Appendix 2

The Man Bac Burial Pottery – An Illustrated Corpus of the Whole Vessels from the Burials in Cultural Unit III.

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Although the archaeology of Man Bac will be dealt with in separate publications, the opportunity is taken here to illustrate the complete vessels excavated in association with the burials recovered in 2005 and 2007. The vessel photographs were taken by Nguyen Kim Dung in the Institute of Archaeology in Hanoi and compiled into Adobe Illustrator figures by Peter Bellwood. The vessel measurements were recorded by Peter Bellwood and Watanabe Shinya. They are numbered as in the previous burial descriptions by Damien Huffer and Trinh Hoang Hiep. Only the vessels from the burials in cultural unit III are illustrated here.

Microscopic analysis of soil samples from grave fills indicates that all burial pits in cultural unit III were filled and sealed before the accumulation of the cultural unit II above. The grave fills contain no charcoal or other evidence of human habitation activity, and are basically sterile. Hence, the unit III burials were not dug down from unit II above, but predate it. The sterility of the grave fills also suggests that the seven radiocarbon dates from the site, all on charcoal and listed in Table 1, postdate the burials and their contained pottery offerings. The burial assemblage, therefore, should date to before 1900 BC.

Table 1. Radiocarbon dates from Man Bac, with calibrated ages.

<table>
<thead>
<tr>
<th>Lab. number</th>
<th>Provenance</th>
<th>Material</th>
<th>δ¹³C (‰)</th>
<th>C14 Age BP</th>
<th>Calibrated age BC (OxCal 4.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*IAAA-102758</td>
<td>2007 Level 7</td>
<td>charcoal</td>
<td>-25.88 ± 0.45</td>
<td>3370 ± 30</td>
<td>1745-1538 (95.4%)</td>
</tr>
<tr>
<td>IAAA-102759</td>
<td>2007 Level 11</td>
<td>charcoal</td>
<td>-23.93 ± 0.43</td>
<td>3380 ± 30</td>
<td>1751-1608 (94.3%)</td>
</tr>
<tr>
<td>IAAA-102760</td>
<td>2007 Level 14</td>
<td>charcoal</td>
<td>-27.35 ± 0.57</td>
<td>3490 ± 30</td>
<td>1895-1700 (95.4%)</td>
</tr>
<tr>
<td>IAAA-102761</td>
<td>2007 Level 17</td>
<td>charcoal</td>
<td>-24.87 ± 0.55</td>
<td>3560 ± 30</td>
<td>2016-1775 (95.4%)</td>
</tr>
<tr>
<td>**AA-69831</td>
<td>2005 Level 18</td>
<td>charcoal</td>
<td>-26.0</td>
<td>3393 ± 36</td>
<td>1775-1608 (92.6%)</td>
</tr>
<tr>
<td>AA-69832</td>
<td>2005 Level 18</td>
<td>charcoal</td>
<td>-27.7</td>
<td>3341 ± 38</td>
<td>1737-1524 (95.4%)</td>
</tr>
<tr>
<td>*IAAA-102762</td>
<td>2007 Level 19</td>
<td>charcoal</td>
<td>-27.27 ± 0.54</td>
<td>3570 ± 30</td>
<td>1984-1876 (80.6%)</td>
</tr>
</tbody>
</table>

*I Institute of Accelerator Analysis Ltd, Kanagawa, Japan (provided by Hirofumi Matsumura)
The burial vessels from Man Bac consist mostly of small globular pots with everted rims, impressed with grooves made in one or two directions - they are only rarely cord-marked. Usually, it is quite difficult to decide whether the grooves were beaten on with a wooden paddle carved with parallel lines, or made by dragging a comb of some kind across the surface. Decoration of this type is referred to below as “ribbed”, either parallel or crossed (i.e. made in one or two directions). None of the impression or combing convincingly resembles basketry, but one vessel has small square impressions that resemble a net, applied in relief (2005 M19).

Most of the pedestalled dishes and two large footed beakers with flaring sides have combed and stamped decoration of the style referred to in northern Vietnam as “Phung Nguyen” (e.g. Pham 2004: Fig. 8.11), represented at perhaps its highest levels of skill in the site of Xom Ren, about 100 km upstream from Hanoi in Phu Tho Province in the Red River valley (Han 2009). Most of the Man Bac vessels, including the globular pots, have tempers of laterite sand or calcareous sand (probably derived from shells and limestone) that are presumed to be of local origin, but several of the “Phung Nguyen” vessels have much finer tempers that suggest exotic origins, possibly from further inland in the Red River valley. Such observations will need to be confirmed by further ceramic research.

