Studer Banquet—2014

And YES!
A good time was had by all.
NOTES FROM THE EDITOR’S DESK

In December 2014, we were looking forward to the Studer Banquet, and the January 2015 issue featured Floyd V. Studer, a brief bio and his accomplishments.

In April we had the 5th Annual Perryton Stone Age Fair, and at PAS we were amazed and entertained by what has now become known as “Drones.” Alvin Lynn presented “Helicopter Horseman,” a video in which Alvin and Jason Abraham flew over the McKenzie Battle site in Palo Duro Canyon, spotting the Indian camp, trails in and out of the Canyon, and the Army camp.

Then at the end of the month we trekked to Hobbs for the 51st SWFAS meeting, and presented the 50th Anniversary Transactions, edited by Paul and Rolla.

This is not even a glimpse of all the events we had in 2015. The impromptu monthly dinners, the Fannin History Fair, and for some of us, Curmudgeons.

On New Year’s Eve, most of us will be singing Auld Lang Syne, a Robert Burns composition from 1788. But there was another, earlier song, also Scottish, The Parting Glass. So, as 2015 becomes 2016, Good night and joy be with you all!

The Parting Glass

Of all the money that e'er I spent
I've spent it in good company
And all the harm that ever I did
Alas it was to none but me
And all I've done for want of wit
To memory now I can't recall
So fill to me the parting glass
Good night and joy be with you all

If I had money enough to spend
And leisure to sit awhile
There is a fair maid in the town
That sorely has my heart beguiled
Her rosy cheeks and ruby lips
I own she has my heart enthralled
So fill to me the parting glass
Good night and joy be with you all

Oh, all the comrades that e'er I had
They're sorry for my going away
And all the sweethearts that e'er I had
They'd wish me one more day to stay
But since it falls unto my lot
That I should rise and you should not
I'll gently rise and softly call
Good night and joy be with you all

Good night and joy be with you all!
The meeting was called to order on Thursday, Nov. 19, by President Donna Otto at the Panhandle Plains Historical Museum following the special presentation of "Daughter of the Dawn."

Guests and members were greeted. There were 15 members and one guest in attendance. The group was advised of the Dec. 12 PAS Floyd V Studer Banquet at Youngblood's Cafe. A flyer was available and passed around to members on the speaker and topic: Susan Vehik, "Origins of Plains War Societies." The group agreed to have roast beef for the meal.

MINUTES: Minutes from the previous meeting were published in the PAS Newsletter. A motion was made and seconded to accept the minutes as published.

TREASURER REPORT: Pam Allison provided a written report which was passed around for review by members. Afterwards a motion was made and seconded to approve the report. Report filed.

PUBLICATIONS COMMITTEE REPORT: Rolla Shaller provided reports on the Money Market Account balance 10/30/2015 of $1,333.50 and the 180 Day CD 10/30/15 balance of $5,052.01. Motion made and seconded to approve. Report filed.

OLD BUSINESS:

TAS Lithics Academy. Harry Shafer will be teaching. Scheduled for April 30-May 1, 2016 at the Panhandle Plains Historical Museum and Palo Duro Canyon. Cost $100 for TAS members. Information sheet and course registration forms were available. On-line registration is available with payment by credit card.

Updated membership list was provided.

Nominating committee reported the following Slate of Officers for 2016 thru 2017 term.

President: Scott Brosowske
Vice President - Veronica Arias & Etc (helpers/board)
Secretary - Mary Ruthe Carter
Treasurer- Pamela Allison
Newsletter Editor - Beryl C. Hughes
Publications Committee - Rolla Shaller and Paul Katz

This slate will be presented at a brief business meeting after the Studer Banquet in December and nominations can be made from the floor with prior consent of person nominated.

ANNOUNCEMENTS:

Dick and Mary Ruthe Carter are recovering.

MEETING ADJOURNED: There being no further business or announcements, meeting was adjourned at 9 p.m.

Respectfully Submitted,

Donna Otto
War, military, or soldier societies are an important part of modern Native American culture, especially on the Great Plains. These organizations are documented extensively in historic and anthropological records. Origins are often attributed to increased conflict resulting from European intrusion into the Americas. Using one of the most common symbols of war societies, the lance, it is suggested that the origin has a much greater time depth, at least to around A.D. 1400 and perhaps is earliest on the southern Plains.

