BANNERSTONE OVERVIEW

Bannerstones were made by Archaic people between 6000 and 1000 B.C., in the eastern half of North America. They were produced by artists in small bands of hunter gatherers who moved from campsite to campsite. When and why they were made have long been a mystery to those who found them. Indians who were first contacted by Europeans had no oral tradition about their purpose. They were labeled "problematical forms" by early archaeologists who did not know their function. It is now clear that bannerstones were a part of ceremonial spear throwers that were mortuary tributes in high status burials. They probably also served as clan symbols. Some designs persisted for thousands of years in gradually changing form as bannerstone ceremonialism was practiced in eastern North America.

Bannerstones were produced in a wide variety of symmetrical shapes that are notable for their abstract beauty. Their sophisticated design, determined by aesthetic and ceremonial considerations, early date, and long evolution make them a candidate for the first widespread and sustained art tradition in the Americas.

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NEXT: Earliest American Art
Grinding and polishing stone was introduced in America about 6000 B.C. This technology enabled the shaping of stone with much higher control of form and surface than could be attained with the flaking technology that was in use up to that time. Bannerstones, which originated during this period, may have been the first ground and polished stone artifacts in the Americas.

A review of artifact finds reveals that bannerstones may be the first fully realized three dimensional Native American art tradition. They are preceded only by isolated examples of art from the Paleo period (20000 - 8000 B.C.). For example, a dog face was carved from the sacrum of a camel from Hidalgo, Mexico (Coe 1984: p32). Stones incised with lines from the Clovis period (approximately 9000 B.C.) have been found on the Gault site in Texas, although the extent and duration of this tradition is unknown (Collins et al., 1992). These precede bannerstones, but they do not exhibit the aesthetic sophistication, variety of form, or evolutionary development that is seen in the bannerstone tradition. Petroglyphs (painted or incised rock faces) are difficult to date. Some from Brazil are associated with graves that are 10,000 years old, although the paintings themselves have not been dated.

It is reasonable to conclude that bannerstones are among the first art in the Americas. They represent an early, sustained, and widespread ceremonial tradition that survived for 5,000 years. Paleolithic art traditions in the eastern hemisphere go back tens of thousands of years before the bannerstone era in North America. The stunning realism of European cave painting is a peak of aesthetic achievement for humankind. Even on the world stage, however, bannerstones are unsurpassed among early art for their clean abstract designs and sculptural beauty.

NEXT: Theories
Archaeologists and others have been speculating about the purpose of bannerstones since the late 1800s. Some of the theories that have been proposed include:

- Bannerstones developed from the European double bitted ax.
- Bannerstones are symbols of rank for chiefs, shamans and other tribe notables. The different types denote different ranks.
- Bannerstones were placed on the ends of staffs as tribal symbols and used in rituals. They were handed down as tribal property rather than buried with individuals.
- Bannerstones were for personal adornment, and were part of necklaces.
- Bannerstones were Thunderbird sacred effigies and were decorated with feathers.
- Butterfly bannerstones were used in the burial ceremonies of infants, to guide their spirit to the happy hunting ground.
- Bannerstones were net spacers and the associated antler hooks were used for making fishing nets.

By 1940, William S. Webb had demonstrated that the antler hooks associated with many bannerstones in burials were atlatl, or spear thrower, hooks. Atlatls were the primary weapon of Indians before the advent of the bow. Webb concluded that bannerstones were functional atlatl parts with no ceremonial purpose, regardless of the rare materials used, the extensive labor required, and the striking beauty of the better crafted pieces. Webb’s conviction that bannerstones were purely functional atlatl parts has dominated thinking among archaeologists.

Byron Knoblock pointed out difficulties with the functional theory in 1955. Since then researchers including Precourt (1973:14, 23), Rothschild (1975:27, 148), and Winters (1968:175, 221) have suggested that bannerstones were status markers. In 2000 David Lutz published “The Archaic Bannerstone, Its Chronological History and Purpose, From 6000 B.C. to 1000 B.C.”, in which he elaborated on the mortuary tribute theory and proposed that bannerstones were clan symbols.

Read Bannerstones: A Historical Overview by Mary L. Kwas for more on theories.
PALEOINDIANS and the ATLATL

Judging by the labor, skill, and materials that went into ceremonial altatls, they were the most precious possessions of Archaic peoples. This tradition was the legacy of great Ice Age hunters.

Although the time that people first arrived in the Americas from Asia is a matter of speculation, it is clear that by 11,000 years ago there were bands of big game hunters in North America during the end of the Ice Age. This culture is called Clovis after a site in New Mexico where projectile points were found among the bones of a mammoth. It is not known if Clovis people roamed freely or moved in loose territories, but their culture, as shown by their artifacts, was generally similar across the Americas. They lived in small camps and had no permanent dwellings. They hunted mammoth, mastodon, giant bears, camels and wild horses, contributing to their extinction.

These great hunters used the atlatl, or spear thrower, to kill big game. The atlatl is a highly effective weapon with a maximum range of over 300 feet and a projectile velocity of over 100 miles per hour. While a thrusting spear can penetrate several inches into a large animal, tests have shown that an atlatl dart can penetrate several feet. The points are designed to slice deeper into muscle, blood vessels and organs as the animal runs after a hit. The high regard that the Clovis hunters had for these weapons can be seen in the rare and beautiful materials that are often used in the points.

It is understandable that a weapon that gave these hunters power over such awesome animals became a symbol of status and clan identity.

Read about research into working altatls.
THE ARCHAIC PEOPLE
8000 to 1000 B.C.

Besides big game hunting, Paleoindians undoubtedly also gathered plants and took small game for much of their sustenance. However, studies of many hunter-gatherer societies show that social status and ritual attend the hunting and distribution of large game meat, which has enhanced importance because of its rarity and the dangers involved in taking it. So by 8000 B.C., as the weather warmed, big game disappeared and people began to settle, some form of hunting ritualism involving atlatls was possibly already in place.

Regional differences in artifact styles appeared for the first time, indicating that groups were developing unique local cultures and perhaps different languages. Regional economies based on more efficient gathering, foraging and hunting of smaller game, emerged with some groups specializing in river or seaside locales. As centuries passed, groups tightened their hold on specific territories. This is indicated by formal cemeteries, which are recognized by archaeologists as a sign of territoriality. Small circular huts, with wooden posts and perhaps bark covering, became sturdy enough to leave remains, although they were part of seasonal camps rather than year round villages.

These were people who lived in small groups of 25 to 50, moved seasonally from one location to another, and did not farm or make pottery. They did not have the bow; the atlatl was still their primary weapon.

In about 6000 B.C., atlatls with beautiful bannerstones made of banded slate began to be placed in some burials. Pictured here is an artist's conception of a ceremonial atlatl with a Quartz Butterfly bannerstone which might have been used 3,000 years after the first bannerstones were created. By this time Archaic people had extensive trade routes for the exchange of rare materials. Copper mined in the Great Lakes region and marine shells from the Gulf, as well as rare quartzite, have been found far from their places of origin. By the end of the Archaic Period, which also marked the end of bannerstone production, extensive earthworks had been built at Poverty Point, Louisiana. Farming was being experimented with, and the first pottery was appearing in North America. The last bannerstones were made 2,500 years before Europeans began the conquest of the Americas.
CEREMONIAL FUNCTION

The breathtaking beauty and high level of craft exhibited by some bannerstones have convinced many observers that they were ceremonial objects. Webb's insistence that bannerstones were always functional atlatl weights ignores a variety of evidence. This Slate Butterfly, with its tiny hole and very deep notches, is too delicate to have ever been used in spear throwing without breaking the banner or what would have been a less than 3/16" in diameter atlatl shaft. Other evidence includes:

- Many bannerstones are too massive to be used in working atlatls. See Working Atlatls.
- Atlatls with hooks attached as found in burials could not withstand the forces of use because the connection between the shaft and hook would fail. No working atlatls are designed in this way. The hooks themselves often have such small, delicate barbs that they would break.
- Some otherwise finished and polished bannerstones used as grave offerings have holes that could not fit on an atlatl shaft, incomplete holes, or no holes at all.
- A functioning atlatl weight can be made from local materials in a few hours or less. Many bannerstones are made of beautiful, non-local stone that can be very difficult to work. Some bannerstones required hundreds of hours to create.

Many cultures, including our own, have developed ceremonial weapons that are signs of rank and status. Our flags, for example, began as part of a medieval weapons system. They developed from lance pennants which were first used in war to prevent speared bodies from sticking to lances. The pennants then became heraldic Clan markers and eventually evolved into flags, our symbols of national identity, which we also use in some of our high status burials. Bannerstones could have had an analogous symbolic function in Archaic life. The persistence of particular types in different territories over hundreds and thousands of years indicates their probable use as clan totems. As symbols of group identity, bannerstones probably evoked strong feelings of pride and unity among clan members.
THE THREE ATLATL CACHE

Archaic burials are shallow, generally only 2 or 3 feet in depth. Since many graves have been eroded or plowed out, most bannerstones have been found on the surface. The rarity of bannerstones in intact burials indicates that they were a high status tribute. Two bannerstones are occasionally found together. The extremely rare occurrence of three bannerstones in a burial is a pattern that occurs often enough throughout the Archaic to have significance. David Lutz first proposed that the "Three Atlatl Cache" was the highest mortuary tribute of Archaic people. This cache contains Wisconsin Winged bannerstones from a mound on the Ohio River in Vanderburgh County, Indiana.

