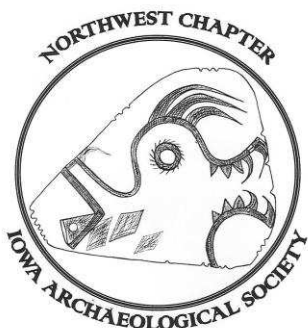


Northwest Chapter of the Iowa Archaeological Society Newsletter



*Inside the
Newsletter*

The Discoidal

*New Mill Creek
Site*

The Discoidal

By Zoey Reisdorf
History major, Buena Vista University

Stone discoidals, or chunky stones, are being discovered all over America in various styles and sizes sparking interest in some archaeologists. Meanwhile, it remains unclear what the purpose of these items may have been, and why do they appear so frequently across the lands of North America during the prehistoric realm. Many archaeologists presume that these items could be game pieces to the sport frequently known as chunky. Based on these assumptions, chunky stones symbolize a recreational activity, nonetheless, their popularity and the locality of the prehistoric gaming fields suggest that ceremonial or political undertones may have dwelt within the playing of this sport.

From the tribes that once dwelled in the Midwest to the tribes of the Southeast, versions of the chunky game have been recorded. Essentially, all forms of the game require the rolling of an object (either a stone or ceramic discoidals or a hoop bound with leather) on a prepared surface, and then throwing a spear-like stick with the idea of hitting the stone, or coming as close to the stone as possible (Swanton 1946). Believed to have gained most popularity during the middle Mississippian period, the game goes by many aliases, including but not limited to: chung-kee, chunky, chunkè, chungke, thla-chal-litch-cau, ha-ká-ku-te, ha-ká shooting, rolling the bullet, rolling the stone, the game of the pole, and chenco (Link 1979).

Discoidals range in various shapes and sizes. Several styles of discoidals have been defined, including: Jersey Bluff, Salt River, Prairie du Pont, Cahokia, and Bradley (DeBoer 1993). Due to the commonality of the Cahokia and Bradley types in this northwest Iowa region, these two styles will occupy the discussion of this article. Titcomb notes the Cahokia style chunky stone of having concave sides and being typically associated with Mississippian cultures (2008). Meanwhile, the Bradley types, also known as “door knob discoidals”, are known to have convex sides (Baerreis 1968). “Discoidals are made from quartz, chert, sandstone, other lithic materials, and a few are made of fired clay” (Link 1979).

The specimens examined (Table 1) are discoidals found within the Sanford museum, personal collections from the Laursen family, and through Tiffany’s table (1978: 7) of Mill Creek discoidals. With Tiffany’s table, I was able to locate discoidals from the northwest Iowa region based on the work of Anderson (1973), Fugle (1962), and Van Voorhis (1978). All of the discoidals were measured in diameter, width of the edge of the discoidals, and the depth using a digital caliper, while the mass was configured with a digital scale. Upon reviewing the measurements and photos of these different Mill Creek chunky stones, I found them all to be in a comparable range. All of the discoidals fit within the palm of one’s hand however varying slightly.

Continue on page 3

New Mill Creek Site

By Zoey Reisdorf and Jason Titcomb

The discovery of a new Mill Creek site was one of the more interesting projects for the summer, and while not accidental certainly an intriguing story. The Sanford Museum summer intern spent the summer with a host family Lynn and Janet Laursen of Aurelia, IA. During intern's stay with the host family, the Laursens were generous enough to share their personal collections with her and the museum. Prior to living in Aurelia, Iowa, the Laursens lived near the Little Sioux River near the Cherokee County line. In a field near their former residence is a site that the Laursen family collected from for approximately twenty years. Previous owners of the property, the Davis family, had informed Laursen family who then proceeded in collecting items leisurely. Interesting enough, the Northwest Chapter in decades past had met with members of the Davis family, however, this was in regards to the Jones site. After interviews with the Laursens and adjacent property owners for site local information, the authors checked museum site records as well as I-Sites web site managed by the Office of the State Archaeologist and determined that this was an unrecorded site.

