multiples of four either.
(5) The horse on these coins was indeed remotely derived
from Greece's monetary culture. Macedonian coins had repre-
sentations of horses on their reverses prior to Alexander the
Great's time. Sometimes it was an unmounted horse, sometimes
a horse with rider. This motif was transmitted to Central Asia
during Alexander's conquest of the East. Kushan Empire coins
also bore such an illustration around the first century B.C., but
their artistic level was low. Sometimes the body of the animal
resembled a horse, but the head had a pair of horns. The coins
of that region then at times bore a riderless horse and sometimes
a horse with rider, very much like some Greek coins. The
Khotan coin's horse or camel must have been indirectly
influenced by the Greek model.


8th month first decade; the Reckoned-contribution was carried
out." Ru Chun states that the "Han regulation was that com-
moners from ages 15 to 56 paid Reckoned-contribution. One
Reckoning was made up of 120 men. It was used for the vehicles
and horses of the storehouse soldiers." "11th year . . . 2nd
month: An edict stated a desire to reduce the Contribution sub-
stantially. Now what is paid in is not regulated. Clerks may
increase the amount paid, and the aristocracy can add still more
Prior to Han, official salaries were paid entirely in grain and other commodities. Men of the Warring States period spoke of their incomes in terms of the number of zong they obtained. By Western Han times, though official salaries were still calculated in terms of quantities of rice, they were actually paid partly in grain and partly in cash, or even entirely in copper coins. During Eastern Han, official salaries were fixed at half in coin and half in rice.

This assured that not only did everyone have coins, but that they could not do without them. Hence allusions to coins in the histories gradually become more numerous.

Not only are there examples of the use of coins to display wealth and prices, there are even examples of the use of copper cash in making actual exchanges. Particularly after Emperor Wu centralized the power to mint coins, the channels of circulation for money in China underwent an important change. Coins flowed from the national treasury to officials to pay their salaries and through other government expenditures into the hands of merchants. The money held by officials also flowed into the hands of merchants when the officials made purchases of commodities. A portion of this money then came into the hands of small producers. This portion then returned to the hands of merchants as it was used to purchase raw materials or things needed for daily life. Finally, it all flowed back to the state treasury as taxes were paid.

Because of this broadening of the sphere of the coins' circulation, the demand for money among the people also became more fervid.

### CHART OF TYPES OF TREASURE-MONEY

<table>
<thead>
<tr>
<th><strong>Coin Type</strong></th>
<th><strong>Name of Money</strong></th>
<th><strong>Face Value</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring-money</td>
<td>Small-spring-value-one</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(six coins)</td>
<td>1 (in wen)</td>
</tr>
<tr>
<td></td>
<td>Baby-spring-tent</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Adolescent-spring</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Thirty</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Forty</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Fifty</td>
<td>50</td>
</tr>
</tbody>
</table>

Public fields and parks which could be reduced in number were all used to aid the poor. Those with property of less than a thousand cash were all granted or lent seeds and food. It was already common for prices to be expressed in cash during Warring States times, and became still more so during Qin and Han. Historical Records, "Basic Annals of the First Emperor of Qin": "31st year... There was a great blockage in the Guanzhong region for twenty days. Rice reached a price of 1,600 per picul."

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The Guanzhong region for twenty days. Rice reached a price of 1,600 per picul."
### 2.1.1: Monetary Systems: Coinage

#### Cowry-money
- **Cowry (under 1.2 inches)**: 3
- **Small-cowry (1.2+ inches)**: (5 coins)
- **Baby-cowry (2.4+ inches)**: 30 (per str)
- **Adult-cowry (3.6+ inches)**: 50 (per str)
- **Large-cowry (4.8+ inches)**: 216 (per str)

#### Spade-money
- **Small-spade-hundred (ten coins)**: (wt 15 grain) 100
- **Baby-spade-two-hundred**: (16 gr) 200
- **Adolescent-spade-three-hundred**: (17 gr) 300
- **Sequence-spade-four-hundred**: (18 gr) 400
- **Legate-spade-five-hundred**: (19 gr) 500
- **Medium-spade-six-hundred**: (20 gr) 600
- **Adult-spade-seven-hundred**: (21 gr) 700
- **Younger-brother-spade-eight-hundred**: (22 gr) 800
- **Secondary-spade-nine-hundred**: (23 gr) 900
- **Large-spade-yellow-thousand**: (1 oz.) 1,000

#### Tortoise-money
- **Viscount-tortoise (5+ inches)**: 100
- **Marquis-tortoise (7+ inches)**: 300 (4 coins)
- **Duke-tortoise (9 inches)**: 500
- **Original-tortoise (1 ft 2 in)**: 2,160

#### Silver-money
- **Ordinary silver**: per liu (8 oz.) 1,000
- **Vermilion-silver**: per liu 1,580

#### Gold
- per catty 10,000

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[119] On Han coin molds, seals, and ceremonial coins are frequently found such mottos as "daily income a thousand in metal," "daily income ten million" and "great profit ten million." There is even a ding tripod with "daily profit a thousand metal." Sima Qian said: "Men became rich, and humaneness and righteousness became secondary." Zhao Yi remarked: "The wealthy and the noble are called virtuous." These were all reflections of the prevailing money worship.

Wang Mang carried out several reforms of the coinage. [Plates xxix-xxxi] The first was in jushe 2 (7 A.D.). The Five-grainer was retained, but three large coins, including one round coin and two knife coins, were minted to supplement it. The round coin was inscribed Large-spring-fifty, and was 1.2 Han dynasty inches in diameter. It weighed 12 grains. Each coin had a face value of fifty Five-grainers.

The two knife-coins were the Inscribed-knife and the Inlaid-knife. They did not have the same shape as pre-Qin knife coins, but rather looked like modern keys. The Inscribed-knife bore the four character inscription "Inscribed-knife-five-hundred." This meant that each knife was supposed to be worth five-hundred Five-grainers. The Inlaid-knife bore the five characters "One-knife-equals-five-thousand." The two characters "One-knife" were inlaid with gold, and so this coin is popularly called the Gold-inlaid-knife. Each of them had a face value of five-thousand Five-grainers. The Gold-inlaid-knife was finely made, has been prized by collectors down through the ages, and has even been celebrated by poets.

After Wang Mang usurped power in 9 A.D., he abolished the knife coins, and even the Five-grainer was no longer used, because the character for the old imperial house’s surname, Liu, contained the components meaning "metal" and "knife." Only the Large-spring and Small-spring were kept in circulation. The former still had a face value of fifty, and the latter a face value of one, and weighed one grain.

The strangest of Wang Mang’s monetary reforms was introduced in jianguo 2 (10 A.D.). This was the

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20Historical Records, 129, "Biographies of the Money-makers."

21Latter Han History, 110, latter part, "Garden of Literature: Biography of Zhao Yi."

22Zhang Pingzi’s "Ode to the Four Worries" [Sichoushi] in the Selections from Literature: "The lovely lady bestows on me a golden-chased knife; with plate of jade her noble gift must I here requite." Du Fu’s "Ode to the Snow" [Duixueshi]: "Bag of gold-chased knives dispersed away; jar of silver’s wine is gone astray." Han Yu’s ode "The Boat" [Chuan]: "You held a gold-chased knife; ’twould not a goose-eye pierce." And also his "Tanzhou Moored Boat" [Tanzhou Boduan]: "Song wine comes cheap, I hear; so why stint gold-chased knives." Actually, what these poets were celebrating may simply have been ordinary knives and swords inlaid with gold, and not necessarily the knife coins of Wang Mang, but because most people have believed Wang Mang’s coins were intended, these gold-inlaid knife coins
Treasure-money system. It comprised five monetary substances divided into six types and twenty-eight items. The five substances were gold, silver, copper, tortoise and cowry. The Six types and twenty-eight items were Spring-money (six items), Cowry-money (five items), Spade-money (ten items), Tortoise-treasure (four items), Silver-money (two items) and gold.

It is hard to say what the standard unit was in so complex a coinage, but probably it was one of the copper coins, with the lowest denomination Small-spring coin as the main money. Not only were the large denomination round Spring coins and Spade coins merely tokens, so too were the Tortoise and Cowry money. The face value of the gold and silver money may also have been too low, since compared to the exchange value in Emperor Wu's time of one catty of gold for ten-thousand cash, the cash price of specie was now down to one fourth or one fifth of that value. Hence gold and silver were most likely hoarded, and took no part in circulation. Tortoise and cowry must have varied in size over time, and so were unsuitable for monetary use.

Though the Spring and Spade coins bore specific face values, most people were illiterate, and each of the ten Spade coins differed in weight by only one grain from the next heaviest and lightest of their number, and the different denominations would have been hard to tell apart, so there may well have been confusion over them. Hence only the Large and Small Spring coins would have stayed in circulation, and in fact only these have survived in large numbers.

The ten spades differed in shape from pre-Qin spade coins, but resembled the Pennon-cash Worth-jin and the Four-cash Worth-jin. Some people even attribute these latter two spades to Wang Mang. This is to reverse cause and effect.

It is not easy to collect complete sets of the six Spring and ten Spade coins, particularly the Adult-spring and Medium-spring. In principle all these coins were minted at the official smelters, and so should have been very fine and handsome coins, but in fact this is not the case. It is common to find broken rims from defective molds among the six round Spring coins. Some Baby-spaye-two-hundreds are smaller than some Small-spaye-hundreds. And yet the Large-spring-fifty, which is the most numerous type, has very regular inscriptions on both large and small specimens. This is hard to explain. Many of the Large-spring-fifties were evidently minted privately, and we would not expect private coins to be this fine.

The names Spring and Spade are anachronistic and eccentric. The "Treatise on Food and Money" in the Han History calls the Spade with a face value of four-hundred the thick spade. The character on the face of this coin resembles the character xu, meaning "sequence," which is close in shape to the character meaning "thick." Nowadays most call it the Sequence-spade-four-hundred. The Large-spade is not inscribed as "worth-thousand," but as "yellow-thousand." The character for yellow may here have stood for the character meaning horizontal (of which it forms the phonetic) or the homonym character meaning horizontal steelyard weight.

The numerals on Spring and Spade coins are not ordinary ones, but rather hallmark or commercial numerals. For example, the numeral six on the Medium-spade-six-hundred is written like a capital "T" in English. The numerals on Wang Mang Spades are altogether regular, except for the numeral five. Such numerals were probably linked to the counting tally calculating method used before the invention of the abacus.

We find it hard to explain why Wang Mang would adopt such a system. In this matter we can only accept the judgment of the historians that he "could not remain inactive," and believed that his system was a panacea which would "so determine things that the empire would spontaneously become pacified." In fact this was not a very good system.

In tianfeng 1 (14 A.D.), he instituted a fourth change in the coinage, abolishing the Large and Small-spring in favor of a two-coin Monetary-spade and Monetary-spring system. The Monetary-spade weighed 25 grains and was valued at 25. The Monetary-spring weighed 5 grains, and was valued at one. Before long his Xin Dynasty fell. Wang Mang's defeat had many causes, and the failure of the monetary system was one of them.

There are two kinds of coins which I have not seen in the records, but which most numismatists believe ought to be attributed to the period of Wang Mang.

The first of these is the Spade-spring. This is a round coin, extraordinarily finely made, with delicate and elegant calligraphy of the so-called "perpendicular needle seal script" like that on the Monetary-spring. There is no doubt it is a Wang Mang coin. This must be what later ages called the "male coin" [nanqian]. If a woman wore this on her sash, she was supposed to be sure to give birth to a boy. Some say that the Spade-coin spoken of in the Han History's "Biography of Wang Mang" is this coin, mistakenly supposing this to be evidence that it was have enjoyed unwarranted importance.
circulated then. Because the *Han History* uses the word coin or cash [qian] instead of spring [quan] for the six Treasure-money Spring coins, it also does so for Spade-spring coins. It is, however, implausible to regard this statement as evidence for the circulation of Spade-springs. Though the text speaks of "officials and ordinary people in their comings and goings carried Spade-coins [121] to match their tallies. Those who did not carry them lacked food or lodging, and were vexed at the passes and ferry crossings." Hence probably the Ten-spade and not the Spade-spring was being alluded to.

The other type of money was the State-treasure-gold-chest-value-ten-thousand. It had a very unusual shape. The top was shaped something like a round coin bearing the four characters for "state treasure gold chest." The lower part was square, and bore the two characters for "value ten-thousand." This inscription is very similar to those on Wang Mang coins, and since the Gold-inlaid-knife was valued at five-thousand, and this coin at ten-thousand, and the histories record that Wang Mang had several dozen chests of gold, this coin is attributed to him.

Though Wang Mang's monetary system failed, and was only in use for an extremely short period, his legislation has had a great influence on later ages. For example, not only was his system of weights retained by Eastern Han, the weight standards of the Six Dynasties were also based on Wang's system, with some modifications. Written records of these seem all to have been expressed in terms of comparison with his system. The system of weights of the Six Dynasties is no longer known, and can only be inferred from our knowledge of Wang's system, and that is based upon his coinage. Attempts have been made to empirically determine these weights, but because of inadequate methods, reliable results could not be obtained.

