

Preliminary Report of the Excavation of the Veal Svay Kiln in Cambodia: Feb 2013- Dec 2013

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Introduction

The Veal Svay kiln site is one of the newly discovered ancient kilns located to the east of the Angkor monuments. Although it has been known since the end of the 19th century that Khmer stoneware kilns existed in Cambodia, all of the kilns identified and excavated in the Angkor area were found to have produced unglazed stoneware or ash-glazed stoneware vessels only. Until quite recently, the kilns responsible for the distinctive Khmer-style brown-glazed stoneware, which is commonly unearthed from Angkorian monuments, were known only around the present Thai-Cambodian border (Buriram and Surin Provinces in Thailand and Banteay Meanchey Province in Cambodia). This led to the hypothesis that Khmer brown-glazed stoneware was brought to Angkor from present-day northeast Thailand (Brown 1988: 55).

But the situation has changed in the past few years. New brown-glazed stoneware kilns along the royal road from Angkor to Preah Khan of Kampong Svay were found by Mitch Hendrickson (Hendrickson 2008). Following this discovery, the Nara National Research Institute for Cultural Properties (NRICP, Japan) made explorations in this area in 2008 and discovered a brown-glazed stoneware kiln designated the Veal Svay kiln, located in along the royal road.

A joint research project was organized by APSARA National Authority (Cambodia), NRICP and Waseda University (Japan), and a full-scale excavation has been conducted since February 2013. This paper will report briefly on the excavation to date.

1. Location of the site

To date, several kiln sites have been identified in Siem Reap Province, including Tani, Bankaong, Khnar Po, Sar Sei, and Anlong Thom. The kilns in Siem Reap Province all seem to be located in the flatlands east of the Angkor sites, with the exception of Anlong Thom on Phnom Kulen (Fig.1). The distribution pattern of the kilns seems to correspond to the develop-

ment of this area in the Angkor period (Tabata 2008a,b).

The Veal Svay kiln is part of a brown-glazed stoneware kiln group located in Beng Mealea commune, Banteay Srei district, about 15km to the east of Beng Mealea temple (Fig.2). The kiln lies at 13° 26'2.50" north latitude and 104° 22'9.20" east longitude. It is nearly 300m south of the ancient road from Beng Mealea to Preah Khan of Kampong Svay (Fig.3). Surrounding the kilns are the rice paddies of Village #103, Beng Mealea commune (Fig.4,5). Another kiln group, named Veal Trac Chour, is located about 500m south of the Veal Svay kiln. This kiln group consists of at least nine mounds, five of them formerly located on a long dike measuring about 100m in a north-south direction, and four others situated southeast of the dike. Unfortunately, the five mounds on the dike were already destroyed by land development. Located approximately 25km west-northwest of the Veal Svay kiln, the Torp Chey kiln was excavated by APSARA and National University of Singapore in late 2011 and early 2012. The Chong Samrong kiln, excavated by APSARA and the Smithsonian Institution in February-March 2013, is located 2.4km east of Veal Svay (Hein et.al. 2013). This quite small area along the royal road is dotted with significant numbers of kiln groups, and this fact suggests that the area was a large

