

# Engraved Ivory and Pottery Found in the Site of the Yin Capital

by

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## I

### Introduction.

For those who study Chinese archaeology the importance of the objects found in the site of the capital of the Yin 殷 dynasty, at An-yang, Chang-tê-fu in the province of Ho-nan 河南省彰德府安陽 is beyond estimate, though the discovery was not made under a scientific excavation and lacks certain indispensable information as to the site and the objects themselves.<sup>1)</sup> I had a happy opportunity to examine these objects in the possession of Mr. Lo CHEN-YÜ 羅振玉 through his kindness during his stay in Japan and sometime before his first publication of the *Yin-hsü-ku-ch'i-wu-tu-lu* 殷墟古器物圖錄 or *An Illustrated Catalogue of the Antiquities found in the Site of the Yin Capital* in 1917. On the engraved pieces of bone, ivory and stone we could observe the glutton (*t'ao-t'ieh* 饕餮), dragons (*hui-lun* 虺龍) and meander-like (*lei-wên* 雷紋) ornaments which are patterns characteristic of the ancient Chinese bronzes of the Chou and Pre-Chou periods. They attracted our interest immensely, and their importance is far greater than that of perfect bronze vase the provenance of which is usually unknown.

We had, however, not heard of this kind of relics, except those in the abovementioned collection of Mr Lo, until recently a group of quite similar sort of objects in ivory and bone were brought before us. Moreover, this time were some fragments of pottery associated with the bone and ivory, a collection we could not discover before in the collection of the Chinese archaeologist. With great surprise and pleasure I examined this important new find, recalling the impressions by Mr Lo's collection years ago. They were partly given to the Kyôto Imperial University Museum by Mr. T. Ôta and partly purchased from him for the Museum. Now first I shall

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1) For the site of the Yin capital see the Preface of the *Illustrated Catalogue* of Mr. Lo CHEN-YÜ, Dr. T. NAITÔ's article in the *Kôkogaku-Zasshi* 考古學雜誌, Vol. XII. No. 1, and Dr. T. HAYASHI's in the *Tôa-no-Hikari* 東亞之光, Vol. XIV. No. 5, &c.

describe the objects we have at hand and then consider what importance and interest they have for Chinese archaeology, especially for the study of ancient bronzes.

## II

### Description of the Objects.

All the objects are attributed to the find in the site of Yin capital, though there is no evidence to certify it. But the features of the materials of bone and ivory as well as the nature of their engraved ornaments are quite similar to those of Mr. Lo's collection which were obtained by his pupil who was sent to the site. So the attribution seems fair correct even if not verifiable. Our description will begin with the bone and ivory.

#### (1) Big ivory piece with engraved ornaments. (Pl. I, 1)

Slightly yellowish ivory with resolved lime from loess sticking to it. On the surface are sharply cut dragon-like ornaments in highly schematized form, somewhat assimilating into the meander-like patterns. There are, however, no meanders on the ground as we see in a specimen of Mr. Lo's. (Pl. II, 1 & 2) A round depression to the right of the central line seems once to have contained some inlaid substance. Most interesting is that a blue stone, perhaps a piece of cut jade, inlaid between the engraved ornaments, is still left *in situ*. Though there is no remain of other inlaid stones, it is quite probable such a treatment had been applied on the other parts of the ivory. We find a similar decoration on a broken piece of bronze in Mr. Lo's collection, where many pieces of inlaid stones are still visible. (Pl. II, 4) The upper margin of ivory is smooth, being an original rim of an object; both ends are sharply cut to be attached closely to another piece. No ornament on the back. From these points as well as its convex surface, it seems this piece served, complemented with other similar pieces, as the surface-board of a round vessel like a caldron, *ting* 鼎, in diameter about one foot.

#### (2) Engraved bone handle. (Pl. I, 2)

A perforation at the turned top. Although lime covers the surface we can recognize two or three groups of fine meander patterns, in the same style, but on a smaller scale than the former. This probably served as the handle of a bronze knife.