Of Wang Mang's coins, only the Monetary-spades were made to very consistent standards, and so one can only use them for any experimental determination of his system of weights. I have weighed fifty-four such coins, each weighing more

<table>
<thead>
<tr>
<th>Coin Name</th>
<th>Legal Weight (grains)</th>
<th>Actual Weight (grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-spring</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td>Baby-spring</td>
<td>3</td>
<td>2.2</td>
</tr>
<tr>
<td>Adolescent-spring</td>
<td>5</td>
<td>1.8</td>
</tr>
<tr>
<td>Medium-spring</td>
<td>7</td>
<td>2.9</td>
</tr>
<tr>
<td>Adult-spring</td>
<td>9</td>
<td>3.6</td>
</tr>
<tr>
<td>Large-spring</td>
<td>12</td>
<td>4.8</td>
</tr>
<tr>
<td>Small-spade</td>
<td>15</td>
<td>6.2</td>
</tr>
<tr>
<td>Baby-spade</td>
<td>16</td>
<td>7.6</td>
</tr>
<tr>
<td>Adolescent-spade</td>
<td>17</td>
<td>8.5</td>
</tr>
<tr>
<td>Sequence-spade</td>
<td>18</td>
<td>8.9</td>
</tr>
<tr>
<td>Legate-spade</td>
<td>19</td>
<td>8.3</td>
</tr>
<tr>
<td>Medium-spade</td>
<td>20</td>
<td>9.8</td>
</tr>
<tr>
<td>Adult-spade</td>
<td>21</td>
<td>15.2</td>
</tr>
<tr>
<td>Younger-brother-spade</td>
<td>22</td>
<td>12.0</td>
</tr>
<tr>
<td>Secondary-spade</td>
<td>23</td>
<td>12.3</td>
</tr>
<tr>
<td>Large-spade</td>
<td>24</td>
<td>18.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>232 grains</td>
<td>124.1 grams</td>
</tr>
</tbody>
</table>

This calculates to 0.532 grams per grain, or 12.668 grams per ounce. If we factor in the one Monetary-spring and one Monetary-spade, the former at 3.8 grams and the latter at 16.6 grams, we get 13.224 grams per ounce, which is still somewhat lower than Wu Dacheng's figure. If, however, other coins are substituted for the Small-spade and Medium-spade I originally used, then you get 13.8 grams per ounce, which is heavier than Wu Dacheng's figure.

Obviously, this procedure is unreliable. Of the coins in the above table, the Baby-spring is heavier than the Adolescent-spring, the Sequence-spade is heavier than the Legate-spade, and the Adult-spade is heavier than the Younger-brother-spade and Secondary-spade. All of these run counter to the order of weights laid down by the regulations. How could any standard be derived from this situation? The Six Spring and Ten Spade coins are not easy to obtain, and it is very difficult to form complete and balanced sets.

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24 On the basis of the six Spring and ten Spade coins and one each of the Monetary-spring and Monetary-spades of Wang Mang (actually he only weighed seven of the ten Spades), Wu Dacheng equated the Wang Mang ounce with 13.675 grams. But there are so many variations among these coins that no standard can be derived from them. For example, the Baby-spring-ten and Adolescent-spring-twenty were of nearly the same weight. (Wu Chengluo, *History of Chinese Weight Measures*, I, chapter 2, section 5.)
than 0.4 treasury ounces. Four coins weighing less than that were put aside. These allowed calculation of the Xin Dynasty ounce as being around 16 grams. New material excavated in recent years has proven this calculation to have been correct.

After Wang Mang, but before Liu Xiu, there were two other men who minted coins: Liu Xuan and Gongsun Shu. [Plate xxxii] The Prince of Huaiyang, Liu Xuan, minted a Five-grainer in 24 A.D. Because coin molds for this issue have survived, these Five-grainers can be distinguished from others. The year after (gengshih 1), Gongsun Shu styled himself Shepherd of Yizhou, and before long set himself up in Chengdu as Prince of Shu. He also occupied Hanzhong, and remained in power for another twelve years, until jianwu 12 [36 A.D.], when he committed suicide.

The histories say only that he abolished copper coins, and set up an Iron Office to mint cash. Some say this occurred in jianwu 6 [30 A.D.], but do not specify what coin he minted. Later numismatists say it was a Five-grainer simply because an iron Five-grainer is extant which differs little from the Han Five-grainer. Full proof that this was minted by Gongsun Shu is lacking. Gongsun Shu's minting of iron coins raised obstacles to the circulation of money, and gave rise to a nursery rhyme:

Yellow ox's belly's white;  
Restored Five-grainer'd make things right. 

If we take this literally, Gongsun Shu's iron coin must not have been a Five-grainer.

There exist iron Half-ouncers, iron Large-spring-fifties and iron Monetary-springs, the latter coming from Sichuan, but these might not have been minted at that time. There is another iron coin, a Five-[], which has been attributed to Gongsun Shu. This inscription is explained by theories about auguries during those times.

People to the west of China were supposed to believe that metal was associated with the color white, and symbolized the royal clan. The term zhu (grain, as in Five-grainer) also meant the color red, and was a taboo word for Gongsun Shu. This is why he would have minted a coin with a changed form for the character meaning metal. This theory is quite plausible, and fits the nursery rhyme "Yellow ox's belly's white; Restored Five-grainer'd make things right." Moreover, these coins come from Sichuan (Chongqing). However, this coin has a wide rim, and the calligraphy of the character for metal on it is not the same as that of the metal signifier of the character for grain on Five-grainers. Hence their dates cannot be very close.

Whichever coin it was that was minted by Gongsun Shu, it is historically significant. This is the first record of iron coins in China. It is said that in 1200 B.C. the Greek state Sparta used iron as a medium of circulation, but that would seem not to have been a formally minted coin, and some doubt the story's historicity. There could have been coins made of iron in China before Gongsun Shu.

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25In 1956, in the foundations of the Han city of Xi'an, there were discovered ten bronze ingots. On one of these was engraved the characters "one-hundred-thirty catties." This ingot weighed 68.5 modern market catties. This would make an ounce equal to 16.41 grams. (Cultural Relics Reference Materials, no. 3 (1956), p. 82.)

26Han History, 80, "Biography of Liu Xuan."

27Mr. Chen's Illustration Classic and Dai Xi's Collected Words on Ancient Coins.

28Kaiyuan Divination Classic, 113, quotes the Han History Continued's statement on events in jianwu 6.

29Cai Yun, Habitual Conversations: "The place of origin of the Five-metal coin is not known. Of the iron objects I have obtained, Hong's Record says in passing, quoting the "Biography of Gongsun Shu" in the Latter Han History, ... that Shu believed in the sequence of the Five Virtues, that Yellow succeeds Red and White succeeds Yellow. Metal, according to the westerners, has the virtue of White, and symbolizes the legitimate succession to the royal clan. According to this, metal has the virtue of White, which Shu honored, and zhu [the character for grain, as in Five-grainer] which means red, was what he had as a taboo. Hence he abolished the term zhu and kept the term jin -metal. Hence the inscription on these coins. People then resented this change in the Han coinage, and the nursery rhyme about restoring the Five-grainer would fit in with this explanation."

30Some say that Gongsun Shu's was not the first iron coin. The Han History, 67, "Biography of Mei Fu" contains the statement "The yin flourished, and the yang waned. It was as though metal [jin] and iron were flying." Zhang Yan commented: "In heping 2 [27 B.C.] the Iron Officer of Pei Commandery minted coins. They flew up like stars. This caused debate among the responsible officials." The Kaiyuan Divination Classic, 114, "Smelting Iron Flying," contains the following: "In Emperor Cheng's heping 2, 1st month, the Pei Commandery Iron Officer cast coins. Before the iron was poured, there was a rumble like the sound of thunder and the roll of drums. This happened twenty-three times. People fled in alarm. Later, when they returned and examined the ground, the earth had fallen several feet, and the furnace had broken into twelve pieces. Within the furnace, the melted iron pieces were scattered like shooting stars."

However, the Han History, "Record of the Five Agencies" contains the following: "In heping 2, 1st month, the Pei Com-
I have previously mentioned the iron Pennon-cash Worth-jin. It is, however, difficult to distinguish the dates of iron coins, and there are no excavation reports for this coin. Hence we dare not accept it. In recent years iron Four-grain Half-ouncers have been found in Western Han tombs in Hengyang and Changsha in Hunan. Some have rims, and some lack them. The quantity is rather large. If these were not ceremonial coins, they must have been local money.

During the two centuries of Eastern Han, the monetary economy superficially seemed to be in decay. Wang Mang's policy of having a national monopoly on gold reduced the use of gold still further. Probably because people could observe the chaotic consequences of Wang Mang's monetary systems, they lost faith in money as such, and at times resorted to grain or cloth as circulatory media and instruments for making payments.

Though official salaries were half in coin and half in rice, imperial gifts gradually substituted cloth for gold. During Western Han, fines were paid in gold or in bronze coins. During Eastern Han fine silk was used for this purpose. By that time, however, coins had entered deeply into popular life. Even if the government had wanted to limit their use, there was no way for it to completely do away with them.

Wang Mang's Monetary-spring was still in use during the early years of Eastern Han, and was even still being minted. Because Liu Xiu [the founder of Eastern Han] very much believed in books of prognosis, and came from Baishui [literally, "White Water"] township of Chong Tomb City, the character meaning "spring" or "freshet of water" on the Monetary-spring coins symbolized for him the Immortal of Baishui. Hence when Ma Yuan memorialized to ask for restoration of the Five-grainer, Liu Xiu did not accept his advice. It was not until jianwu 16 [40 A.D.] that the Five-grainer was finally being minted again.


31Han History, 44, Biographies of the Princes of Huainan, Hengshan and Jibei": "fine to remit death, two catties eight ounces." Ibid., 6, "Annals of Emperor Wu": Tianhan . . . 4 [97 B.C.] . . . Autumn, 9th month, atonement cash for those sentenced to death is 500,000 to reduce the punishment by one level.

33Latter Han History, 2, "Annals of Emperor Ming": "(Zhongyuan 2 [57 A.D.] of Emperor Guangwu). Those in the Empire under sentence of death may have punishments remitted as follows: To reduce the death penalty, 20 rolls of fine silk; to reduce amputation of the right foot to shaving the head and being beaten at the city wall at dawn, 10 rolls; to reduce the latter punishment to being sent to the Minister of Justice, 3 rolls." Ibid.: "Yongping 15 [72 A.D.] . . . an edict for redeeming capital punishment to a lower degree, 40 rolls; to reduce amputation of the right foot to shaving the head and being beaten at the city wall, 10 rolls; from the latter punishment to being sent to the Minister of Justice, 5 rolls." Op. cit., 3, "Annals of Emperor

34Wang Chong, Balanced Discourses, 'Knowledge of Measures": "If one goes to market without money in hand, the owner of goods will ask: 'Where is your money?' If you reply, 'I have no money,' the owner of goods will certainly not hand them over to you." Latter Han History, 66, "Biography of Liu Chong": "(Chong) was appointed Prefect of the Dongping Tomb City, and because of his humaneness and kindness was loved by both officials and people. . . There was a collection for carrying out a large project. In Shanyin prefecture there were five or six old men with grizzled eyebrows and white hair who came out of some narrow mountain gorge. They presented one hundred coins to Chong. Chong expressed his appreciation to them, saying, 'Old fathers, why have you so burdened yourselves?' . . . The men selected one large coin for him to accept."

35Prior to jianwu 16 [40 A.D.] during Eastern Han, the Monetary-spring was in use. Inscriptions on Stone and Metal contains a Monetary-spring mold, with the date "jianwu 2" inscribed on its back.

36Han History, 24, "Treatise on Food and Money": "Later, in the 2nd year, Emperor Shizu received the Mandate. To wash away the petty and exacting regulations, the Five-grainer was restored so as to give a new beginning for the Empire." Latter Han History, "Annals of Emperor Guangwu," 1, first part: "Sixteenth year . . . Earlier, just after the Wang Mang disorder, spades, cash, gold and grain were all used helter-skelter as money. In this year the Five-grainer began to be circulated."

Book Hall of the Original Tortoise, 499, "Coins": "Five-grainers began to be circulated in jianwu 16 of Eastern Han's Emperor Guangwu. From Longxi [in modern Gansu] Ma Yuan sent up a letter saying that the Five-grainer should be minted as of old. The matter was sent down to the Three Ministries, and they memorialized that this was not possible. The matter was then put to rest. When Yuan returned, he sought out this memorial from the Ministry, and replied to each of the ten difficulties it had raised. The Emperor then took his advice. The
The histories record nothing about minting coins after Emperor Guangwu’s time, but we cannot say that no coins were minted between the time of Guangwu [r. 25-58] and Emperor Ling [r. 168-189]. Though the histories say nothing about minting, they do mention Emperor He’s abolition of minting, so there must have been some minting going on before then.

Of the surviving large Han Five-grainers, there are a number which do not seem to belong to Western Han. Nor do they resemble gengshi or jianwu era Five-grainers, and so they can only be Eastern Han Five-grainers. [Plate xxxii] In addition to their poor construction, these Five-grainers bear various marks, such as dots, horizontal and vertical lines. Some bear only one dot; others a number of them. The single dots are found in various places on the coins. The multi-dot coins mostly have them arranged in a straight line. The horizontal and vertical lines are also variously placed and of different quantities. Sometimes vertical and horizontal lines appear on the same coin to form a shape resembling, though not actually being, one or another Chinese character. Others could well be simple numerals or other characters, like ping –peace, or equal-- or xiao –small. These marks were all made by workmen at the coin furnaces, and have no great monetary importance. They might have some significance if they could be used to prove that these coins do indeed belong to Eastern Han times. Some of them are incised, and this operation was performed after the coins had been cast. They are the least significant.

Under present circumstances, the Five-grainers minted during the century between Emperor Ming [r. 58-76] and Emperor Huan [r. 147-68] can still not be distinguished by their superficial traits.

Iron coins also seem to have been minted during the last years of Eastern Han. Two of them were equated with one bronze cash. We do not know which extant iron coins to identify these with. Perhaps some of the iron coins mentioned previously were minted at this time, but it could also be that the iron coins mentioned by late Eastern Han writers were Gongsun Shu’s iron coins.

Right down to the time of Emperor Ling, there is only one reliable milestone for monetary history, and this is the zhongping 3 (186 A.D.) Four-corner Five-grainer. This name alludes to the four straight lines slanting out from the four corners of the hole to the rim on the coin’s reverse. It is also called the “corner coin” [jiaoqian]. People then said that after this coin was made, things were certain to go off in all directions, showing that they were dissatisfied with the government of the times. Later, when the Yellow Turban uprising overthrew the Han dynasty, this prophecy was taken as having been fulfilled. Some say this Five-grainer was minted at the beginning of the reign of Emperor Xian, but this may be an historian’s error.

