

Analysis of Selected Grayware Corrugated Rim Sherds From Tommy Bolack's Tommy Site Ceramic Collection

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Introduction

Over the last semester 281 corrugated grayware rim sherds were analyzed from the Tommy Site. These sherds were recovered during Tommy Bolack's personal excavations at the Tommy Site a number of years ago. The sherds were only provenienced to the site as a whole. From Bolack's excavation notes it can be seen that at least three middens, seven pit structures, and several portions of room blocks were excavated. The sherds analyzed for this project could have come from any of these features.

Sampling Strategy

The project was designed to ascertain information from the rims of grayware corrugated vessels. Further, because rim radius and rim arc were to be analyzed, only sherds with a remnant rim of five centimeters or longer were included. Dr. Jim Judge, hoping that data derived from my investigation could later be compared to findings from other Anasazi sites throughout the region, asked me to focus the study toward determining whether information could be obtained regarding ritual feasting during the occupation of the Tommy Site. This type of study has been part of recent investigations of sites from the Pueblo III & IV periods, and large scale ritual feasting has been seen by many archaeologists to be an attribute of southwestern cultures after A.D. 1275 (Potter 2000; Cordell 1997; Jim Judge, personal communication)

In total, I decided to monitor the attributes of rim eversion, rim radius and arc, neck radius and arc, temper, series, and ceramic type. The weight of each sherd was also taken, and a sample for refiring was nipped from each rim sherd. The nips were refired to determine the oxidized color of the corrugated sherds, which may help to locate the source of the clay from which they were made.

Monitored Attributes

Rim Eversion was measured with aid of a right angle on Template 1 which was also used to measure rim and neck radius and arc. We hoped that rim eversion might help to verify the dating of the occupation of the Tommy Site since it can be seen as an

independent indicator of temporal seriation (Franklin 1991). When eversion was less than 30 degrees then it was given a 1 in the database, if it was between 30 and 60 degrees it was assigned a 2, and if it was between 60 and 90 degrees it was given a 3. In the case of the northern San Juan series, the study of rim eversion has been used as a temporal marker whereby the flare (eversion) of the rim of corrugated pots increased over time. (Lori Reed and Joell Goff, personal communication; Franklin 1991) Corrugated vessels from the other ceramic series (Chuska and Cibola) do not seem to follow this pattern. The flare of rim eversion during any temporal period rarely exceeds 30 degrees for Chuska and Cibola grayware corrugated vessels.

Rim/Neck Radius and Arc measurements are used commonly to estimate vessel size based on partial vessels or individual rim fragments, and to help estimate the minimum number of vessels present in a ceramic assemblage. Radius and arc of rims were measured separately using the template in an attempt to estimate the orifice radius of a vessel. Rim arc is measured in 1-degree intervals and is used to determine the portion of a 360-degree complete rim that remains. This helps to check the radius measurement.

Neck radius and arc were measured to determine primarily the same information derived from the rim radius and arc, but from a slightly different part of the vessel form. These measurements were recorded in the same way as rim arc and radius, except that in this case, the narrowest part of the vessel is measured as opposed to the diameter of the somewhat independent radius of the rim flare.

Temper of a vessel is “a material, mineral or organic, but usually nonplastic- added to clay to improve its working, drying, or firing properties,” as defined by Rice (1987:483). Reed (1999) has pointed out that some tempers are found to be from a specific area, such as trachyte, and can be used to determine whether a specific vessel was produced in a specific area or whether temper was brought in from elsewhere. Trachyte tempering material (typically found in Chuska Series ceramics) is known to originate from the Chuska Mountains of northwestern New Mexico (Reed 1999).

Identification of the temper was made possible by the use of a Meiji binocular microscope at a setting between 40x and 20x. A small portion of each sherd was removed for refiring, and the scar left on the main sherd was viewed for temper analysis. “Temper is one of several primary attributes for identifying ceramic types and frequently provides a probable source location for pottery” (Reed 1999).

Ceramic Series and Ceramic Type

Based mainly on temper, all sherds were assigned to a spatial series, including Northern San Juan, Chuska, Cibola, or the local rock tempered category. Based on the series and other monitored attributes, all of the rim sherds analyzed were given traditional ceramic types, such as Blue Shale Corrugated, Mancos Corrugated, and Tohatchi Banded (Table 1). Distinctions between types within the same series were made based on corrugation. The ceramic series and ceramic types are meant to represent geographic areas, which can indicate location of manufacture and how ceramic types evolved through time.

Findings and Interpretations

The data derived from this analysis is described and interpreted below within sections for each of the pertinent ceramic series previously mentioned. Percentages are provided for each of the specific ceramic types along with some descriptive elements. Based on the assigned series and ceramic type, all analyzed rim sherds were placed in a temporal period (Table 1 (Fig 3)).

