

**TEXTILES AND BASKETRY FROM  
THE AZ AA:12:311 (ASM) LOCUS  
OF THE YUMA WASH SITE**

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Carbonized and mineralized cloth, carbonized cordage, and carbonized coiled basketry were recovered from three primary cremations during the Yuma Wash project. All date to the Hohokam Classic period (A.D. 1150-1450).

#### **FEATURE 626**

Several worked perishable artifacts were recovered in association with Feature 626, a primary cremation of an infant or young child of undetermined sex. Because the cremation fire was prematurely smothered, the perishable artifacts were carbonized and extraordinarily well preserved. The individual was wrapped in layers of cotton plain-weave fabric (Figure 1), and was accompanied by several bundles of agave/yucca cordage and cotton yarn. A coiled basket (Figure 2) was also associated with this burial.

#### **FEATURE 644**

Primary cremation Feature 644, a mixed burial containing calcined bone from a 12- to 70-year-old and parts of an unburned infant, produced a fragment of a coiled basket.

#### **FEATURE 658**

Several small, mineralized fragments of plain-weave cloth, probably of cotton were recovered from primary cremation Feature 658, the burial of a probable male between 35 and 50 years of age. According to the field records, the fragments were intermixed with material from superimposed primary cremation Feature 674.

### **TEXTILES**

#### **Plain-weave Fabric**

##### *Feature 626*

The carbonized remains of loom-woven, plain-weave cotton cloth were recovered from cremation Feature 626 (see Figure 1). The cloth appears to represent the remains of a cotton blanket that was wrapped around the individual. The wrapped fabric covered a 47 cm by 8 cm area prior to excavation. Excavators recorded the presence of multiple layers of cloth and also noted that the edge closest to the head appeared to represent a complete selvage.

When examined in the laboratory, the cloth was in fragmentary condition, and was divided among

numerous sample bags. Most samples consisted of two layers of cloth, but three layers were present in one sample from beneath the right pelvis. Two end selvages and one side selvage were observed, suggesting these fragments represent a single fabric wrapped several times around the individual, rather than the remains of multiple fabrics. Based on the presence of what appear to be end selvages near the head and the leg of the individual, the blanket was probably approximately 47 cm long. The width of the blanket is undetermined, but the fabric covered an area 28 cm wide, so if it was wrapped more than once around the individual, it may have approached 1 m in width.

The structure of the cloth is balanced plain weave with an average of 10 z-spun warps and nine z-spun wefts per centimeter. The warp elements average 0.7-0.8 mm in diameter, and the wefts average 0.8-0.9 cm in diameter. Due to differential shrinkage during the cremation process, some areas of the fabric have a finer appearance than others.

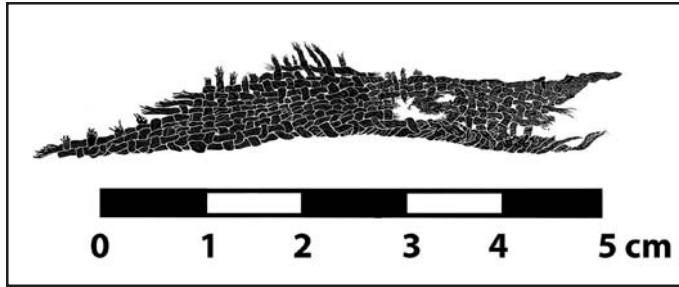
Sections of end selvages were present in samples from beneath the left leg and the upper body near the head. The end selvages consist of two 3z-S yarns twined together s-wise (see Figure 1). A long section of the side selvage was observed on the fabric from beneath the left leg. The side selvage consists of two 4z-S yarns twined together s-wise. A sample of fabric from beneath the left leg contained sections of both side and end selvages, indicating it was the remains of a corner. The corner finish is missing.

##### *Feature 658*

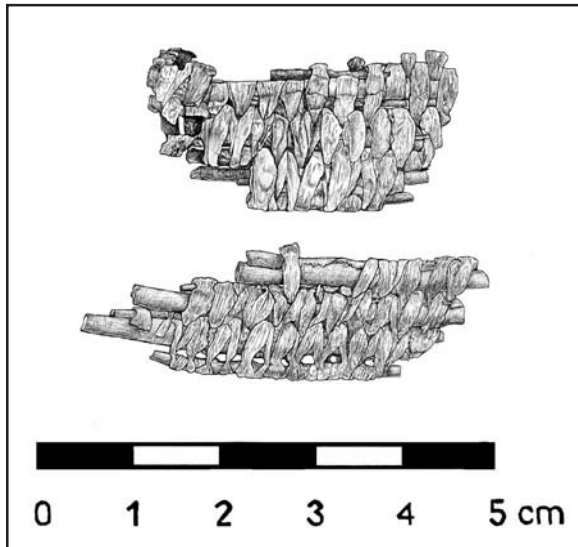
Several tiny fragments of mineralized cloth with a balanced plain-weave structure were recovered from primary cremation Feature 658, possibly mixed with Feature 674. The largest fragment consists of four warp and four weft elements. The elements are z-spun, the typical spin direction for cotton, suggesting the fabric was probably cotton. The warp elements are 0.7 mm in diameter, and the weft elements are 0.8 mm in diameter. Prior to mineralization, the diameters of the yarns would have been larger. The mineralized fabric had approximately 14 warps and 12 wefts per centimeter. The selvages are missing.

### **Discussion**

The small sample of fabrics from Yuma Wash is consistent with other loom-woven textile assemblages from Classic period sites in southern Arizona. The cotton blanket from cremation Feature 626 and the fragments of probable mineralized cotton fabric from cremation Feature 658 are slightly warp-dominant,



**Figure 1.** Cotton plain-weave cloth fragment from Feature 626 (FN 1910), with section of end selvage worked in 2-strand twining with 3-ply yarns. (The strands are twined together s-wise.)