The last time the Han dynasty minted a coin was in chuping 1 (190 A.D.), when Dong Zhuo minted his Small-cash. It is said that Dong Zhuo melted down Five-grainers to produce this coin. It is supposed to have been a "large five-fen, without inscription, lacking both inner and outer rim, and not rubbed smooth." This simply describes a small coin lacking an inscription or inner and outer rims, and whose edge was not filed smooth. It would not, however, have been reasonable to have minted a coin without any inscription, particularly in a country which placed as much emphasis on writing as China. Though it occasionally happens that there are ancient coins blank on both sides, these were made only for play, and at rare intervals.

There is one small coin belonging to the Han-Wei-Six Dynasties period that lacks an inscription, but yet looks as though it had actually been used as a coin. It was either privately minted or is in fact the coin Dong Zhuo minted. Some say that Dong Zhuo later returned to minting a Five-grainer with *neither inscription nor rim perceptible.* If this means that neither was clearly visible, that would have been the consequence of its crude construction. Such a small Five-grainer survives. [Plate xxxii,12] It has a very large hole and a small body, so that it looks like the Chinese equal one of the other.” Guo Tai and Shi Bi belonged to the time of Emperors Ling and Huan of Eastern Han.

37 Universal Statutes, “Food and Money, 8,” has a note quoting Huangfu Mi’s Biographies of High Knights: "Guo Tai was passing by and Shi Bi went to escort him. He twice bowed from the waist, and Tai made a single bow in return, and then departed. Bi’s retainers wondered and asked about this. Bi replied that it was just as with iron coins. It took two of them to

38 Litter Han History, “Treatise on Food and Money.” Jin History, “Treatise on Food and Money.”

39 Record of the Three Kingdoms, "Record of Wei."

40 Yuan Hong, Record of the Latter Han.
2.1.1: Monetary Systems: Coinage

character for mouth. It only weighs a little over 3 centigrams. It may or may not have an inscription. It may, however, be a coin privately minted at that time.

In monetary terms, Western Han had taken a very large step forward and upward. The step forward was in the method for minting coins. The step up was in the coins' artistry. Prior to Han, coins were probably cast in clay molds. In the process of completing the coins, the mold was destroyed. This kept the coins from being uniform in shape, weight, and size. Nor did the coin makers take great care in preparing such molds.

Beginning with the Four-grain Half-ouncer, Western Han adopted the method of casting coins from reusable bronze molds. They still began with an original clay mold, but cast the bronze mold from it. This bronze mold was, in turn, used to make a number of clay molds. It was from these that the coins were cast. Hence, the bronze mold became the "mother," one of which could produce countless "child" molds. This ensured that the coins produced were uniform in style and size. The clay "grandfather" original could be made the responsibility of someone of high technical and artistic skills, and such a person would be willing to take pains with the job. This is why there are some extraordinarily fine specimens among Emperor Wu's Five-grainers. This method was kept up right down to Eastern Han, reaching its peak of development under Wang Mang.

Wang Mang's coinage achieved a high level of technique unprecedented within the history of China's monetary culture. Not only was the copper finely smelted and the construction beautifully done, the calligraphy of the inscriptions was also of peak quality. For example, the copper of the Gold-inlaid-knives was polished with mercury. Numismatists call these the "mercury ancients." Though this was a carry-over of a pre-Qin method, this technique was later almost completely lost. A number of people in later ages attempted to counterfeit these Gold-inlaid-knives, but they inlaid the gold incorrectly. As soon as someone in the business sees such objects, he can tell at a glance that they are counterfeits. The inscriptions on Monetary-spades and Spade-springs are delicate and beautiful. Their calligraphy is the Perpendicular-needle-seal script.

The artistry of Chinese coins decayed after Wang Mang. Numismatists of later times have coveted the "Six Spring" and "Ten Spade" coins, but in fact these are not representative of the artistry of Wang Mang's coins, because aside from the Large-spring and Large-spade, which were circulated then in relatively large numbers, not very many of the others were made, and most existing ones were minted privately. As a consequence, their artistic level is not high.

41 All of the pre-Qin bronze molds I have seen, such as the Qi knife bronze mold, are forgeries.
1-3. Commandery and kingdom Five-grainers (?). 4-6. Red-edged Five-grainers or Three Offices Five-grainers. 7-9. Five-grainers of Emperor Xuan. 10-12. Small Five-grainers. 13-14. Western Han Five-grainers. Numbers 4 and 5 are particularly fine, and are probably Red-edged Five-grainers. The Emperor Xuan Five-grainers are identified reliably on the basis of coin molds. The small Five-grainers are shaped like the Emperor Xuan coins, and were probably minted during the same period. Number 13 may belong to the period of Emperor Zhao. Number 14 appears to be somewhat late.
2.1.1: Monetary Systems: Coinage

PLATE XXX. WANG MANG’S SIX SPRING-MONEY COINS

PLATE XXXII. EASTERN HAN FIVE-GRAINERS

2. Coinage of the Three Kingdoms Era

The coinage of the Three Kingdoms Era is extraordinarily complex. It is no easy task to fully and exactly explain it. There are far more coins than there are documentary materials. [131]

Wei coins include only Five-grainers. After Cao Cao restored the Five-grainer,1 we do not know if new coins were minted or if they merely continued to use old ones. One would guess that not many of the old Five-grainers remained in the capital region then. Nor was it impossible that renewed minting was undertaken. Five-grainers minted then would have resembled Eastern Han Five-grainers. Those which began to be minted in taihe 1 [227 A.D.] of Emperor Ming2 could have differed in size and weight, but there is now no way to distinguish such Five-grainers.

The Shu coins are the heart of the problem, and are almost too complex to analyze. There are at least four categories of coins which may be attributed to Shu during this period. [Cf. Plate xxxiii at end of this subsection]

The first is a Five-grainer, the so-called Shu Five-grainer. The inscription and form of these coins differ markedly from the Han Five-grainer, and so they are easy to distinguish. Practically all of them have been excavated in Sichuan. To a greater or lesser degree their inscriptions and construction resemble the Value-hundred Five-grainer, and so may be considered to have been minted in Sichuan. There are, however, quite a few varieties of Shu Five-grainer.

The largest of them weighs around 3.78 grams, lacks an inner rim, and sometimes bears a horizontal line above the hole. Another sort is also large, but has a thin body, and so weighs around 2 grams. Its wide hole also lacks a rim around it. It also sometimes has a mark above the hole, but the style of its inscription is clearly different from the first type. The two characters for "five grains" most resemble those on the Value-hundred Five-grainer, particularly those Value-hundreds minted at Jianwei in Sichuan. The third type is smaller, weighing around 2.5 grams, with some falling below 2 grams, as a consequence of coin weight reduction.

The lighter ones do not constitute a separate type. These coins are characterized by the presence of inner rims and small characters with narrow strokes. This is the most common Shu Five-grainer, the one which historically has received that label from numismatists, because the other types are all rare.

Ancient coin catalogs take the Summons-form Five-grainer for a Shu Five-grainer. That is incorrect. These Summons-form coins are Five-grainers with the character for five on the left, and the character for grain on the right. Such Five-grainers are found in all periods, not just during Shu-Han.

The second category of Shu coin is the Value-hundred Five-grainer, of which there are two main kinds. The first has a blank reverse, and was minted in Chengdu. The other has the character wei8 on the left side of the hole on the reverse. These were
2.1.2: Monetary Systems: Coinage of the Three Kingdoms Era

Han by Emperor Wu, and Zhang Qian hoped to set a commercial center, the gateway to the Southwest. A minted in Jianwei. At that time Jianwei was a mining center. Nearby Zhuti had been famous for its production of silver since antiquity. Its silver was purer than that of any other place.

There are slight differences between the inscriptions on the two kinds of Value-hundred Five-grainers. The character for grain on the Chengdu model is rounded off, with top and bottom somewhat separated. The opposite is true of the Jianwei coin. The character for grain is squared off, and the top and bottom squashed together. The character wei coin has a special significance in the history of Chinese coinage. It is the first round coin to have inscriptions on both sides.

It is also the first one to record its place of manufacture. However, blank reverse coins were also minted at Jianwei. Probably only those first minted there had reverse inscriptions. Later, when their circulation expanded beyond that place, the character wei coin was no longer cast onto them.

The blank reverse coins come in various thicknesses. The thickest weighs more than 8 grams. Those of average thickness weigh 5-6 grams, and the thinnest run to less than 3 grams. Generally they are large, but there are some very small ones, which are rare. There is one variety with a thin body and wide rim, which is especially large. Its inscription places it within the Jianwei type. It weighs 4.4 grams. In construction it particularly resembles the second variety of Shu Five-grainer.

The third category is a Value-hundred. These come in various sizes and weights. Their inscriptions and construction differ from the Shu Five-grainers and Value-hundred Five-grainers. The flatness of the strokes of the characters may be linked to the thinness and small size of the coins. The largest of them weigh only 2 grams. The next largest are 1.5, 1.0 and 0.5 grams. They come as small as 0.4 grams.

The fourth category is the Value-one. In inscription, construction and small size, it is exactly like the Value-hundred. This coin was not recorded until late Qing times. In 1876 a jar of small coins was dug up in Chengdu. It contained Taiping-hundred-metal, Dingping-one-hundred, Value-hundred and Value-one coins.

The dates of manufacture of the above four kinds of Shu coins cannot be determined. Even their chronological sequence is a problem. There is only one written reference to them. This is that when Liu Bei conquered Chengdu in Jian’an 19 [214 A.D.], Liu Ba advised minting a Value-hundred coin. It is still a controversial question whether this Value-hundred is the same as the Value-hundred Five-grainer. Some numismatists say that the coin Liu Bei minted was the Value-hundred Five-grainer. The histories omitted the two characters for five grains out of carelessness.

Liu Bei stressed the legitimacy of his rule. This reputation constituted his political capital, that which he depended on to win the support of the people. So he would not have gotten rid of the Five-grainer label. Others say that the coin Liu Bei minted was a Value-hundred, and not a Value-hundred Five-grainer because that was what the histories said it was.

The key to the problem is the Value-hundred Five-grainer. Those who say Liu Bei minted a Value-hundred believe that the Value-hundred Five-grainer was a product of Eastern Han. Strictly speaking, jian’an 19 [214 A.D.] was still part of Eastern Han, but since they believe the Value-hundred Five-grainer was not minted by Liu Bei, they must believe it was minted before that year. If this theory is accepted, the other problems become easy to resolve.

when he dug up the tomb of Huang Hansheng. Within it was a jar of old coins, all as small as goose eyes. They bore the inscriptions Taiping-hundred-metal, Dingping-one-hundred, Value-hundred and this one. In all there were four kinds. All were minted during Three Kingdoms times.

4Record of the Three Kingdoms, "Record of Shu: Biography of Liu Ba" quotes the Biographies of Previous Worthies of Lingling: "At first when he attacked Liu Zhang, Bei and his men agreed that if they succeeded, the goods in the prefectural treasury would be left alone for the use of the destitute. When they took Chengdu, officers and men all threw down their weapons, rushed to the warehouses, and elbowed each other aside to carry off the precious goods. There was not enough for the army’s needs, and Bei was terribly worried by this. Ba said: ‘This is easily remedied. You must merely cast Value-hundred coins. To keep the prices of goods level, appoint officials to serve as market officers.’ Bei followed this advice, and within a few months the prefectural treasury was full."

5Lo Bozhao, "The Value-hundred Five-grainer Was Not Minted by Liu Bei," Coins, no. 11.

6The main basis for the theory that the Value-hundred Five-grainer was minted during Eastern Han is the Huang Chong tomb mentioned in Pu Gualu’s Coin Catalog [Cf. note 3 above]. Huang Chong died in Jian’an 25, six years after Liu Bei began.
The minting of the Value-hundred Five-grainer must have occurred in connection with fiscal difficulties, and in particular in connection with warfare. The largest military expenditures during Eastern Han must be reckoned to have been in connection with the war against the Western Qiang, which ran on continuously for nearly a century from the time of Emperor An to that of Emperor Ling. During the reign of Emperor Huan, there were in fact some who advocated minting large coins, but because of the opposition of Liu Tao, this was not done. Instead, iron coins were circulated at an exchange rate of two iron coins to one bronze coin.

Later, during the reign of Emperor Ling, they continued to mint Five-grainers even in response to the Yellow Turban uprising. Under Emperor Xian, Dong Zhuo minted only Small-cash.

Evidently, the Value-hundred Five-grainer was not minted prior to Emperor Xian's time, or at least it was not minted by the Han Dynasty itself. With these other possibilities eliminated, if it was not minted by the father and son Liu Yan and Liu Zhang, then it must have been minted by Liu Bei. The histories would have omitted the characters for Five-grainer from its label because by then the Five-grainer had been in circulation for several hundred years. There was no other coin. Any coin minted would have had to have been a Five-grainer, and so there was no need to specify that fact overtly.

I deduce that of the Shu Five-grainers, the third type was minted by Liu Yan and his son Liu Zhang in Chengdu. During the several decades they were in Chengdu, they could have minted quite a few coins. After Liu Bei took Chengdu, he minted the Value-hundred Five-grainer. The next year, after taking Jianwei, he also carried on minting there as well, adding the character wei on the reverse of such coins. In addition to the Value-hundred Five-grainer, he also minted ordinary coins. Probably the first kind was minted in Chengdu and the second in Jianwei.7

Therefore, the words of Liu Yuxi that "power was divided as though among the three legs of a ding tripod; commerce restored the Five-grainer coin" correspond to the historical reality.

These two standard sized coins and the Value-hundred Five-grainer with the character wei on its reverse were not minted for long. In Emperor Houzhu's jianxing 12 or 13 [234 A.D.] a money reform was carried out, and the Value-hundred was minted. The Value-one was probably minted not long before this. Still fewer of these were minted. The Value-hundred Five-grainers unearthed during modern times in Yunnan8 must have been circulated after Zhuge Liang crossed the Lu River.