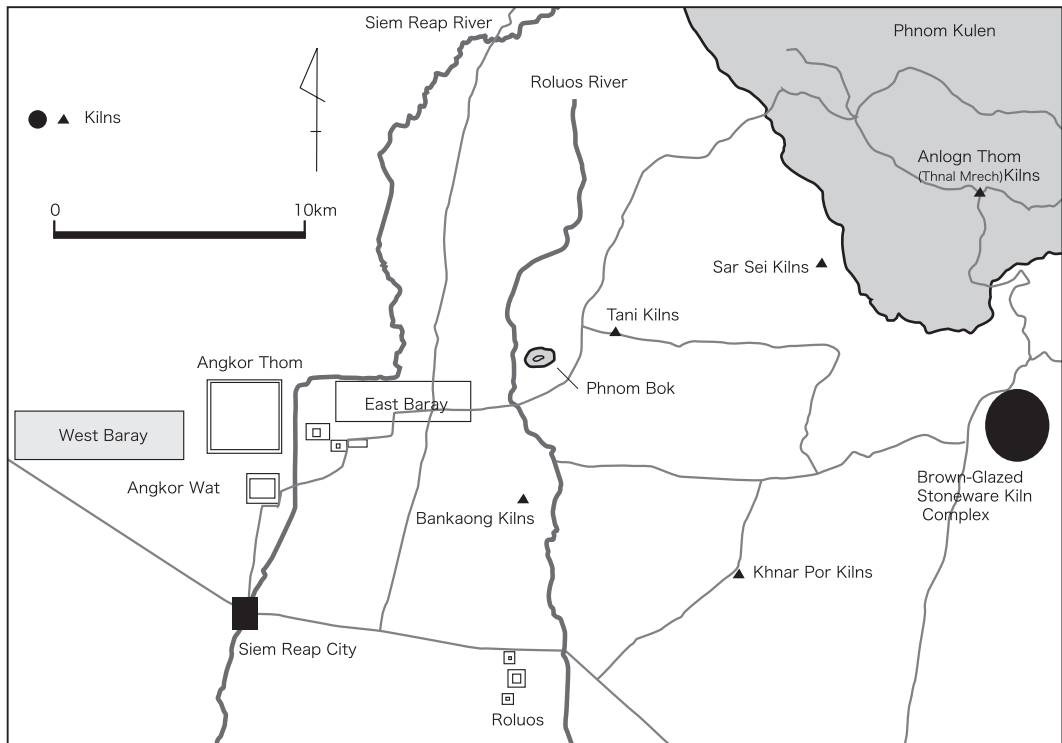


Fig. 1 Representative Khmer Stoneware Kilns in Angkor Area

production center of brown-glazed stoneware in the Angkor period.

2. Excavation

The Veal Svay kiln site consists of two earthen mounds constituting possible kiln bodies. Of these, the mound located to the west, designated kiln #1, was selected as the research area

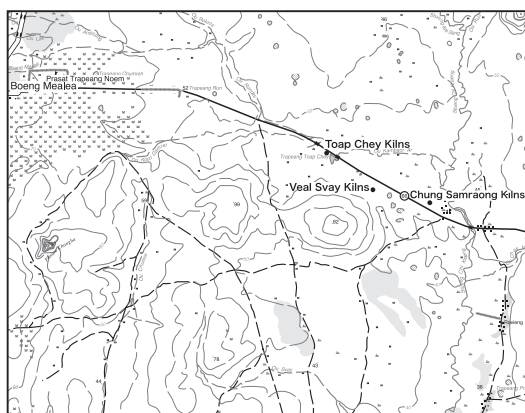


Fig. 2 Location of the Veal Svay Kiln

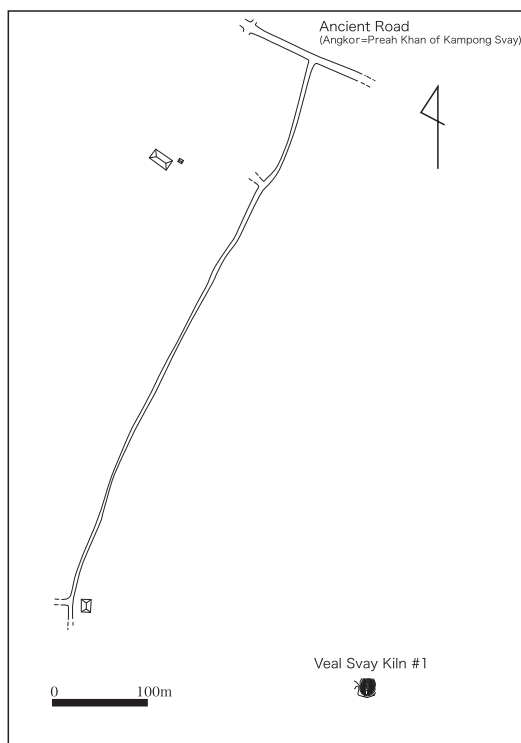


Fig. 3 Veal Svay Kiln and Ancient Road to Phreah Khan of Kampon Svay



Fig. 4 Veal Svay and Its Surrounding



Fig. 5 Veal Svay Kiln

for its accessibility.