#### (3) Flat engraved piece of bone. (Pl. I, 3)

On both surfaces of a thin flat piece of animal bone are incised fine ornaments. We notice an eye of a glutton on the lower part of one surface, and meander patterns derived from dragons over it. Fine meander or

parallel lines are distributed on the ground. Same design on the back surface. One end is broken, but the other broader extremity is intact. Mr. Lo Chen-yü considers a similar piece to the handle of a spoon, *su-pi* 疏匕. (Pl. II, 3)

(4) Flat engraved piece of bone. (Pl. I, 5)

On the surface shallow meander-like ornaments are roughly incised. Except one side all other ends broken. So we cannot realise what was its entire shape and its decoration. At the centre of a meander is a hollow which seems formerly to have been inlaid with another material.

(5) Fish-shaped bone pendant with engraved ornaments. (Pl. I, 5)

A long and slender body with a fish head. The tail is shaped like a knife end. A concave ring encircles the middle of the body. In the mouth through the head a perforation is made so as to admit a string. The object must have been a pendant hung down at the waist, like a "fishbelt" or *yü-tai* 魚袋 of a later period. The fish form was probably adopted originally as an amulet to protect one from drowning in water. On both sides are engraved simple ornaments something like cicadas or dragons in meander form.

(6) Fragments of white pottery with incised ornaments. (Pl. I, 6 & 7)

White-coloured pottery made of very fine clay or koalin. They must be belonged to the rim part of a round vessel or vessels. On the upper part continuing meander patterns in two rows are seen and meanders in lozenge frames on the lower part of the larger fragments. These ornaments we meet very often on ancient Chinese bronzes. Most remarkable is it that the ornaments are sharply cut on the surface, not impressed with stamps as is seen usually on the Han or Pre-Han pottery.

Besides the above-mentioned objects, there are some arrow-heads, hair-pins, &c., of bone, which we have also seen in Mr. Lo Chen-yü's collection. (Fig. 1) They have, however, little relation to the bronze, so I expect to describe them at another opportunity.

### III

## Elephant and Ivory in Ancient China.

Before the discussion on the relation between the engraved ivory and the bronze, I have first to deal with the question, "Was the ivory produced in ancient China herself or not?" Mr. Lo has illustrated in his catalogue "Elephant teeth," discovered at the Yin site with other objects. But these teeth, as the Chinese archaeologist says, quoting the words of European geologists, belong to the primitive elephants which are now a species entirely

disappeared from the world. They probably were of the extinct group *stegodon*, discovered as fossils in Java, Borneo, China, as well as in Japan. The ivory of this extinct animal, was undoubtedly existent in the Yin capital at the time when the other worked objects were made, and it is quite probable that it was used as material for engraving, or some such use. But at the same time I believe the ivory of the actual elephant was also obtainable in that early age.

In the *Yü-kung* 禹貢 of the *Shu-king* 書經, when the local tributes of the nine provinces of the Emperor Yü are described, "*ch'ih-ko*" 齒革 or "teeth and hide" makes a part of that of Yang-chou 楊州 and of Ching-chou 荊州, the districts south of the Yang-tse-kiang. The "teeth" here means without question the elephant teeth or ivory, most probably the ivory of the actual elephant which dwelt then in those districts, or ivory at least imported from the neighbouring territory, and not that of an extinct elephant dug up from the earth. In early Chinese literature are frequently mentioned various objects made of ivory, such as luxurious "ivory chopsticks" (*hsiang-t'ien* 象箸) of the tyrannical king Chou 紂 of the Yin dynasty, "ivory combs" (*hsiang-chieh* 象櫛), "ivory ear-ornaments" (*hsiang-t'ien* 象瑱), "ivory batons" (*hsiang-hu* 象笏) &c, in the *Shih-king* 詩經 or in the *Li-chi*. 禮記. This tells us that the Chinese people in those days knew the ivory which comes from the elephant, for if they had known only the fossilised ivory of the *stegodon*, how were they able to attribute the tusks to that particular animal? Moreover, we find a realistic representation of the elephant, though much schematized as a pattern, on a bronze ewer (Fig. 2),<sup>1)</sup> which is a distinct witness that the Chinese in the Chou period had opportunities of seeing that animal alive.