There are fewer problems with the Wu coinage. The two main questions are whether Sun Quan minted coins before he assumed the throne, and whether he immediately minted coins after taking the imperial title.

Given the fact that Liu Bei was producing coins before he took the title of emperor, it would be odd if Sun Quan had waited for fifteen years after taking the throne to begin minting. In jian'an 7 [202 A.D.], Zhou Yu has said, the state of Wu smelted in the mountains to make copper.9 This could be referring to the minting of coins, because in Han times it was common to mint coins in the hills. Perhaps the Large-spring Five-grainer spoken of in the old catalogs was minted at that time.

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7Zheng Jiaxiang, "Studies of the Five-grainer," Coins, no. 17, states that this Five-grainer was minted by Liu Yan and his son Liu Zhang, and that the Value-hundred Five-grainer was this coin's successor. If we accept this thesis, then we are obliged to believe that the small Five-grainer with narrow strokes in its inscription was minted by Liu Bei. But this Five-grainer bears little resemblance to the Value-hundred Five-grainer, and the fact that there are so many of them does not square with the circumstances of that time.

8In recent years the Yunnan Museum has brought to light many Five-grainers and Value-hundred Five-grainers from fifteen ancient tombs in Zhaoqiong, Ludian. Li Jiurui, "A General Description of the Use of Cowry Money in Ancient Yunnan," Historical Studies, no. 9 (1956).

9Record of the Three Kingdoms, "Record of Wu," 9, "Biography of Zhou Yu," quoting in a note the "Biography of Jiang Biao."
The histories record only two types of Sun Quan coins, and there are two others which can be attributed to him on the basis of inscriptions and construction.

The first is the Large-spring-five-hundred minted in jiahe 5 (236 A.D.). [Plate xxxiv,10] Its original weight was around 12 grams, but this was later reduced to 8 grams. The second is the Large-spring-equals-thousand, minted in chiwu 1 (238 A.D.). Its original weight was nearly 20 grams. It was later reduced to 11 grams, and finally to less than 4 grams. These two coins are recorded in the histories, and examples of the coins themselves are extant. The inscription Large-spring-five-hundred is read top to bottom and left to right. The Large-spring-equals-thousand is read circumferentially.

[134]

There is also a Large-spring-two-thousand and a Large-spring-five-thousand, only a few of which have been unearthed, and which I have not seen in the records. The Large-spring-two-thousand is about the same in size and weight as the first mintings of the Large-spring-five-hundred. Only two of the Large-spring-five-thousand have been discovered, and these are about the same in size and weight as the first mintings of the Large-spring-equals-thousand.

Aside from these three large coins, there are several other kinds of coins which may be attributed to the Three Kingdoms period. These are the Taiping-hundred-cash and the Dingping-one-hundred. [Plate xxxiv]

There are very many different kinds of Taiping-hundred-cash. In terms of different inscriptions there are large seal, small seal and clerk script variants. The character for tai, aside from its representation as [1] in the clerkscript and in another kind of seal script, is otherwise written as [ ]. These two forms were used interchangeably in antiquity, so this is not surprising. Some specimens substitute shi. This character was also then interchangeable with t'ai. The word for heir-apparent, t'ai, for example, was also written as shizi.

In terms of their construction, these coins fall into two categories. One category has curved lines and star-points on its reverse, the latter being above the hole, but as they are not circular, perhaps they are not star-points after all. Because the inscription on the reverse is usually worn down, through the ages numismatists have sometimes seen the curved lines as waves, and sometimes said they were the back of a tortoise, and so have classified the coins as pseudo-coins or tokens. Since, however, they are so numerous, they must have been in regular use as money. This category of Taiping-hundred-cash is thick and heavy. One variant has an upward hook on the first stroke of the character for "hundred," which makes it resemble a deer's horn. It is called the deer-horn Taiping. It weighs more than 8 grams. There are some as light as 3 grams or less. The Shiping-hundred is the biggest, but its body is not thick, and it weighs around 5.8 grams.

The other category has a blank reverse. The inscription is in small seal, and there are not major specimen variations, except for a seal form written [ ], on account of which it is called the Sail-awning Taiping. Sometimes the character for da or tai is written [ ]. Blank reverse coins come in very many sizes and weights. Large ones weigh from 3 to 4 grams. The next size down runs from 0.8 to 1.4 grams. The next smallest is sometimes inscribed Taiping-metal-hundred. These average 0.85 grams, with some as light as 0.55 grams. The smallest only weigh 0.45 grams, almost the same as the extremely small Value-hundreds.

There has been much debate about and a variety of explanations offered as to the producer of the Taiping-hundred-cash. At first, it was natural to regard it as a year-period coin, and hence to ascribe it to Sun Liang. In terms of period, this is plausible, because the Taiping-hundred-cash could not have been minted by Liu Bei or his son. They had a Value-hundred Five-grainer and a Value-hundred, and so would not have needed to mint a Taiping-hundred-cash. Nor can this coin be attributed to the Northern and Southern Dynasties period, because among the old coins still existing during the early years of Eastern Jin, there was only a "four-wen-coin," which has to be the "Taiping Four-wen-coin" of the Northern and Southern Dynasties period, and and a wave-like line covering the surface. There is another kind where the character ping is handled in the same fashion. There are wave-like lines on the reverse, and there is something resembling the image of a man above and below the hole." Obviously none of the Taiping-hundred-cash coins Weng Shupei had seen was clearly marked. Rao Dengzhi's Essays on Coins, 2, even says there is a star at each corner.

10Hong Zun, Record of Coins states that the larger ones weigh 12 grains and 6 zi. This work also says the Inaugural coin weighs 2 grains 4 zi. Hence the larger ones were 5.25 times the weight of the Inaugural coin, or 19.58 grams.
11Weng Shupei's Collected Investigations of Ancient Coins says: "There are stars above and below on the back near the rim,

12Gu Xuan mentions a four-line tortoise-back coin and a wave decorated coin, both of which were Taiping-hundreds. (Cf. Record of Coins).
13Lu Zhun and Weng Shupei held this view. Cf. Collected Investigations of Ancient Coins.
this must be the Taiping-hundred-cash, particularly since the histories clearly state that the Four-wen-cion was an old coin from the days of the Sun clan. [135]

Sun Liang's taiping year-period began nine years after they stopped minting the Large-spring. They must have replaced that coin with something.

In terms of construction, some Taiping-hundreds do indeed resemble Wu coins. Most of them, however, have been unearthed in Sichuan, and intermixed with Value-hundred coins. The Deer-horn Taipings somewhat resemble the Value-hundred Five-grainers, and their weights are virtually identical. One kind of blank reverse Taiping-hundred-cash frequently bears an incised mark, and this is a hallmark of Shu coins. Probably for this reason some attribute the Taiping-hundred-cash to the Inspector of Yizhou, Zhao Xin. [14] This fits the location of coin finds, but Zhao Xin occupied Chengdu in Emperor Hui of Jin's yongkang 1, 12th month (the beginning of 301 A.D.), and was killed in the first month of the following year, so he could not have minted so large a number of coins. There are so many varieties of this coin, both large and small, that it must have been minted over a rather extended period.

Still others say that the inscription taiping was not a year-period, that this was a Daping-hundred-coin, and that its inscription should be read as "large capable of equalling hundred," which would be almost the same as the meaning of the Large-spring-equals-thousand coin. [15] Some people even say it was minted at the beginning of Sun Quan's reign. [16] This too is a fascinating theory. Liu Bei minted coins before he assumed the imperial title. But Sun Quan did not mint the Large-spring for a long time after he took the imperial title. To not have minted at all, and then suddenly mint a large coin of face value 500, would have been without precedent in Chinese monetary history. Even if he had also been using Wang Mang's Large-spring-fifty, there would have been a large gap between the two denominations. It is the Chinese custom to go from fifty to one hundred before advancing to five hundred.

Hence it is plausible to place the Taiping-hundred-cash's minting at the beginning of Sun Quan's reign. That would have Sun Quan's coinage consist of the Large-spring-fifty, the Daping-hundred-cash, the Large-spring-five-hundred, and the Large-spring-equals-thousand. One might even risk reading the Taiping coin's inscription as Large-coin-equals-hundred. Not only do the histories say that the Taiping-hundred-cash was an old coin from the Sun clan, a fair number of these coins have been unearthed in Linping, in Zhejiang province. [17]

In recent years an ancient tomb in Wuchang's Renjiawan (Xiakou of Three Kingdoms times) has yielded medium sized and small versions of the Taiping-hundred-cash, along with Han Five-grainers, broken-edged Five-grainers, Value-hundred Five-grainers, and Monetary-spring coins. There were no Large-spring coins of Sun Wu. [18] This makes it clear that the Taiping-hundred-cash began to be minted prior to jiahe 5 of the Sun dynasty of Wu [236 A.D.], and probably during the last years of Eastern Han. Moreover, the clerk script version clearly bears the character tai, so these must be Taiping, not Daping coins. Most of them have been unearthed in Sichuan, particularly the smaller Taiping-hundreds, which have surfaced in Sichuan by the thousands. The incised marks on their reverses prove that they were circulated in Sichuan.

That they also circulated to the east in Wu, does not mean they were minted by the Sun dynasty of Wu. Consequently, some people have theorized they were minted by Zhang Lu. [19] This would link the Taiping coin with the Taiping Taoist movement. We are not told, however, why this coin came out in Sichuan, while Zhang Lu flourished in Hanzhong.

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17 The Collected Words on Ancient Coins says: "In the time of Qianlong, two jars came out of an eroded bank at Linping. These two coins (referring to the Taiping-hundred-cash and Dingping-one-hundred) subsequently spread through the Southeast."

18 Managing Committee of the Wuhan Municipal Museum, "General Report on the Wuchang, Renjiawan Early Six Dynasties Tomb," Cultural Relics Reference Materials, nos. 1, 2 (1955). The coins in the tomb included the following eight types:

<table>
<thead>
<tr>
<th>Coin Type</th>
<th>Diameter</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five-grainers</td>
<td>25 mm</td>
<td>2,454</td>
</tr>
<tr>
<td>Clipped-edge</td>
<td>20 mm</td>
<td>990</td>
</tr>
<tr>
<td>Taiping-hundred-cash</td>
<td>13-20 mm</td>
<td>128</td>
</tr>
<tr>
<td>Value-hundred</td>
<td>28 mm</td>
<td>31</td>
</tr>
<tr>
<td>Monetary-spring</td>
<td>23 mm</td>
<td>21</td>
</tr>
<tr>
<td>Half-ouncers</td>
<td>23 mm</td>
<td>4</td>
</tr>
<tr>
<td>Four-corner</td>
<td>23 mm</td>
<td>1</td>
</tr>
<tr>
<td>Large-spring-fifty</td>
<td>25 mm</td>
<td>1</td>
</tr>
</tbody>
</table>
The Taiping-hundred-cash should be categorized in terms of the presence or absence of curved lines on their reverses, and not according to the calligraphic styles of their inscriptions. There is one problem about these coins which must be resolved before they can be explained at all. This is whether or not the ones with curved lines on their reverses were issued at the same times and from the same places as those with blank reverses. If that was the case, they were issued by the same government or authority. Of course we cannot reject the possibility that issue of the two was separated by several years, but there could not have been a gap of several decades or a century between them. If they were not issued contemporaneously, then which came first? The two types differ greatly in construction. If issued by the same government or authority, the thickest and heaviest ought to have come out first, followed by the lighter and thinner. Therefore, the key lies in whether the two of them belonged to the same government or authority, and this aspect of the problem cannot now be resolved.

The Taiping-hundred-cash with curved lines on their reverses might not have been minted in Sichuan, because no incised lines have been found cut into their reverses, and because their construction resembles that of Wu coins. But no matter where they were minted, they must have circulated in Sichuan, and in rather large quantities. In fact, however, they circulated in Jiangdong in the East as well as in Sichuan. The blank reverse version we can affirm as having been minted in Sichuan, since many of them have been unearthed in Sichuan in the company of Value-hundred and Dingping-one-hundred coins. All of them, large and small, have lines incised on their reverses. Though these coins were minted in Sichuan, their circulation would of course not be limited to Sichuan. After Jin extinguished Shu, the latter’s coins would spontaneously have circulated into the East.

If both sorts of Taiping-hundred-cash were minted in Sichuan, then the thick and heavy ones would have been minted first, and the light and small ones afterwards. If they were minted in different places, but the two were linked in some fashion, the same order would have been maintained. If this was the case, the Taiping-hundred-cash would have been minted before the Value-hundred, because the small Taiping-hundred-cash have often been found together with small Value-hundreds, and I have never heard of large Taiping-hundred-cash being found together with Value-hundreds.

Some say the blank reverse versions were minted first as legal tender, but that the curved line reverse coins were non-legal tender tokens minted in later times. This theory cannot be said to be entirely without reason, because adding the stars to the curved lines was really not in accord with China’s monetary traditions. These coins are also clearly different in construction from the blank reverse ones. Still, tokens ought not to exist in such large quantities as does this coin. There are even more of them than there are of the blank reverse kind. Hence we may reject this hypothesis. Nor is there firm evidence that they were minted later. On the star and curved line variety, the character for cash has the metal signfic written as \[\text{元} \]. Some say this makes it a late issue, but that form of the metal signfic is not enough to establish a late date unless we can prove that during the time the blank reverse Taiping-hundred-cash was being minted, this form of the character for metal was still not being employed.

If we cannot prove this last hypothesis, then it is possible that this coin was not minted by a feudal kingdom, but rather by some popular organization. The feudal kingdoms were conservative. The people were rather more fond of innovation than the rulers. The presence of clerk script on some Taiping-hundred-cash would attest to this. Therefore I surmise that this coin’s minting was connected with some religious organization, and perhaps it was either produced by a religious organization or by some popular group in response to a religious call. During the late Han and Three Kingdoms period, this could only have been the Taiping Taoist or a peasant movement operating under the Taiping Taoist banner.