Biography
Susan Vehik received her B.A. in Anthropology from Wichita State University in 1965. Both her M.A. (1972) and Ph.D. (1975) are from the University of Missouri. She recently retired from the University of Oklahoma, Department of Anthropology, after 37 years. Her research has mostly focused on the period A.D. 1400 to 1800 on the Southern Plains investigating the intersection of politics, economics, and religion. She has published numerous articles and book chapters on those and other topics.

The Use of Smoky Hill Jasper on the Southern High Plains
Scott D. Brosowske

Smoky Hill jasper, also known as Niobrara jasper, Graham jasper, Niobrarite, Quartelejo jasper or Republican River jasper, is derived from the Smoky Hill chalk member of the Niobrara formation of the Central Plains (Banks 1990:96; Stein 2005). This formation outcrops over a fairly widespread area across Kansas, Nebraska, Colorado, and Wyoming, although the highest quality chert bearing deposits are limited primarily to locations from northwestern Kansas to south-central Nebraska (Figure 1). Smoky Hill jasper is a highly siliceous material that is generally yellow, caramel to dark brown or tan in color, but can also be black, white, green, yellow, and red. This material is unresponsive to ultraviolet fluorescence analysis and exhibits a dark purple response under both longwave and shortwave ultraviolet light (Hofman et al. 1991:300).
The use of Smoky Hill jasper for chipped stone tool production through time and across space for the Southern High Plains has yet to be formally studied. Previously, Hofman (1990) examined the use of this material in Paleoindian period contexts from western Oklahoma. The current study examines the use of this material through time primarily in northeastern portions of the Southern High Plains. This is not intended to be an exhaustive study, but rather an initial survey.

Smoky Hill Jasper frequently occurs as relatively thin, flat tablets banded with several of the above colors. As a result, it is amenable to the production of bifaces, including the oversized ceremonial bifaces and swords recovered at Spiro Mounds in eastern Oklahoma (see Brown 1996:471-473). For example, a large Smoky Hill biface from Craig Mound at Spiro is about 24 cm (9.5 in.) in length and was recently on display at the Perryton Stone Age Fair (Figure 2). Concentrations of quarries have been located in Graham, Trego, and Gove Counties in Kansas and Fremont County, Nebraska (see Banks 1990:96; Stein 2005). Currently, it is not clear whether quarrying activities can be reliably assigned to any particular social group or time period.

Figure 2  Smoky Hill Jasper Biface Recovered from Craig Mound at the Spiro Site

Near primary source areas of Smoky Hill jasper use of this material for chipped stone tool production has a long history. In particular, the chipped stone assemblages at several Paleoindian age sites to the north and west of Smoky Hill source areas are often dominated by this material (Bamforth 1990; Davis 1962; Holder and Wike 1949; as cited in Hofman 1990). While certainly used for chipped stone tool production on the High Plains in these areas, Smoky Hill Jasper was used most extensively throughout prehistory east of the primary source areas.

Two studies from Texas, one on the distribution of Clovis projectile points (Meltzer and Beaver 1995:64) and the other on the distribution of Folsom points (Largent, et al. 1991), did not document the use of this material with either of these complexes. With this being said, a single Folsom point of Smoky Hill jasper was recovered just outside of the study area at the Cooper site in northwest Oklahoma (Bement 1999). Apparently, the earliest documented use of Smoky Hill jasper for the Southern High Plains are an Agate Basin point recovered from the Goff Creek drainage in the central Oklahoma panhandle (Ballenger 1999:43) and two possible Plainview points from the type site (Knudson 1983:15; Hofman 1990).

Overall, the number of Archaic period sites on the Southern High Plains that have received formal excavations and radiocarbon dates are very limited in number. As such, the extent to which Smoky Hill jasper was used during this period is perhaps most accurately studied through an examination of diagnostic tools, namely projectile points. Although Archaic projectile points are certainly much more common than in the preceding Paleoindian period, the overall frequency of Archaic period points manufactured from Smoky Hill jasper suggests that its use on the Southern High Plains became more widespread, especially during the Late Archaic.

Diagnostic dart points for the Early and Middle Archaic in the study area include Hawken, Duncan, Hanna, McKean, Mallory, Calf Creek, and probably a number of other currently unrecognized types (see Brosowske 2012). A review of the available literature for Early or Middle Archaic period dart points of the Southern High Plains found one of these projectile point types produced from Smoky Hill jasper. A Hawken dart point of Smoky Hill jasper was documented in the Bill White Collection (Ballenger 1999:52).