These are different substyles of early Wisconsin Winged, and were probably contemporary, since they were buried together. They were broken, or ceremonially "killed," before burial. This was often the custom, perhaps to release the spirit or render them useless to potential grave robbers. Pieces are often missing from broken bannerstones in intact burials, implying that they were broken away from the burial site.

The existence of "Three Atlatl Caches" early in the history of bannerstone production is confirmed by the finding of three Reels (6000-5300 B.C.) in a northern Alabama burial. This suggests that bannerstones were ceremonial objects from their inception. Private Collection

NEXT: Bannerstone Clan Tributes
CLAN TRIBUTES

Patterns of bannerstone finds show that different types were in use in separate, sometimes overlapping, regions at the same time. A type might evolve in a region for thousands of years. This and the strong emblematic character of the designs indicates that bannerstones were probably used as clan symbols as well as objects to display individual status.

Finds of different types together provide insight into which styles were contemporary. This atlatl cache of a Horned, Clarksville, and Bottle was found at Overflow Pond in Harrison County, Indiana. The only atlatl artifacts found in a loosely filled-in pit, they were placed in a stack, each separated by less than an inch of dirt interspersed with some beads. This assemblage probably indicates that neighboring groups made a ritual donation of their clan totem to a particularly respected leader. The 5,000 year span of bannerstone use in burials confirms the extraordinary longevity of this ceremonial tradition.

William Brockman Collection

NEXT: The Lutz Cache
The Lutz Cache

The Rockport, Indiana site was discovered along the Ohio River by David Lutz's father. On April 21, 1977, David, his father and two sons recovered fragments of the above bannerstones from a pit revealed by erosion in the bank. This cache excited David's interest in bannerstones resulting in his monumental study, "The Archaic Bannerstone" (2000). Such a find is notable for the rare Hooked types and the mixing of types in a single burial. It led to David's proposal of the "Three Atlatl Cache" as the supreme Archaic burial tribute.

David Lutz Collection

NEXT: A Double Cache
DOUBLE THREE ATLATL CACHE

Crib Mound, in Spencer County, Indiana, was named for a corn crib that was located there. It has proved one of the richest sites for bannerstone burials. R.C. Oberst found this unique cache of two sets of three bannerstones in 1969. The Quartz Butterflies, which are highly finished and polished, have been "ceremonially killed," probably in another location since there are pieces missing (here restored). Two of the Rectangular Barreled are unfinished. William Brockman Collection.
In his 1939 book, "Bannerstones of the North American Indian," Byron Knoblock tried to put bannerstone types in an evolutionary sequence based on the form of the artifacts alone. This effort was doomed to failure because no reliable dates from archaeological sites were available at that time.

The advent of radio-carbon dating provided a scientific method for placing cultures and artifacts in a chronological sequence. Since only organic materials such as charcoal, bones, antler or plant remains can be carbon dated, stone artifacts like bannerstones must be dated by inference, based on a number of factors:

- Bannerstones have been found in carbon dated strata of previously undisturbed sites.
- Bannerstones have been found with artifacts, such as projectile points, atlatl hooks, and other bannerstone types that have been reliably dated.
- Bannerstones have been found on the surface of dated sites that were only in use for a short time, indicating that all site artifacts were contemporary.

Mary L. Kwas was the first to create a dated sequence for several types of bannerstones using reliable data in 1981. You can read her paper, Bannerstones as Chronological Markers in the Southeastern United States.

David Lutz, by synthesizing data from archaeological papers, museum, university and private collections, was able to greatly refine bannerstone chronology by dating over 30 types and indicating how some types evolved into others, in his book "The Archaic Bannerstone." As data were collated, he identified stylistic trends. For example, he showed that the shape of the barrel, (the area around the hole) and the cross section of the wings can be an indicator of chronological sequence. His conclusions are the basis of the dating and evolutionary information in this presentation.
FABRICATING BANNERSTONES

For thousands of years after people first came to North America, all stone tools were created by flaking technology. About 8,000 years ago, people began to create stone objects by pecking, grinding, polishing, sawing and drilling. Bannerstones were perhaps the first objects to be made in this way, as evidenced by reliably dated Reel bannerstone fragments from 6000 B.C. These first bannerstones were highly developed, so it is possible that they emulated earlier forms made of wood. The first stone used in bannerstone production, banded slate, often resembles wood grain.

Ground and polished stone objects require much more work than flaked objects. Byron Knoblock and B. W. Stephens made extensive tests of drilling techniques that were probably used by Archaic craftsmen for Knoblock’s book, “Bannerstones of the North American Indian.” They concluded that a 3 inch quartz Hourglass banner would require 180 hours to drill. Pecking, grinding, and polishing probably took longer than drilling. Add the time to quarry and transport the quartz, or develop goods to trade for it, and several hundred hours would have been required to make an Hourglass bannerstone. As the Archaic period is not considered a time of specific task specialization, the artist would have to fit his bannerstone work into a routine of hunting, foraging, tool making, seasonal travel and social obligations. At a few hours of work per day, the quartz bannerstone pictured here could take many months to complete. Bannerstones were the highest material expression of Archaic culture.

NEXT: Bannerstone Artists

3.25” Harrison Co IN, Overflow Pond site, yellow quartz Hourglass with traces of the red ochre it was buried in, William Brockman Collection
THE BANNERSTONE ARTISTS

It is hard to imagine the kind of evidence that would illuminate the lives of the artists that made bannerstones. We can only speculate and pose questions.

Since the atlatl is a hunting weapon, and in hunter-gatherer societies all aspects of hunting are men's work, we can assume that men made bannerstones. Even if the connection between bannerstones and hunting was forgotten after thousands of years of ceremony, men would still be the artists because traditional roles were so important in these societies.

Bannerstone making required a number of specialized skills. Master bannerstone artists may have been the first technical specialists to appear in Archaic bands. They probably trained apprentices, who did some of the repetitive work such as drilling and polishing. Some poorly made bannerstones may be "practice pieces" by apprentices.

A variety of evidence suggests that bannerstones played a central symbolic role in clan ceremonies in which related bands were present. The most beautiful bannerstones would have been objects of status, display, and envy. Artists who could produce these bannerstones probably had a special relationship to the clan leadership and elevated status as a result of their work. Their finished products may have been traded or gifted to others by clan leaders. Elaborate gift giving networks are a feature of many clan societies throughout the world. Leaders enhance their status and cultivate obligation relationships by giving precious gifts. If this was a feature of Archaic life in America, the best artists may have influenced bannerstone design far beyond their local areas as examples of their work were distributed. Bannerstones as status gifts as well as burial tributes would account for those found far from their home territories.

NEXT: Unfinished Bannerstones
UNFINISHED BANNERSTONES

These unfinished bannerstones illustrate different stages of fabrication: chipping and pecking the rough form, grinding into shape, polishing and drilling. The chipping that was done first still shows in the edges of the left examples. The upper left piece shows pecking. The lower left has some pecking that shows through the incomplete grinding and polishing.

The Quartz Bottle on the right has been ground into its final shape. Drilling with a hollow reed has started at the top. The next step would have been the final polish, which could have been done with fine sand impregnated leather.

Right: 4.2” Warrick Co. IN, Private Collection; Lower left: Sugar Creek, Putnam Co. OH, Field Museum, Cat. 53937; Upper left: 7.8” Ohio, Private Collection
ABSTRACTION OR REPRESENTATION?

We can never know what bannerstone shapes meant to Archaic people. We can only speculate about whether they were symbols of animals or had other meanings. Knoblock, Lutz and others have proposed that some types represent birds, butterflies, deer and turtles. There are some problems with this animal effigy theory:

Only a few of the over 30 types of bannerstones have been suggested to resemble any animal. What about the others?

In most cultures that have abstracted animal designs in art, such as in the case of the Bronze Age Chinese dragon, the first representations are recognizable and get more abstract over time. Bannerstones started out abstract, with types like the Reel, Pick, and Double Bitted Ax that do not suggest any animal forms. The Double Bitted Ax is our name for a shape made by people who had no ground stone axes at all and never developed a double bitted type.

It has been suggested that Bottles are turtles and Hooked types are deer representations. Both of these forms originated with the Tube, which does not resemble an animal.

Whatever the original meaning of these shapes might have been for Archaic people, they may have forgotten the association over the thousands of years that some forms evolved, just as most of us have forgotten the origins of Christmas trees, Easter eggs and angels.
Unusual Examples

The vast majority of bannerstones fall into one of the types represented on the Examples page. These types evolved over thousands of years in particular territories. Bannerstone artists were not free to create whatever shape they liked, but worked within the definite form and material constraints of a particular clan tradition.