The most prominent such movement was the one which brought about the Yellow Turban uprising. Some say Taiping Taoism was Zhang Jiao’s religion, and Zhang Jiao’s power reached only to Qingzhou, Xuzhou, Youzhou, Jizhou, Yanzhou, Yuzhou, Jingzhou and Yangzhou, but not into Sichuan. People who raise this objection are evidently contrasting the Five Pecks of Rice Taoists with the Taiping Taoists. In fact in modern times most people take this line, supposing that these were two different late Han Taoist sects.

I, however, believe that the Five Pecks of Rice Taoists and the Taiping Taoists were the same thing. At most one may say that the former was a branch of the latter. The histories clearly state that the methods of the Five Pecks of Rice Taoists’ Zhang Xiu were nearly identical to those of the Taiping Taoists’ Zhang Jiao. Some say that Zhang...
Lu’s methods resembled those of the Yellow Turbans. Moreover, Zhang Xiu and Zhang Lu started their rebellions in the same year. Is not this sufficient to show that the two were the same thing?

The label Five Pecks of Rice Taoism was originally given them by others, and they did not use it for themselves. After the Yellow Turbans had been put down, the followers of the Taiping religion may not have dared to use the name Taiping Taoism publicly for their movement, and so Zhang Lu and his followers would not have rejected the appellation Five Pecks of Rice Taoism. It was only later that they adopted the name Heavenly Master Taoism. During late Han they used rice as a means of payment because the Hanzhong region was then viewed as outside the pale of civilization. The Di and Qiang tribesmen were very numerous, the economy was backward, basically still a natural economy, and money was not much circulated. If not five pecks of rice, they would have had nothing else to use for a religious offering. In this respect they were close to the Caos’ Wei state, which for some time had been using grain and cloth as instruments for making payments.

Therefore, I believe that the Taiping-hundred-cash with stars and curved lines on their reverses were minted by either Zhang Xiu’s or Zhang Lu’s groups. If the curved lines on the reverses are supposed to represent waves, then they may be still more easily explained, since water is one of the three ruling forms of religious Taoism, and was worshipped.

There were undoubtedly also followers of Taiping Taoism in Sichuan, because the histories note that in zhongping 5 (188 A.D.), the Yellow Turban Ma Xiang killed the Inspector of Yizhou and Grand Administrator of Ba Commandery, and proclaimed himself Son of Heaven. It is easy to explain why the followers of the Taiping Taoist sect in Yizhou would have minted a Taiping-hundred-cash. Moreover, after Liu Bei had defeated Xiahou Yuan in jian’an 23 (218 A.D.), Hanzhong became a part of his Shu Han state. The following year Liu Bei proclaimed himself Prince of Hanzhong. By then, perhaps no one was any longer paying attention to the political significance of the two characters taiping, and so they continued to mint Taiping-hundred-cash.

Perhaps the first to be minted was the Shiping-hundred-cash. Because the word taiping was loved by the people, or because the Taiping Taoists later changed their allegiance to work together with the ruling class, the coin may not have been minted privately by believers in Taiping Taoism.

More would have been minted in Yizhou than in Hanzhong because Yizhou’s monetary economy was better developed, and even Hanzhong’s existing Taiping-hundred-cash could have flowed to Yizhou. The blank reverse type would have been produced in Yizhou, and at the same time as the Shu Five-grainers with inner rims, perhaps during the period of Liu Yan and Liu Zhang. The extremely small Taiping-hundred-cash were probably minted at the time of Liu Chan.

Some say the Taiping-hundred-cash could not have been minted before the Value-hundred Five-grainer. If the former had already been present in Sichuan, how could Liu Ba’s advice to Liu Bei to mint a Value-hundred coin have been able to level off prices? This objection is only superficially plausible. Liu Ba’s advice to mint Value-hundred coins had nothing to do with whether or not such coins existed previously. Perhaps it was precisely because Liu Ba knew of the existence of the Taiping-hundred-cash that he advised Liu Bei to imitate it.

It is only this way that we can explain why, even after the Value-hundred Five-grainer began to be minted, the Taiping-hundred-cash was permitted to circulate and be minted. Of course, the early Value-hundred Five-grainers could not have circulated in the same channels as the Taiping-hundred-cash. The two coins were of different weights. After the Value-hundred Five-grainer had been reduced in weight, however, the two could circulate simultaneously.

20-Note in Latter Han History, “Biography of Liu Yan,” quoting the Abstract of Laws. Cf. also citation of this work in Record of the Three Kingdoms, “Record of Wei,” 8, “Biography of Zhang Lu.”

21-Record of the Three Kingdoms, “Record of Wei.” “Biography of Zhang Lu,” citing the Abstract of Laws.

22-Latter Han History, “Annals of Emperor Ling.”
Some Five-grainers have the character ping added above or below their holes. Numismatists call these the Ping-equals-five-grains. In construction they are close to the Eastern Han Five-grainer, except that they are thinner. If they were not minted by particular localities, they must be relatively late. The character ping is written in a clerk script similar to that on the Taiping-hundred-cash. There are also some coins with the characters tai and ping cast above and below the hole, respectively. These coins may have some connection with the Taiping-hundred-cash. Perhaps when the followers of Taiping Taoism privately minted Five-grainers, they might have added one or both characters. Later, because they had become a political or military movement, they minted the Taiping-hundred-cash. This could have happened at the time Dong Zhuo was minting the Small-cash.

The Dingping-one-hundred is the most difficult to explain of Chinese coins. Only small ones exist. The heaviest of them is only a little over 1 gram. Hence they would have been minted later than the Taiping-hundred-cash and the Value-hundred. Probably they were minted in the Shu-Han ruler Houzhu's yanxi 1 [238 A.D.]. Some say they should be read Anping rather than Dingping, with An as an abbreviation of yan, and that they were minted during the yanping year period of Li Xiong of Cheng (306-310 A.D.). This is a forced interpretation.

In fact there is no plausible explanation for the two characters Dingping. All we can affirm is that these coins are contemporaneous with and from the same place as the small Taiping-hundred-cash, because they have been found together. They are somewhat scarcer than the Value-hundred and Taiping-hundred-cash. If they were minted by the Shu-Han authorities, they could only have been some sort of a commemorative coin or some sort of special issue.

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2.1.2: Monetary Systems: Coinage of the Three Kingdoms Era

PLATE XXXIV. TAIPING-HUNDRED COINS AND DINGPING-HUNDRED

3. Gold and Silver

It was believed for over a thousand years after Han times that gold circulated abundantly as money during Western Han. Actually, gold was at that time still not a full-fledged money. Of the functions of money, gold fulfilled those of measure of value, instrument of payment, store of value and world money. If one could prove that it was also an instrument for making purchases or medium of circulation, it would have been a full-fledged money.

It is by no means unusual in Han sources to find the word jin used to represent value. Of course jin did not necessarily refer to gold, though it frequently meant one catty of gold, or ten-thousand cash. This, however, is not to deny to gold the function of measure of value, which is basically a conceptual matter.

It was also quite common for gold to serve as an instrument for making payments during both Han dynasties, particularly during Western Han, first of all as imperial and princely gifts; second for paying taxes, as in the wine-toast for gold; third, in fines to remit punishments; and fourth, in bribes. Storage of value was also a common function of gold.

During the Han dynasty foreign trade employed gold as a world money. Gold was not, however,.

1Han History 4, "Annals of Emperor Wen": "A middling person with a hundred jin has the produce of ten families." Ibid., 59, "Biography of Zhang Tang": "At Tang's death, his family property's value was only five-hundred jin." Historical Records, 58, "Hereditary Houses: King Xiao of Liang": "At first, when King Xiao was still alive, there were piles of goblets worth a thousand jin." Han History, 65, "Biography of Dongfang Suo": "The land between Feng and Gao is considered rich. The price of one mu of land is one jin." Liu Xin's Miscellaneous Notes on the Western Capital, first: "At the time of Emperor Wu, the state of Shendu [in India] gave as tribute a linked ring bridle... One horse's ornaments were worth a hundred jin."

2Latter Han History, "Monograph on Ceremonials," first part, note quoting Ding Fu's Han Ceremonials: "The wine-toast for gold law was added by Emperor Wen. The wine was made on the morning of the 1st month of the year. By the 8th month it was done, and was called toast-wine because the nobles were ordered to offer tribute in gold to aid in its use in worship. The Han regulations for this state that the Emperor would fast overnight, and personally lead the assembled officials to worship in the ancestral temple. The assembled officials had to separately receive the requests, and nobles possessing fiefs with a thousand dependents would each offer up four ounces of gold. Those having populations of from 500 to 1,000 would also offer four ounces, and all would receive toast from the Privy Treasurer. In addition, the Grand Herald, those gaining revenues from the nine commercial towns, from Jiaochi and Rinan, presented rhinoceros horn nine inches in length as though it were tortoise shell, Yulin presented ivory tusks three feet long as though each was the equivalent of twenty kingfishers. They were permitted to use these as equivalents to gold."

3Han History, 44, "Biographies of the Kings of Huainan, Hengshan and Jipei": "stripped of rank and made a common soldier; not to gain office and to serve as a clerk; if not a clerk, his remission of death gold is 2 catties 8 ounces."

4Han History, 70, "Biography of Chen Tang": "The woman can wished to seek enfeofrment for Ji. Tang accepted her 50 catties of gold and asentted to her request."

5Han History, "Biography of Wang Mang." The latter part deals with the time of Wang Mang's death: "In the ministry, 10,000 catties of gold were in one chest, and there still remained sixty such chests. In the treasury of the Office of Palace Parks at the Yellow Gate there were chests in every corner." Latter Han History, 102, "Biography of Dong Zhuo": "Within the treasury were 20-30,000 catties of gold and 80-90,000 catties of silver."

6Han History, 61, "Biography of Zhang Qian": "The Son of Heaven several times asked Qian about the dependencies of Bactria... and so he said... extends to Wusun. From the west on, all the dependencies of Bactria can be brought over to our side, and made outer dependencies. The Son of Heaven agreed, and appointed Qian as General of the Palace Gentlemen, in charge of 300 men, each with two horses, and with 10,000 cattle and sheep, and with presentation gold and silk to the value of several tens of millions."

Historical Records, 123, "Account of Fergana": "The Son of Heaven became enamored of the horses of Fergana. He loved to hear about them. And so he had soldiers and carts carry a thousand in gold and a golden horse to go and request fine horses of the King of Fergana at Ershi City."

Han History, "Monograph on Geography": "From Gandhara the boat travelled for some two months to reach Huangzhi..."
2.1.3: Monetary Systems: Gold and Silver

used during Han as a medium for making purchases or as a circulatory medium. When a purchase was to be made, it was first necessary to sell gold for copper cash before one could make an exchange for goods or some other expenditure.\(^\text{7}\) We cannot tell if the statement in the histories that when Wang Mang fell, one catty of gold exchanged for one hu of grain was a normal exchange.\(^\text{8}\) Precisely because it did not fulfill this most basic function, we cannot say that gold was money in the full sense during the Han Dynasty.

[142]

The idea of gold's popularity during Western Han is largely based on royal gifts.\(^\text{9}\) The size and frequency of such payments can only be discerned for royal gifts. Using data just from the Han History, and limiting ourselves to those gifts of gold for which definite amounts are given, we can come up with a sum of 900,000 catties, equal to 277,338 kilograms in modern terms.\(^\text{10}\)

### TABLE OF WESTERN HAN IMPERIAL GIFTS OF GOLD

<table>
<thead>
<tr>
<th>Ruler</th>
<th>Amount of Gift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaozu</td>
<td>42,550</td>
</tr>
<tr>
<td>Emperor Hui</td>
<td>68(^\text{11})</td>
</tr>
</tbody>
</table>

Xiang Yu. EH[.]K] Dong Zhuo's Meiwu gold was also plentiful. There were countless incidents involving amounts of from thirty to fifty catties. In modern times gold is not reckoned by the catty. Even the rulers have not made gifts of as much as a hundred catties. Why was it plentiful in ancient times and has become scarce now? ... I suspect that the spirit of treasure has changed in some unknowable way. Has it reverted to the mountains and marshes?"

We might also quote Ishibashi Yoji (Suishin): "During Han, gifts of 100 or 200 catties of gold were given to officials, and even small gifts amounted to 30 catties. Even the Prince of Yan, Liu Ze, gave the nobles fields and virgin gold to the amount of 200 catties. When the Princes of Chu and Liang died, gold amounting to over 400,000 catties was expended. Because the money was light, rice was cheap, and gold was abundant."

Gu Yanwu, in his Record of Daily Knowledge entry on gold, states: "During Han gold circulated among both upper and lower classes." This too was based on the many instances in the written sources of various amounts of gold being given in gifts by royalty. He also mentions the anecdote involving the Song Emperor Taizong's question to Du Gao.

The Notes on the Twenty-two Histories in its article, "The Abundance of Gold During Han" concludes: "In ancient times, only gold was used, and it was extremely abundant." This conclusion too was based on royal gifts during Western Han.

The system of weights of Western Han must be calculated from the Eight-grain Half-ouncer, Four-grain Half-ouncer, Three-grainer and Five-grainer coins. The first three of these, however, were for all practical purposes not distinguished from the Qin Half-ouncer, since they were all freely coined among the people. Only the Five-grainer was produced at official smelters. The finest of these weigh 4 grams, which would make the ounce 19.2 grams. In this work I will tentatively take this as my standard.

Emperor Hui of Han gave the following to those who were in charge of his personal lands: generals, 40 jin; those with salaries of 2,000 piculs, 10 jin; those with salaries above 600 piculs, 6 jin; those with salaries below 500 piculs and of rank up to Accessory Clerk, 2 jin. Cf. Han History, "Annals of Emperor

Since the time of Emperor Wu, they have come to have audience and present tribute. With interpreters of the Yellow Gate and those who are supposed to be invited, they all enter at the sea market with lustrous pearls, rings, unusual stones and strange objects. They are offered gold and silk fabrics, and then they leave."