The first fieldwork was carried out February 6 to 11, 2013, for topographical map making.

The second investigation was scheduled for June 24 to 29, 2013. A test pit of 3.5mx6m on kiln #1 confirmed the ware chamber of the kiln body.



Fig. 6 Reconnaissance Survey



Fig. 7 Topographic Survey



Fig. 8 Kiln Mound (Kiln #1)



Fig. 9 Test Pit (Kiln Body)



Fig. 10 Excavation



Fig. 11 Test Pit (Mound)

The third session was carried out December 23 to 31, 2013. This session aimed to identify the stratigraphical structure of the mound and its surroundings.

3. Structure of the kiln

As a result of the reconnaissance survey, kiln#1 was presumed to be a single-chamber kiln with a long rectangular plan (Fig.12). Although only the ware chamber has been confirmed and the other portions have not yet been excavated, the result of the excavation showed that our prediction was correct (Fig.13,14,15). In common with other excavated Khmer stoneware kilns in both Cambodia and Thailand, the Veal Svay kiln was a single-chamber kiln constructed with unfired clay. The kiln consists of a single rectangular-shaped ware chamber and, by inference, a firebox (north-northeast side) and an exhaust port or chimney (south-southwest side). The arch did not survive. Judging from the observation of stratigraphy in the test pit on the edge of the mound, kiln #1 was constructed on an artificial mound made of silty clay and blocks of burnt clay but the origins of the blocks is unclear (Fig. 11).

In the ware chamber, clay kiln walls approximately 20cm in height remained on the east and west sides of the chamber. The floor was made of clay and sloped slightly toward the firebox. At least two traces of columns were identified along the central axis; their function was to support the ceiling. The maximum width of the ware chamber was nearly 1.8 meters. Finger traces and indentations of blades of grass were visible on the surfaces of the kiln walls. So far the investigations have not identified the presence of lateral trenches ("secondary fire trenches") in the ware chamber floor like those found in the Torp Chey and Chong Samrong kilns.

In contrast to other kilns in the Angkor region, including Tani, Anlong Thom, and Sar Sei, no older floor was discovered under the floor of the ware chamber. This means that the kiln was not reconstructed on older kilns. Furthermore, only part of the clay floor was hardened or sintered. It is possible to say that the period of operation of this kiln was not so long.

4. Artifacts

So far, a total of 1856 artifacts has been unearthed mainly from the test pits around the kiln mound. The work of identification and classification is ongoing. The products of the kiln are roughly classified into two groups. Most of the excavated remains are large-sized brown glazed jar or vats, and a few small-sized wares with uncommon shapes are also seen (Fig.16-4,5,6, Fig.20,21,22). No roof tiles such as the ash-glazed stoneware kilns generally produced have