In the *Shuo-wên* 說文 it is explained that the elephant is a big animal of Nan-yüeh 南越, that is to say, the present provinces of Kuang-tung and Kuang-hsi. And even in the seventh century A. D. a primordial, long-lingering example of that animal was to be found in the province of Hu-nan, further north of Nan-yüeh.<sup>2)</sup> So we can suppose that at an earlier date, they lived in the more northern territory, though in the course of time the animals gradually retreated to the southern countries, until at last the ivory was chiefly imported from Further India. Naturally the elephant that lived in China belonged to the Asiatic species, *elephas maximus*, like those that now have their habitat in India, Siam and Burma.

Anyhow it is evident that in the Chou or Pre-Chou periods the ivory, whether from the fossilised ivory of *stegodons* or from the tusks of living animals, was used as a material for engravings and for utensils of luxury.

1) *Senoku-seisho* 泉屋清賞 or the *Chinese Bronzes in the Collection of Baron Sumitomo* (Tokyo, 1920), Vol. II, Pl. 95.

2) HIRTH, *Ancient History of China*, (New York, 1908), p. 122.

IV

Engraved Ivory and Bronze Vases.

If the engraved ivory and bone objects I have already described, cannot be assured as the find of the Yin site, we have little doubt of their dating to the Chou or Pre-Chou periods, judging from the common occurrence of the archaic ornaments of glutton, dragon, and meander-like those on the authentic bronzes of those periods. Though we are not yet able to discriminate the Pre-Chou and Chou bronzes by the styles of the ornaments, no archaeologist at present hesitates in considering that these particular ornaments are to be ascribed as archaic Chinese decorative motives. And it is very interesting to note that these Chinese ornaments have a striking resemblance to those curved on the surface of wood by the people of the Pacific islands. Both of them, the Chinese as well as the work of the Pacific islanders, are in a category to be called "savage ornaments," and the Chinese ones belong to the most developed forms of it, just as the Chinese language is the most developed of the monosyllabic system.

FENOLLOSA expressed a very similar view in his book, saying that the Chinese art before the Chou period belonged to the circle of the "Pacific Arts" and emphasized the similarity of glutton ornaments, with its essential element of the human face, and the dragons, with its origin of reptiles, between the Chinese and the Pacific arts.<sup>1)</sup> Though I cannot agree with him in many other points of his views, this argument attracts me very much. Without touching on the racial relation of the two peoples, this striking resemblance of their decorative motives and treatment cannot be denied. And there is little doubt that the Chinese ornaments on the ivory, bone or bronze are those which were originally applied on the flat surface of wood or some similar materials, carved with knives as the Pacific ornaments are. They are essentially not the patterns to have been developed out of cast bronze, but designs transposed to the round vessels, after being originated as flat surface ornaments. Wood carvings have all perished, leaving no trace to our days, the engraved ivory and bone only survive indicating to us the origin and process of the development of these decoration.

A very interesting fact to throw a light on this point is the study of the original usage of the Chinese character *tiao* 雕 for "to engrave." The character *tiao* often compounded with *cho* 琢 character, *tiao-cho* means to work on jade, and now we use *tiao* to as meaning to carve anything. But in the *K'ao-kung-ch'i* 考工記 in the *Chou-li* 周禮 are mentioned five diffe-

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1) FENOLLOSA, *Epochs of Chinese and Japanese Art*, (London, 1912), Vol. I, Chap. I.