\(^\text{7}\)Latter Han History, 111, "Biographies of Those Who Went Alone: Biography of Wang Chun": "Once Chun was going to visit the capital, and in an empty hut saw a poor and sickly scholar, upon whom he took pity and with whom he visited. The scholar said to Chun, 'I had to go to Luoyang, but fell sick, and I must now die. Hung under my belt are ten catties of gold. I wish to give these to you. After I die, I beseech you to bury my bones.' Before Chun could ask the man his name, he had died. Chun sold one catty so as to arrange for the man's funeral."

\(^\text{8}\)Latter Han History, 1, "Annals of Emperor Guangwu," first part: "At first, at the end of Wang Mang's rule, the Empire suffered from drought and locusts. One catty of gold exchanged for one hu of grain."

\(^\text{9}\)Song History, 296, "Biography of Du Gao": "Emperor Tai-zong ... then inquired why, though Western Han made gifts in gold, the commodity had become hard to obtain in modern times? Gao replied: 'At that time Buddhism had yet to arise, and so gold was very cheap. ...'"

\(^\text{10}\)Latter Han History, 5, "Record of Wei: Biographies of Empresses Wen, Zhao and Zhen": "Later, the Empire was wracked by military disorder. And added to this was famine. The common people were all selling gold, silver, pearls, jade, and precious objects. At this time the Empress's family possessed great stores of grain, and were buying up these things. The Empress was a little over ten years of age, but said clearly to her mother: 'Now the age is in disorder, and yet we buy many precious objects. The ordinary people have done nothing wrong. Those who harbor treasure are guilty."

\(^\text{11}\)Emperor Hui of Han gave the following to those who were in charge of his personal lands: generals, 40 jin; those with salaries of 2,000 piculs, 10 jin; those with salaries above 600 piculs, 6 jin; those with salaries below 500 piculs and of rank up to Accessory Clerk, 2 jin. Cf. Han History, "Annals of Emperor

\(^\text{12}\)Tong History, 1, "Annals of Emperor Hui": "At first, at the end of Wang Mang's rule, the Empire suffered from drought and locusts. One catty of gold exchanged for one hu of grain."

\(^\text{13}\)Investigation of Literary Remains, "Investigation of Excisions and Tolls" quotes Dong Po's Poem of Enemy Jottings: "At the time of Wang Mang's defeat, there were 600,000 catties of gold in the ministry. Chen Ping's 40,000 catties separated Chu. [Chen was one of Liu Bang's advisers, and helped the founder of Han subvert the loyalty of the Chu officials to the Chu leader,
To conclude on the basis of these gifts that gold circulated in abundance during Western Han, would not be entirely unreliable, but this evidence should be discounted, because the character jin did not necessarily refer to gold during Western Han times. Sometimes it was merely a marker of value, with one catty being equal to ten-thousand cash. Gifts of gold during Western Han were described in three ways: The first was as "a gift of yellow-metal of X catties." The second was as "a gift of metal [jin] of X catties." The third was as "a gift of X metal." Some say that only those references specifically to "yellow metal" are genuine references to gold. If the word yellow is omitted, a jin unit, each of which was equal to ten-thousand cash, was intended. If we recalculate on that assumption, then the majority of gifts listed in the Han History were made in copper cash, since only thirty percent refer specifically to yellow metal, twelve percent refer to catties of metal, and fifty-eight percent refer to given quantities of metal. In fact, however, this rule of thumb is not reliable either. Sometimes the same gift is reported in the Historical Records as in metal and in the Han History as in yellow-metal.

Even when yellow metal is clearly specified, payment might not necessarily have been made in gold. For example, in the "Biography of Wang Mang," there is the statement "a Director memorialized: Formerly, a gift for an empress was 20,000 catties of yellow metal, made in 200 million cash. Mang drastically discounted this. She only received 40 million, and 33 million was given to eleven bridesmaid families of assembled officials." The term yellow metal is explicitly used here, but actual payment was made in copper cash.

Of course we cannot for this reason simply deny that gold was used at all, because there are instances of gold and copper cash being awarded at the same time. In Emperor Zhao's yuanfeng 5 (76 A.D.), the Prince of Guangling was awarded 20 million in cash coins and 200 catties of gold. Employment of gold

<table>
<thead>
<tr>
<th>Year</th>
<th>Gift Description</th>
<th>Total Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empress Gao</td>
<td>A thousand jin each</td>
<td>11,000+</td>
</tr>
<tr>
<td>Emperor Wen</td>
<td>12,000</td>
<td></td>
</tr>
<tr>
<td>Emperor Jing</td>
<td>1,102</td>
<td></td>
</tr>
<tr>
<td>Emperor Wu</td>
<td>806,940</td>
<td></td>
</tr>
<tr>
<td>Emperor Zhao</td>
<td>2,420</td>
<td></td>
</tr>
<tr>
<td>Emperor Xuan</td>
<td>18,370</td>
<td></td>
</tr>
<tr>
<td>Emperor Yuan</td>
<td>540</td>
<td></td>
</tr>
<tr>
<td>Emperor Chen</td>
<td>3,660</td>
<td></td>
</tr>
<tr>
<td>Emperor Ai</td>
<td>680</td>
<td></td>
</tr>
<tr>
<td>Emperor Ping</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>899,530</strong></td>
<td></td>
</tr>
</tbody>
</table>

12 The plus mark stands for additional unspecified quantities of gifts not included in the table. For example, Empress Gao's posthumous edict granted to the princes and nobles of a thousand jin each. Cf. "Annals of Empress Gao." According to the Han History "Biographies of Consort Families," there were more than ten marquises and princes. I have here assumed that there were eleven of them. Another example is Emperor Jing's posthumous edict bequeathing to officials of the 2,000 picul salary level two catties of gold. Here too there is no way to know the exact total amount. In the table I have only added in two catties.

13 Han History, 8, "Annals of Emperor Xuan": "Dijie . . . 3 [67 B.C.] . . . conferred on the Prince of Guangling yellow-metal to the amount of a thousand catties, a hundred catties each of yellow metal to fifteen nobles and princes, and twenty catties of yellow-metal to each of eighty-seven nobles of the feudal kingdoms."

14 Han History, "Annals of Emperor Wen": "First year . . . an edict stated . . . increased the enfeoffment of the Grand Commandant Bo by a city of ten-thousand households, and a gift of metal of a thousand catties; to the Imperial Chancellor Ping and General Ying, each a city of 3,000 households and metal of 2,000 catties; to the Marquis of Zhuxiu, Zhang, and the Marquis of Xiangping, Tong, each a city of 2,000 households and a thousand catties of metal; the Director of Guests, Yang, was enfeoffed as Marquis of Xinyang and given a thousand catties of metal."

15 Han History, "Treatise on Food and Money," latter part: "The next year, the Grand General and General of the Flash Cavalry launched a great attack on the Hu, and were rewarded with 500,000 in metal." Cf. note 11 above.

16 Jin Zhuo says: "Wherever yellow metal is spoken of, real gold is meant. If the word yellow is not present, cash is meant." (Han History, "Annals of Emperor Hui," note.) Yan Shigu says: "Those gifts spoken of as yellow metal are all in gold; where yellow is not spoken of, one jin was equal to ten-thousand cash." (Ibid.)

17 For example, Liu Bang's gift of 40,000 catties to Chen Ping is called 40,000 catties of metal in the Historical Records, "Basic Annals of Gaozu: "3rd year . . . the King of Han suffered from it, and so Chen Ping's plan was used. He gave Chen Ping 40,000 catties of metal to use to drive a wedge between the ruler and ministers of Chu." However, the Han History, "Annals of Emperor Gao calls it 40,000 catties of yellow metal: "3rd year . . . Chen Ping was again questioned, and in accord with his plan, Ping was given 40,000 catties of yellow metal to drive a wedge between the ruler and ministers of Chu." The Historical Records, "Hereditary Houses: Chancellor Chen" also says it was 40,000 catties of yellow metal.
for rewards and gifts was definitely its most important use as an instrument for making payments, because during Han times such gifts were sometimes a normal part of officials' income, and may be viewed as a part of their salaries.

In addition to its use for gifts, gold was also employed to make various payments to the government: During Western Han, fines in lieu of punishment could be paid in gold. Expenses for aid in ceremonials were also calculated in gold. This was the so-called wine-toast gold. Every year, in proportion to the number of people he ruled, each noble had to offer up a certain amount of gold. This was 4 ounces per thousand people, including populations of between 500 and a thousand. If the gold was short or of poor quality, a prince would lose a prefecture, and a marquis his estate. This may be said to have been one of the Western Han government's sources of gold.

In Emperor Ling 6 (151 B.C.), a law was promulgated against minting coins with false gold and distributing them in the market. This represents clear recognition by officialdom of gold's monetary status.

We cannot tell the extent to which gold was employed during Western Han. If we assume the price of gold at that time to have been ten-thousand cash per catty, then one treasury ounce was the equivalent of 1,210-odd standard cash, which was really cheap. If we assume a rice price then of 70 cash per picul, it would take something over a hundred piculs of rice to acquire just a catty of gold. Most people would not, one suspects, have the opportunity to acquire gold. In Warring States times, a family of five cultivating a hundred mu of land could harvest 150 piculs of grain per year.

By Han times, the population had increased. Land ownership was more concentrated. Even if one counts newly opened land and assumes each family still cultivated a hundred mu of land could harvest 150 piculs of grain per year.

By Han times, the population had increased. Land ownership was more concentrated. Even if one counts newly opened land and assumes each family still cultivated a hundred mu, and that the yield was unchanged, each household would itself consume 90 piculs per annum, leaving only 6,000 cash from sale of the remainder. If you deduct the land tax and the head tax, not much would remain. If the remainder was sufficient to meet the year's daily expenses without going into debt, the family considered itself lucky. Given the fact that gold was apt to be dealt with by the catty during Western Han, how could ordinary people have employed it?

During the dozen or so years of Wang Mang's rule, gold and silver virtually became formal money. Particularly under the shijianguo 2 [10 A.D.] Treasure-money system, gold and silver became formal constituents of the monetary system, with legally determined prices in terms of the other constituents and with set shapes of the metals prescribed.

During Eastern Han the situation changed. In the course of the two centuries of Eastern Han, very few gifts were made in gold. The total was only 21,740 catties, or 5,564 kilograms. This was only two percent of the total for Western Han. The average amount per gift during Eastern Han was only 22 percent of the figure for Western Han. The aver-
age amount per reign during Eastern Han was only three percent of what it had been during Western Han. The average quantity of gifts in gold per year during Eastern Han was only 2.6 percent of the figure for Western Han. Gifts of gold were made during Western Han on a hundred occasions, gifts of coins on approximately fifty occasions.

During Eastern Han gold was only given nine times and coins on 64 occasions. Taking the amounts for only those occasions during Western Han when gold was clearly being referred to, Eastern Han's percentage is still very small, only 7 percent of Western Han's, and was 77 percent of Western Han's figure for the average size of gift. By reign, Eastern Han's figure is 10 percent of Western Han's. By year, it is only 7.5 percent.

Why was gold so rarely used for gifts during Eastern Han? This is one of the mysteries of Chinese history. People pile up explanations, but most miss the nub of the matter.

Some ascribe it to the spread of Buddhism, whose temple and monastery images and sutras used a great deal of gold. It was not, however, until the Northern and Southern Dynasties period that Buddhist temples flourished, and so this cannot explain the phenomenon of the dearth of gold during Eastern Han. There are even people who say that, in addition to use by Buddhists, it was because domestic gold producing areas had become played out that the gold supply continued to shrink.

This explanation is most unpersuasive. Gold is not something that is literally consumed. Even if the mines were really becoming exhausted, this should not have reduced the supply.

In fact, however, during and after Han times, gold continued to be produced.

During Eastern Han gold was produced in Yongchang Commandery. In Emperor Ming's Yongping 11 [68 A.D.], Lake Zai produced gold. The Grand Commandant of Lujiang took it as tribute. There were also a thousand and more gold mining clans in Hanzong. Though China has never enjoyed a system of weights that was the same as that of Wang Mang, with each ounce equal to 16 grams.

Reckoning Western Han at 214 years and Eastern Han at 196 years.
major gold strike, sand-washing of gold has been carried on in every age. Therefore, the absolute quantity of gold ought to have increased year by year.

Nevertheless it is a fact that since Eastern Han times gold has rarely been used for gifts, and there is no doubt that the price of gold increased. In tianfeng I [14 A.D.], the silver price of gold appears to have been adjusted. Aside from increases in the cost of production of gold, only if its total supply had declined, or there had occurred a reduction in the number of times it was turned over per unit of time, or if demand for it had increased, could such a phenomenon have been evoked. It would seem that these several causes for this phenomenon all existed during Eastern Han.

Though we lack concrete evidence to prove that the cost of production of gold increased, the jump in the price of rice affected the cost of living of those who panned for gold, and this was one part of cost of production. This is only to show one reason why the price of gold jumped, but is not a full explanation of why Eastern Han made little use of gold for gifts. Still less can it be used to show that production of gold during Eastern Han had declined. A rise in the price of gold could have stimulated the further development of gold mining.

The quantity of gold decreased because gold was flowing out of China. Since Western Han made broad use of gold as an instrument for making payments, a rather large quantity must have flowed abroad. For example, there were frequent wars with the Xiongnu during the time of Emperor Wu. If Xiongnu came to China to surrender, as a rule they were granted generous rewards. When the Emperor...

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31Han History, "Treatise on Food and Money," latter part: "In tianfeng I gold, silver, tortoise and cowry money were again announced, with their prices somewhat adjusted." Though it is not clearly stated that the price of gold was raised, during Western Jin the word 'jin' had the meaning changed to indicate one ounce of gold, which shows that the price of gold had increased. Cf. subsection 7.2.5 below.

32Cf. subsection 2.2.5 of this work.