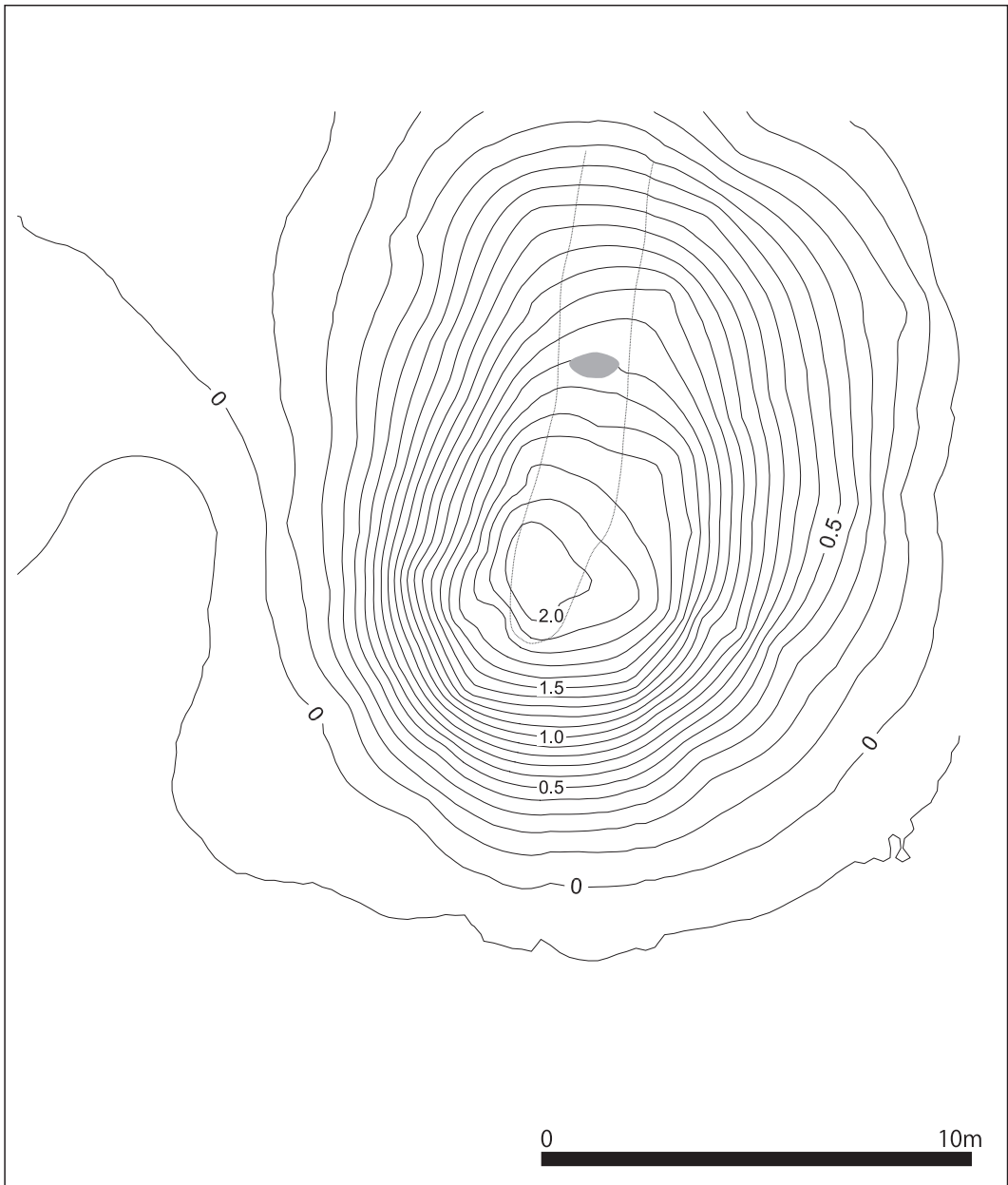


Fig. 12 Topographic Chart of the Kiln Mound

been identified.

The large-sized products could be classified into several sub-types, but the basic form is typical of Khmer brown-glazed stoneware. Among them, a jar with applied circle and water-drop motif is worthy of mention (Fig.16-5, Fig.21). Clay shapes in the form of a tiny circle and