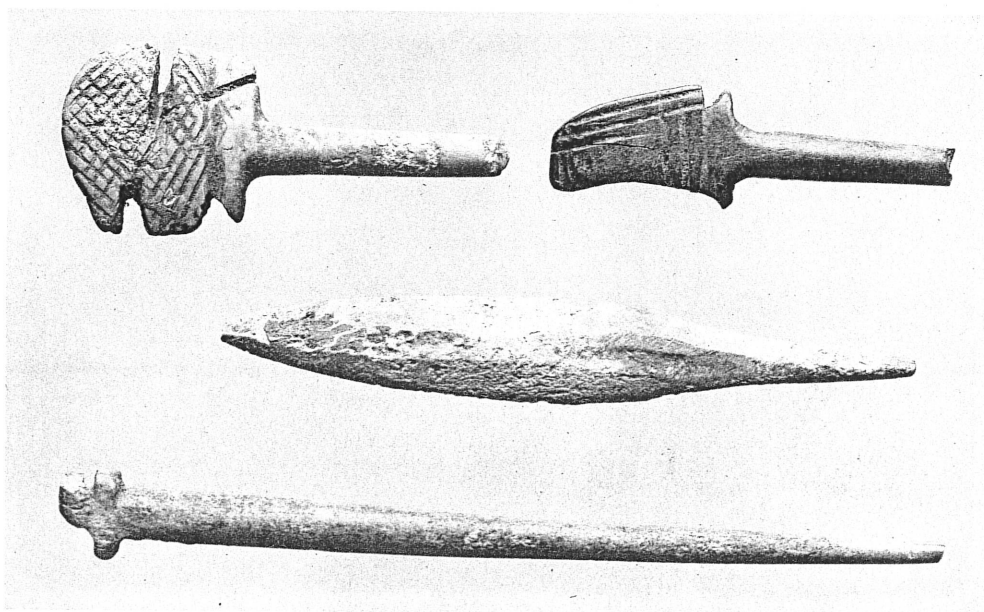


Fig. 1. Bone Hair Pins & Arrow-points.

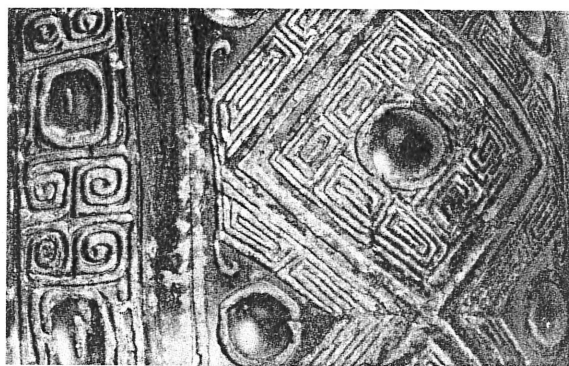


Fig. 3. Bronze Vase.

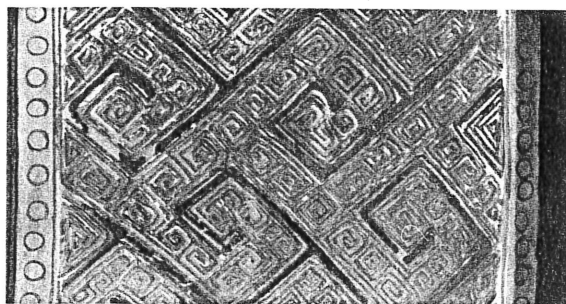


Fig. 4. Bronze Vase.



Fig. 2. Part of a Bronze Vase.

while the ivory and bone objects have enriched our knowledge of ancient bronzes and their decorations.

This fine white pottery is essentially distinguished from the primitive fabric of the blackish-brown ware of the Pre-Han periods with impressed ornaments.<sup>1)</sup> But its decorative elements have quite similar nature to those of the archaic Chinese bronzes in the Chou or Pre-Chou dynasties, in its meander or lozenge patterns, &c. (Figs. 3 & 4) And the authenticity of this pottery cannot be doubted from the lime on the surface and the precisely incised ornaments, &c. We admit without hesitation its occurrence in a site associated with those engraved ivory and bone.