**Figure 2.** Two fragments of a coiled basket from Feature 626 (FN 1911), with a 3-rod triangular foundation and non-interlocking stitches. (Some of the stitches are split.)

the typical pattern for the southern deserts (Teague 1998b:94). The twined selvages on the cotton blanket are characteristic of loom-woven cotton textiles of late PreHispanic times (Kent 1983:226). Unlike some other late sites in the Sonoran Desert (see Teague 1998a), the Yuma Wash assemblage lacked any evidence of non-cotton (for example, yucca) loom-woven fabrics. However, the small sample is not necessarily representative of the range of textiles used at the site.

## CORDAGE

### Feature 626

Several bundles of cordage were associated with cremation Feature 626. A bundle of fine s-spun strands of finely processed yucca or agave was recovered

from beneath the upper chest of the individual. The diameter of the strands ranges from 0.4-1.0 mm. Approximately 20 strands were present in one part of the bundle, 30 in another. The thicker part of the bundle has an undulating appearance. Another bundle of s-spun yucca or agave strands, 1.0 mm in diameter, was present in a clump of fabric by the feet.

A large bundle of 4s-Z yucca or agave cordage was found beneath the left leg. The strands are 2.0 mm in diameter, and had been wrapped into a bundle 3.5 cm in diameter and at least 9.0 cm long. One end of the bundle is incomplete. Fragments of the same or similar cordage were also identified in samples from beneath the pelvis and above the left rib, right rib, and right knee. Two pieces near the knee were folded 180 degrees and appear to have been looped around other strands. This cordage may have been used to bind the limbs of the body together or to tie the blanket around the individual. No evidence of knots was observed.

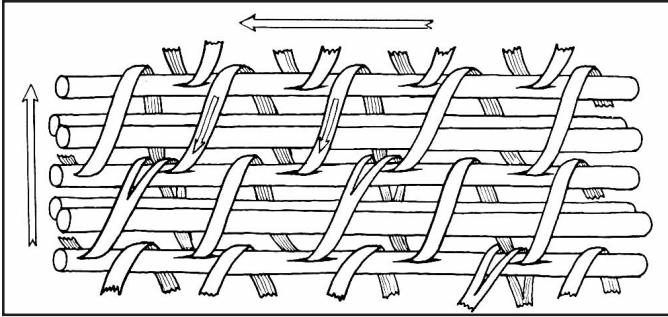
A bundle of coarse z-spun cotton yarn was recovered from the upper layer of fabric near the head. The diameter of the strands ranges from 1.0 to 2.0 mm. Another bundle of z-spun cotton yarn of similar diameter was found on the right side of the upper body. These may be parts of the same bundle. The yarn is loosely spun, and resembles the appearance of weft strands prepared for use in weaving.

A fragmentary cord with a 3z-S structure, probably cotton and approximately 1.0 mm in diameter, was intermixed with shell beads near the feet. At the time of analysis, four beads were still strung on the cord. The strung beads appear to have been placed on the cotton fabric, and were fused to the cloth during the cremation process.

## COILED BASKETRY

### Feature 626

The carbonized remains of a coiled basket with a 3-rod triangular or bunched foundation and non-interlocking stitches were associated with cremation Feature 626 (Figure 3; see also Figure 2). A portion of the base and more than 30 wall fragments were recovered. The form of the basket was not identified during excavation. The center (start) of the basket is missing. The basket is close-coiled, and has numerous split stitches. The work direction is right to left. The rods and stitches resemble cottonwood or willow (*Populus/Salix*) (Michael Diehl, personal communication 2010). The rods are 2.0 mm in diameter, and



**Figure 3.** Schematic diagram of coiled basketry with a 3-rod triangular (bunched) foundation and noninterlocking stitches. (Some stitches are split by subsequent rows of stitches [adapted from Morris and Burgh (1941:Figure 4b)].)

the stitches are 2.0 mm wide. The basket has two coils and 3.0-3.5 stitches per centimeter. The base fragment is 5.5 cm wide and 2.0 cm long, and the largest wall fragment is 4.8 cm wide and 1.5 cm long. Neither represents a complete dimension of the basket. The walls of both fragments are 0.7 cm thick.

#### Feature 644

A fragment of carbonized basketry was recovered from primary cremation Feature 644. The analyzed sample consisted of small disarticulated fragments of four rods and numerous stitches. The rods and

stitches were identified by Michael Diehl as probable cottonwood or willow (*Populus/Salix*). The rods are 1.9 mm in diameter, and the stitches have an average width of 1.5 cm. Impressions on the surface of a complete rod indicate the basket was close-coiled and had a stitch density of approximately 4 stitches per centimeter. Another rod is split in half lengthwise and wavy in cross section. This probably represents the apex (upper) rod from a 3-rod triangular foundation that was pierced and split by the stitches (see Figure 3).

#### Discussion

Close-coiling with a 3-rod triangular or bunched foundation was one of the most common coiling techniques in southern Arizona during the Classic period. Examples are reported from numerous sites, including Pueblo Grande, AZ U:9:7 (ASM), Casa Grande, AZ AA:2:14 (ASM), Las Acequias, AZ U:9:214 (ASM), Los Muertos, AZ U:9:56 (ASM), and Ventana Cave, AZ Z:12:5 (ASM) (Haury 1945:170-171; Kwiatkowski 1994:315-317, Figures 8.3-8.4; Weltfish 1932:27-28). This coiling structure was also popular on the Colorado Plateau during the Pueblo III period, and became the dominant foundation throughout most of the Southwest during Pueblo IV, A.D. 1300-1450 (Morris and Burgh 1941:14-15).



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