A very few bannerstones, such as these, are unique in form. Lutz proposes that these artists may have been from remote bands that had poor communication with clan networks. Unique specimens are often suspect, but many unique artifacts have been found in archaeological digs.

While the middle examples seem clearly related to the Humped and Knobbed Crescent types, the left and right examples are hard to relate to any particular type.

Left: Private Collection; Right: Private Collection; Middle top: Tommy Beutell Collection; Lower: Tom Browner Collection

NEXT: Shell Bannerstones
Composite Bannerstones

Bannerstones made of shell or a combination of stone and shell, as seen on the left, are very rare. These are found at the end of the Middle Archaic Period, around 3300 B.C., when marine shell was used in making many types of artifacts. The composite banners were held together with some form of adhesive that has not survived. The shell dispersed into the continent from the Gulf areas through trading networks. These examples, which mimic the stone Tube and Humped types, were found in Davidson County, Tennessee. The lower middle artifact is a 'Black Earth' type atlatl hook, made of antler, that was found at the same site along with a shell necklace and shell gorget.

Mark Clark Collection

NEXT: Reworked Bannerstones
Reworked Bannerstones

Bannerstones were sometimes reworked after breaking to restore their symmetry. Here are examples from the Middle Archaic period of a Double Notched Slate Butterfly (left) and a Notched Ovate (right).

It is interesting that Archaic people valued symmetry more than conformity to the clan totem in these cases. In other cases, broken banners were used without reworking, beyond smoothing the break. Left: 3.75" Wells Co IN, found by William Bailey in 1854, Gordon and Steve Hart Collection; Right: 4" Bartholomew Co IN, Private Collection.

NEXT: Fakes and Reproductions
Fakes and Reproductions

Bannerstones are still being fabricated today, 3,000 years after the end of this ancient tradition. If these modern works are labeled as such, for example in an educational display in a museum, they are considered reproductions. If they are ever represented as ancient, then they are fakes. Fake Indian artifacts have been in circulation since the 1890s. Modern bannerstones, usually made with little regard for the form, materials, or working methods of the Archaic artists, can be seen or purchased from an internet auction service. More sophisticated fakes have caused sleepless nights for collectors, especially as prices for all ancient artifacts have risen steeply. These are examples that the Illinois State Museum has labeled "suspect." The Hourglasses are made from materials, probably Mexican quartz, that were not used in Archaic times.

NEXT: Evolution of Types
Bannerstone forms evolved over thousands of years. The evolution of the early types shown here is established by the discovery of many transitional examples which show the flow from one type to another. Knoblock, who made many errors regarding type evolution, recognized the link between the Notched Ovate and the Double Crescent, but got the sequence backwards. Reliable dating of many specimens has revealed the sequence of some form changes. For other changes, there are not enough dated finds to draw firm conclusions, although some transitions based on informed speculation are included in the timeline.

It is interesting to note that the craftsmen who made bannerstones would not have been aware of the broad evolutionary trends that David Lutz discovered in his decades of research. The maker of a Notched Ovate would never have seen a Reel made 1,500 years previously. On the other hand, we will never know the details of local clan interaction and personal inspiration that influenced bannerstone artists to make incremental changes in their designs.
EVOLUTION IN THE LATE ARCHAIC

David Lutz discovered the evolution of form from Tube to Saddleface, Horned, Hooked, Hourglass, and finally to Rectangular Barrelled which spanned 2,500 years. Towards the end of the life of perforated atlatl weights, bannerstone ceremonialism seemed to have a peak of brilliance as beautiful materials such as red and white ferruginous quartzite, green quartzite and porphyritic granite were used. Even though these materials are extremely difficult to work, the quality of craftsmanship was very high in these late types.

The Hooked type, with its undercuts, was difficult to make and delicate. It probably merged with the Hourglass type as broken hooks were ground off.

Ferruginous quartz Hourglass, 2.2” Pike Co. IL
The bannerstone barrel shows a variety of forms which are best observed from the top. David Lutz has identified and tentatively dated stages in barrel design. The sequence for winged bannerstones is illustrated above. First is a flat design that leaves the hole with thin walls, about 6000-5000 B.C. Next the barrel is thickened, perhaps to reinforce the walls and prevent breakage, about 5500-5000 B.C. The wings are then thinned, resulting in a raised barrel, about 5000 B.C. Following this the barrel is ridged, thinning the wings further, about 5000-4000 B.C. Then the barrel is squared off, perhaps in response to chipped ridges, about 4000 B.C. Finally the barrel is rounded, conforming to the shape of the hole and defining the wings separately, from 4000 B.C. on.

There are exceptions such as the Shuttle type, which never developed a raised barrel.

NEXT: Materials Evolution
The materials used to make bannerstones changed over the 5,000 year span of the tradition. In general, slate was used in early types while hardstone was used later. Time ranges of materials can be correlated with form changes to reinforce conclusions about temporal sequences. For example, at the top, the Wisconsin Wing evolution from slate to granite to porphyry is confirmed by the development of the form.

Below, we see the general trend in materials over thousands of years, from slate, claystone and chlorite to granite and porphyry (technically metaconglomerates), and finally to quartz and quartzite. These later materials were much more difficult to work than slate.
THE TOMOKA CREEK SITE

In 1878, A.E. Douglass, an amateur archaeologist, sailed his yacht down the east coast of Florida to the estuary of Tomoka Creek, where a number of sand mounds had been observed. The largest, later called "Banner Mound," was 14 feet high with sides angled at 30 and 45 degrees, topped by a plateau 28 feet in diameter. At the center, 14 inches from the surface, five bannerstones were found in a row. Three feet below were three more. All but two of the banners were Benton Rectangulars, as seen here. Two were Wisconsin Wings. This is the first known find of a bannerstone cache.

THE TOMOKA CREEK SITE

All of the Benton Rectangulars, except one, were like the example on the left, with one rounded and one squared side to the barrel. The right one has a different barrel style.

Douglass did not appreciate the ceremonial significance of his find, dismissing the cache as a hiding place for "ceremonial axes." Now it is known that it is very rare to find even two bannerstones together. This cache, in the center of the largest mound, was perhaps a mortuary tribute for all the mound burials. No other banners were found at the site.

The whereabouts of the four cache examples not pictured here is unknown.

Left: 5.13" Cat. No. D/144, Right: 3.75" Cat. No. D/146

THE INDIAN KNOLL SITE
These bannerstones from Indian Knoll are part of an evolutionary progression that spanned almost 2,000 years of the Late Archaic Period. A shell mound next to the Green River in Ohio County, Kentucky, it was first excavated by Clarence B. Moore in 1915, then by William S. Webb, 1939-41. This site is notable for the large number of burials (1,178) concentrated in the 100 foot long mound, averaging one body every 1.5 square meters.

Both form change and the materials used indicate that these examples are from successive time periods. The two Saddleface forms on the left are ancestors to the Horned and Hourglass types on the right. The change from slate to granite to quartz confirms that this evolving clan totem was used by the Indian Knoll people for about 2,000 years.

All bannerstones shown in this section were excavated by Clarence B. Moore of the Philadelphia Academy of Science. They are now at the National Museum of the American Indian (NMAI).

Left to right: Saddleface, 2.6' NMAI 171930, Saddleface 3.0' NMAI 171932, Horned 2.1' NMAI 171933, Hourglass, 2.5' NMAI 171928
Grave goods such as flint points and beads were often found. Very few of the burials had bannerstones, indicating the special status of those who received them.

An interesting find in the Indian Knoll Mound is the presence of several dog burials, a detail that speaks to us across the millennia about our common humanity.

Here are two Quartz Butterflies and a highly developed Saddleface bannerstone.

The right example is an outstanding combination of craftsmanship and material selection. The quartz may have been obtained through the extensive Late Archaic trade networks.

Left to right: Quartz Butterfly, 3.1" NMAI 171936, Saddleface, 3.5" NMAI 171921, Quartz Butterfly, 3.6" NMAI 170409
Indian Knoll is a particularly good site for quantifying Late Archaic burial customs because there are so many burials. About 22% of the burials had some kind of grave goods, including points, turtle carapaces, beads, carved bones, and atlatl parts. Only about 4% of the burials had atlatl parts, including hooks, handles, bannerstones, and bar weights. Just 2% contained bannerstones.

The rarity of bannerstones in other Archaic graves confirms the special place this mortuary tribute had in the lives of Archaic people. The four bannerstones shown here are all Saddleface forms. Of the 25 bannerstones found by Moore at Indian Knoll, 17 of them were Saddlefaces. The far right mottled black and white granite bannerstone is also slightly paneled.

Left to right: 3.0" NMAI 171916, 3.3" NMAI 171926, 3.0" NMAI 171918, 2.9" NMAI 171925

**THE INDIAN KNOLL SITE**
THE INDIAN KNOLL SITE

Bannerstones were found with women and children at Indian Knoll. A woman might have status in a clan due to her wisdom or other qualities, but a tribute to a child probably resulted from the high status of the father.