In terms of regional comparisons, the Man Bac unit III burial pottery appears to be most closely related to contemporary assemblages to the north, in Guangxi and Guangdong, rather than to more southerly assemblages from the lower Mekong valley or northeastern Thailand (Carmen Sarjeant is currently examining these regional relationships for her PhD at ANU). For instance, the globular vessels with everted rims, the presences of ribbed/combed and cord marked decoration, the uses of incision and combing to delineate curvilinear motifs, and the absence of complex geometrically stamped patterns, all combine to align the Man Bac pottery closely with that from Assemblage F in the site of Sham Wan, Lamma Island, Hong Kong (Tsui and Meacham 1978:127-33). The Sham Wan C14 dates suggest a date in the third millennium BC for Assemblage F, with the more complex geometrically stamped wares that belong to the later Assemblage C dating to circa 2000 BC or later. Man Bac shows little affinity with Sham Wan Assemblage C, and lacks the complex forms of geometric stamping such as lozenges, herring-bone patterns, circles and rectangular meanders that characterise it.

However, it should also be noted that the style of incised and stamped decoration that is referred to as Phung Nguyen in northern Vietnam has parallels across very large areas of Mainland Southeast Asia and southern China (Rispoli 2008), including the lower Mekong valley and northeastern Thailand. In this regard, population origins and the movements of ceramic style features need not always have been in unison. Research is ongoing on these issues.

In the photographs that follow, each vessel is shown sufficiently large for any surface decoration or other details to be visible. This means that the vessels are not illustrated to a single scale. Heights and mouth (rim) diameters are indicated by the letters H and D, followed by the dimensions in centimetres (in 0.5cm intervals). Where red slipping is clearly visible it is mentioned, and many vessels have faint traces of red slip, suggesting that the original proportion of this type of surface decoration was much higher than is visible now.
LITERATURE CITED

Han Van Khan 2009. Xom Ren. Hanoi: Nha Xuat Ban Dai Hoc Quoc Gia Ha Noi. (in Vietnamese)


Man Bac pottery from M1-M18 2005 season.
All illustrated vessels are from the 2005 excavation.


2005 M3 (1). Globular pot with everted rim, body cord marked vertically, red-slipped inside and outside rim, H 8.5, D 12.

2005 M3 (2). Globular pot with everted rim, body cord marked vertically, red-slipped inside and outside rim, H 6.5, D 10.5.


2005 M9 (2). Globular pot with everted rim, body decorated with crossed ribbing. H 11, D 11.5.


2005 M10 (2). Globular pot with everted and notched rim, body decorated with parallel ribbing, traces of red slip. H 10.5, D 14. (very similar to the previous one – made by the same person?)


2005 M10 (4). Ring foot with central hole.


2005 M11 (2). Untanged stone adze, trapezoidal cross-section, rock unidentified, 5.3 cm long, 4.4 wide at bevel.


2005 M14. Globular pot with everted red-slipped rim, no decoration, but large flat paddle impressions are visible on the body exterior. H 10, D 12.5.


2005 M17. Three flat-based beakers (one fragmentary) with flaring bodies and lips, decorated with horizontal incised zones filled with punctuations and linear impressions that could be from the edge of a bivalve shell (or some form of multi-toothed stamping tool). (1) H 7, D 11; (2) H ?, D 12.5; (3) H 7, D 11. All have local laterite tempers. See M28 and 32 below for parallels.

Man Bac pottery from M19-M28 2005 season.
All illustrated vessels are from the 2005 excavation.


2005 M24 (1). Globular pot with everted and notched rim, body decorated with coarse vertical cord marking. H 7, D 9.5.

2005 M24 (2). Footed dish with notched lip but no visible body decoration. H not measured, D 14.5.

2005 M25. Footed dish with a perforation in the pedestal (photo angled to show decoration). The outside of the dish was first decorated with finely combed lines crossing at an acute vertical angle, overlain by three horizontal burnished bands. Simple curvilinear burnishing occupies the central delineated field. H not measured, D 15 approx.