I think, however, pottery of such a fine quality could not be used in that remote antiquity, or even at a later period, for the daily use of the common people. They must have served for some special purpose or purposes or used by special classes of people. There are two explanations of the special purposes of this pottery. The one is that this was the model or the first mould for the cast bronzes, and the other is that the ware was fabric of very high-class or of *l'art de luxe*.

When a bronze vase was cast, naturally the model had first to be made in a soft material on which the patterns were engraved. For this model the clay, wax or wood are most suitable and used by every nation. Then the clay mould was taken, by impressing the first model, and the molten metal poured into it. So the white pottery with incised ornaments can be most naturally considered as the model for the cast bronze, though there are no remains of founding metal or any bronze piece with exactly the same patterns as the pottery yet discovered from the site. I am informed that some peasants who have found engraved ivory believe it was the mould or model for the bronze vessels. This is, of course, not true, for we know such a precious material would not be used for such a purpose, and in any case the incrustation of a jade piece is out of place on a mould. But it is quite feasible, on the other hand, to regard the white pottery as having been made and used for that purpose.

The second explanation is, however, also plausible, and at the same time does not exclude the first one. The existence of the blackish-brown pottery of rough fabric in the periods of the Pre-Han dynasties is quite unquestionable, as my own discovery of it in Manchuria, associated with the knife moneys of the Chou period, has shown to us. This kind of ware is very common in every nation in its archaic periods of the stone or bronze culture.

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1) HOBSON gives a specimen of Pre-Han pottery in a brownish-grey colour with deeply cut ornaments of lozenge-meanders. (*loc. cit.*, Pl. I, 2.) I have also seen a quite similar vase of the Han period found near Ryo-jun (Port Arthur) in the Archaeological Museum at Ryo-jun, Manchuria.

But this was pottery for practical everyday uses and there is no reason to deny the existence of a high-class ware side by side with the common stuff. Dr. WIDE brought forward a theory that there were two styles of pottery existing in the Mycenaean age in Greece, one the developed fine ware the so-called Mycenaean pottery, and the other a rude ware which became the ancestor of the Geometric style of the succeeding period. He called the former the "Herrenstil" or *l'art de luxe* and the latter the "Bauerstil" or peasant art. Can we not call the blackish-brown pottery of rough fabric in the Pre-Han period as the "*Bauerstil*" of the early Chinese, and the fine white pottery as the "*Herrenstil*" of the ceramic in the Pre-Han periods?<sup>1)</sup>

The white colour of the incised ware resembles ivory and can be substituted for the objects made of bone and ivory. The koalin or fine clay is produced everywhere in China and it is easy to cut patterns in it. Moreover, when once the models or moulds for the cast bronze were made of this material and their beautiful appearance resembling ivory was noticed, the ancient people could not have helped making this kind of pottery as *objects de luxe* for ceremonial purposes or for special classes of people. Thus we can explain the co-existing phenomenon of the fine white pottery side by side with the rude blackish-brown ware in the Pre-Han periods. No one can believe that the grey-coloured Han pottery was the degenerated descendant of such a fine fabric as the white pottery.

In the *Chou-li*, in the chapters of *Kao-kung-ch'i*, are mentioned two kinds of clay workers, the *t'ao-jên* 陶人 and the *fang-jên* 甗人. The former is said to have made such vessels, *hsien* 甗, *tsêng* 甗, *p'en* 盆, *li* 鬲 and *yü* 甗, while the latter *k'uei* 簋 and *tou* 豆. And CHU YEN 朱琰, the author of the *T'ao-shuo* 陶說, commented on these words of the *Kao-kung-ch'i* saying that the vessels made by the *t'ao-jên* belonged to the kitchen utensil class except the *yü* (a capacity), and the vases manufactured by the *fang-jên*, to the ceremonial purposes class. Dr. BUSHELL in his translation of this *T'ao-shuo* interpreted the *t'ao-jên* as a worker on the potter's wheel, and the *fang-jên* as a clay-moulder.<sup>2)</sup> It seems that two sorts of ceramics worked at the different kinds of vessels in the court of Chou, one the fine ceremonial vases, and the other the daily cooking vessels of rough fabrication. The former can be called the maker of the pottery of the Chinese "*Herrenstil*" and the latter of the Chinese "*Bauerstil*." Anyhow, it is now clear that in the Chou or Pre-chou periods there existed two styles of pottery, the rough ware and the fine white pottery.

