I-FF-7

Jade
(Nephrite)

16.492
A-B
S.I.1038

Chinese,

~~Shang dynasty.~~ ~~Western Chou, ca. 1027-771 B.C.~~
Late Shang-Early Western Chou

Chang
Ceremonial implement of very dark grayish green jade with brownish patination on tang and edges; blade slightly concave on both sides; lateral dull edges flaring to form sharp concave edge on end; perforation in tang which is divided from blade proper by triangular projections at either edge. One side of tang chipped. Box.

Neg.Nos.
4464AE
~~S3143AE~~
3143AE

36.6 cm 7.2 cm
~~.366~~ x ~~.072~~ over all. (14-1/2" x 2-13/16")

1. Bought from Seaouke Yue of Shanghai, in New York. For price, see S.I. 1038, original Miscellaneous List, p. 230.

2. Original attribution: Chou. See further S.I. 1038, Appendix VIII. ~~Paragraph~~

3. (C.W.B., 1922). Possibly a genuine Chou object; the type at least seems ancient.

For characters ya-chang, see Giles' Dictionary, Nos. 12.797 and 400 respectively.

4. (J.E.L., 1927). Han, or earlier.

5. (A.G.W., 1945). There have been several conjectures in regard to the proper designation of this type of blade. Wu Ta-chêng 吳大徵 identifies it with the yen kuei 琰圭

mentioned in the Chou li 周禮 (see Ku yü t'u k'ao 古玉圖考, vol. I, pp. 13-14; Chou li, 冬官, 玉人, p. 34 a; E. Biot, le Tcheou-li, vol. II, p. 524). He also takes the origin of the form from the ancient pictograph ch'iang 爿 which is taken to be the equivalent of the modern 斨 which Pelliot takes to be "une sorte de hache d'armes à tranchant concave", and believes to be a development of the type ko 戈 weapon, which was a dagger-axe. (Jade archaïques de la Chine, pp. 20-22). He quite rightly rejects the Chou li term yen kuei as much too inexactly described to be identifiable. Laufer, referring to Wu Ta-chêng's mention of the ch'iang speaks of it as a "lance", which Pelliot also rejects, and I agree with him there. Salmony, (Carved jade of ancient China, pl. VI, etc.) calls this type a "sceptre" evidently classifying it under the general heading kuei 圭 which is defined in the dictionary Shuo wên 說文 as a jui yü 瑞玉, "sceptre jade". However, there is absolutely no assurance that this form should be so classified.

Since Chinese literary sources seem to be no help in this problem it seems wise to examine the object itself with a view to its mechanical or functional properties, as well as the general background of culture in which it was produced. Of the latter we really know very little, but it is safe to say that the broad basis of early Chinese civilization was agricultural, and that the religion was in general animistic. Added to this was the necessity of protecting agricultural holdings from incursions of other peoples and the extension of such holdings by means of excursions against bordering peoples. This necessitated

some sort of military establishment. We have, therefore, three essential factors on which the conduct of the community was based, agriculture, religion, and war. These, it seems fair to suppose, gave rise to the forms of implements connected with governmental and religious ceremonies, and these two things were naturally very much intermingled. Thus we have jade forms which no doubt represent both military and agricultural implements, and some of these we know have their origins in neolithic implements, as well as in metal forms. Some of them have continued in use as practical tools up to the present, with only slight changes. The implement under discussion would seem to fall into the category of agricultural implements rather than that of weapons, because as a weapon its general form would have no practical application, while as an agricultural implement it would be practical. Many of the forms of the so-called kuei resemble non-Chinese neolithic forms of axes and hoes, to which latter tool the elongated square or convex-ended forms may be related. It will be noted that the implement under discussion has a concave cutting edge ground down on one side like a chisel, that the sides are also slightly concave, and that the lateral edges flare out to the end. Obviously the mechanical purpose of the concave cutting edge is for guiding in cutting something round, such as a root; the concave sides would aid in decreasing resistance when the tool is thrust into the ground, while the flaring edges would aid in the reverse process of withdrawing the tool. How this tool was hafted is uncertain. The lateral hafting as seen in the type ko or dagger-axe was undoubtedly common in China and the hole through the tang of this implement and the triangular lateral projections suggest this. However,

it is worth noting that an analogous metal form of root cutting hoe with flaring sides and concave cutting edge occurs in Japan today. This, of course, has a regular socket haft comparable to our modern hoes or adzes. But such end-on hafting, not by socket, but by binding, appears to have occurred commonly enough in various parts of the world in neolithic times. (W.M.F. Petrie, Tools and weapons, plate XVIII; E.S. Morse, Japan day by day, vol. I, p. 307, fig. 244). Nevertheless there are features about this implement which are against the theory of end-on hafting. These are the position of the hole in the tang, the shape and position of the lateral projections, the chisel-like grinding of the concave cutting edge, and the fact that the points of that concave edge are of different lengths. Taking these things into consideration an experiment was made in hafting as shown in the accompanying figure, and the following points should be noted in connection with it: 1. The triangular shape of the lateral projections provides a chock for the binding. 2. The flat bottom edges of these projections provide a proper surface against which the handle may bear. 3. These projections are not exactly opposite to each other so that the blade when hafted is at a little less than a right angle to the handle, which is what one would expect. 4. When hafted in this way the flat side of the edge is to the left which is the proper mechanical position for it if used by a right-handed man. 5. The actual binding was done simply with leather thongs and when laced on as shown in the figure it proved to be very firm. Now the original way of doing it was probably with rawhide thongs, which when dried would make an even firmer binding. 6. The lateral projections would be too