The site is currently owned by the Bauer family, and thus the site has been tentative named the Bauer site. Based on interviews, topography and examination of the landscape with historic aerals and LiDAR, the authors were able to roughly delineate the site's potential boundaries, nonetheless, given the fields are consumed by crop at the moment; the proposed site boundary may change once field verification is conducted. The Bauer site is in section two of Cherokee county, township T93N, range R39W. Without contacting the Bauer family, it is unclear how accessible this site may be for further evaluation.

An examination of the artifacts discovered by the Laursen family, specifically the ceramics, indicate that the Bauer site has a Mill Creek culture component. A complete inventory of the Laursen collection (see table page 9) was done this summer.



Mill Creek rims from Bauer site

Editor's Note

Continue on page 9

Dear Members,
Summer was quite busy! Our summer intern at the museum spent numerous hours helping curate collections, inventoried donations while working on a research project. As a result, she decided to take up a lot of room in the newsletter.

We have no scheduled meetings, but keep an eye out for meeting announcements in the mail. We hope to plan a field excursion this fall once crops have been harvested. News on Maisy's front includes walking, talking and had the opportunity this summer to go surfing. She also spent the weekend helping out with archaeology tours.

Jason



Discoidals cont.

By focusing on the Mill Creek discoidals that were complete, the diameter only varies within 8.5mm, less than 2mm of variation in edge width amongst the Bradley type, and in depth the Bradley type chunky stones only vary at the most 6.1mm. In fact, the most substantial difference among the chunky stones is the mass. Of course, variation in the matter could be symbolic of the lithic material available to the region at the time, and/or the trading of lithic materials between tribes. Nonetheless, the measurements suggest that while the logistics of chunky may vary between tribes and their cultures, uniformity remained in the general principle as well as the measurements of the game. It is utterly amazing that a game at this time grew to such popularity of grasping the attention of tribes throughout the Northern Plains, and even in the Southeast part of the U.S. What then made chunky so widespread?

Chunky stone style	Site	Diameter	Width of edges	Depth	Mass	Material	Collector
Bradley Type	Bauer Site	59.53 mm	8.88 mm	29.64 mm	113.5 g	Granite	Lynn and Janet Laursen
Cahokia Style	Bauer Site	51.06 mm	17.9 mm	17.95 mm	43.1 g	Basalt	Lynn and Janet Laursen
Bradley Type	13CK15	58.07 mm	9.72 mm	33.19 mm	109.7 g	hematite	Nester Stiles
Bradley Type (Incomplete)	Unknown	56.67 mm	18.89 mm	32.81 mm	89.7 g	Milky/ White Quartzite	Nester Stiles
Bradley Type (Possible discoidal)	13CK1	73.47 mm to 61.36 mm	19.55 mm	36.9 mm	178.7 g	Basalt (Igneous rock)	Van Voorhis
Bradley Type (Broken)	13CK1	60.88 mm	17.64 mm to 18.91 mm	29.21 mm	116.4 g	Igneous rock	Van Voorhis
Bradley Type	13CK1	53.01 mm	8.04 mm	27.09 mm	108.2 g	Unknown	Van Voorhis
Bradley Type (Possible discoidal)	13OB2	47.73 mm	14.3 mm	21.4 mm	43.9 g	Igneous rock	Van Voorhis
Bradley Type (Possible discoidal)	13BV1	53.18 mm to 48.73 mm	16.07 mm	25.68 mm	65.3 g	Igneous rock	Van Voorhis

Table 1. Discoidals of Northwest Iowa. The specimens come from the Sanford Museum, F.L. Van Voorhis's collection at BV County Historical Museum, and the Laursen collection.