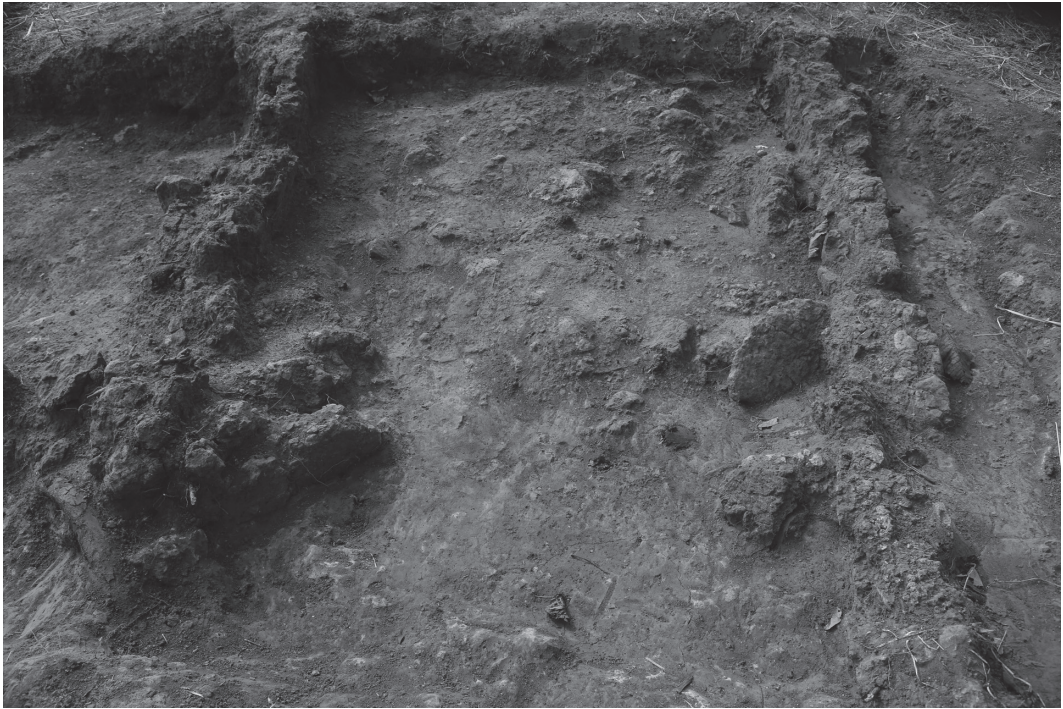


Fig. 13 Ware Chamber

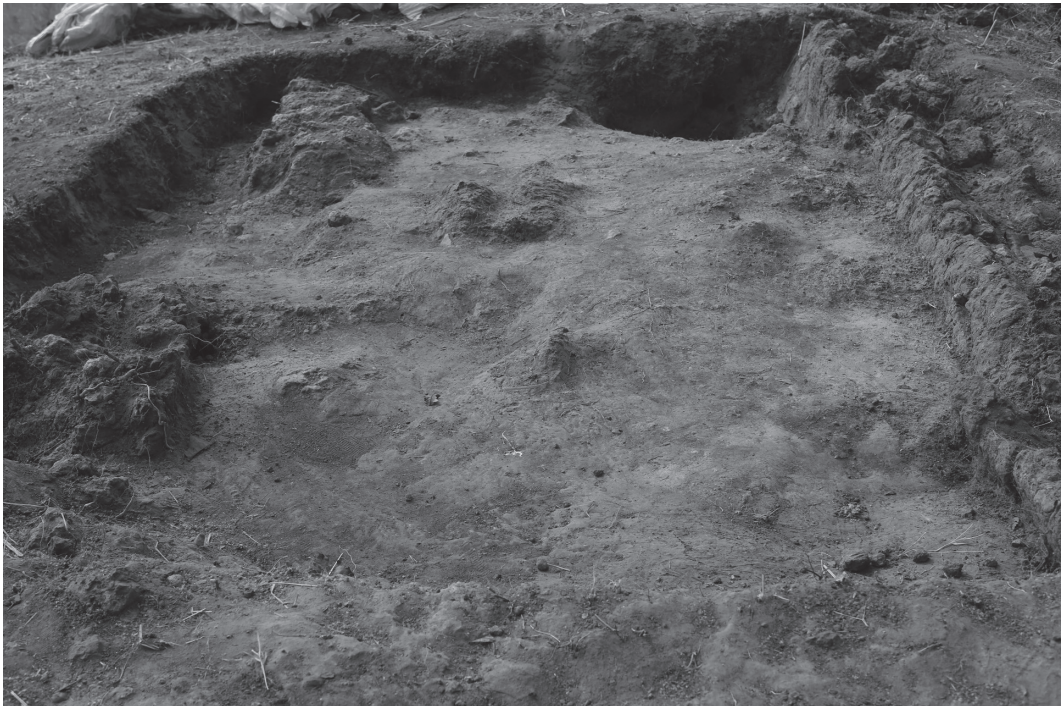


Fig. 14 Ware Chamber

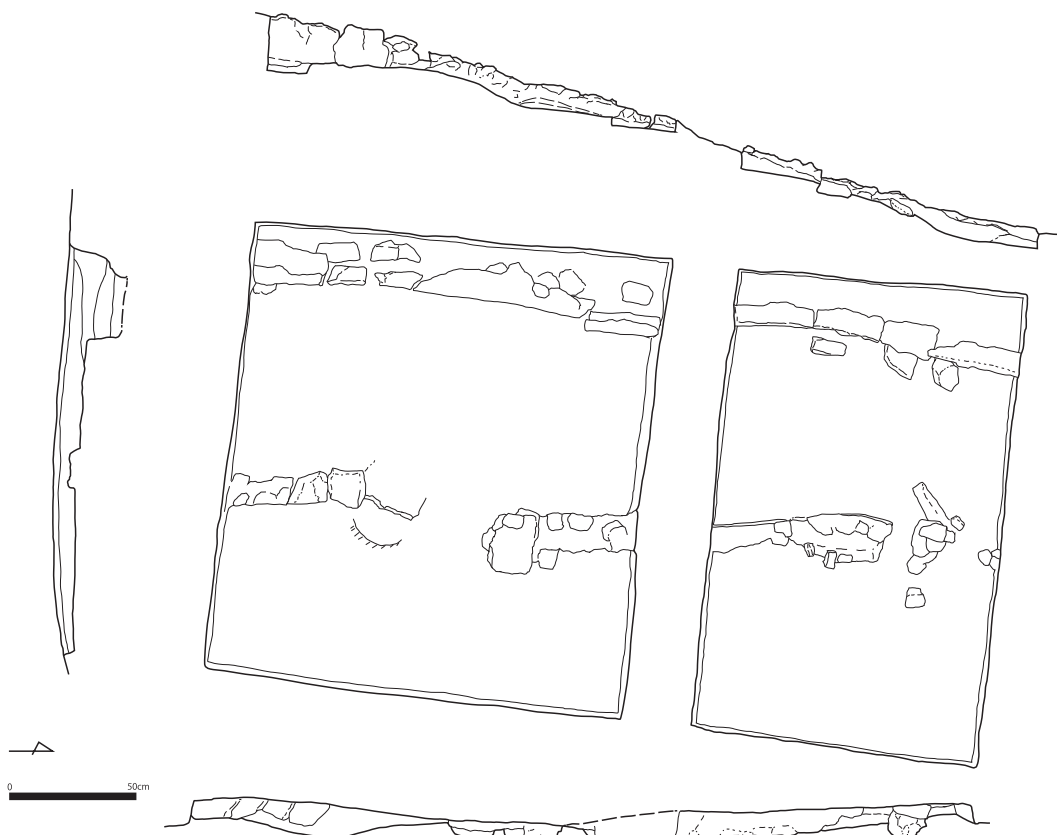


Fig. 15 Plan of Ware Chamber

a waterdrop were adhered to the shoulder of the jar. There are very few excavated examples of this type.

Unlike the large-sized products, the small-sized products have unique shapes. Two zoomorphic vessels have been identified. Both of them are brown-glazed. One is a torso of a quadruped, but its head is chipped (Fig.16-3, Fig.19). The other one is considered to be an elephant or other large quadruped. It was known that kilns in present-day Thailand produced zoomorphic brown-glazed ware, but this find confirms production of zoomorphic brown-glazed stoneware in the Angkor area. In addition, a spindle-whorl-shaped object was also excavated (Fig.16-1, Fig.17). A similar artifact was discovered in the Chong Samrong kiln in the same the neighborhood, but its function is still unknown.