weak to take a direct thrust, thus they are placed above the handle, and the thrust is taken by the binding, and through it distributed between three points, i.e., the two projections, and most of all by the hole in the tang. The implement thus seems to be a specialised tool that might have been used for root cutting or for the cutting of stalk crops such as millet, sorghum, bamboo shoots, etc. It seems likely that such an implement may have originated in neolithic times, since such a form in bronze would hardly have been practical owing to the brittleness of that metal. Unfortunately, no neolithic tools exactly like this one have been discovered in China, so that we cannot definitely connect the origin of this type with that period. The general form of it is not uncommon in early jades, some with very elaborate multi-toothed lateral projections which do not appear to lend themselves to any hafting at all. There are in this collection seven implements of this type, six of which have the simple triangular lateral projection and lend themselves to hafting as described above. Also they have the same chisel-like edge. The remaining one has multi-toothed projections and does not lend itself to hafting. Can it be that this non-functional characteristic was due to its use simply as a burial object, or an embellished form used non-hafted for ceremonial purposes. These implements, save for their concave cutting edges are more like known non-Chinese neolithic forms of axes, hoes, and adzes, than anything else, but a neolithic prototype in China is yet to be found. However, judging from the above functional examination of the type, and its frequent occurrence in jade, it

seems not unreasonable to suppose that we have here the descendant of an important specialized tool, be sorghum-, bamboo shoot-, or root-cutter, now risen to the lordly height of a jade ceremonial badge of office.

6. (T. Lawton, 1978) Western Chou.

7. (Julia K. Murray, 1982). (Added chang above ceremonial implement.) The ceremonial blades called chang 璋, which belong to the general category of ceremonial implements traditionally known as kuei 圭, are scepter-like objects with a long, slightly flaring shank terminating in a thin sharp blade. The typical chang has a crescent-shaped top, ground very thin and ending in fine, fragile cusps. At the opposite end of the shank, there is a perforation and a pair of asymmetrically placed projections near it. The tang extends below the pair of projections, continuing the asymmetry by ending on a slant. The Freer jades 16.162, 16.164, 16.166, 16.491, 16.492, 16.494, 16.495, and 39.55 are examples of the typical chang. (On many, the crescentic points have been broken off.) Three of these (16.491, 16.492, and 39.55) are thick and both sides exhibit a slight concavity. The others are much thinner; on 16.162, 16.166, and 16.494 one surface is slightly convex and irregular in its contour, and the other side is either flat or slightly concave; on 16.495 both sides are nearly flat.

A variation of the typical chang is represented by jades 16.165 and 16.493 in the Freer collection. These examples have multiple crenellations instead of a single pair of projections near the hole. Both are thin; 16.493 is slightly con-

vex and has an acentric ridge on one side; the other side is slightly concave.

A variant form in which there are no projections but rather a slight narrowing at the handle, and a straight rather than crescentic top, is represented by Freer jades 16.369 and 15.69. Both jades are thick, and 16.369 has a distinct V-shaped concave area near the top on both sides.

Finally, the archaistic 16.624 is a much later recreation of the chang, influenced perhaps by characteristics originally more appropriate to other members of the kuei category (i.e., tablet-shaped jades derived from stone axes, adzes, chisels, knives, etc.). The archaistic example is essentially a regular rectangle with a recessed tang; all edges are straight and parallel to those opposite.

Although there are various theories concerning the original inspiration for the chang shape, the most convincing one at present is that the chang took its shape from a metallic prototype, possibly some form of the ko halberd. The most archaic form of the chang seems to be the type with projecting crenellations, a decoration appropriate for metal. An elaborately crenellated chang was found in the early Shang palace layer at Erh-li-t'ou, Yen-shih 偃師二里頭 in Honan province (see Wen Fong, editor, The Great Bronze Age of China, New York, 1980; cat. no. 2). Other chang that have been found in recent years have come from stray finds that cannot be dated with comparable certainty, although they too appear to be Shang. (See for example the chang from Erh-li-kang, Cheng-chou 鄭州二里崗

in Honan; reproduced in Wen-wu 1966/1, p. 58. Another was found at Shih-mao, Shen-mu-hsien 神木縣石峁 in northeastern Shensi; reproduced in K'ao-ku 1977/3, p. 155, fig. 2/2.

Chang found in Kuang-han-hsien 廣漢縣 in Szechwan province in the late 1920s, provisionally dated to the Western Chou period, are described as thin. (See T'ung En-cheng, "Chi Kuang-han ch'u-t'u ti yü shih ch'i," (Jade and stone artifacts unearthed at Kuang-han), Wen-wu 1979/2, pp. 32-33, 37.) On two of the three examples published by T'ung En-cheng, the proportions are somewhat broader and simpler than those of the Erh-li-t'ou chang; and a chang from the Eastern Chou site at Hou-ma 侯馬 in Shansi is even more simplified, having nearly straight sides and no projections near the hole. Furthermore, it is described as being as thin as paper (reproduced in Wen-wu 1972/4, p. 34, fig. 6/19). T'ung En-cheng postulates that the ceremonial function of the chang had something to do with expeditionary armies. He further suggests that chang were the forerunner of tiger-tallies that were used in later times, implying that their replacement in this function led to their extinction as a type.

Chang 16.492 is very similar to one in the Art Institute of Chicago; reproduced in Archaic Jades from the Sonnenschein Collection, pl. XXVII/2 (called early Western Chou). The perforation was bored from one side of the slab.