2005 M28 (1). Unique barrel-shaped vessel. This has a low ring foot, a high everted rim, and a barrel shaped body decorated with incised zones infilled with the same kind of stamping as the flaring cups from M17 and M28 (above). H 11.


2005 M28 (3). 3 beakers with flaring sides and low ring feet, one fragmentary. These have horizontal zones of decoration formed by incised lines filled with punctations and linear impressions that could be from the edge of a bivalve shell (or some form of multi-toothed stamping tool). In this regard they are very similar to the three beakers in M17, although the latter do not have ring feet. It is very likely that all were made in the same workshop, together with the barrel-shaped vessel described above. Each vessel is about 11 cm high.

2005 M28 (4). Globular pot with everted rim. Very faint traces of ribbing are still visible, but presumably erased before firing. H 11.5, D 12. The many tiny surface holes were perhaps formed by the falling out of laterite sand temper grains.
Man Bac pottery from M29-M35 2005 season.
All illustrated vessels are from the 2005 excavation.

2005 M29. This burial produced five very similar globular everted rimmed vessels with crossed ribbing, one with a notched lip and animal bone contents. (1) H 15.5, D 13.5; (2) H 9, D 10.5; (3) H 12, D 13; (4) with animal bones, H 7.5, D 12.5; (5) H 10, D 10.

2005 M29 (6). T-sectioned green nephrite bracelet, broken in antiquity and mended by the drilling of at least one hole to take a lashing of some kind. External diameter 9.7 (the scale is specific to this item, not to the pots).


2005 M31 (1,2). Two globular pot with everted rims, decorated with crossed ribbing. (1) has a definitely red-slipped interior, visible in the photo. (1) H 11.5, D 13; (2) H 12, D 18.

2005 M31 (3). Open pedestalled dish with carinated profile, decorated below the carination and on the pedestal with fine cord marking. H not measured, D 17.5.

2005 M32 (1). Three footed beakers with flaring sides and complex contours (one carinated), with fragments of a fourth. Decoration is all incised, in various simple horizontal and vertical combinations, often with three or four parallel lines. There is no stamped decoration, and the laterite sand tempers suggest local manufacture. These beakers are similar in concept to those in M17 and M28, but differ in the details. The two larger ones are 12.5 cm high and 9 cm in mouth diameter.

2005 M32 (2). Also shown is a polished and untanged rectangular-sectioned stone adze.


Man Bac pottery from H1 2007 season.
All illustrated vessels are from the 2007 excavation, H1 (trench 1).


2007 H1 M5. A unique pedestalled dish decorated with horizontal incised zones that contain transverse bands of incision or punctate stamping. It is unclear which is the pedestal and which is the dish, but it is interesting that the photo of this burial in Appendix 1 shows the carinated smaller dish uppermost, with the larger rounded one beneath as a pedestal. H 13, D (at upper rim) 20.5.


2007 H1 M9 (1). Pedestalled pot with carinated upper profile and fine combing in two directions on the body. H 10.5, D 16.


2007 H1 M10. 6 vessels in total, all shown in the composite photograph, but only four are shown individually. (1) is a tall shouldered pot with everted rim and low ring foot, cross-ribbed, with fine bands of vertical incision on the shoulder. H 23, D 18.

2007 H1 M10 (2). Four unfooted globular pots with everted rims have cross-ribbed decoration in three cases, and parallel and fairly horizontal ribbing in one. All are shown in the composite photograph, and the largest (D 17) and the smallest (H 13, D 15) are shown individually as 10(2).

2007 H1 M10 (3). Presumed pedestal base with the bottom of a narrow diameter cylindrical pedestal still attached. D 21. The convex surface of this pedestal base is decorated with finely combed cross-hatching, over which circular and curvilinear bands of burnishing are delineated by parallel incision. The fine fabric and decoration of this piece suggests importation from a Phung Nguyen source, perhaps further inland from Man Bac.
Man Bac pottery from M2-M18 H2 2007 season.
All illustrated vessels are from the 2007 excavation, H2 (trench 2).

2007 H2 M2. 4 vessels, shown together in one composite photograph. Three are globular pots with everted rims, two cross-ribbed and one horizontally parallel ribbed. The other vessel (1) is a tall footed jar, decorated with cross ribbing (H 43, D 20).