33Han History, 24, "Treatise on Food and Money," latter Part: "The King of Hunxie led several dozen thousand men in to surrender. Thereupon the Han dispatched a cart with 30,000 ounces to greet him. When he arrived, he received gifts and meritorious subordinates. This year expenditures totalled much more than a million." Ibid.: "Several dozen thousand of the Tatars surrendered. All received rich gifts. Clothing and food were the responsibility of the prefectural officials. If they did not provide these things, the Son of Heaven would contribute provisions, and send loaded wagons out from the imperial storehouses to tranquilize them."

34Cf. note 6 above.

35Debates on Salt and Iron, "Energetic Tilling": "The gold of the Ru and Han, fine and delicate articles of tribute, are used to delude foreign nations, and to hook onto the treasures of the Qiang barbarians."

36Cf. note 1 above, fifth example.

37Miscellaneous Notes on the Western Capital, first part: "Emperor Xuan received from an adjoining commandery a Di prisoner. With his arm he was leading a beautiful younger sister with a multi-colored good-looking twisted cord. On it was a treasure-mirror of India, as large as an Eight-grainer coin. It was said that this mirror was bewitched, and those who wore it at their belts obtained good fortune from the heavenly spirits. Thus...
and that in the first century A.D. Greeks took advantage of the Indian Ocean's seasonal winds to sail to Ceylon, where they found a number of Chinese ships. This is possible. The Han dynasty's foreign trade was, however, probably mainly overland by way of Dunhuang and Xinjiang to Asia Minor. In other words, the trade of China was mainly with Great Qin. The term Great Qin referred to the Roman Empire, including Syria and Egypt. Merchants of Bactria brought the glass, jewels and textiles of the Occident to China to exchange for Chinese silks.

The nations of the Eastern Mediterranean had used gold from an early time. Although Rome of the Republic period (contemporary with and prior to Western Han) did not use gold to make coins, it made external payments in gold, and had a great deal of gold in its treasury. During its imperial epoch (corresponding to Eastern Han), Rome made still more use of gold for coins. Hence the world money of that time, the intermediary in Sino-Western trade, would have been gold.

At that time the price of Chinese fine silk ranged from 400 to over 600 cash per bolt, but in the

According to Wang Guowei's research, the state of Rencheng was established in the Latter Han Emperor Zhang's yuanhe 1 (84 A.D.). Cf. Wang Guowei, Explanations of Money (Yibl), latter part.

Four sesterce equalled one denarius, and weighed 3.9 grams. Twenty-five denarii equalled one gold Aureus. Each gold coin weighed one-fortieth of a Roman pound (327.4 grams). (Tenny Frank, An Economic Survey of Ancient Rome, Vol. I, pp. 412, 422.) Nero, however, had reduced the weight of the gold and silver coins. The gold coin was lightened one-tenth, and the silver coin by 14 percent, but the face value of the two coins remained unchanged. (A.R. Burns, Money and Monetary Policy in Early Times, p. 412.) Pliny's calculations were made in 77 A.D., after the time of Nero. Therefore, 100 million sesterce was the equivalent of 7,366.5 kilograms of gold, and 75 million sesterce was equal to 5,524.875 kilograms of gold.

Edward Gibbon, The Decline and Fall of the Roman Empire, Vol. I, p. 56, states that the annual outflow of gold from the Roman Empire totalled 800,000 English pounds sterling (equal to 6,420.67 kilograms), half of which went to India. A. R. Burns, however (p. 412), makes the outflow to India 550 million sesterce. Since he makes the total Roman loss of silver to be one billion sesterce, the share of China and Arabia would have been 450 million sesterce, equal to 33,149.25 kilograms of gold.

In addition, Del Mar, in his Money and Civilization (London, 1886), states (in a footnote on p. 18) that the outflow to India (the note does not mention China, but merely says that Arabia is not included, which probably means that China is included) was 50 million sesterce, the equivalent of English £500,000 at nineteenth century values. The reason for such variations is that the Latin word sesterium represents different quantities in different contexts, making for a discrepancy of from

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Source: 2: MONEY OF THE TWO HAN DYNASTIES

References:
39 Friedrich Hirth, China and the Roman Orient (1885).
41 The Taiping Yulan, "Enumeration of Feathers and Textiles"; quotes Master Fan and Ji Ran: "Three fu plain white silk, at 800 a bolt." The word "three-fu" is a Han idiom. Debates on Salt and Iron, "Disposal is Not," states: "The price of light plain silk is double that of fine silk." Thus, during Western Han, the price of fine silk must have been 400 cash per bolt. Cf. Posthumous Works of Mister Jing'an, King of Haining, 26, "Explanations of Coins," latter part.
42 In 1907 the Englishman Sir Aurel Stein discovered several pieces of silk in the Gobi Desert west of Dunhuang. One of these was a bolt on which was written "Rencheng kangfu fine silk, one bolt, width 2 feet 2 inches, length 4 yards, weight 25 ounces, price 600 cash [156] and 18." Cf. Sir Aurel Stein, "Central Asian Relics of China's Ancient Silk Trade," Young Pao, Serie II, Vol. XX, p. 130.
Abdullah was 141 Arabia. This figure is not at all large. Some say that this may refer to the Roman Empire's net trade deficit, and not to the total value of goods imported from China and Arabia.

We cannot, however, on the basis of such statements, claim that China had a positive balance of trade which brought in gold every year. The Roman historians probably surmised the direction toward which their gold was flowing on the basis of the trade which brought in gold every year. The Roman emperors, claim that China had a positive balance of trade with China and Arabia.

In ancient times China once knew how to manufacture glass. It is not known if it was because knowledge of this technique had become lost by Han times, or for some other reason, but Occidental glass came to be treated as jade-glass, and it would fetch a very high price. Fan Hua says that they "made a profit of ten-fold." The Jin History says it was a hundred-fold. Pliny claims the profit ranged from ten-fold to a hundred-fold.

Actually, both China and Rome likely suffered outflows of gold. The high official of Emperor Huan's time, Liang Ji, sent men beyond the frontier to make contact with foreign nations and seek widely for unusual goods.

The histories record few clear instances of outflows of gold during Eastern Han, but the decline in numbers of times gold turned over is well established. That gifts were rarely made in gold was one aspect of this decline, but was neither a cause nor a consequence of it.

The cause of this decline in the rate of turnover of gold was Wang Mang's policy of nationalizing the metal. In juzhe 6 (7 A.D.) Wang Mang issued the Gold-inlaid and Gold-chased knives with the aim of using them to buy up gold. That is why he simultaneously banned everyone from the rank of marquis on down from holding gold. Gold held by the people was all to be sold to the government. It is said that the standard price was not even paid, which amounted to confiscation. Why did Wang Mang want to concentrate the gold in the national treasury? Was it because of his personal avarice? Or was it to prevent the outflow of gold? We have no way of telling.

During his decade or so in power, aside from several occasions when gifts were made for important political reasons, and when he spent 30,000 catties upon taking an empress from the Shi clan, government expenditures were probably rarely made in gold. Hence, at his death there was around 700,000 catties of gold in the palace. This gold probably later fell into a few private hands. The younger brother of Emperor Guangwu's wife, Guo Kuang, had several hundred million in gold. A portion of it could have been from that confiscated by Wang Mang.

This is one reason for the evident scarcity of gold on the market. During Western Han, generally speaking, the people and officials normally con-

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46Hock believes this is the figure for the city of Rome alone. Hirsh believes it to be the net trade deficit. (F. Hirsh, China and the Roman Orient, p. 225.)

47Latter Han History, 88, "Chronicle of the Western Frontier: Great Qin": "The state of Great Qin is also known by the name Lijian... It exchanges goods with Parthia and India across the seas at a profit of ten-fold... Its king often wished to send ambassadors to Han, but Parthia wished to sell Han silks to them in their markets, and so blocked them from going themselves."

48F. Hirsh, China and the Roman Orient, p. 225.
tributed gold to the emperors, but each ruler sent it out again in the form of gifts. This was the route gold took through the economy. During Eastern Han, rulers rarely made gifts in gold, and subordinates probably also rarely presented tribute in gold, since even payments for remission of crimes were made in fine silk.\footnote{Cf. subsection 2.1.1, note 33.}

We can here draw a comparison between the wealth in gold of the Chinese and Roman empires at the turn of the Christian era. At the time of Wang Mang’s death, the government’s store of gold is reckoned at seventy chests, or 700,000 catties, equal to 179,200 kilograms. This figure may be taken as representing the Chinese government’s gold reserves in the first century A.D.

The Roman Empire’s reserves have been estimated at around 10 billion gold marks.\footnote{Sang Bate’s \textit{Modern Capitalism}, chapter 1, part 2, section 4, subsection 31, quotes this figure from \textit{Lexis}.} Within this sum, the quantity of gold and silver was about the same, and so we can calculate that the gold reserves of the Roman Empire were 179,100 kilograms, about the same as those of China. This is an interesting coincidence.

I mention Rome here because first, research is enriched by comparisons. Though we are concerned with Chinese history, we ought to make comparisons with foreign countries, and only Rome can for that period be compared with China. Modern European capitalist scholars not only do not make comparisons with China, they instead make what is clearly Europe’s history primary, and call it world history. This is an unscientific megalomania.

There are many similarities between Rome and China’s Han Dynasty, and the two were approximately contemporaneous. They were the two centers of civilization in the world of that time, and militarily were the two strongest nations. The ruling classes of both adopted a policy of favoring agriculture over commerce, but both their monetary economies were especially well developed.

As a consequence of the search for money, the gap between rich and poor in society becomes ever more evident. There had never before in Chinese history been a period when gold received so much attention as during Western Han. Internal circulation of money was not, however, mainly in gold. The same was true of Rome.

The ruling classes of both nations did not hesitate to employ inflation to exploit their people. The treasuries of both countries at about the same time contained about the same quantities of gold, but this does not prove that the wealth of the two was the same, or that the same amount of money was circulating in both.

During the reign of Wang Mang, China had a relatively large portion of its specie concentrated in the national treasury, and relied mainly on copper cash for its money in circulation. Rome relied mainly on silver coins.

From Eastern Han on, demand for gold in objects of craftsmanship increased. That is to say, gold became dispersed among the people.\footnote{Hu Zhusheng, "On Han Gold In Place of Bronze, and the Reasons for its Decline," \textit{Literary History and Philosophy}, no. 12 (1957), states that the key to the decline of gold during Eastern Han is where the 700,000 catties in the national treasury went after Wang Mang’s death. He says that this gold was lost during the several great battles in Chang’an. The second point could be true, but still not resolve his problem. Since the gold had been gathered in by Wang Mang, it obviously must have been dispersed to various places before his time, and then how could we explain the apparent abundance of gold during Western Han?} The masters of Shu, Guang and Han used 5 million annually to make gold and silver implements.\footnote{Miscellaneous Notes on the Western Capital, first part: "When the Han emperors were buried, they were surrounded with pearls in jade suits. The suits were shaped like armor scales joined with thread of gold. Upon Emperor Wu’s suit were embroidered designs in the forms of dragons, phoenixes and tortoises, and it was called by contemporaries a dragon jade suit."} Life, however, was still simple then among the people, and Gong Yu considered it improper for

\begin{thebibliography}{9}
\bibitem{} Hu Zhusheng, "On Han Gold In Place of Bronze, and the Reasons for its Decline," \textit{Literary History and Philosophy}, no. 12 (1957), states that the key to the decline of gold during Eastern Han is where the 700,000 catties in the national treasury went after Wang Mang’s death. He says that this gold was lost during the several great battles in Chang’an. The second point could be true, but still not resolve his problem. Since the gold had been gathered in by Wang Mang, it obviously must have been dispersed to various places before his time, and then how could we explain the apparent abundance of gold during Western Han?
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\bibitem{} \textit{Han History}, "Biography of Gong Yu," records that upon the enthronement of Emperor Yuan, Gong Yu said: "Emperor Wen’s clothing was of glossy thick silk, and his shoes of leather. His utensils were carved of jade, and ornamented with gold and silver. Later generations competed in lavishness with this . . . until now each of the three vestment officials of Qi has several thousand workmen, and annually expends several millions. The rulers of Shu, Guang and Han each use 5 million per year for gold and silver implements. The Three Workshops officials expend 50 million. . . . I myself have served in the Eastern Palace and seen gifts of sets of goblets covered with gold and silver decorations, which ought not to have been used as gifts to sub-
even royalty to give goblets ornamented with gold and silver to officials.

These accounts are verified by objects excavated from tombs. There are very few Western Han tombs containing gold and silver articles of adornment. From Eastern Han on, the situation changes. Guo Kuang’s household employed 400 servants to craft utensils of gold. By the end of Han gold ornaments became still more common. Cao Zijian described a woman as “wearing a broad gold ring on her wrist and a gold hairpin on her head.”

Eastern Han tombs sometimes have nothing but gold and silver objects of adornment, and such objects become more numerous over time. They became still more numerous during the Jin Dynasty. This virtually becomes a criterion for dating a tomb.

The prevalence of gold ornaments among the people was probably related to the reduced amount of gold on the market and to the rise in gold’s price. Most people who love to be fashionable are controlled by vanity. Only when something is scarce and hence expensive do such people seek it out, and the more people seek such a good out, the higher its price becomes.

The scarcity of gold was also due to its use in burial goods. It is said that when Cao Cao led his soldiers into Xi’an, he discovered the tumulus of Prince Xiao of Liang. Upon breaking open the coffin, he got a treasure of several dozen thousand catties of gold.

The price of gold during the two Han dynasties has always been believed by scholars to have been 10,000 cash per catty, as though it remained unchanged from beginning to end. This is hard to believe.

First of all, that the price of gold grows ever higher has been a universal phenomenon in both ancient and modern times, in China and elsewhere.

Second, the weight of coins was steadily decreased during the Han: From the Qin Half-ouncer there was a reduction to the Eight-grain Half-ouncer, and then to the Four-grain Half-ouncer, and the Three-grainer.

Finally, though the weight of the Five-grainer was an increase over the latter, during Eastern Han, even this coin was somewhat reduced in weight. During these several centuries it would have been impossible for the price of gold not to have risen.