These burials may indicate that by 2000 B.C., the association with hunting had been forgotten.

William S. Webb of the University of Kentucky in his work on Indian Knoll found that 22% of the burials with some atlatl objects (bannerstones, hooks, and handles) were female and 35% were children, of which half were infants.

Left to right: 2.3” NMAI 171924, 2.8” NMAI 171917, 2.4” NMAI 171922, 2.3” NMAI 171923.
THE INDIAN KNOLL SITE

One might assume that at the beginning of bannerstone ceremony, atlatl burials were for men only, as the atlatl is a hunting weapon. Over thousands of years the exclusively male hunting and fishing association may have been lost, and women and children received the tribute. This is only an assumption because Middle Archaic burials have not been quantified to compare with the Late Archaic Indian Knoll.

The three Saddleface bannerstones shown here were all found in fragments, having been ceremonially 'killed' before being placed in the grave. The middle granite bannerstone clearly shows restoration on one end.

Left to right: 3.0" NMAI 17928, 2.4" NMAI 171931, 3.3" NMAI 171927

MORE INDIAN KNOLL SITE
The four bannerstones above show the variety of form and material found at Indian Knoll. The Quartz Butterfly on the far left is followed by a Clarksville, the only one found by Moore at Indian Knoll. To its right is a claystone Green River Oval, and on the far right is a transitional Hump to Saddleface made of limestone.

Moore noted that in many cases where burials yielded bannerstones they often were accompanied by antler hooks, and believed the objects were used for the same purpose. He concluded the antler hooks were netting needles used to make fish nets, and that the stones found with them were used for spacing the mesh of the nets (Moore, 1915, p.433). Moore does mention, however, that Charles Willoughby, who had assisted with previous excavations, felt the antler hooks could be parts of a throwing stick or atlatl.

Left to right: 2.8" NMAI 171925, 2.5" NMAI 171919, 2.3" NMAI 171934, 2.4" NMAI 171920
The Indian Knoll Site

Displayed above and on the next two screens are those bannerstones found by Moore at Indian Knoll that were accompanied by atlatl hooks and handles. Made of deer antler, these have been preserved over thousands of years thanks to the action of lime salts, which are found in shell middens (Lutz, p.44).

Both Moore and Webb excavated many atlatl hooks and handles made from deer antler at Indian Knoll. Webb also found antler hooks in other sites along the Green River, which were excavated in the late 1930s. He came to the conclusion that rather than being netting needles for fishing nets, the antler hooks were parts of atlatls, with the bannerstones being atlatl weights.

These images show the correct size relationship of the hook to the bannerstone. The distal end of the hooks have been enlarged to show them clearly.

Top left: 8.3" hook, bannerstone 171916, Burial 216
Top right: 8.8" hook, bannerstone 171931, Burial 236
Bottom left: 7.0" hook, bannerstone 171932, Burial 259
Bottom right: 10.1" hook, bannerstone 171928, Burial 163
THE INDIAN KNOLL SITE

Each of the hooks has been drilled out on the base, with some grooved at the base as well. Webb states that these long hooks, varying from 6 to almost 12 inches in length, only occurred in the Green River region of western Kentucky and Alabama (Webb, 1957, page 46). The hook appears either at the tip of the antler or cut back a distance from the distal end.

Lutz feels that the position of the tip showed the development of the hook, with the protuberance becoming shorter as the hook was developed (Lutz, p47).

The antler hook at the top left is a type Webb referred to as “elaborate headed,” a form found only at Indian Knoll.

Top left: 6.5” hook, bannerstone 171929, Burial 67
Top right: 6.3” hook, bannerstone 171920, Burial 20
Bottom left: 7.4” hook, bannerstone 171927, Burial B98
Bottom right: 2.2” handle, bannerstone 171917, Burial B2

MORE INDIAN KNOLL SITE
Atlatl hooks made from deer antler have been found in sites that date from the Middle Archaic (4500 B.C.) up into the Woodland period, as late as 1500 B.C. The long atlatl hooks found at Indian Knoll date from the Late Archaic, 3000 to 2200 B.C. As these images show, they were found in connection with a variety of bannerstone forms.

Top left: 7.0" hook, bannerstone 171923, Burial 161
Top right: 7.1" hook, bannerstone 171926, Burial 82
Middle left: top hook 8.8", bottom hook 7.9", handle 3.5", bannerstone 171919, Burial 202
Middle right: 7.3" hook, bannerstone 171934, Burial B92
Bottom: 11.4" hook, bannerstone 171924, Burial 45

THE INDIAN KNOLL SITE
THE BULLSEYE SITE

The Bullseye site is located in the floodplain of the lower Illinois River Valley. The presence of stemmed biface points dates the site to the late Middle Archaic. Twenty-nine bannerstones have been recovered from a cemetery estimated at twenty-five to fifty burials. Above are the single Crescent and two of the eleven Double Edged bannerstones found there, with Tubes, Geniculates, Clipped Wings, and Panels. These were recovered in amateur and professional excavations in 1983-4, and are now in the Illinois State Museum.

Some of the bannerstones were only partially drilled. In the 1987 Illinois State Museum Report on the site, Kenneth Farnsworth states, "That these incomplete specimens were included in burials certainly suggests that their ceremonial placement with the dead did not require that they be fully functional for their original purpose." Since undrilled bannerstones could not fit on an atlatl shaft, it is clear that the bannerstone itself was often considered a complete mortuary tribute.
The Bullseye site provides support for David Lutz’s proposal that construction traits can indicate that bannerstones were from the same time period (Lutz 2000:54). Three different types, the Panel, Geniculate, and Clipped Wing have the unusual trait of oval holes. Lutz’s theory holds that they would be contemporary based on having this trait in common. This is corroborated at Bullseye by the fact that they are all found at the same site associated with projectile points indicating a single time frame. There were four Panel, two Geniculate, and two Clipped Wing bannerstones found at the site. The Clipped Wing type is extremely rare, with only five complete examples known. There are probably more examples in collections that have been identified as salvaged, or prehistorically repaired, Geniculate or Panel bannerstones.

Illinois State Museum, Wear Collection

GO TO CLIPPED WING
THE CLIPPED WING: The Rarest Type?

The term "Clipped Wing" was coined by Jim Wear, the finder of the left and right examples from the Bullseye site. The middle one is from Ohio and another was found in Allegan County, Michigan. These had been assumed to be salvaged Geniculate, or in the middle case, Panel bannerstones that were broken and ground down in ancient times. The fact that they have been found at 3 sites suggested to David Lutz that this is a separate, short lived type. The Middle example is different than the other three known, in that it has the raised edges of a Panel. Since Panels, Geniculates and Clipped Wings are associated at Bullseye, it is not unexpected to see elements of the Panel and the Geniculate in the Clipped Wing.

Right 3.5" and Left 2.7": Greene Co. IL, Illinois State Museum, Wear Collection; Middle: 3.2" OH, Private Collection

The Koens-Crispin Site
THE KOENS-CRISPIN SITE

These Whale's-Tail bannerstones were found near Rancocas Creek in Burlington County, New Jersey. This site was excavated in 1915 (Linton and Hawkes, A Pre Lenape Site in New Jersey, 1916). Twenty-one Whale's-Tail and Mississippi Valley Crescents were found in caches that surrounded a fire pit. One of these caches contained three bannerstones, "all of them large and of fine quality." If we knew which 3 were found together we might infer whether the subtypes seen on the next page were contemporary, or whether they were sequential over the life of the site.

The caches were not in the vicinity of graves, which is unusual, and the fire pit was not used for cooking. This indicates a variation of bannerstone ritual in which the mortuary tributes were separate from the cemetery and dedicated in a fire ceremony. The Koens-Crispin bannerstones pictured on the next page show the close relationship of the Mississippi Valley Crescent and Whale's-Tail types in the East, and demonstrate the range of variations on a theme that were created by craftsmen of a single group.

NEXT: More Koens-Crispin Site
While these bannerstones have similar construction, subtypes are apparent. The right two rows have squared barrels and wings that extend upward. The left rows have rounded barrels and wings that are straight across the top, the first row with flattened wing tips and the second with round wing tips. The classic Whale’s-Tail trait of the barrel extending below the wings is seen in examples of all subtypes. This delicate feature may have broken off during construction of some of these examples.
CONCLUSIONS and SPECULATION

Bannerstones were the highest material expression of Archaic culture. The best of them are among the masterpieces of art created by humans of any culture.

What we can know about the prehistoric past is limited. While details of social organization, eating habits, and genetic makeup can be discovered, the mental and spiritual life of ancient peoples remains to a large extent unknowable. On the other hand, if we limit our concept of prehistoric peoples to what can be absolutely proven, we end up with a picture of dull mechanisms rather than thinking, feeling people. My mental picture of the bannerstone era is informed speculation based on hard evidence, inference and knowledge of other ancient traditions.