Specimens in this study compared by make, style, and size of chunky stones found in the Northwest Iowa (Table 1). Amateur archaeologists Lynn and Janet Larsen discovered two previously unknown discoidals (Figures 1 and 2) on a new site currently referred to as the Bauer site. This site lies southeast of the Jones site (13CK1) across the Little Sioux River. Based on the ceramics collected by the Laursens, it is believed to be a Mill Creek site. Examination of the research conducted in northwest Iowa shows it is rare to find Cahokia style chunky stones. However, given the Bauer site has yet to be tested, the Cahokia Style chunky stone may not truly represent the culture that inhabited the area. In this region of Iowa, chunky stones that are found typically fall under the categorization of the Bradley type associated with Mill Creek cultures. However, Cahokia style chunky stones are associated with Mississippian sites, such as Cahokia. Most likely, the Cahokia like chunky stone (Figure 2 also further documented in Table 1) was a replica of Mississippian discoidals, further confirming the Mississippian influence on Mill Creek culture. The stone from 13CK15 (Figure 3) is very polished with notable engravings. Markings on chunky stones are not uncommon. Such marking are commonly used as a system for keeping score, or in some cases explain the rules of the game or the layout of the chunky yards (Link 1979). However, the engravings seen in Figure 3 are far less systematic and consist of no pattern suggesting that perhaps these engravings to be nothing more than from the manufacturing process. The discoidal as seen in Figure 4 is an incomplete discoidal. While the one side has been obviously worked and the edges smoothed for whatever reason, the artisan left this discoidal unfinished. The Van Voorhis collection includes some other discoidals from a few different sites including, 13CK1, 13OB2, and 13BV1. In the Van Voorhis collection from 13CK1, there is a possible discoidal (No image). This chunky stone is almost completely unworked, with the exception of some light chipping and polish along the edge. In addition, the lens like shape of this “discoidal” makes this piece impossible to roll. Another discoidal from Van Voorhis collection from 13CK1 appears to have been broken (Figure 5). Similar to the previously mentioned discovered discoidals from 13CK1 Van Voorhis' collection, Figure 6 is perhaps the most distinguished discoidal of Van Voorhis collection. Van Voorhis collection also contains some possible discoidals, one from the Waterman, 13OB2, (Figure 7) and Chan-ya-ta, 13BV1, (Figure 8). Common to the possible discoidal from 13CK1, the Chan-ya-ta discoidal (Figure 8) is almost completely unworked, which causes some skepticism on its legitimacy as a discoidal. All of these discoidals represent the types of discoidals commonly found in this part of Iowa, the Bradley type.

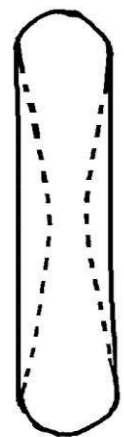
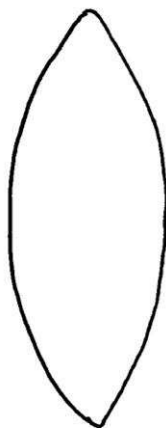


Figure 1. Bradley type chunky stone found on the Bauer site.

Figure 2. Cahokia like chunky stone with the biconcave sides.



Figure 3. Bradley type chunky stone from the Brewster site (13CK15).



Figure 4. Incomplete Bradley type, asymmetrical, made of white quartzite.

Many enigmas surround the chunky stones. Hypotheses exist on the function of the chunky stones; however, less easily explained is their popularity. What about the game of chunky explains why variations of this game are recorded all over the continent? Chunky is certainly recreational, but one thing is for sure, it is not just a game. Eyewitness's accounts shed light on the significance of this game revealing both the beautiful and ugly truths. Catlin explanation of the Mandan playing of chunky to be "a beautiful athletic exercise" (2009[1884]). Nevertheless, chunky proves to serve as more than a game or source of exercise, rather, social and ceremonial undertones of the game are stressed within these eyewitness accounts as well.

With the beautiful, comes the ugly. Similar to modern sports, chunky was closely associated with gambling among the audiences. "As Reagan (in Culin 1907:454) observed among the White Mountain Apache, 'they sometimes bet all they have on it, in former times even their wives and children'" occasionally after losing everything to the gambling on chunky, some would commit suicide. Captain Bernard Romans (in Culin 1907:486) makes similar observations as Reagan, implying again that some participants bet all of their belongings and when they have nothing else, borrow a gun to kill themselves. Romans proceeds with including an example of this behavior at East Yasoo in 1771. Perhaps the extreme incidents such as the ones Reagan, and Romans have explained may not be a practice of every audience of chunky, nonetheless, gambling was occurring during the game chunky throughout the land. This wagering allowed audiences to partake in the exchange of goods, and essentially change their social standings either for better or for worse. Some assumptions have also suggested that chunky players themselves improved their social stature based on their number of wins. DeBoer's (1993) hypothesis takes it a bit further. He hypothesizes that the different styles of chunky stone are an indication of elite status. This hypothesis possibly provided an explanation for the rarity of Cahokia style chunky stones in northwest Iowa. While wagering on a game of chunky, could be potentially detrimental to one's financial wellbeing, it also developed a sense of interconnectedness among competing tribes, and a chunky playing community as the game spread.