During the Warring States Era gold probably had a price of 4,000 cash per catty, but was that 4,000 cash in the Qi knives, which weighed 40-50 grams? It is hard to tell. The latter is somewhat more likely to have been the case.

During the Qin and early Han, the price rose to more than 6,000 cash. This price may have been maintained until the Eight-grain Half-ouncer was put into circulation. Later there was the Four-grain Half-ouncer, and the price of gold in terms of it must have increased. Its market price could have jumped to 10,000 cash per catty, but this might not have been recognized in official circles until 80 B.C.

That the price of gold in Wang Mang’s time was 10,000 cash per catty is very clearly recorded in the history books. Later, when Wang Mang minted the Small-spring, the 10,000 cash per catty price was retained, but there must not have been any market at that price.

From Eastern Han on, the price of gold probably continued to rise. *Master Sun’s Calculation Classic* mentions a gold price of one catty for 100,000 cash, which is ten times the Western Han price. This is not an Eastern Han price. It could not have gone up ten-fold in so short a time. Possibly it was a Three Kingdoms, Jin or still later price.

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62 *Nine Chapter Calculating Techniques*, 6: “Now there is a man carrying 12 catties of gold beyond the frontier. The frontier tax is one part in ten. Now at the frontier two catties of gold are taken, and change of 5,000 cash is given in return. How many cash is one catty of gold worth? The answer is 6,250.” Li Yan’s *Historical Materials On Ancient Chinese Mathematics* (1956), p. 109, says that this refers to White Metal, and cites Emperor Wu’s White Metal money as evidence for this. The nominal value of the White Metal money was 8 ounces for 3,000, but that nominal value did not embody the genuine price for silver. If the price of silver then was 6,250 per catty, and Emperor Wu set the price of half a catty at 3,000, how could the government have avoided losing money?

63 *Nine Chapter Calculating Techniques*, 7: “Now there is a group buying gold. Some put out 400, with a surplus of 3,400; others put out 300, with a surplus of 100. The problem is, what is the number of men and the price of the gold? The answer is, 33 men, and the price of gold is 9,800.” That this work gives two different prices for gold does not prove that its material on prices is unreliable. The two prices could be for two different times.

64 *Han History*, “Treatise on Food and Money,” latter part: “Tianfeng 1 [14 A.D.]. It was again stated that money of gold, silver, tortoise and cowry was to be somewhat increased in quantity and reduced in price.”

65 *Index to the Complete Works of the Four Treasuries*, 11, says that the *Master Sun’s Calculation Classic* was the work of a man of Han or Wei times. The *New Tang History*, the *Old Tang History* and the *Universal Record* all agree that it was compiled by Zhen Luan who lived in Northern Zhou times.
From Eastern Han on, because gold was so frequently being manufactured into utensils and ornaments, and because its velocity of circulation slowed down, its monetary character was lessened, and it was mainly used as a store of value.

Though Han employed the Qin system for handling gold, the shapes gold took were influenced by the state of Chu. A cake shaped like a dried bean-curd was used. Statements like "one square inch of gold weighing one catty" could have been based on this square cake. The *Nine Chapter Calculation Techniques* mentions nine *mei*, or coins, of gold, and eleven *mei* of silver. The square gold cakes of Han were not called *yuan*, but the influence on them of the state of Chu is evident from the words *ying-cheng* on ceramic sheet coins excavated from some Han tombs. Of greatest importance, however, is the word for "ounce" on the excavated ceramic sheet coins, because during Han gold was reckoned by the catty and ounce. There were sixteen "ounce" cakes on each ceramic sheet, just the number of ounces in a catty.

In Emperor Wu’s taishi 2 [95 B.C.], a reform in the shape of gold was put into effect. Deer-hoof gold was minted. At the time this was called Deer-hoof Horse-girdle-hoof. This name was of symbolic significance. The ingot was probably round and weighed one catty. It may have been inscribed on four sides. Some were dug up by Song Dynasty peasants. They were then called Persimmon-gold and Horse-hoof gold.

During Han, silver gradually became a monetary metal. Though when he unified the monetary systems of the six states the First Emperor of Qin ruled that silver could only be used to make utensils and articles of adornment, and was not to be used to make coins, there is no record of silver being used for coins before his-time. This was still the case at the beginning of Han. It was not until the White Metal of Emperor Wu’s time that silver not only became a money but began to be made into coins.

This was a very sudden development. During this short period silver developed more utility for use as money than gold had. However, on this occasion silver was alloyed with tin and its face value was set too high, giving it the character of a credit money.

In Wang Mang’s monetary system, silver and gold were given an equal position. Gold’s unit was the "metal" *jin*; whereas silver’s unit was the half-catty, each of which was called a *liu*. Silver would seem to have been given a definite shape, but the histories do not make clear what it was. Generally speaking, during Eastern Han silver is mentioned in the written sources comparatively frequently. Both for royal gifts and in references to the tomb furniture from tombs in the neighborhood of Hang-chow. Some of them bear the inscription "lingzhijin yijin." Others bear only the two characters meaning one catty, or the single character *ling*. These inscriptions are also clearly abbreviated characters meaning Deer-hoof gold. Zhao Renjun, "The Inscriptions on Ceramic Deer-hoof Gold Funerary Money of the Han Dynasty," *Cultural Relics*, 7 (1960).

During the Tang Dynasty, Horse-hoof gold was frequently excavated. Yan Shigu’s notes to the *Han History*, "Annals of Emperor Wu": "Nowadays people frequently get Persimmon-gold with the character *ling* on it. It is artfully shaped." Tang Pian’s *Record of Conversations About Drama*, first part, "Yuan Xiangxue Exchanges Gold With the Prefect": "Li Pinggong subdued Fengxiang. There was excitement in the town ahead because in plowing a field a jar of Horse-hoof gold had turned up. The people of the hamlet forwarded it to the district, which passed it on up to the prefecture."
to treasure hoards, gold and silver are mentioned together. Dong Zhuo’s property included 20-30,000 catties of gold and 80-90,000 catties of silver.\textsuperscript{72}

The shapes assumed by silver must not have been very different from those of gold. The written sources refer only to gold cakes\textsuperscript{73} and silver cakes.\textsuperscript{74} Of course since a cake would be rounded off, it could have been the same shape as Emperor Wu’s Deer-hoof gold or some variant thereof. In recent years gold cakes have been excavated from Eastern Han tombs in Hengyang and Changsha in Hunan. The Hengyang gold cake bears the inscription "King of the Pure Land" [\textit{jingtuwang,}^1 and weighs 312.5 grams.\textsuperscript{75} The one from Changsha has the engraved character \textit{zhang,}^2 and weighs 234.5 grams.\textsuperscript{76}

No silver cakes have yet turned up, but there have been several "Zhongyuan Second Year" [57 A.D.] silver ingots excavated. [Cf. Plate xxxv at end of this subsection] One is shaped like a boat; another like a narrow strip. The boat-shaped silver ingot has a flat bottom like a steelyard weight [\textit{li}].\textsuperscript{77} The two ends protrude on top somewhat like the Original-treasure ingot of later times. In the middle there is a line of clerk script in intaglio which reads "Zhongyuan Second Year Manufactured By The Imperial Workshops" \textit{zhongyuan er nian kaogongsuo zao.}^1 There are two of them in my collection, one large and one small. The large one weighs 205 grams. The small one weighs 125 grams. The quality of the silver is very good. When tried in the fire it comes out black in color. On the bottom is an air hole. The small one has been compressed out of shape.

To my knowledge there exist three of the strip-shaped silver ingots. One of them is intact. The other two are fragments. In addition, there are counterfeits. The intact one weighs 403 grams. The upper end bears in intaglio the inscription "Zhongyuan Second Year Manufactured By The Imperial Workshops," which is identical to the one on the boat-shaped silver ingot, and was obviously stamped with the same seal. Actually, there are two seals, one reading "Zhongyuan Second Year," and the other "Manufactured By the Imperial Workshops," separated by a small space. One of the fragmentary ingots bears only the words "Zhongyuan Second Year." The inscription on its reverse is unclear. These two objects have wound up in Japan. It is said that they were excavated in Qingzhou, Shandong.\textsuperscript{78}

The other fragment is in my collection. The top end of this one is pushed down. The lower end has a hole through it. As with the others, the seal mark "Zhongyuan Second Year" is very clear. Above the first character is the seal mark for "Manufactured By The Imperial Workshops," but it was not stamped deeply, and the character for "Manufactured" is superimposed over the one for "Zhong" and is completely unreadable. It weighs around 120 grams. As the ingot is completely covered with verdigris, the quality of the silver is evidently not very good.

These silver ingots have, of course, aroused suspicion.\textsuperscript{79} First of all, Han dynasty sources do not mention silver ingots or slips. These silver ingots all bear the same date and are stamped with the same [151]

\textsuperscript{71}\textit{Latter Han History,} 117, "Chronicle of the Western Qiang." (Emperor An’s yongchu 5 [111 A.D.]): "That Autumn, a Hanyang man, Du Qi, and his younger brother, Jigong, along with the Prince of the Commandery, Xin, entered into a plot with the Qiang to join forces and enter Shanggui city. Qi called himself Pacifier of Han Generalissimo. Thereupon a proclamation was issued offering enfeoffment as a marquis for the one who would obtain Qi’s head, and a gift of a million cash. The Qiang Tatars who beheaded Qi were given a hundred catties of gold and 200 catties of silver."

\textsuperscript{72}\textit{Latter Han History,} 102, "Biography of Dong Zhuo."

\textsuperscript{73}\textit{Latter Han History,} 114, "Yue Yang, His Son and Wife": "While travelling on the road, he found a lost cake of gold."

\textsuperscript{74}\textit{Record of the Three Kingdoms,} "Record of Wei." A proclamation of King Fang of Qi, jiaping S [253 A.D.], 8th month: "Formerly, the Palace Gentleman and Western Pacifier, Guo Xiuzhi, was disciplined and accomplished and steadfast. . . . His son will inherit his rank, and in addition is given rank as Chief Commandant Custodian of the Imperial Equipages, and awarded a thousand cakes of silver and a thousand rolls of silk."

\textsuperscript{75} "Warring States and Eastern Han Tombs Discovered on Jiang Family Hill in Miaofu, Hengyang, Hunan," \textit{Cultural Relics Reference Materials,} no. 4 (1954), p. 120. Cf. also no. 6, p. 53.

\textsuperscript{76}\textit{Final Summary Report on the Ancient Tomb in Wulipai, Changsha," Cultural Relics,} no. 3 (1960).

\textsuperscript{77} Kaō Shigashi, \textit{Studies of Gold and Silver Found in Tang and Song Times,} chapter 11, section 2. The intact one is stored in Japan’s Imperial Household Museum. One of the fragments is in the collection of Naiō Torajirō. Kaō Shigashi did not understand the four characters meaning "Manufactured By the Imperial Workshops." I have seen a counterfeit silver strip which has both verdigris and an inscription, but the verdigris is lacquered on, and it is easy to read through it. Probably the counterfeiter had seen the genuine article.

\textsuperscript{78} Kaō Shigashi suspects that the inscriptions were stamped by meddlers after the ingots were unearthed, and believes that the silver strips date from Song and Yuan or after, because the Han written sources do not mention silver ingots. Kaō’s strict attitude toward putatively ancient objects is admirable, but he is mainly a student of the written sources, and has had little personal contact with the actual objects.
seal. Moreover, since this is obviously official silver, why is there no reference to it in the records?

But based on observation of the objects themselves, not only are the silver ingots clearly old, the seal marks do not seem to have been added later on. There actually was an Imperial Workshop Household during Han. It was a department engaged in the manufacture of utensils for the Privy Treasurer. During the reign of Emperor Wu it was simply called the Examiner of Workmen (Kaogong), and these silver ingots bear those characters as part of their inscriptions.

There were two kinds of silver during Han: One was called Zhuti-silver (named after the mines at Zhuti), and was of good fineness. The other was ordinary silver, and it was of lesser purity. The boat-shaped silver ingot could be a variation on the shape of Deer-hoof gold. It is said that two additional boat-shaped silver ingots of Emperor Huan's jianhe 2 [148 A.D.] have been unearthed in Qingzhou. It is exactly the same shape as the Zhongyuan 2 ingot. It weighs 356.25 grams. There are three lines of text on it. The first line reads "Jianhe Second Year Silversmith ? ?." The second line is "Shangjun Marquis Ting Silversmith Wang ?." The third line reads "? ? ? Silversmith ? ?." Several characters are not readable.

There is an historical account of one Sun Hao digging up a piece of silver "one inch long, one inch wide, and engraved with a year and month." This must have been a small silver ingot. In the aftermath of Wang Mang, Emperor Guangwu may have recast the silver of Wang Mang's time into such silver ingots as these, but we cannot tell for sure. The histories have omitted mention of many things, of which Wang Mang's Spade-springs are just one example.

Collectors possess silver Five-grainers, made like a very fine Eastern Han Five-grainer. I suspect these were minted by some later person, perhaps in imitation of the Tang Dynasty silver Inaugural coin, and at the same time as that coin. In recent years two silver Five-grainers have been excavated from a Six Dynasties tomb in Nanking. These too resemble the form used during Eastern Han, but are very irregular, and could be Six Dynasties counterfeits.

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79 Okudaira Masahiro, Record of East Asian Coins, 8, p. 10. Another one is owned by a German. In addition, the Chinese magazine, Coins, no.32, p. 10 records a silver ingot bearing the inscription "Jianhe Second Year Marquis of Shangjun Ting [] Duke Xing Silversmith Wang Sheng Silversmith Left Palace Silversmith Wu []" This has been sold to a foreigner at a high price. As I have not personally inspected it, I do not know if it is genuine.

80 Taiping Yulan, 812, "Section on Pearls and Treasures," quotes the "Record of Wu."
1. Strip-shaped silver ingot.  2-3. Boat-shaped silver ingots. All three silver ingots bear the inscriptions "Zhongyuan Second Year" and "Manufactured By the Imperial Workshops."