Discussions recently with Don Wyckoff, who is examining the distribution of Calf Creek projectile points in the Central and Southern Plains, revealed he has documented a single point made of Smoky Hill jasper (Wyckoff 2015; personal communication). This projectile point came from either Morton or Stephens County in southwest Kansas. Additionally, a large, unprovenienced dart point made of Smoky Hill jasper was recently found in Beaver County, Oklahoma (Figure 3). This projectile point is similar to the Scottsbluff type, but lacks the characteristic flaking and grinding on the stem. It is possible given our limited understanding of the projectile points of the Early and Middle Archaic periods in the region that this dart point could be representative of one these time periods.
Private collections from the study area, primarily Beaver County, Oklahoma (see Brosowske and Bement 1998:52-56) indicate that Smoky Hill jasper was used more frequently during the Late Archaic period (Figure 4). Ballenger (1999) documents similar trends for Texas County, Oklahoma. In these two studies, a total of 17 of the 339 (5.0%) Late Archaic corner notched dart points documented were manufactured from Smoky Hill jasper. In contrast, there was not a single chipped stone artifact, including debitage, of Smoky Hill Jasper recovered from excavated contexts at the Late Archaic Sanders site (41HF128) north of Spearman, Texas (Quigg 1997).

Currently, there is little evidence for the use of Smoky Hill jasper to the south in the Canadian River valley during the Late Archaic period. The Horace Rivers collection, which contains extensive materials from over 100 sites near Canadian, Texas, including 56 sites with Late Archaic components (see Brosowske 2014), contains only three corner notched dart points that may be made from this material. Corner notched dart points from this collection are almost exclusively made from Alibates with a small number of specimens also produced from Edwards chert, Ogallala quartzite, and heat-treated Florence.

The use of Smoky Hill jasper during the Early Ceramic period appears to decrease slightly from the preceding period. Ballenger (1999:71-73) documents only one corner notched arrowpoint out of this material in the Bill White collection (i.e., 1 of 57). Similarly, only four of the 165 (2.4%) corner notched arrowpoints in collections primarily from Beaver County were made of Smoky Hill jasper (Brosowske and Bement 1998:50-59). The Goodner Collection, also
from Beaver County, Oklahoma examined as a part of this study, included 74 corner notched arrowpoints. Of these, four (5.4%) were made of Smoky Hill jasper (Figure 5).

There are a total of 51 sites represented in the Horace Rivers collection with Early Ceramic period components. Nearly all of these sites are in the Canadian River drainage of the eastern Texas panhandle. As seen for the preceding Late Archaic period, Smoky Hill jasper rarely occurs in Early Ceramic sites in this area. Of the 195 corner notched arrowpoints and preforms in this collection there is only one (0.5%) example of Smoky Hill jasper. Alibates accounts for 184 (94.4%) of these artifacts with Edwards chert (n=3), Dakota quartzite (n=3), heat-treated Florence (n=2), Tecovas jasper (n=1), and petrified wood (n=1) also represented.

The use of Smoky Hill jasper increased dramatically in the study area during the Middle Ceramic period. As previously noted (Brosowske 2005, 2013; Brosowske and Bevitt 2006), this material becomes very common for the production of chipped stone tools at Odessa phase sites in the northeastern Texas panhandle, the eastern Oklahoma panhandle, and southern Kansas beginning around A.D. 1275. Here, Smoky Hill jasper often comprises over 20% of all chipped stone tools and debitage at these sites (Brosowske 2005:249-250).

In contrast, this material is essentially nonexistent at contemporaneous Antelope Creek phase sites in the Canadian River drainage. For example, this material was not recovered at Archie King I (41RB118) and less than 0.1% of Smoky Hill jasper was recovered from the nearby Eastview (41RB153) site in north-central Roberts County. These sites have yielded calibrated accelerator mass spectrometry (AMS) dates on maize that indicate occupation around A.D. 1340 to A.D. 1350 (see Table 1). Similar patterns are noted for Antelope Creek phase sites in the Oklahoma panhandle where this material comprises less than 2% of all chipped stone (Brosowske 2005:230).

