Adjustable Cranial Orientator

Many types of apparatus have been devised to orient the cranium for purposes of study and measurement. However, practically all of them have a fixed position relative to the cranium or to their supporting surface, and they are all conspicuously evident when photographs are made of the specimen. It is, of course, possible through laborious effort to block out the image of the apparatus on the negative, but this may lead later to the questionable authenticity of the reproduction.

Faced with the problem of photographing the cranial material recovered from the extensive T.V.A. excavations in Alabama, the author worked out a simple device which is very useful. An experimental apparatus was made up of wood, equipped with dowel legs. Clothes pins were used as primitive adjustable set screws.

Mr. William S. Webb, professor of Anthropology and Archaeology, University of Kentucky, Lexington, Kentucky, very kindly offered to have the metal instrument made up in the University Machine Shop.1

The cranium table consists of a thin metal plate which rests upon three adjustable metal rods as legs. Two levels

1. Mr. Carl Schneider, instrument maker for the Department of Physics ingeniously produced the present instrument. To him and Professor Webb I wish to extend my gratitude for their joint kindnesses.
placed at right angles upon the metal plate indicate when the instrument is on a horizontal plane. Three set screws, situated on top of the metal plate facilitate the adjustment of the relative lengths of the metal legs necessary in placing the levels of the instrument in a horizontal plane. Indicator needles are mounted so that they may be rotated in a horizontal plane. Set screws make it possible to lengthen or shorten them, as the case may be. Rubber caps on the bottom of the legs prevent the metal from scratching the supporting surface. The vital utility of this apparatus is its mobility. Once the cranium has been oriented in the usual planes, the instrument can be removed leaving the solitary skull free for the purpose of photographing. It is constructed for use with a camera placed vertically above the specimen. A ground glass placed horizontally below the camera and at right angles to the field of focus has been used as the supporting surface on which the instrument and the crania are placed.

It has been practical to utilize the following cranio-metric landmarks for orienting the cranium with the instrument. For Norma lateralis the skull is placed on a rubber pad, the instrument is leveled and the indicating rods are adjusted to the points of nasion, bregma and lambda. The concave edge of the instrument conveniently fits the contours of the cranium. The instrument is shifted around so that the rods can be placed on nasion, prosthion and menton.
Theoretically then, the instrument enables one to orient
the cranium in a median sagittal plane. This plane will
change through the above mentioned cranio-metric points.
For the view Norma verticalis and basialis, the skull
is placed upon a rubber ring and in both cases the
Porin and Inferior edge of the left orbit are used to
align the cranium in a horizontal plane. The instrument
provides a simple means of passing a horizontal plane
through the usual anthropometric landmarks.

For the views Norma facialis and Norma occipitalis,
the instrument cannot be used. A right triangle made
of celluloid can be used to line up the skull in the eye-
ear plane. For example, for the view Norma facialis, the
skull is placed with its occiput on a rubber ring with
the face toward a camera. The triangle, when the skull
is aligned in the eye-ear plane, places that plane
vertically to the horizontal supporting surface. The
skull can be oriented easily in the median sagittal plane
if the triangle is shifted to the posterior part of the
skull and used to sight a plane through the use of lambda,
brachy, nasion and prosthion. This will establish the
median sagittal plane in relation to the axis of the other
plane. The accompanying plates (Figures I, II, III) show
the top and bottom views of the instrument along with a
view of the set-up actually in use in the laboratory.

By Charles Snow
Radiological Laboratory
Fig. I  Top view of cranium table showing levels and indicator rods.

Fig. II  Bottom view of cranium table showing legs.

The skull is placed on a rubber pad with the sagittal plane oriented as to give a photograph of the skull viewed in midsagittal.
TYPE NAME: DEPTFORD SIMPLE STAMPED

PASTE:
Method of manufacture: coiling.
Temper: grit and sand in considerable quantities.
Texture: grit tempered shards have a sandy, medium coarse texture. In sherds tempered shards the texture is finer but lumpy and contorted.
Hardness: 2.0-3.0.
Color: core buff, red-buff, light gray and dark gray; occasionally two sharply differentiated colors appear in the same cross-section. Surface color ranges from buff through red buff through gray to black.

SURFACE FINISH:
Considerable variation from site to site. Sullivan’s Fish Camp—carefully smoothed, tool marks sometimes visible. Orange Grove—smoothed carelessly or smoothed. Tool marks often visible. Deptford—generally smoothed but with a gritty surface due to the amount of sand in the paste. Irene—smoothed through burnished. The surfaces sometimes are gritty due to the sandiness of the paste. Oak Grove—smoothed but often gritty due to the sandiness of the paste.