Cibola Series

Results

According to Reed (1999), Cibola Series ceramics are tempered with poorly sorted sand and sherd, or just sand, and a paste which is light colored. Sherds identified as Cibola gray wares represent 11.4% of the analyzed rims. They exhibit a variety of surface textures such as neck banded, neck corrugated, corrugated, and scraped. In the case of one rim sherd, bands near the rim of the pot exhibited several lines of punctuates. The specific Cibola ceramic types identified in the assemblage are Lino Grey, Tohatchi Banded, Coolidge Corrugated, Chaco Corrugated (PII-III), and Chaco Corrugated (PIII).

Lino Grey, 3% of the Cibola sherds, was represented by one sherd with a rim radius of 11cm. Nine sherds of Tohatchi Banded were identified, 28% of the Cibola sherds, with an average radius of 9.17cm. The single sherd of Coolidge Corrugated, 3% of the Cibola sherds, has a radius of 12cm. Chaco Corrugated (PII-III) was represented by 19 sherds, 59% of the Cibola sherds, with an average rim radius of 12.97cm. The two sherds of the later Chaco Corrugated (PIII) type, 6% of the Cibola sherds, each have a radius of 11cm.

Interpretation

The bulk of this information supports previous assumptions that the Tommy Site was occupied approximately AD 900-1150 (Reed 1999, personal communication). The presence of Tohatchi Banded (Breternitz 1992) in 9% of the Cibola portion of the assemblage might suggest a slightly earlier date somewhere between A.D. 850 and the later A.D. 900 date. On the other side of this, the presence of only one Chaco Corrugated (P-III) sherd also verifies that by this time there was much less activity at the site then in earlier eras (Reed 1999).

Chuska Series

Results

Following Reed (1999), Chuska Series ceramics are tempered with crushed trachyte and a combination of sand and/or crushed sherds, with a paste that is dark gray, or purplish gray in color. Chuskan gray wares from the Tommy Site represented 26.3% of the analyzed rims. These sherds exhibited the same variety of surface textures as those of the Cibola series, including neck banded, neck corrugated, corrugated, and scraped. The

specific types of Chuskan ceramics present, from earliest to latest, are Gray Hills Banded, Newcomb Corrugated, Captain Tom Corrugated, Blue Shale Corrugated, and Hunter Corrugated.

Gray Hills Banded was only represented by one sherd, 1% of the Chuskan series, and has a radius of 7.5cm. Newcomb Corrugated was represented in 7 sherds, 9% of the Chuskan series, with an average radius of 12.86cm. Captain Tom Corrugated represented in only one sherd, 1% of the Chuskan series sherds, has a radius of 12cm. Blue Shale Corrugated was represented by 56 sherds, 76% of the Chuskan series sherds, with an average rim radius of 12.21cm. The later Hunter Corrugated type was seen in 9 sherds, 12% of the Chuskan sherds, with an average radius of 11.78cm.

Interpretation

The data from this series support the data derived from the Cibola series sherds. The presence of the Gray Hills Banded sherd temporally coincides with that of the Tohatchi Banded tradition (A.D. 850-900). This affirms the initial occupation date at approximately A.D. 900. The appearance of Hunter Corrugated in 12% of the Chuskan sherds verifies Reed's (1999) interpretation that there was some limited use at the beginning of the Pueblo III phase. The drop in percentage from Blue Shale Corrugated, 76%, to the 12% of Hunter Corrugated also indicates that by Pueblo III usage of the site had dwindled.

Northern San Juan Series

Results

Northern San Juan Series ceramics are tempered with crushed igneous rock, usually called andesite/diorite, and exhibit a light colored paste. Northern San Juan gray wares from the Tommy Site, representing only 2.8% of the analyzed rims, exhibit a variety of surface textures similar to those previously described. The specific types of Northern San Juan ceramics present in the assemblage, from earliest to latest, are Mummy Lake Gray, Mancos Corrugated, Dolores Corrugated, and Mesa Verde Corrugated.

Mummy Lake Gray was only represented by one sherd, 13% of the Northern San Juan series sherds, with a radius of 13.5cm. Mancos Corrugated was represented by five sherds, 63% of the Northern San Juan ware sherds, with an average radius of 10.4cm. Dolores Corrugated was represented by only one sherd, 13% of the Northern San Juan series sherds, and has a radius of 13.5cm. Mesa Verde Corrugated was represented by only one sherd, 13% of the Northern San Juan sherds, and has a rim radius of 13.5cm.

Interpretation

It is obvious that the results from this section are limited because of the low occurrence of sherds that were identified as Northern San Juan series. This in itself may help us to understand that, throughout the occupation of the Tommy Site, what we are

differentiating as rock-tempered tradition, is actually a variant of the Northern San Juan series, and separating the two is creating a distinction that may not really have existed.