This trend, however, changes following A.D. 1400 when Smoky Hill jasper becomes much more common in some Antelope Creek phase chipped stone assemblages in the eastern Texas panhandle. This study examined several assemblages recovered during excavations at sites on the Courson Family Lips Ranch in Roberts County, Texas. While this material does not become a dominant raw material for all chipped stone, it is more common among finished tools, such as Harahay knives, scrapers, and projectile points (Figure 6). For example, from the limited excavations at the Archie King II site (see Brosowske 2009), Smoky Hill jasper makes up only 2.9% of the debitage (15 of 516), but represents 30% of all formal tools (6 of 20). A single calibrated AMS date from this site indicates occupation about A.D. 1428 (Table 1).
This trend is also documented at Area B of Chill Hill (41RB132) where this material represents 5.2% (180 of 3480) of all debitage, but 18.2% (10 of 55) of the stone tools. Surprisingly, similar amounts of Smoky Hill jasper are not present at the nearby Areas A and C at Chill Hill. This material represents only 0.3% (25 of 9336) and 0.3% (28 of 10,615) of all debitage and 1.2% (1 of 85) and 2.4% (2 of 85) of all tools at Areas A and C, respectively. Calibrated AMS dates for Areas A, B, and C at Chill Hill are presented in Table 1.

The differences in the amount of Smoky Hill jasper present at Antelope Creek phase sites in the study area suggest that this material becomes much more common following A.D. 1400. The preponderance of formal tools coupled with the relative scarcity of debitage may indicate that this material was obtained as finished tools rather than local production. Further, the differences observed in the frequencies of Smoky Hill jasper among sites that appear to be contemporaneous may indicate differential access by individual families or kin groups. Alternatively, it is also possible that the acquisition of Smoky Hill jasper tools simply occurred through irregular exchange events associated with variability in annual mobility cycles.

Table 1 Frequencies of Smoky Hill Jasper at Antelope Creek Phase Sites on the Lips Ranch

<table>
<thead>
<tr>
<th>Site</th>
<th>Debitage Count (%)</th>
<th>Tools Count (%)</th>
<th>Calibrated AMS Dates on Maize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archie King I</td>
<td>0 of 544 (0%)</td>
<td>0 of 15 (0%)</td>
<td>A.D. 1342, A.D. 1347</td>
</tr>
<tr>
<td>Eastview</td>
<td>3 of 4026 (0.1%)</td>
<td>1 of 143 (0.1%)</td>
<td>A.D. 1350, A.D. 1350</td>
</tr>
<tr>
<td>Archie King II</td>
<td>15 of 516 (2.9%)</td>
<td>6 of 20 (30%)</td>
<td>A.D. 1428</td>
</tr>
<tr>
<td>Chill Hill Area A</td>
<td>25 of 9336 (0.3%)</td>
<td>1 of 85 (1.2%)</td>
<td>A.D. 1430, A.D. 1433</td>
</tr>
<tr>
<td>Chill Hill Area B</td>
<td>180 of 3480 (5.2%)</td>
<td>10 of 55 (18.2%)</td>
<td>A.D. 1417, A.D. 1428, A.D. 1433</td>
</tr>
<tr>
<td>Chill Hill Area C</td>
<td>28 of 10,615 (0.3%)</td>
<td>2 of 85 (2.4%)</td>
<td>A.D. 1441</td>
</tr>
</tbody>
</table>

In sum, this initial study has briefly examined the frequency of Smoky Hill jasper in northeastern portions of the Southern High Plains. This survey has documented its sporadic use during the Paleoindian through Middle Archaic periods, although it is apparent that other materials, such as Alibates, Tecovas jasper, and Dakota quartzite were the primary
raw materials used throughout this time. The use of this material became slightly more common during the Late Archaic and Early Ceramic periods where about 5% and 3% of the projectile points were of Smoky Hill jasper.

Beginning during the Middle Ceramic period the use of Smoky Hill jasper notably increased at Odessa phase sites in the region as permanent horticultural settlements and long distance exchange networks were established. This material often represents 15% to 30% of all chipped stone at these sites. Similar patterns were not observed at similarly aged Antelope Creek phase sites where this material is essentially absent and chipped stone assemblages are dominated by Alibates and local materials.

This trend, however, changes at some Antelope Creek phase sites, such as Archie King II and Chill Hill Area B, following A.D. 1400 where 18% to 30% of formal tools were made of Smoky Hill jasper. Surprisingly, this pattern of Smoky Hill Jasper use was not observed at other similarly aged components at Chill Hill. These findings are in contrast to those of Hudson (1982:67) who used the Brainard-Robinson Similarity Coefficient to demonstrate that historic Pawnee sites most similar in age should also exhibit similar patterns of lithic raw material use.

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