Paleoindians had many sources of food but big game hunting was a primary source of hero stories, status and ceremony. The atlatl, which gave hunters power over awesome animals, became a special focus of hunting rituals and leadership display.

As Archaic peoples developed ties to particular areas, cemeteries became important territorial markers. Burial ceremonies served to renew clan relations and reinforce territorial control. Ceremonial atlatls with bannerstones indicating clan affiliation were symbols of leadership at official functions. Leaders and respected members of the band were buried with a ceremonial atlatl or bannerstone. Very special leaders were given the mortuary tribute of three bannerstones. Neighboring or trading clans sometimes contributed their totems to the graves of particularly respected individuals.

Bannerstone artists were valued members of the band with a special relationship to the leadership. Their work was traded or gifted to other bands within the clan, helping to diffuse style changes.

After 3,000 years bannerstone ceremony was enhanced by the use of brilliant, but hard to work, materials such as colored quartz and porphyry.

Bannerstones by themselves were often the complete mortuary tribute. They were sometimes broken before burial. If this started as a response to grave robbing (indicating the preciousness of bannerstones), it became in time a ritual of releasing the spirit of the bannerstone to accompany the dead.

Sometimes bannerstones were buried in caches separate from the grave. The ritual and meaning of bannerstone ceremony had a variety of expressions.

As thousands of years passed the association of bannerstones with hunting was forgotten and the tribute was one of respect and status. Bannerstones were buried with women in tribute to their wisdom and fortitude or their association with a respected man. Bannerstones in infant's and children's graves show that status extended beyond a respected individual to the whole family.
The Reel is the earliest dated type, appearing in about 6000 B.C. Here we see the evolution from the early style at the upper left, which has very slightly concave wings, to the concave wings in the middle, to the late style with a constricted center at upper right. Left: 3.6" Colbert Co. AL, Tony Putty Collection; Middle: 4.4" Clinton Co. OH John Steimle Collection; Right: 4.5" Massac Co. IL, William Brockman Collection
Highly developed Reels with constricted centers, like the bottom one, were delicate, and when broken across the thin center may have been salvaged to start the Crescent, Pick, and Mississippi Valley Crescent styles. Left: 3" Huntington Co. IN, Jeff Mills Collection; Lower: 4.3" Henry Co. KY, Phil Foley Collection; Right: Henry Co. IN, Private Collection
The lower example was found by a farmer in 1897 while plowing. It is one of the few rare elongated Reels. Not enough research has been done to determine if such variations have temporal or territorial implications. Top Left: 3.6" Poinsetta Co. AR, James Felke Collection; Middle: 6.5" Outagamie Co. WI, Private Collection; Upper Right: 3.8" Johnson Co. OH, Private Collection.
These are highly symmetrical and well crafted Reels with attractive banding. The left one was found in Greene County, Indiana, prior to 1895 by Ethan Allen, the grandson of the Revolutionary war hero. Someone, perhaps a child, had started to carve their name or initials on it. The right example, a strikingly beautiful piece of Archaic design, shows the concave top and bottom planes that mark the transition to the Double Crescent. The concave curves of the wing ends place it within the Reel type.

Left: 4.75" Greene Co. IN, Private Collection;
Right: 5.5" found on Paint Creek, Ross Co. Ohio
John Steimle Collection
Plow scars are clearly evident on the left example. Archaic burials were shallow, so many bannerstones were found in the plow zone. Left: 5.5" McNairy Co. TN, near McKenzie, Mark Clark Collection; Right: 4.13" Logan Co. OH 1898, DASI A222789; Bottom: Knox Co. OH, NMAI 162952
The evolution from Reel to Double Crescent is clearly demonstrated by the number of transitional examples that have been found. The ridged barrel on the Double Crescent to the right indicates that it is later than the Reel. Late examples of the reel may have slightly raised barrels, but they are never ridged. The Double Crescent evolved from the Reel around 5400 B.C., while the Reel continued as a clan totem. Left: 4" Wayne Co. IN, Private Collection; Middle: 4.25" Allen Co. IN, Gordon and Steve Hart Collection; Right: 5.25" Wood Co. OH, Duncan Caldwell Collection
This Double Crescent, from the James Pritchard collection, is one of only three documented that represents the highly developed terminal phase of this type, which continued a bit after the Double Crescent evolved into the Notched Ovate. This is a feat of high artistry and workmanship from early in the bannerstone era.

5.8" Isle of Wright Co. VA, Zuni Sand Pit site.

THE DOUBLE CRESCENT

MORE DOUBLE CRESCENTS

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THE DOUBLE CRESCENT

The Double Crescent evolved from the Reel in about 5400 B.C., and developed into the Notched Ovate less than 1,000 years later. These outstanding examples are fairly early, as the barrels are not ridged. Meant for display only, both are too massive to have been used with functioning atlatls; the one on the right weighs a pound, with a delicate, 1\16 inch thick barrel wall. It was found in 1953 by Merton Mertz on his farm in Findlay, Ohio, when it was broken in half at the barrel by farm machinery. Note the rare trait of hooks on the ends of the left example. Left: 6" Kent Co. MI, John Steimle Collection; Right: 7" Found near Findlay, Hancock Co. OH, Private Collection.

MORE DOUBLE CRESCENTS
THE DOUBLE CRESCENT

These Double Crescents are made of ferruginous slate. Iron in the original sediments causes the red color. The right example, found near Cincinnati, is close to the Reel from which it evolved, but the convex curves of the wing ends identify it as a Double Crescent. The asymmetry of the example on the left may be due to the restoration of the right upper wing tip, which can be seen as a darker red color.

Left: 6.75" Montgomery Co. OH, William Cain Collection; Right: 5" Hamilton Co. TN, Jim Felke Collection

MORE DOUBLE CRESCENTS
THE DOUBLE CRESCENT

The top to bottom asymmetry in the left example may be the result of a broken lower tip during construction. The artist then cut down the other lower tip to maintain symmetry.

Left: 4.5” Allen Co. OH, William Cain Collection;
Right: 5.5” West Dayton, OH, William Cain Collection
THE DOUBLE CRESCENT

These highly developed Double Crescents are from the Gordon and Steve Hart Collection. At the right a Pick Géniculé is included to show how broken Double Crescents may have been salvaged to create this type. This proposal is much more speculative than the development of Double Crescents into Notched Ovates, which is demonstrated by many transitional forms. Left: 5.5" Ross Co. OH, found by Carl Goodman in 1862; Right: 5.12" Huron Co. OH, found by Albert Swift in 1869; Upper right: 3.5" Wyandot Co. OH, Jim Felke Collection
DOUBLE CRESCENT TO NOTCHED OVATE

The Notched Ovate is unusual in that it evolved from two types, the Double Bitted Ax and the Double Crescent. Here, in three bannerstones from the Gordon and Steve Hart Collection, we see the incremental transition from Double Crescent to Notched Ovate. The middle and right examples are considered among the very finest. The end examples could never have been part of atlatls because the wing tips interrupt the path of the shaft. This is evidence that the bannerstone by itself was often seen as complete. Left: 4.4" Williams Co. OH, found by Bard Cunningham in 1903; Middle: 5.5" Michigan Right: 6.0" Wyandot Co. OH
The Notched Ovate resulted from a convergence of the Double Crescent and Double Bitted Ax into a new form in about 4800 B.C. The Double Bitted Ax or Double Crescent wings curved back to form the large notches on the left. The smaller notches in the right examples evolved over time, similar to those on the Double Notched Slate Butterfly of about 4000 B.C. The raised barrel on the right example confirms its later date. These were all in the William Cain collection.

Left: 5.5" Williams Co. OH; Middle: 6.0" Richland Co. OH
Right: 3.8" Montgomery Co. OH

MORE NOTCHED OVATES
NOTCHED OVATE

The right and left examples are early in the Notched Ovate evolution, as indicated by the lack of raised barrels and the turned-in notches. The right one was found in 1973 by Otis Rogers, who later sold it for $5. The right and middle examples show the symmetrical banding that was sometimes achieved by Archaic craftsmen.

Left: 3.6" Livingston Co. MI, Duncan Caldwell Collection;
Right: 4.8" Hendricks Co. IN, Jeff Mills Collection;
Middle: 4.5" Richmond Co. OH, William Cain Collection.

MORE NOTCHED OVATES
NOTCHED OVATE

The middle unfinished example shows how the craftsman avoided breaking the notch extensions by drilling the notches and leaving the gaps closed until late in the fabrication process. The left one was found in 1860.

Middle: 6.1" Ohio, Field Museum 105156
Left: 5.3" Logan Co. OH, Earl Townsend Collection;
Right: Williams Co. OH, 1905 NMAI 006143

more notched ovates
The left one was found by Zip Pierce near Bokes Creek in Union County, Ohio, prior to 1946. It is early, about 4700 B.C., as indicated by the thick wings with no raised barrel. The slight extensions on the wing tips are a rare feature of early Notched Ovates. The disjunction of banding is the result of a slip in the sedimentary layers during the formation of the rock.