1) WALTER, *History of Ancient Pottery*, (London, 191), Vol. I, p. 279; S. WIDE, *Athenische Mittheilungen*. 1996.

2) BUSHELL, *Chinese Pottery and Porcelain, being a Translation of the T'ao-shuo*, (Oxford, 1910), p. 33.



VI

Glutton, Dragon and Meander Ornaments.

It is the most interesting and important fact to find on the ivory and bone objects the glutton and meander patterns, the characteristic ornaments of the Chinese bronze in the Chou or Pre-Chou period. As I have mentioned elsewhere, these patterns had been first developed as surface ornaments on flat objects and their adaptation to the bronze vases was a secondary thing. But the ornaments, both on the ivory and bone as well as on the bronze, are quite the same, having no difference in schematization or in the treatment of styles.

The glutton or ogre, *t'ao-t'ieh* 饕餮, is the most conspicuous ornament of the archaic periods in China. It is attributed to an evil animal which lived in the Northern country, described in the *Shan-hai-king* 山海經, or to the savage tribe Miao 苗 in the South, or a monstrous being in the South-Western districts, according to various traditions. But in reality, I think, it is nothing but a human mask pattern very common among ancient or barbarous peoples, and those legends above-mentioned, are merely later attributions. And the ethical interpretation of the reason for putting this glutton pattern on a vase as meant to advise one not to drink or eat too much, has only value in showing how the Chinese of later times liked such pragmatic interpretations in every thing. Some have thought that the early Chinese ornaments on bronze lack only a human motif, notwithstanding most of them are derived from the animal world. If my view is correct, however, the human mask ornament predominated in the decoration of their bronzes. I can give here also an undoubted example of human features clearly represented on a huge drum in the collection of Baron Sumitomo.<sup>1)</sup>

The glutton pattern derived from the human mask, however, had been more and more conventionalised, until at last it lost its original features, retaining only its conspicuous eyes, nose and mouth or the outline of the face, as we usually see on a Chou vase. And sometimes it was depicted nearer to an animal form, or made more of a monstrosity, influenced by the legend of the glutton, *t'ao-t'ieh*. German scholars like MUTH and HÖRSHELHEIM studied these Chinese ornaments and traced their development and modifications.<sup>2)</sup> Muth, however, did not think the glutton was a human mask

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1) *Senoku-seisho*, or the *Chinese Bronzes in the Collection of Baron Sumitomo*, Vol. III, No. 130.

2) MUTH, *Stilprinzipien der primitiven Tier-Ornamentik bei Chinesen und Germanen*, (Leipzig, 1911); HÖRSHELHEIM, *Die Entwicklung der chinesischen Ornamentik*, (Leipzig, 1917).

developed as surface ornaments on wood or the like material as of the Pacific peoples, which afterwards were adapted to the cast bronze. The actual examples, however, do not show any primitive stage of ornamentation compared to the old bronze vases. We must therefore expect that before these patterns had established their fully schematized forms, there must have been a long period, at least some hundred years, during which they were gradually taking shape. The remoteness of Chinese history we need not doubt, though the contents of traditions are not all authentic; the estimation of the time seems quite reasonable.