DECORATION:
Technique: stamped and nallented. The decoration could have been made with a carved wooden cylinder or a rocker stamp. The same effect would also have been produced with a thong wrapped paddle. The technique may be similar to that used in the decoration of the Deptford Linear Check Stamped type.
Design: consists of arrangements of shallow, longitudinal grooves which may have a parallel arrangement or may be applied in a cross-stamped pattern.
Distribution: over the entire exterior or vessel. Sometimes the decoration is obliterated at the base. When tetrapodal supports occur they too are decorated.

FORM:
Rim: straight, occasionally slightly flaring at Irene and Deptford. Lip, squared or rounded and often tilted outward, giving the effect of beveling on the outer edge. Body, conoidal jar and hemispherical bowl. On jars the equator is often slightly wider than the rim. Base, conoidal. When tetrapodal supports occur the base is roughly squared. Thickness, average 7.7 cm. Appendages, tetrapodal supports.

USUAL RANGE OF TYPES:
Along the South Atlantic Coast as far south as St. Simons Island and north to an unknown distance in South Carolina. It closely resembles Mayer Oak Single Stamped. This type appears to have a considerable distribution in north and central Georgia. Associations: part of the Deptford Complex with Deptford Linear Check Stamped and Deptford Bold Check Stamped.

CHRONOLOGICAL POSITION OF THE TYPE IN RANK:
Above the St. Simons complex. Below the Wilmington, Savannah, and Irene Complexes.

Joseph R. Caldwell and Antonio J. Waring, Jr.
Savannah, Georgia.
TYPE NAME: BRETTON HILL COMPLICATED STAMPED

PASTE:
Method of manufacture: coiling.
Temper: fine gray and sand in considerable quantities.
Texture: medium to fine.
Hardness: 2.0 - 3.0
Color: core ranges from buff through dark gray to black; exterior surface ranges from yellow through orange to black; interior surface buff to black.

SURFACE FINISH:
Interiors roughly smoothed, occasionally burnished. Tool marks are sometimes visible.

DECORATION:
Technique: stamped with a large and elaborately carved paddle
Design: characteristically fine, the forms low and quite distinct. The design elements consist of spiral interlocking scrolls and concentric circles. The "figure eight" which is common on Savannah Complicated Stamped is more elaborate in Bretton Hill Complicated Stamped. Generally the latter is more finely executed and shows a greater variety of elements than Savannah Complicate Stamped.

Distribution: over the entire exterior of the vessel.

FORM:
Rim: straight, not tapered.
Lip: squared.
Body: cylindrical, elongate with straight, slightly flaring sides which taper down to the base.
Base: round and conical.
Thickness: average 7 mm.
Appendages: none.

USUAL RANGE OF TYPE:
As in the case of the Savannah Complicated Stamped, very little can be said concerning the range of this type until a closer comparison can be made between it and the whole series of complicated stamped types. There are apparently close affiliations between Bretton Hill Complicated Stamped and Swift Creek Complicated Stamped.

CHRONOLOGICAL POSITION OF THE TYPE IN RANGE:
This type is a late part of the Deptford Complex which lies above the St. Simon's Complex and below the Wilmington, The Savannah and Irene Complexes.

Associations: provisionally, this type is a late component of the Deptford Complex which also contains Deptford Linear Check Stamped, Deptford Bold Check Stamped, and Deptford Simple Stamped.

Joseph R. Caldwell and
Antonio J. Varina, Jr.
Savannah, Georgia, 1939
TYPE NAME: WILMINGTON HEAVY CORD MARKED

PASTE:
Method of manufacture: coiling.
Texture: Medium to coarse. In sherd tempered sherd the texture is somewhat finer and more lumpy than in grit tempered sherd.
Hardness: 2.0 - 3.0
Color: Core dark grey to black occasionally deep red. Exterior surface red to buff to dark grey. Interior surface red to black.

SURFACE FINISH:
Interiors of the vessels were smoothed, frequently they show fine striations which were probably made with a serrate edge of a shell. Burnished interiors are rare.

DECORATION:
Technique: the decoration could have been made with a cord-wrapped paddle or a cord-wrapped cylinder. In the latter case the decoration would have been rolled on the vessel wall.
Design: the cord impressions are characteristically heavy and have a vertical parallel arrangement which is quite different from the purposeful cross stamping of Savannah fine cordmarked. The cord impressions sometimes intersect the rim obliquely. The base is occasionally malleated with the round edge of the paddle.
Distribution: over the entire exterior of the vessel.
FORM:
Rim: usually straight, occasionally everted and more rarely incurving.
Lip: usually rounded. May also be squared or stamped beveled.
Body: the typical vessel form is cylindrical, lacking a shoulder and tapering down to the base.
Base: round to slightly conoidal.
Thickness: average 5 mm.
Appendages: none.