Rock-Tempered Series

Results

Rock-tempered pottery is similar to Northern San Juan series pottery except for the appearance of the temper. Rock-temper consists of crushed non-igneous rock such as river cobbles. These sherds generally have a light paste ranging from gray to light in color” (Reed 1999). Ceramic types are called the same as those of the Northern San Juan Series.

Of the rock-tempered ceramics, 59.4% of the total assemblage, four sherds were identified as a local variant of Moccasin Gray, 2% of the rock-tempered series. These sherds have an average rim radius of 11.62cm. One Mancos Gray sherd, 1% of the series, has a rim radius of 15cm. Mancos Corrugated was represented by 45 sherds, 27% of the rock-tempered series, with an average radius of 12.26cm. Dolores Corrugated, represented by 103 sherds, has an average radius of 12.30cm. This category has the largest expression and constitutes 62% of the rock-tempered sherds. Rock-tempered Mesa Verde Corrugated was represented by 12 sherds, 7% of the rock-tempered series, with an average radius of 12.04cm.

Interpretation

Reed and Goff (personal communication) feel that this series represents the locally manufactured ceramics. In this scenario, the local people are making pottery in the A.D. 750-850 time period, expressed at first with the Moccasin Gray type and a local rock-tempered variety of Mummy Lake Gray. Later, beginning about A.D. 900 an explosion of rock-tempered pottery, particularly the Mancos Corrugated ceramic type, occurs at the Tommy Site. This correlates with the idea that the rock-tempered Mancos Corrugated is the locally produced type. High percentages of this kind of tempered pottery continue until about A.D. 1150 (Reed 1999, Breternitz 1992).

Conclusions

In conclusion, I would affirm both the Reed (1999) and Wheelbarger (2000, personal communication) dating of the Tommy Site’s occupation from about A.D. 900 to 1150. The evidence for this comes from several different sources.

The first is the data from all temper series combined. (See Figure 3, 6- 10) In looking at the temporal distribution of the percentage of ceramic types, it is clear that there is a Pueblo I early component to this site. Temporally early ceramic types, those that occur in the area as early as A.D. 750 – 850, are restricted to small amounts of Cibola Lino Gray, rock-tempered Moccasin Gray, and rock-tempered Mummy Lake Gray. These sherds only constitute 2% of the total sherds and are probably evidence of very minor use of the

area. For the A.D. 850-900 time period, there is a slight increase in area use, as indicated by ceramic types representing 4% of the sherds from the site. These ceramic types include Chuska Gray Hills Banded, Cibola Tohatchi Banded, and rock-tempered Mancos Gray (Breternitz 1992, Cordell 1997). Tohatchi Banded represents 82% of the sherds representative of this time period.

Start here

The data indicate a dramatic increase in the quantity of ceramics at the Tommy Site beginning in the Pueblo II period, about A.D. 900, and continuing until A.D.1000. 21% of the rim assemblage dates to this period, where as only a total of 6% of the assemblage dates prior to this from A.D. 750-900. Wares dating A.D. 900-1000 are predominated by Rock tempered Mancos Corrugated which characterizes 76% of the sherds from this date. Following this, 12% of the sherds are Newcomb Corrugated, and Northern San Juan Mancos Corrugated, Coolidge Corrugated, and Captain Tom Corrugated are only present in less than 7 sherds. (Breternitz 1992, Cordell 1997)

In the following period of A.D. 1000-1150 there is another increase in the percent of ceramics at the Tommy Site. This may be referred to as late P-II/ early P-III, and 64% of the total sherds analyzed date to this period. The wares present at this time are 58% Rock tempered Dolores Corrugated, 31% Blue Shale Corrugated, 11% Chaco Corrugated (P-II-P-III), and 1% Northern San Juan Dolores Corrugated. (Breternitz 1992, Cordell 1997, Reed 1999)

As Reed (1999) has pointed out, after about A.D. 1150 there is a remarkable decrease in the amount of pottery at the site. Indeed, this probably when the site was abandoned, and only 9% of the sherds date to after A.D. 1150. Of this 9%, half (50%, 12 sherds) are Mesa Verde Corrugated, 38% (9 sherds) are Hunter Corrugated, and three sherds contain the rest of the late P-III Cibolan and Northern San Juan contributions to the site.

After viewing the data from many different angles, I have concluded that there was no overall increase in the size of vessels at the Tommy Site, as represented by an increase in either rim or neck radius. This does not mean that such an increase did not occur among the greater Anasazi as a whole, but rather, the Tommy Site may not have the temporal longevity of occupation needed to determine such a change. Small representation of some types of sherds also hindered meaningful interpretation of this data.