2007 H2 M5. 2 vessels; (1) is a globular pot with cross-ribbed decoration (H 20, D 19), (2) is a very small undecorated cup (H 6, D 10).


2007 H2 M7 (1,2). 2 globular pots with everted rims. (1) is cross-ribbed, and (2) is vertically cord marked.

2007 H2 M8. Sherd of a possible pedestal or bowl rim decorated with underlying crossed combing beneath horizontal bands and curvilinear motifs formed by smoothing between parallel incised lines. The decoration is very similar to that on the pedestal base in 2007 H1 M10.


2007 H2 M10 (1). Footed beaker-shaped vessel with flaring upper contours. The decoration comprises zones delineated by parallel incision and filled by parallel lines of rectangular “dentate” stamping. The fine temper suggests that this vessel is an import. H 17.5, D 22.5.

2007 H2 M10 (2). Globular pot with everted rim and notched lip, decorated with what appears to be cord marking applied in two directions. This vessel is unique at Man Bac, both in shape and decoration, and may be an import. H 16, D 14.


Man Bac pottery from M19-M27 H2 2007 season.
All illustrated vessels are from the 2007 excavation, H2 (trench 2).

2007 H2 M19 (1-6). 6 vessels, shown as a group in the composite photograph in the previous figure. Three (1, 2 and 3) are globular pots with everted rims and cross ribbing, and (4) has a notched lip and sloping parallel ribbing.

2007 H2 M19 (5). Globular pot with an unusual inverted rim on a ring foot, with vertical cord marked decoration on the body, and finely combed lines between lines of incision and punctation on the shoulder. H 13.5, D 9.

2007 H2 M19 (6). Footed beaker-shaped vessel with flaring upper contours, like that in H2 M10 (above). But in this case the filling of the horizontal and curvilinear decorative zones is not dentate stamping, but finely crossed incision. The lenticular motifs around the upper part of the pot are filled with lines of punctation. This also appears to be an imported vessel, with fine temper. H 10.5, D 10.5.


Man Bac pottery from M30-M32 H2 2007 season.
All illustrated vessels are from the 2007 excavation, H2 (trench 2).

**2007 H2 M30 (1, 2).** 2 globular pots with everted rims and cross-ribbed decoration.  
M30(1): H 11, D 18.

**2007 H2 M30 (3).** Dish, once on a pedestal, with very fine Phung Nguyen decoration comprising burnished and incised circular and curvilinear motifs over extremely fine background cord marking. The fabric suggests that this is an import. D 21.

**2007 H2 M30 (4).** Pedestalled dish with a perforation at the base of the pedestal. The pedestal has incised zonal decoration infilled with regular punctation, whereas the infilling on the dish is of cross-combed lines. H 10, D 16.5.

**2007 H2 M30 (5).** Tall footed jar with everted rim and very regular cross-ribbed decoration, rather lozenge-like in shape. H 42.5, D 21.5.

**2007 H2 M32.** This burial, the richest excavated so far at Man Bac, had 8 vessels. Three (1-3) are globular pots with everted rims and cross-ribbed decoration.  

**2007 H2 M32 (4).** Another tall footed jar has similar cross-ribbed decoration to the very similar vessel from burial M30 (item 5) above. Perhaps both came from the same workshop, together with that from 2007 M2. H 25.5, D 13.

**2007 H2 M32 (5).** Pedestalled dish similar to that from M30 (item 3, above). This pedestal also has incised zonal decoration infilled with punctation, while the infilling on the dish is of cross-combed lines. Both of these dishes-on-stands could have come from the same workshop, and the fabrics appear to be local. H 10, D 17.

**2007 H2 M32 (6).** Another pedestalled dish, rather roughly decorated with incised and combed motifs similar to the above, but with no curvilinear designs. Again, the fabric appears to be local. H 12.5, D 18.5.

**2007 H2 M32 (7,8).** Two footed and carinated jars with everted rims. These have cross-ribbed decoration below the carination in each case. Above the carination, the larger jar (7) has non-filled zonal decoration outlined by incised lines, over fine crossed or parallel combing that extends upwards to cover the outside of the rim. The smaller jar (8) has a cruder version of the same idea, with much coarser parallel combing and no rim decoration. Again, the fabrics appear to be local.  