Left: 5.6" Union Co. OH, Private Collection; Middle: 5.3" Private Collection; Right: 4.9" Van Wert Co. OH, Duane Johnson Collection
The center example seems to be a broken and salvaged Notched Ovate. However, its massive size and wings that are thicker at the edges than near the barrel may indicate that it was designed in its present form.

Left: 4.0" Summit Co. OH, Gordon and Steve Hart Collection;
Right: Clinton Co. IN, Private Collection;
Middle: 6.0" Mecosta Co. MI,
Gordon and Steve Hart Collection
The southern version of the Notched Ovate may have little relation to the Midwestern bannerstone of the same name. These two illustrate the range of quality seen in all bannerstone types, from indifferent execution on the right to a superbly designed and crafted masterpiece on the left. The timeline for this type is speculative, based on the dates of other notched types.

Left: 5.2" Hardee Co, FL, DASI A317061;
Right: 4.0" Zirconia, NC, 1891, DASI A148661
THE SOUTHERN NOTCHED OVATE

The left example is huge for a bannerstone, at 9 inches. While these are both unfinished in the sense that they are not drilled, the left example was also left in a rough, unpolished state. The right example, with its carefully polished finish, may have been a completed mortuary tribute, since polishing is the last stage of fabrication.

Right: 6.8" Oconee Co. GA, 1899, DASI A027983;
Left: 9.0" Hendersonville, Henderson Co. NC,
DASI A230883

MORE SOUTHERN OVATES
THE SOUTHERN NOTCHED OVATE

These are all from the same area, probably the same site. They are made of similar materials and have the same squared barrel style. This seems to indicate that there is a closer relation between the Southern Ovate and the Benton Rectangular (right), than to the midwestern slate Notched Ovate, which never has a squared barrel.

Left: 5.2" Buckhead Creek, Burke Co. GA, 1899, DASI A171389;
Middle: 2.2" Buckhead Creek, Burke Co. GA, 1899, DASI A171390;
Right: 2.3" Buckhead Creek, Burke Co. GA, 1899, DASI A171392

TO BENTON BANNERSTONES
BENTON CULTURE BANNERSTONES

The Benton Culture existed in the South for about 1,500 years, at the end of the Middle Archaic Period. In addition to using bannerstone types such as the Shuttle, Tube, and Double Edged that were popular in other cultures, they created types that were unique to their culture. Less known than Midwestern types, they don't have well established names. The terms used by Lutz are followed in this project. Left is a Benton Oval made of highly polished limonite. Right is a Benton variation of the Humped with a characteristic barrel ridge. Middle is a Benton Rectangular. Left: 1.9" Carroll Co. TN, Private Collection; Middle: 2.3" Buckhead Creek, Burke Co. GA, 1899, DASI A171392; Right: 3.9" Fulton, Itawamba Co. MS, Private Collection

More Benton Bannerstones
BENTON BANNERSTONES

This variation of the Benton Rectangular may be related to the Mississippi Valley Oval, which is what it is often called. These may be a separate type, as their barrels are not like either the Mississippi Valley Oval or the squared barrel Benton Rectangular. These represent the most highly developed Benton form. The left example is out of its range in Indiana, but another was found in Ohio (Moorhead, 1917; p.111). They were probably traded or gifted to clans far to the north of their home range. Left: 4.4" Indiana, Tom Davis Collection; Right: 5.0" Sequatchie Co. TN, Gilcrease Museum, 61.909
BENTON BANNERSTONES

The middle banner is a rare Benton variation of the Shuttle. The Shuttle preceded the Benton culture, and while generally a southern type, spread to the lower Midwest. The Benton people adopted the Shuttle in its classic rounded form. They also created variations such as this one, with flat planes defining the wings and concave barrel ends.

Left is a rare quartz Benton Oval. These are named for their oval shape when seen from the top view. The Benton Oval on the right is ridged on the wing edges.

Left: 2.2" Holly Springs Marshall Co. MS, 1876, DASI A026929;
Right: 2.5" Benton Co. TN, Mark Clark Collection;
Middle: 3.5" Pontotoc Co. MS, Private Collection
These objects form a mortuary cache found in Monroe County, Mississippi. The bannerstones have the cross section and slightly flaired ends that are typical of Benton Tubes. The upper left object is a bar weight. The unresharpened Turkeytail point is very large at over 7 inches, and may be too thin for utilitarian use. All of these objects were ceremonial in purpose. This is a tribute to a highly respected individual.
THE SHUTTLE

The Shuttle is named for its resemblance to a weaver's shuttle. It is a southern variation of the Unnotched Slate Butterfly. Unlike the Butterfly, it did not develop notches or changes in barrel styles but generally maintained its form for over 2,000 years. These are made of unusual and beautiful materials. The left one is highly polished limestone. The middle example is iron with yellow inclusions. The right Shuttle is a black and white conglomerate granite which has yellowed with age. Left: 4.0" Floyd Co. IN, Private Collection; Middle: 3.3" St Charles Co. MO, Private Collection; Right: 3.5" Location unknown, Private Collection

MORE SHUTTLES
THE SHUTTLE

Three Atlatl Caches are rare. Lutz could find only twenty-eight in the literature and in collections, although there must be more that have not been discovered. This cache of three Shuttles includes a Benton Tube. It was probably added to the tribute by members of a related clan, indicating that the individual was respected by neighboring groups.

Largest 4.0" Monroe Co. MS, Private Collection
The upper middle example was partially drilled with a hollow reed.

Left: 3.6" Alcorn Co. MS, Private Collection;
Middle: 4.3" St Charles Co. MO, Floyd Ritter Collection;
Right: 2.9" Butler Co. KY, Leroy Hoagland Collection
THE GEOGRAPHIC RANGE OF BANNERSTONE PRODUCTION

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DOUBLE BITTED AX

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KNOBBED CRESCENT
THE GEOGRAPHIC RANGE OF BANNERSTONE PRODUCTION

DOUBLE CRESCENT
THE GEOGRAPHIC RANGE OF BANNERSTONE PRODUCTION

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The geographic range of bannerstone production.
THE GEOGRAPHIC RANGE OF BANNERSTONE PRODUCTION

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THE GEOGRAPHIC RANGE OF BANNERSTONE PRODUCTION

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Click on a type
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Knobbed Crescent
Double Crescent
Pick Geniculate
Geniculate
Notched Oval
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Notched Wing
Slate Butterfly
Tube
Panel
Quartz Butterfly
Humped
Concave Humped
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DOUBLE CRESTENT
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GENICULATE
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SHUTTLE
NOTCHED WING
SLATE BUTTERFLY
TUBE
PAANEL
QUARTZ BUTTERFLY
HUMPED
CONCAVE HUMPED
SHIELD
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BENTON CULTURE

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BANNERSTONES AS CHRONOLOGICAL MARKERS IN THE SOUTHEASTERN UNITED STATES
Mary L. Kwas

ABSTRACT
The purpose of this paper is to examine the different physical shapes or types of bannerstones, and to determine if these shapes can be used as chronological markers in the southeastern United States.

Introduction
The bannerstone, a geometric ground-stone object marked by a central perforation, consists of a great variety of shapes. Various theories have been suggested to explain their variety and function. In this paper the possibility of using the different shapes as chronological markers will be explored.

The area of study has been confined to the southeastern United States for two reasons. First, bannerstones do not occur in the West. Second, by confining the area to the Southeast, simple regional variations in bannerstone shapes (such as those that occur in New England or the Great Lakes area) will be excluded. In choosing material for this study, only dated sites were used. Surface finds of bannerstones from unknown or undated sites were not included in the database.

Identification of the different bannerstone shapes was achieved by using Knoblock's (1939) typology, which is the most refined and detailed of any available on bannerstones. In order to devise his "Bannerstone Tree of Evolution" (Knoblock 1939:149), Knoblock analyzed "the lines and planes of the modified designs" and noted "the similarity of construction" (Knoblock 1939:127). In other words, he used both a face and end view to classify his pieces. He also relied upon distributional material, since some forms were confined to certain areas of the country. Because he did his work prior to the use of Carbon-14 as a dating technique, his "evolutionary scheme" was based upon the similarity in shape, and there is no evidence to support his scheme. However, his work is valuable for giving specific names to the greatest number of shapes of bannerstones.

Knoblock set up his "evolutionary scheme" in an A, B, C system. Class A items were called the primary forms, Class B were called the blending forms, and Class C items were called the ultimate or developed types (Knoblock 1939:131). According to Knoblock all bannerstones developed out of a "Southern Perforated Pebble Form," which was first made in an area of the Southeast (Knoblock 1939:26, 149). Out of this preform developed eight primary forms: Southern Humped, Southern Triangular, Southern Double-edged, Southern Ovated, Southern Rectangular, Southern Boat-shaped, Heart-area Ovate, and Southern Tubular (Knoblock 1939:148). They occurred in two areas. All except No. 7 were found in the "Primary Area," which included parts of Alabama, Georgia, and South Carolina (Knoblock 1939:124). No. 7 occurred in the "Heart Area," which Knoblock felt to be the area where most bannerstones were made. This area corresponds roughly with the Ohio Valley (Knoblock 1939:25).