The ceramic findings from the Box B site (Franklin 1991), an Anasazi habitation site located about two miles east-southeast of the Tommy Site, were compared with the Tommy Site data. It is possible to see that although the Tommy Site was probably occupied a little earlier, both sites flourished during the late Pueblo II period, a time synonymous with the Chaco Phenomenon. At both sites, there was a large amount of ceramic exchange taking place, especially with the people living in the region around the Chuska Mountains (Reed 1999, Cordell 1997, Franklin 1991, Breternitz 1992).

When compared to Salmon Ruins, the same trend can be seen as can between LA16660 and the Tommy Site. All three sites seem to participate in the same trends, and be the fluorescence of the same people in this area. In the area as a whole, in which the Tommy Site fits nicely, Chuskan Gray ware importation peaked in the early 1100's as the Chaco Phenomenon expanded. Exchange of goods continued at or near this level until about A.D. 1150, when the people seem to have withdrawn from all but a few sites in the area. (Franklin 1991)

In the scenario where potters produced wares with a variety of attributes, connected to the traditions of Cibola and Chuska, but were more heavily influenced by the Northern San Juan tradition of pottery manufacture, two paths can be taken. Either the Northern San Juan and Rock tempered series can be combined into one series; or that the sherds in question from both series be re-evaluated with a research design specifically looking at the distinctions between locally produced corrugated ceramic types in the Northern San Juan series. In the case of the former, and the two series were to be combined into one field then it is clear that the sequence of ceramic tradition represented by this corrugated rim assemblage may proceed in this manner:

Beginning in:

- A.D. 750-850 Moccasin Grey and Mummy Lake gray are predominant at the site, with a low occurrence of Lino Gray. This phase was not well expressed in this collection, (This may be because the gray ware ceramics of this time do not preserve as well in the archaeological record, or in the acquisition of the collection.) but either this, or the next phase may correspond to either/both of the pit structures occupations. (Figure 6)

- A.D. 850-900 Shreds typical of the Cibolan type Tohatchi Banded, dominate use at the site, which may also correspond to the occupation of either of the two pithouses. There are also sherds of Chuskan origin equal to the amount of Rock tempered sherds present. (Figure 7)

- A.D. 900-1000 Rock tempered ceramics predominate the site in the type of Mancos Corrugated. Chuskan pots are still being imported, but emphasis is on the local variety of rock tempered sherds. Ceramics of specifically Northern San Juan origin that are not local are also present in small amounts, and Cibolan Ceramics are even more rare. The sherds from this date may have come from the level of the later pithouse or the level of burned structure below the main room block at the Tommy Site. (Figure 8)

- A.D. 1000-1150 Again rock tempered ceramics are most widely used, and percentages of Chuskan ceramics also increase at the Tommy Site. Wares from the Cibola region are also found again in variable numbers. The sherds from this date may have come from the main Tommy Site room block. After this phase, the site is virtually abandoned. (Figure 9)

A.D. 1150-1300 The site receives relatively little use in this period, but the sherds that do appear are mostly Rock tempered Mesa Verde Corrugated or Hunter Corrugated from the Chuska region. Specifically Northern San Juan wares and Cibolan wares are only seen in a couple of sherds at the Tommy Site. (Figure 10)

All in all the analysis of the 281 rim sherds from the Tommy Site seem to support the understandings of the Anasazi ceramic activities to date. Comparison to other sites allows one to see that the trends at the Tommy Site reflect those of the larger area. Now, when looking at the Tommy Site, one may see that:

“Many sites, both large and small, in the Bloomfield-Farmington district evidently share similar percentages of imported ceramics in each phase, and they also evidence parallel chronological shifts in material use. Ceramic exchange was clearly not confined to Chacoan centers; at least indirectly, it reached the smaller San Juan communities as well.”
(Hayward H. Franklin 1991, P.99)

References

- Breternitz, David A., and William A. Lucius
1992 Northern Anasazi Ceramic Styles: A Field Guide for Identification. Center for Indigenous Studies in the Americas publications in Anthropology No. 1. Phoenix, AZ
- Cordell, Linda
1997 *Archaeology of the Southwest*. Second Edition, Academic Press. London, UK
- Franklin, Hayward H.,
1991 San Juan Potters' Materials at Box B and in the Middle San Juan River Valley. In *Archaeology of the San Juan Breaks: The Anasazi Occupation*. Edited by Patrick Hogan and Lynne Sebastian. University of New Mexico, Albuquerque.
- Potter, James M.
2000 *Pots, Parties, and Politics: Communal Feasting in the American Southwest*. American Antiquity, Society for American Archaeology pp. 471-492
- Reed, Lori, and Joell Goff
1999 Tommy Site 1999 Field Season; Ceramic Artifact Analysis.
www.sjc.cc.nm.us/arch/ceramics/Ceramicpage.htm Animas
Ceramic Consulting. Farmington, NM