There seems to be ample evidence to confirm the ceremonial undertones within the game of chunky. Eyewitness, James Adair, has been repeatedly cited as mentioning the extensive care given towards the chunky stones, stating that these items are not individual items, but rather items of the state preserved with great desperation. Adair also claims that these items are passed down the generations (Culin 1907).

Despite Adair contesting that chunky stones “are exempted from being buried with the dead” (Culin 1907) DeBoer contradicts Adair’s statements acknowledging there have been accounts in which, chunky stones were discovered among burials (Table 2). However, the burying of chunky stones as grave goods was a temporary trend rather than a permanent practice. Nonetheless, due to the number of discoidals found near, or in village middens, Titcomb (2008) believes the game to have over time become more recreational. Given the evidence of importance within the villages, however, I feel chunky stones certainly seem to withhold some importance to the societies at least at some point within their popularity. Perhaps, as Titcomb (2008) suggests, this importance did decrease after the fall of Cahokia.

As previously noted, the chunky games have many aliases and many versions, therefore, the understanding the game to a society may explain the role of chunky to its people. The related hoop and pole game is easily associated with various symbols that represent prehistoric mythology (Culin 1907). DeBoer also mentions the significance behind the hoop and pole game, however goes into extensive detail.

The hoop was a microcosm, a sacred circle signifying the daily passage of the sun when held vertically, the annual passage of the season when horizontal. In either plane, the quadrants of the hoop were imbued with the color and directional symbolism so endemic to the Americas (Culin 1907:434). In this respect, it is unsurprising that the cross of the four seasons, the four directions, and the four winds is the most common motif incised on archaeology chunky stones.

Time period	Ratio of chunky stone discoveries midden to burials
Late Woodland	19:2
Late and “classic Mississippian	28:0
Rise of Cahokia	17:18
Fall of Cahokia	9:2



Figure 5. A broken discoidal from the Van Voorhis collection from 13CK1. Residing in the Buena Vista County Museum.



Figure 6. Van Voorhis Collection from 13CK1. Residing in the Buena Vista County Museum.



Figure 7. Discoidal from 13OB2 (Van Voorhis collection).



Figure 8. Discoidal from 13BV1 (Van Voorhis collection).

Chunkey is believed to symbolize various concepts in various native myths. Some speculate chunkey is a game of fertility similar to its relative hoop and pole, in which the hoop represents the female pubic area, where as the spear symbolizes the male genitalia (Craig 2002). For this reason, many accounts suggest chunkey was played almost solely by men. Other myths associated with the hoop and pole game that may also explain and contribute to the game chunkey and its popularity. Culin (1907) acknowledges that the netted hoop may symbolize the netted shield of the twin War Gods, Ahaiyuta and Matsailema from the Zuñi mythology. The diversity of chunkey and popularity also intrigues archaeologists. Link (1979) is convinced of the ceremonial importance of the chunkey stone due to the carvings depicting chunkey playing, or figures with chunkey game pieces.

The amount of care given to game pieces and chunkey yards implies the participant respected the sport to an incredible extreme. Referring back to Adair's comments, "...immemorial rubbed smooth on the rocks, and with prodigious labour; they are kept with strictest religious care, from one generation to another, and are exempted from being buried with the dead", great care and precision was involved with the making and caring of the game pieces (Culin 1907). Chunkey yards, commonly located near the center of a village, are also known to receive similar tedious attention. As Craig (2002) notes the chunk yards were made incredibly flat, in some instances, sand was used to level out the ground. Craig (2002) also acknowledges the artisanship and dedication of the Mandan (North Dakota), who installed a wood floor of about 150 feet. Like many modern playing field, the Creeks built enclosed seating areas for the audiences. Culin (1907) notes that the Apache chunkey yards were on level ground of roughly 100 feet long. Not only do these accounts describe the level of care for the different elements of the sport, but also they further emphasize the diversity of the game and how it is played.