According to Knoblock, from these eight primary forms, the bannerstone shapes changed gradually (Knoblock's Class B or "blending form"), until they "evolved" into 32 ultimate types. These were recognized not only for extremes of design, but also in many instances by the lithic materials. They differed from the blending forms: in that they were extremes of bannerstone shapes and
distinct from one another (see Figure 1 Typology).

Adjustments to Knoblock's Typology

Much of the difficulty of doing research on bannerstones has been that researchers tend to disregard the bannerstone amongst other artifacts, and give it only a cursory mention in their reports. Photos and sketches are rare, and description in most cases is simply stated as "winged" or "crescent."

During this research the author found a large number of bannerstone types grouped under rather poor-descriptive names such as "winged." "Winged" varieties cover the gamut from very early Shuttle-shaped types found in the early Middle Archaic to very late Quartz Butterfly types found at the end of the bannerstone "life-span." Also much widely separated types as "winged" forms which occur only in the lower Mississippi Valley, the Atlantic Northeast, or the Midwest area are all grouped under the single heading of "winged." In fact, at least 22 of Knoblock's 32 types could probably be called "winged" forms. This causes considerable confusion. For example, in a 1959 paper by Lewis and Kneberg are pictured both Shuttle and Hourglass forms (which physically are quite different), both labeled as "winged" (Lewis and Kneberg 1959:168). A couple of types are listed as "prismoidal" (Lewis and Kneberg 1959:168), a term that totally confounds this author, since it never seems to be defined whenever it is used. The two bannerstones pictured as being "prismoidal" appear to be a Hinge or Ovate form, and possibly a Humped variety (although the sketch looks remarkably like several listed as being in the "cylindrical" class). According to vague descriptions in various other reports, "prismoidal" may also be considered as Humped and Triangular forms, although it is impossible to say for certain.

Equal problems are also encountered with such broad descriptive names as "crescent," or "ovate." And in one description, this author even came across a form called "parallelepiped," presumably leaving the reader to his imagination.

Although a large number of Knoblock's 32 types occur somewhere in the Southeast, this paper was restricted in chronological use of types according to which ones were recovered in excavated contests. Since the overall number was relatively small, it was not possible to differentiate between Class B or "blending forms" and Class C or "developed types." Also due to poor description and/or photographic or sketched examples of bannerstones in the literature, it was often impossible to make an exact identification of types. Ideally one needs to see a face and end view of the bannerstone to properly identify it, and in most cases only a face view is illustrated in the literature. Also in dealing with "blending forms," similar types often have almost identical "blending" shapes, at least in the early stages, so one can only make the closest identification possible. Fifteen different types were found in excavated contests, which could be used in this paper.

A number of crescent-shaped forms were lumped into a single category. It is possible that this category consists of the Southern Boat-shaped Primary, the Pick type, and the Mississippi Valley and Notched Crescent types. Photos and sketches in the literature will often look like one type, but be identified as another, depending on the identifier's perspective. Also "blending forms" and unfinished examples (i.e.
Piedmont) are more difficult to identify. Even Knoblock groups his Mississippi Valley and Notched Crescent “blending forms” together under simply “crescents.” There was a single find-location for the Knobbed Lunare, which is crescent-shaped with knobbed ends. It is also possible that the Shuttle type may merge into the crescent forms. Most of the examples of the Shuttles were of the “blending form,” that is, they had flat ends rather than pointed ends. A Shuttle type as depicted in Lewis and Kneberg (1959:168) was listed as “winged.”

One specimen of a Double-edged Primary Form was examined which might actually be a very early Shuttle Blend, and one specimen of a Reel-shaped “blend.” It is likely that the early Reel and early Shuttle forms are closely related through the Double-edge, as one has slightly convex and the other concave ends. There is also one source for the Double Bitted Axe, another convex-shaped form similar to the Double-edge. There is one excavated source for each of the Saddle-face, and single-face Bottle types, while there are three locations for the Geniculate.

There were a large number of sources for the Humped and Triangular types, which have been grouped together, as they seem to merge into each other. There were also a fair number of Tubular specimens, which also may be related to the Humped/Triangular group.

One grouping which consists of five find sources has been called simply Ovoid, for want of a better term. The pieces resemble the Southern Ovate Primary Hinge form, as well as very early “blending forms” of the Rectangular Barreled and Hinge-type. Since they resemble each other more than any other type, they have been placed together.

There are several examples of the Hourglass type. Finally, the last two groups are the Quartz Butterfly and Biface Bottle, which tend to be found on the same sites, although they are distinct enough to merit separate groupings.

Obviously by grouping together several possible different types into Ovoid, Crescent and Humped/Triangular groups does appear to contradict the stand taken earlier in the paper. However, since it was impossible to make an exact identification because of poor photos, unfinished items, “blending forms,” or lack of sufficient description, this system will have to suffice until more exact identifications can be made.

The Chronology

The time-span in which bannerstones were made and used seems to be relatively short. Evidence points to an appearance at the beginning of the Middle Archaic, and ending in the late Archaic. At about 1200 B.C., there appears to be a shift away from bannerstones and toward two-hole gorgets in the lower Mississippi Valley.

The earliest bannerstones make their appearance at about 6000-5000 B.C., and are generally crescentic in shape (see Table 2). Seven unfinished examples were recovered from the Doerschuk site, North Carolina (Coe 1964:52-53). They first appear in association with the Stanly level which is estimated to date from ca. 5000 B.C. Because they are unfinished, it is difficult to make an absolute identification, but they are definitely crescent in shape. It is possible that they would have been made into Notched Crescents had they been finished.

Nearly 200 bannerstones were recovered from the Hardaway site, North Carolina (Coe 1964:81-82), most of them unfinished. However, the only type found in definite association was a Crescent or Pick form which
occurred in a Stanly occupation, said to date after 6000 B.C.

Another Crescent or Pick form was found in Stratum V at the Eva site, Tennessee (Lewis and Lewis 1961:66). This stratum bears a date of 6000-4000 B.C. Chapman (1977:90-92) recovered a Crescent bannerstone from the Icehouse Bottom site, Tennessee. It was associated with the Stanly component, which was dated about 5840 B.C. At Medoc Rock Shelter, Illinois (Fowler 1959, 1971) three different types of bannerstones occurred at different levels. The earliest was a Crescent found at the 20 foot level which dated to ca. 5500 B.C.

Dincauze (1971:195) illustrated a Notched Crescent bannerstone in association with Stark points at the Neville site in New Hampshire. It is in upper Zone II and lower Zone III which dates about 5700-2400 B.C. Although in this instance it appears that this type may continue into later contexts, the evidence is clear for its early appearance. Since the bannerstone is only called a "bipennate" without a more refined description available in the literature, it is possible that there is more than one type present. The only sketch shown depicts a Notched Crescent.

Several Mississippi Valley Crescents as well as a variety of other shapes, were recovered from the Ferry site in Illinois (Fowler 1957:15). Although the report dates this site to the late Archaic, the related material appears to be earlier, possibly as early as the early Middle Archaic (McGahey, personal communication).

A Crescent form was recovered from the Poverty Point site, Louisiana, (Webb 1977:47-52). The most important component on this site is the Late Archaic Poverty Point culture. There are, however, earlier components, and it is possible that this artifact dates from one of those.

Another early type of bannerstone is the Shuttle (see Table 4), which may be related to the Crescent forms. It is similar in shape to a Crescent, and seems to make its appearance at about the same time. Shuttle bannerstones were found in Stratum V at Eva, Tennessee (Lewis and Lewis 1961:66), although they are described as "winged." Stratum V is dated at about 5200 B.C. (6000-4000 B.C.). Lewis and Kneberg (1959) note that they are found in later contexts at Tennessee sites as well.

Some of the best evidence for the early appearance of the Shuttle comes from the early Middle Archaic components at the Hester site, Mississippi (Brookes 1979:44). The site has components from the Paleo to early Middle Archaic, but no late Archaic. Three Shuttles were recovered from Hester, although only one was found in context. Although it was not associated with any points, it was located above a Pine Tree and Beachum Point, and below Eva II-Morrow Mountain I material, which is estimated to date ca. 4500 B.C. (Brooks 1979:44).

Several possible Shuttle fragments were found at the Perry site, Alabama (Webb and DeJarnette 1942:70) in a deposit of the Lauderdale phase, which Lewis and Kneberg (1959:178, 180) date to 3500-1000 B.C. A shuttle bannerstone was found in the middle third of Stratum 2 at the Flint Creek Rock Shelter in Alabama (Cambron and Waters 1961:34-37). Although a variety of points were found in this deposit, they span from the Early to Late Archaic. There was no direct association made between specific points and the bannerstone.
A "bi-pointed" or possible Shuttle was found in a Late Archaic association at the Rother Harris Reservoir site, Alabama (Knight and O'Hear 1975:20). Since this is a multicomponent site, dating from the Early Archaic through the Historic, it is possible that the piece is out of context. Alternatively, the Shuttle shape may have a long time-span.