5. Remarks

This investigation is part of the pioneering research on Khmer brown-glazed kilns in the

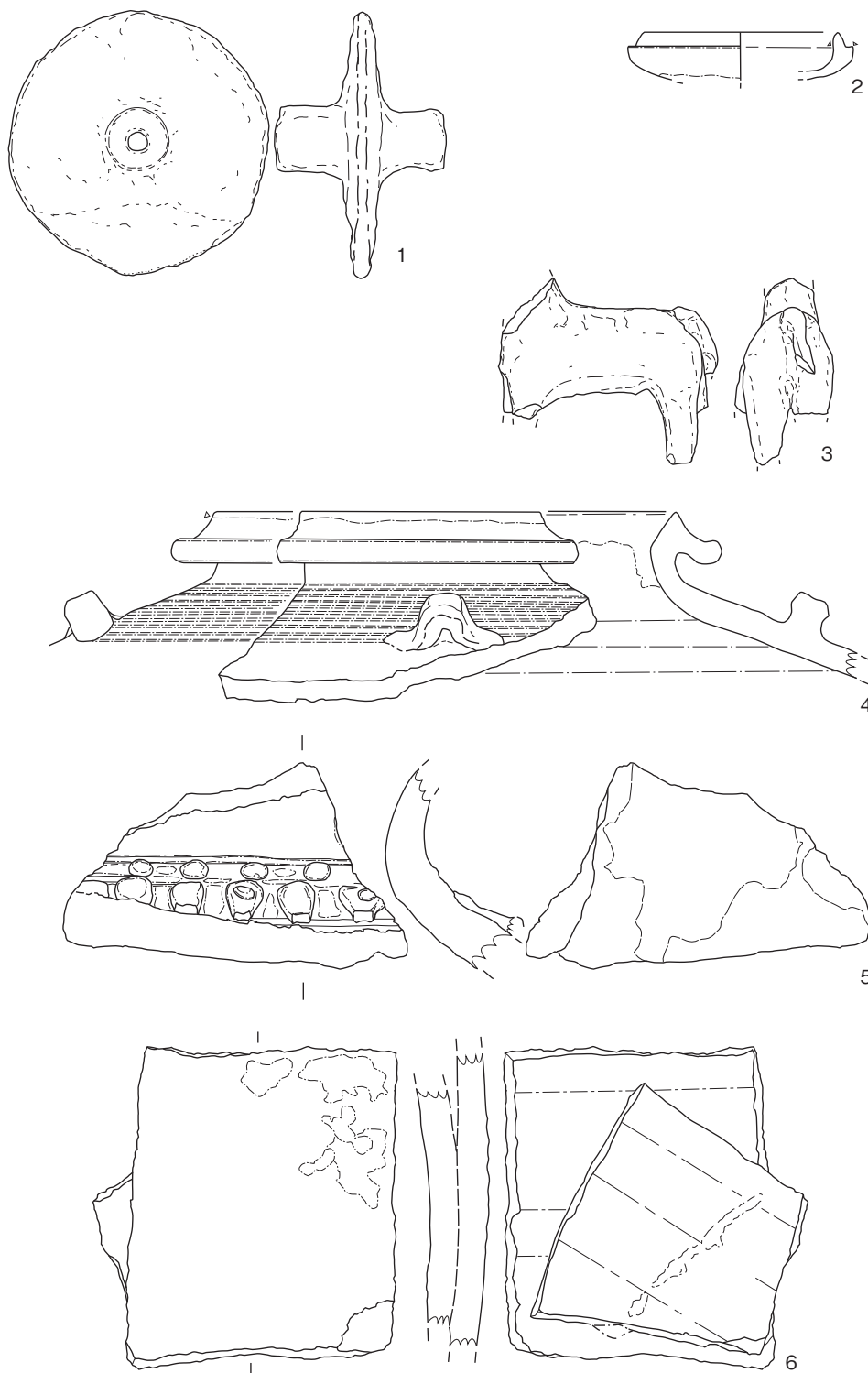


Fig. 16 Artifacts S=1/2

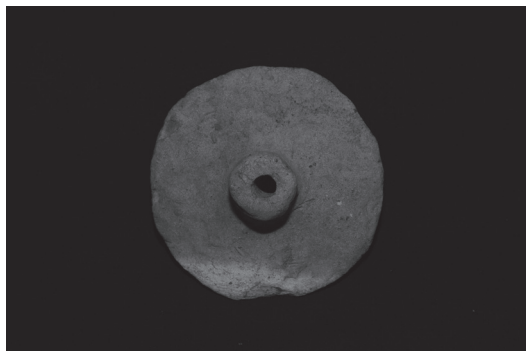


Fig. 17 Spindle-shaped Object

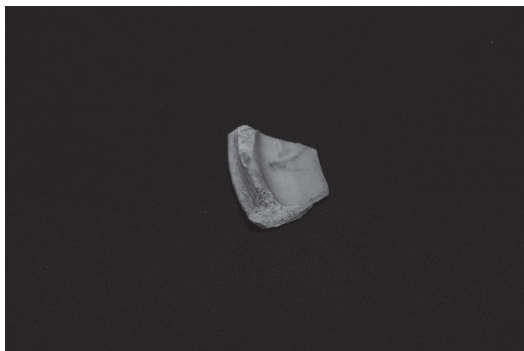


Fig. 18 Chinese Celadon



Fig. 19 Zoomorphic Ware

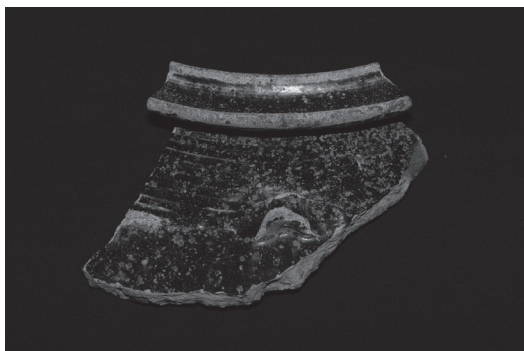


Fig. 20 Brown-glazed Jar

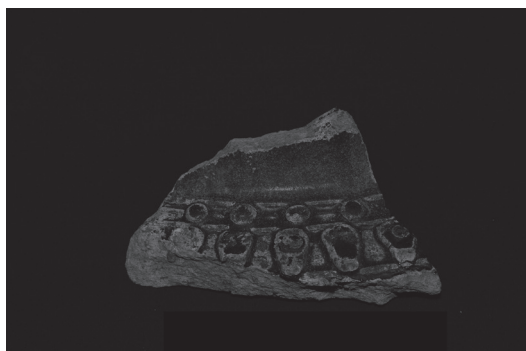


Fig. 21 Brown-glazed Jar

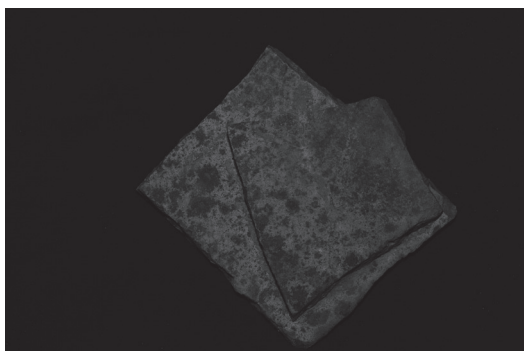


Fig. 22 Brown-glazed Jar

Angkor area. At the Veal Svay kiln, a tendency to specialize in large-sized ware and special small products such as zoomorphic ware became clear from the excavation. In addition, whereas the Khmer ash-glazed stoneware kilns are proven to have produced roof tiles and other wares simultaneously (Tabata 2008), the Veal Svay kiln shows no signs of having produced roof tiles. Our ongoing investigation of this kiln will take note of the relationship between brown-glazed stoneware production and roof tile production.

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