USUAL RANGE OF TYPE:
The type occurs on the South Atlantic Coast at least as far south as St. Simons Island and extends for an unknown distance into the Carolinas. Its occurrence has been noted at the following sites: Sea Island, Haven Home, Deptford, Brampton, New Yamacraw, Gullahgroden, Oseta Island, Waring, Bradley's Point, Potato Island and Irene Sherd which appear almost identical were found by Collin at Deasonville in Louisiana. Ford described comparable sherds as an adjunct to the Deasonville complex.

CHRONOLOGICAL POSITION OF THE TYPE IN RANGE:
Overlies the St. Simons complex and the Deptford complex, underlies the Savannah and Irene complexes.

Association: Usually unassociated, probably comprising an entire pottery complex. It occurs as a minority ware at the Haven Home site where it may be associated with an early period of the Savannah complex.

BIBLIOGRAPHY:
WILMINGTON HEAVY CORDMARKED
Ford, J.A. Analysis of Indian Village Site Collections from Louisiana and Mississippi, Anthropological Study No. 2, Department of Conservation, Louisiana Geological Survey, 1936, p. 145, Figure 23, a, b, c, e, h, i, k, n, o; Figure 33, a, b, i, j; Figure 31, a, b, h, i, n, o.

Joseph R. Caldwell and
Antonio J. Waring, Jr.,
Savannah, Ga., 1939
Method of manufacture: coiling.
Temper: fine to medium quartz grit.
Texture: Medium to coarse, very sandy.
Hardness: 2.0 - 3.5

Color: Core continuous with color of both surfaces, meeting at a point of differentiation at the middle of the sherd or vessel. Occasionally the whole core is dark grey to black with a peculiar yellow or buff film on the exterior surface. This does not represent true filming but a color change incidental to firing. Exterior surface usually coarse or buff. Frequently dark grey to black. Interior surface ranges from buff through dark grey to black.

SURFACE FINISH:
The interiors of the vessels were smoothed while the clay was damp, leaving a gritty, carelessly finished surface. The marks of the smoothing implement are frequently visible.

DECORATION:
Technique: The design was probably rouletted or rolled on the vessel wall with a carved wooden rocker or cylinder, indicated by the great length of individual motifs and by warping of the design and overstampng on bottom sherds.

Design: The design consists of a repeated parallel arrangement of two longitudinal lands which contain a series of finer transverse lands. The number of design elements on a single stamp ranges from 1 to 8. The design motifs are placed so carefully that the entire series of longitudinal lands has the superficial appearance of having been executed with a single stamp. The longitudinal lands are invariably heavier and usually higher than the transverse lands. There is a considerable variation in the width of the longitudinal lands themselves, ranging from 2 mm. to 6 mm. They may be either rounded, sloped or flat. A variation of this general design is one in which the transverse lands appear only in the alternating inter-spaces. The design is invariably applied in such a manner that the longitudinal lands intersect the rim obliquely. Several rim sherds show decoration of the interior in which bands of triangular or dot punctates proceed vertically down from the lip for a distance of 10 cm.

Distribution: over the entire exterior of the vessel.

FORM:
Rim: straight or slightly flaring. Usually squared or stamped beveled, sometimes rounded. Occasionally an oval folding rim occurs.
Body: cylindrical with a slight shoulder tapering to the base.
Base: conical.
Thickness: average 9.7 mm.
Appendages: none.

USUAL RANGE OF TYPE:
Along the South Atlantic coast from the St. John’s River in Florida for an unknown distance in South Carolina. It occurred as a minority ware at the Swift Creek site in Bibb County. Sherds have been observed in surface
collections from sites north of Atlanta, Georgia. It has been found at the following sites near the mouth of the Savannah River: Deptford, Maldris, Irene, New Yankee, Crow, Dotson, Potato Island, Oak Grove and Dullahyaden. It also occurs at Evelyn Plantation near Brunswick, Georgia.

**CHRONOLOGICAL POSITION OF TYPE IN RACE:**

Above the St. Simons complex, below the Wilmington complex, the Savannah complex and the Irene complex.

Association: Part of the Deptford complex which also includes Deptford Bold Check Stamped and Deptford Simple Stamped. Brown's Hill Complicated Stamped probably belongs to this complex in a later period. At the Swift Creek site in Bibb County, a type comparable to Deptford Linear Check Stamped is reported to have been associated with the "latest" development of Swift Creek Complicated Stamped.

**BIBLIOGRAPHY:**


Holder, Preston. Evelyn Site (Unpublished).

Joseph R. Caldwell and Antonio J. Waring, Jr., Savannah, Ga. 1939

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In the News Letter Vol. 1, No. 2, for March 1939 the footnote at the bottom of the Swift Creek Complicated Stamp should read as follows:

"In the illustration, Early Swift Creek is shown in the top nine sherds, Middle in the bottom nine sherds."

In the News Letter Vol. 1, No. 3, in the article on pottery stamps there are mentioned and described two pottery stamps in the next to last paragraph on page 16. These two stamps are actually illustrated in the Harcohee report. See Plate XXXL of that report.