

MOLDS FOR BRONZE CASTING FOUND IN NORTHEASTERN THAILAND

by

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Four sandstone molds have been discovered in excavation and testing at the site of Ban Nadi in northeastern Thailand. The context under which three of these molds were found indicates that they came from the first and possibly the second of several archaeological levels in which there is indisputable evidence of bronze working and from which no iron remains of any kind have been recovered or indicated.

Ban Nadi is a village of Amphur Phu Wiang, Changwat Khonkaen. By road it is 85 kilometers from Khonkaen, to the northwest, and it is located a few kilometers to the west of what will be the western shore of the reservoir backed up by the Ubolrot (Nam Pong, Pong Neeb) Dam. The archaeological site, at present referred to as Ban Nadi, was discovered in May 1964 by the Fine Arts Department—University of Hawaii Archaeological Salvage Program in Northeastern Thailand.¹ The site was tested in January-February 1965, and excavation began in December 1965, continuing to the end of April 1966.

The first mold found in the excavation (plate I) was discovered on the 25th of February 1966. It was found just at the edge of a disturbance on the east side of Square C5, lying directly on the surface of Layer 20. The two halves of the mold were lying face to face so that inside there was a mud cast of an axe. The mold is made from a grey-brown medium grained sandstone which has a slight greenish tint on the outer surface and the inner flat face. The inner surface where the cast was formed is grey to black. There are several small bright green stains on the outer surface which are thought to be from corroded bronze. The cross section of the two molds together, taken perpendicular to the length of the mold, is oval. The total length of the two halves vary from 106.7 to 109.1 mm. Thanks to members of

1 See : Solheim II, W.G., Gorman, C.F., 'Archaeological Salvage Program; North-eastern Thailand—First Season', *Journal of the Siam Society* vol 54 pt 2, 1956 pp. 176-77 and plate XXVq-u.

the second Thai-Danish Archaeological Expedition in Thailand, a plaster cast was made using this mold. The maximum width of the cast, at the angles of the bit, is 66.5 mm.

The second mold (plate II) was discovered on the 28th of February in a complex disturbance not far from where the first mold was found. It appeared to have come from Layer 20, though the nature of the disturbance in which it was found makes this uncertain. The two halves of this mold were also found face to face. This mold was made from the same brownish-grey sandstone as the first, without the greenish tint of the first, but with small bright green stains on its outer surface like the first. The maximum length of the two halves of the mold are 126.6 and 130.5 mm. The maximum width at the top of the mold is 152.3 mm. A plaster cast was made using this mold as well but the blade of the object cast was so thin that it broke as it was being removed from the mold. The maximum length of the sharp edge of this object is 135.4 mm.

A third mold, apparently made from the same sandstone, was found in the same square in March. This mold was similar to the first mold except that the surface of the cast is badly eroded.

In late June 1966, while preparing bag lists of the collections to be sent back to the University of Hawaii for study and exhibition, a fourth mold was discovered from Ban Nadi. This had been found during the second season's testing of this site and had not been noticed by the members of the third season's expedition. This mold (plate III) had been found in one of the five test pits excavated at various locations on the mound of Ban Nadi. The test pit in which this mold was found was a little over one meter to the north of Square C5 where the other three molds were found. There was not time to make measurements and a description of this mold and to look up in the second season's notes the circumstances of its discovery. From the very brief examination that was made of it, it could be seen that it was made from a different kind of sandstone than the other three and that it was of a different style from the others.

The first two molds here presented have been left with the National Museum in Bangkok while the second two are being taken to Hawaii for further study and will be returned to the National Museum after the study has been completed.