Overall, these bits of quartz, ceramics, sandstone, among other lithic materials are more than prehistoric polished and worked rocks. More than just a rock, chunkey stones are the game pieces; more than just game pieces, chunkey stones are a potential gateway in the understanding of a foreign people. Their popularity has intrigued archaeologists, while their power and ceremonial ties intrigued the prehistoric world. Whether or not chunkey obtained enough power to change one's social status, or if chunkey was part of a widely excepted ritual, one thing is for certain, Chunkey is not just a game.

References Cited

- Anderson, Duane C.
1973 Brewster Site (13CK15): Lithic Analysis. *Journal of the Iowa Archeological Society* 20:1-71.
- Anderson, Duane C. and Joseph A. Tiffany
1978 F.L. Van Voorhis: His Contribution to the Archaeology of Northwestern Iowa. *Journal of the Iowa Archeological Society* 25:1-7
- Baerreis, David A.
1968 Artifact descriptions: bone, stone, and shell. *Journal of the Iowa Archaeological society* 15:107-191.
- Brown, James A.
1997 The Archaeology of Ancient Religion in the Eastern Woodlands. *Annual Review Anthropology* 26:465- 485.
- Catlin, George
2009 [1841] *Letters and Notes on the Manners, Customs, and Condition of the North American Indians Written during Eight Years' Travel amongst the Wildest Tribes of Indians in North America*. The Folio Society, London.
- Craig, Steve
2002 North American. In *Sports and Games of the Ancients*. Greenwood Press, Westport, CT. 180-182.
- Culin, Stewart
1907 *Games of the North American Indians*. Bureau of American Ethnology No. 24. Smithsonian Institution, Washington, D.C.
- DeBoer, Warren R.
1993 Like a Rolling Stone: The Chunkey Game and Political Organization in Eastern North America. *Southeastern Archaeology* 12:83-92.
- Fugle, Eugene
1962 Mill Creek Culture and Technology. *Journal of the Iowa Archeological Society* 11:7-126.
- Gibson A.R.
1971 Chickasaw Ethnography: An Ethnohistorical Reconstruction. *Ethnohistory* 18: 99-118.
- Hall, Robert L.
1977 An Anthropocentric Perspective for Eastern United States Prehistory. *Society for American Archaeology* 42: 499-518.
- Insoll, Timothy
2011 *The Oxford Handbook of the Archaeology of Ritual and Religion*. Oxford University Press, Oxford, NY.
- Lensink, Stephen C. and Fred A. Finney
1994 *Dealing with Risk in the Initial Middle Missouri Variant: Local Subsistence Systems and Regional Interaction Networks*. Paper presented at the 59th Annual Meeting of the Society for American Archaeology, Anaheim, CA.
- Link, Adolph W.
1979 Chunkey: the game and its probable use by Mississippians in Minnesota. *The Minnesota Archaeologist* 38(3):129-145.
- Potter Thomas.A. and Ian W. Brown
2011 The Ceramic Discoidal in the Southeastern United States. *The University of Alabama McNair Journal* 11:89-109.
- Swanton, John R.
1946 *The Indians of the Southeastern United States*. Bureau of American Ethnology Bulletin No. 137. Smithsonian Institution, Washington, D.C.
- Tiffany, Joseph A.
1978 Discoidals from Mill Creek Sites. *Iowa Archeological Society Newsletter* 87: 6-12.
- Titcomb, Jason M.
2008 Revisiting Mill Creek Discoidals. *Northwest Chapter of the Iowa Archaeological Society Newsletter* 57:1-4.
- Van Voorhis, Frank L.
1978 The Mill Creek Pre-History Indian Culture. Eds. Duane C. Anderson and Joseph A. Tiffany. *Journal of the Iowa Archeological Society* 25:8-48.

New Mill Creek Site cont.