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I have described the engraved ivory and bone objects as well as the white pottery regarded as having found in the Yin site, and I have stated my views as to their relation to each other and their connection with the bronzes. Since I wrote the preceeding lines, I have come across in various collections, many other specimens of the same nature obtained quite recently, and also attributed to the Yin relics. Some of them are in a condition of much more complete preservation than ours or more interesting in their

P.S. This article was prepared in 1922 to be included in the Memoirs, which would have come out sooner but for the great earthquake in 1923 and other unfavourable circumstances. Since then, more materials and information have become available for my subject, thanks to the works of such authors as Mr. Hobson, Dr. Osvald Sirén, Mr. Umehara, etc., but unfortunately I have been unable to take advantage of the interval to revise my paper. I hope to do it at the first opportunity, and in the meantime I ask my readers to refer to my latest study printed in the *Minzoku*, a bimonthly ethnological and archaeological magazine published in Tokyo, Vol. I, Part 4, 1926.

November, 1926.

K. HAMADA.

### Corrigenda & Addenda

Page 42, line 5, *for* (Pl. I, 5) *read* (Pl. I, 4)

Page 44, line 28, *for* transpered *read* transferred

Page 49, line 36, add "It seems that the original vase must be classed in a *lei* 雷 which is thought a pot with *lei-wên* pattern throughout the body."

originally. I believe that the animal face with ring, *shou-huan* 獸環 a characteristic ornament on the Han vases is also the remnant of a human mask or glutton. (Fig. 6)

But the glutton pattern on the ivory and bone objects, as is clearly to be seen on one of Mr. LO CEHN-YÜ's collection, has already reached a point of full, that is, conventionalized development, without leaving any trace of a naturalistic representation. Such an accomplished ornament makes us suppose the pre-existence of a long period of preparation before its full development, unless it had been suddenly introduced from a foreign country. But there is no data to incline us to the latter supposition.

The ornament which is most important on the Chinese bronze after the glutton, and which also appears on the ivory and bone articles is the dragon series. They are usually subdivided into the categories of *k'uei* 夔, *hui* 虯, *ch'ih* 虺, *lung* 龍 and others.<sup>1)</sup> But in most cases it is impossible to distinguish them from each other. They belong practically to one dragon motif and are only varied forms of it. This dragon pattern, too, was gradually conventionalized or schematized, until it almost lost the dragon forms. Muth classified the patterns into two categories, one which still preserves the reptile feature (Typus I), and the other which takes quite a geometric form (Typus II). The dragon ornaments on ivory and bone come in the first type of Muth, but showing little of naturalistic treatment, as in the case of the glutton. The dragon also was assimilated into the meander of *lei-wên* patterns.

The *lei-wên* 雷紋 or meander patterns are generally used for filling up the ground or space of the principal ornaments, that is to say, the glutton or dragon. The meanders, I suppose, are the patterns derived originally from the weaving or basketry of a primitive people. The space is divided into small rectangular units and each meander is applied on it like a mosaic piece. Sometimes the meander consists of a single continuous line treated like a square formed spiral. Though the *lei-wên* are generally ornaments used supplementally to the principal patterns such as the glutton and the dragon, as I have mentioned above, these latter ornaments themselves have often been assimilated into the *lei-wên* or taken the *lei-wên* forms. We see this phenomenon already on the ivory and the bone pieces. On the white pottery, however, the meander takes a more important part as pattern than as supplementary ground ornament.

In a word, the decoration on ivory and bone as well as on the pottery from the Yin site, belongs to the very same system as those upon the bronze vases of the Chou and Pre-Chou periods. They are ornaments originally

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1) The *K'uei* is said, according to an old tradition, to be a dragon-like monster with a single foot; the *hui*, a huge dragon; the *ch'ih* a dragon-like animal with yellowish skin and without horn and the *lung* is the Chinese dragon.



1. Engraved Ivory, 2-5, Engraved Bone Objects, 6-7, White Pottery.



1, 2, 4. Engraved Bones. 3. Inlaid Bronze.