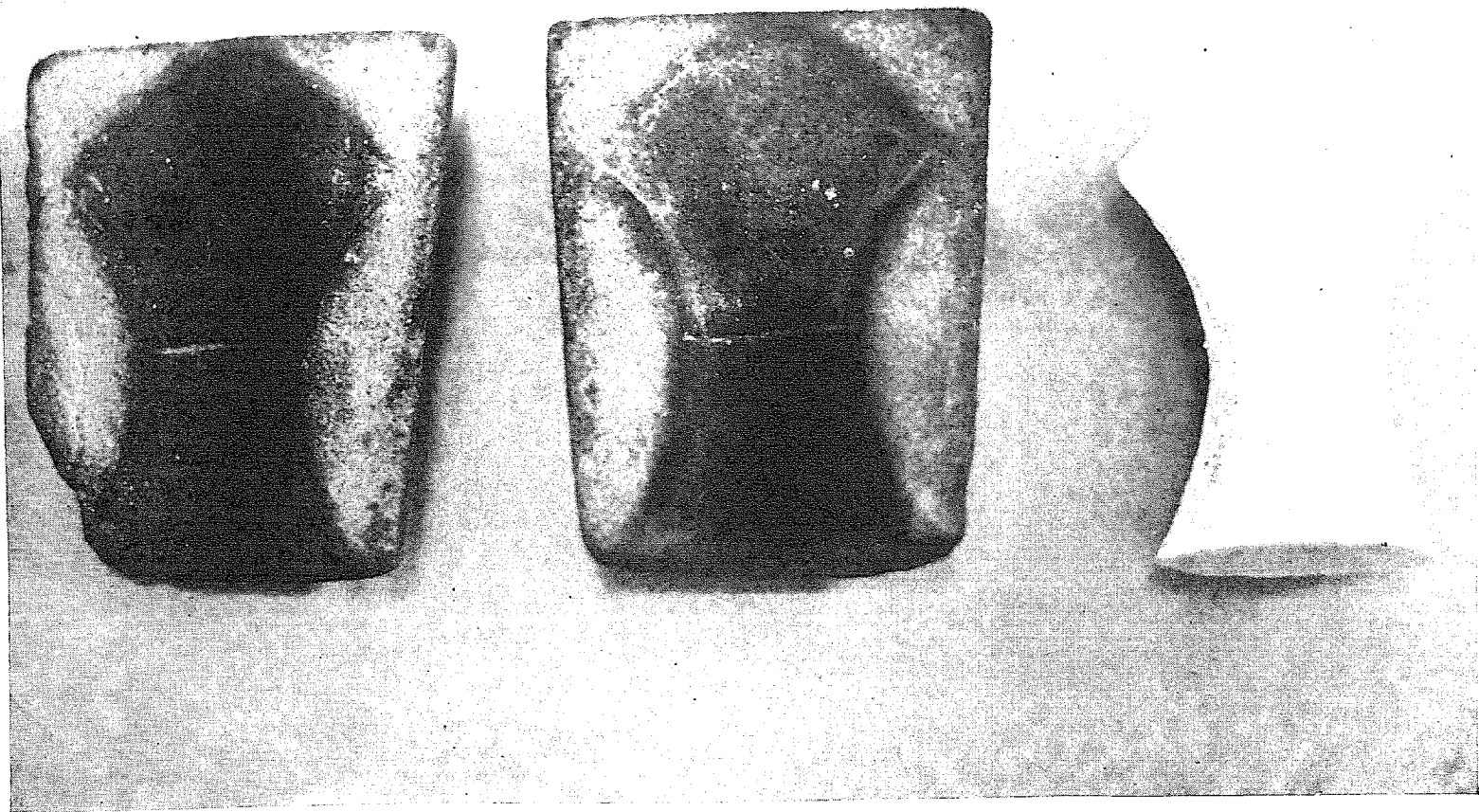


Plate I The casting faces of a sandstone mold found in excavation at Ban Nadi, Khonkaen (Northeastern Thailand) and a plaster cast made from this mold.



Plate II The casting face of one half and the outer face of the other half of a sandstone mold found in excavation at Ban Nadi. The casting face of the second half is almost exactly the same as that of the first half except that the curved lines roughly parallel with the sides of the blade are not present.