The collection consists of a substantial amount of pottery including three of the four wares associated with Mill Creek culture: Chamberlain, Sanford, and Mill Creek (the other ware, which is not found within the collection, is Foreman). Interestingly, one of the Chamberlain ware rims has what appears to be a running deer motif. The remainder of the assemblage is fairly typical for Mill Creek sites, the majority of the projectile points were consistent for Mill Creek including multi-notched points (see image below). The assemblage also included a number of endscrapers, celts and groundstone tools that would normally be found at Mill Creek villages.

Perhaps the most interesting of artifacts in the Laursen collection would include the two discoidals. The Bradley style discoidal (see other article) are commonly found within Mill Creek culture sites. Meanwhile, the Cahokia style discoidals are more rare this part of Iowa. While it is reasonable to assume the Cahokia like discoidal discovered could be an object of trade from a greater Mississippian village, this particular specimen is a bit smaller than most Cahokia style discoidals, and certainly could have been locally made. Janet Laursen notes that throughout the twenty years of living near the site the family would never return from surveying the area without a new artifact for the collection.

There is always more to be discovered as exemplified by the newly acknowledged Bauer site. It remains uncertain whether further examination of the Bauer site will occur at this time. The authors hope once crops are harvested that the museum will gain permission to survey the site. Nonetheless, the discovery of the Bauer site sparks a lot of question that, at the time being, are unanswerable. Was this site a Mill Creek Village, or a temporary settlement? The quest to answer these questions will hopefully continue in the near future. The author's would like to thank the Laursen family for sharing their collection and information with us. Additional thanks to the Zalaznik family for spending their time and discussion of the site as well.

Laursen Collection Artifact Description	Count
Rim sherds (Chamberlain Incised)	3
Rim sherds (Chamberlain Incised Triangle)	23
Rim sherds (Chamberlain Incised Plain)	4
Rim sherds (Kimball)	22
Rim sherds (Mitchell modified lip)	10
Rim sherds (Sanford plain)	2
Rim sherds (Seed Jar)	6
Rim sherds (Miniature)	2
Rim sherds (Bowl)	1
Rim sherds (Miscellaneous)	5
Plain bodysherds	307
Decorated bodysherds	51
Ceramic handles, and ceramic objects	3
Ceramic disc	1
Points	11
Waste flakes	33
Retouched flakes	17
Utilized flakes	35
Biface	5
Knife	1
Utilized blade (Broken)	1
End scrapers	33
Faunal	6
Shatter, and Core	74
Bradley type chunkey stone	1
Cahokia like chunkey stone	1
Maul	1
Celts	2
Celts (Fragment)	3
¾ Grooved Axe	1
Sandstone Abraders	2
Mano	1
Nutting/Hammerstone	1
Worked pipestone	1
Limonite/hematite	3



Points from the Bauer site

N.W.I.A.S.

Newsletter

News items and articles for publication should be sent to the editor:

Jason Titcomb
Sanford Museum
117 E Willow St
Cherokee, Iowa
51012

PHONE:
712 225 3922

E-MAIL:
sanfordmuseum@
iowatelecom.net

The Society

The Northwest Chapter was organized as a branch of the Iowa Archeological Society, and members are pledged to support and further the aims and purposes of the parent organization. The latter was established by interested Iowans for the study and preservation of the prehistoric and early historic heritage of the state. Its goals are to further archaeological knowledge and to gather, record, and publish information of all archaeological remains, whether they are sites, data, or artifacts, for the benefit of future generations of Iowans and scientists. Membership is open to anyone interested in supporting

these objectives.

All meetings are open to the public, and are regularly announced to members. Programs include films, slide presentations and reports, field trips and supervised excavations.

Dues are payable on the calendar year and should be sent to the treasurer. Membership in the Iowa Archaeological Society is \$20 and not required, but is highly recommended. To join the IAS send payment to: Membership Secretary, IAS

Office of the State Archaeologist
700 Clinton Street Bldg
Iowa City, IA 52242-1030

Officers:

President: Mark Mertes, Sibley

Vice President: Jim Younie, Hawarden

Treasurer: send payment to Sanford Museum

Chapter Dues:

Individual \$3.00

SANFORD MUSEUM

117 E Willow St
Cherokee, Iowa 51012
USA