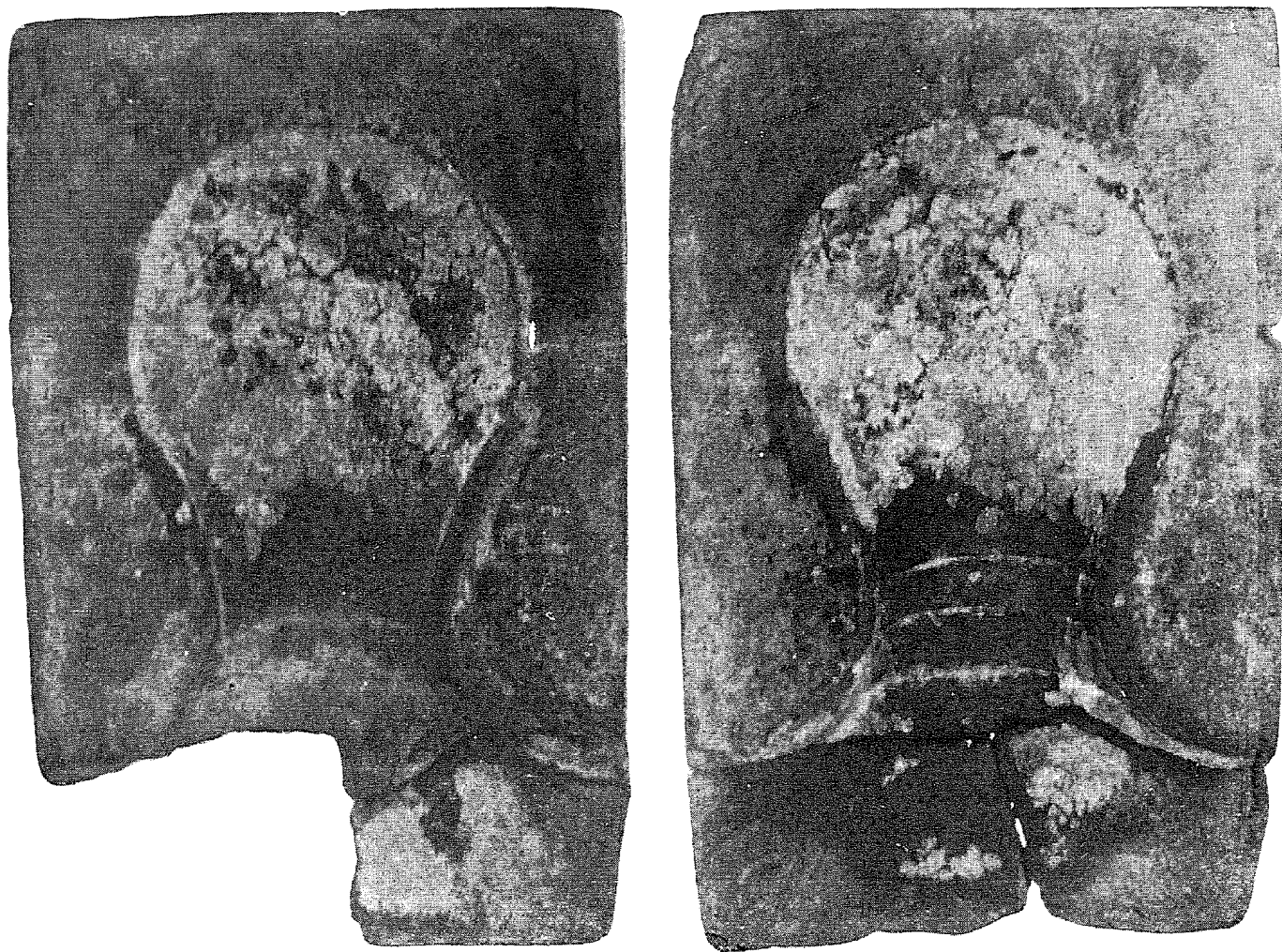


Plate III The casting faces of a sandstone mold found in test excavation in 1965 at Ban Nadi.