Another early type found in context was a Southern Double-edge Primary (see Table 3) from the Icehouse Bottom site in Tennessee (Chapman 1977:164). It was located in a Morrow Mountain component, dated to ca. 5045 B.C. This piece was difficult to identify from its photograph, and could possibly have been a very early Shuttle "blending form."

These three types, the Crescent, Shuttle, and Double-edge Primary, appear to be the earliest types. They make their appearance in the early Middle Archaic, although they may continue into later periods (especially the Shuttle). Several other types may also be early. The Reel (see Table 5) is similar in shape to the early Shuttle "blend" and the Double-edge, being rectangular in face-view, and bipointed in top-view. It differs only in that the Double-edged has straight edges, the Shuttle has convex edges, and the Reel has concave edges. The only excavated example of a Reel (as far as could be determined) came from the Barrett site in Kentucky (Webb and Haag 1947:21-23). This site dates from the Archaic through the Mississippi, and there was no specific information giving a more refined date to the Reel.

Examples of the Double Bitted Axe (see Table 7) and Knobbed Lunate (see Table 9) were found at the Ferry site, Illinois (Fowler 1957:15). The Double Bitted Axe is similar in shape to the Double-edge Primary. The Axe has flared edges. The Knobbed Lunate is a Crescent form with "Knobs" on its ends. The Ferry site was dated to the Late Archaic (McGuhey, personal communication).

Most of the examples of bannerstones studied from this paper seem to date to the late Middle Archaic. Unfortunately, the dates for many of the sites on which bannerstones were found are only rough estimates, covering approximately 2,000 years. One of the earliest forms to appear in the late Middle Archaic may be the Geniculate (see Table 6). It makes its appearance at the Modoc Rock shelter, Illinois, in the 10-11 foot level of Zone 3-4. At an earlier level is a Crescent, and at a later level is a Crescent, and at a later level is a Humped/Triangular (Fowler 1959:261, 1971:34, Fig. 12). This level is dated to ca 3500-3000 B.C. (Fowler 1971:35).

A Geniculate was also found at the Read Shell Midden site in Kentucky (Webb 1950b:379) associated with the Indian Knoll phase, and dating 4000-2000 B.C. (Lewis and Kneberg 1959:175-178). Another Geniculate was found at the Truman Rushing site in Louisiana, a mixed component site. The major components ranged from the Middle to Late Archaic (3000-1500 B.C.). There were no more specific associations (Gibson 1977:202-204).

It is possible that the Tubular variety (see Table 11) appears quite early. There is a fragment from Icehouse Bottom, Tennessee, that could possibly be a Tube. It was associated with the Morrow Mountain component (5045 B.C.) (Chapman 1977:90). However, the piece is so damaged that its identification is tenuous.

Several examples of Tubes appear at Eva, Tennessee in Stratum II. They are found in both the Eva and Three
Mile components (Lewis and Lewis 1961:66). The Three Mile component dates about 4000-2000 B.C. (Lewis and Lewis 1961:173). They appear to be slightly earlier in the Tennessee area than the "prismoidal" forms (Lewis and Kneberg 1959:177), which are probably the Humped/Triangular group. A "rectangular prismoidal" form was found at Site Le13 in Virginia (Holland 1970). This was possibly a Tube variety, but there was no illustration. This is a mixed component site. There was also a Tubular form found at Harrison Bayou in Texas (Ford 1936:89). This site is considered to be Caddoan.

The Humped and Triangular types (see Table 8) are grouped together, as they seem to merge. Humped forms are found at the Denton site and nearby Pitchford and Campassi sites in Mississippi (Connaway 1977:69-72). They were all found with Middle Archaic materials like those found at Denton, which is dated ca. 3300 B.C. (Connaway 1977:137).

Humped/Triangular types are found at the bottom of Stratum II (Three Mile component) at the Eva site (Lewis and Lewis 1961:66, 173), which is dated between 4000-2000 B.C. A Triangular bannerstone was found at Modoc Rock Shelter in the 6-7 foot level, which dated to approximately 2500 B.C. (Fowler 1959:264). This was found in a level above both the Crescent and Geniculate forms.

Triangular forms were found at the Carlson Annis, Read Shell Midden, and Indian Knoll sites in Kentucky (Webb 1950a, 1950b, 1974). Carlson Annis is dated ca. 2950 B.C. Read Shell Midden is dated between 4000-2000 B.C. (the Indian Knoll phase), and Indian Knoll is dated between 3352-2013 B.C. (Lewis and Kneberg 1959:175-178).

A Triangular form was recovered at the Perry site, Alabama in the Pickwick Basin (Webb and DeJarnette 1942:70). The site is dated about the middle of the deposit, and Lewis and Kneberg placed it in the Lauderah phase, about 3500-1000 B.C. (Lewis and Kneberg 1959:178). Triangular forms were found with burials at Stallings Island, Georgia, (Claffin 1931:45) which is dated ca. 3500-1000 B.C. (Lewis and Kneberg 1959:180). A Triangular fragment was recovered from Zone D at the Flint River site, Alabama. It was associated with points that date from 4000-3000 B.C. (Webb and DeJarnette 1948:33-37, 45, 57, 70). A shattered bannerstone was recovered from the Kellogg site in Mississippi. It appears to be a Humped specimen. The Kellogg site is dated ca. 2690 B.C. (Atkinson, personal communication).

An unfinished Tube, which may fit in this general category, was found at the Slaughter site, Mississippi (Ford 1977:65). This site dates from the Middle Archaic to the Early Woodland. A form that is probably Humped was found in the upper third of Stratum 2 at the Flint Creek Rock Shelter, Alabama (Cambron and Waters 1961:3-4, 19). The points from this stratum varied from Early to Late Archaic. A possible Humped piece was found in an Archaic context at the Falema site in Mississippi (Penman 1977:277-279). A Humped specimen was recovered from an Old Copper Culture site in Wisconsin, which dated ca. 3600 B.C. (Wittry and Ritzenthaler 1956:244-254). Finally a Humped bannerstone was recovered from a Mississippi wall trench house at Tibbee Creek, Mississippi (O'Tear 1979:264-266). This context is rather late for this artifact, and it is likely an intrusive or curated piece.

There were several examples of a general Ovoid form (see Table 10) examined for this study. The pieces may
have been early “blending forms” of the Hinge or Rectangular Barreled types. The example from Stallings Island, Georgia, is of the Notched Ovate type (Claflin 1931:45-46).

There was an Ovate form from the Denton site, Mississippi, which has two dates, 3436 and 3277 B.C. (Connaway 1977:69-72, 137). The Eva site, Tennessee, had Ovate forms dating back to the Three Mile and Big Sandy components. These date from 4000-1000 B.C. (Lewis and Lewis 1961:66). A Hinge-type Ovate was recovered from Indian Knoll (Moorehead 1917:Fig. 181). Lewis and Kneberg dated Indian Knoll between 3352 and 2013 B.C. (Lewis and Kneberg 1959:175).

There was a Hinge or Barreled Ovate form from the Perry site, Alabama in the Pickwick Basin (Webb and DeJarnette 1942:205). It was described as a “parallelpiped,” but was said to be similar to those from Indian Knoll. Bluff Creek dates to ca. 3500-1000 B.C. (Lewis and Kneberg 1959:178).

Hourglass forms were found in association with burials in the Barrett site, Kentucky, (Webb and Haag 1947:21-22). This site dates from the Archaic through the Mississippian. No specific date was associated with the bannerstone. An Hourglass bannerstone was recovered from the Cofferdam site in Mississippi (Blakeman, et al. 1976:61-62, 140). It was in association with Feature V, a circular pit of hard black earth, considered to be one of the earliest at the site dated to the late Middle Archaic.

The Saddle-face form (see Table 12), which could only be located at Indian Knoll (Webb 1974: Moore 1916) in this study, is very similar to the Hourglass form which is found in such abundance at Indian Knoll. The Saddle-face is of the same shape as the Hourglass, except that it has a hooked protuberance at each end.

The last three examples appear to date to the Late Archaic. A single find of a Single-face Bottle (see Table 15) was recovered from the Airport site in Illinois (Roper 1974:9, 19). This site spans from the Late Archaic to the Early Woodland. Since bannerstones seem to be confined to the Archaic, this evidence suggests that the Single-face Bottle is a Late Archaic form. Also, it bears a great deal of similarity to another Late Archaic bannerstone, the Biface Bottle (especially in its Class B or “blending form”). The main difference is that one is a unifacial form, and the
other a bifacial form.

Several examples of the Biface Bottle (see Table 14) were examined for this study. A Biface Bottle was found at the Poverty Point site (Webb 1977:47-52), and also at Location Two Poverty Point (Swanson 1978:216-217), associated with the Poverty Point-age materials. A Biface Bottle “blend” was found at the Commissari site in Mississippi (Connaway 1977:71-72). Middle Archaic points as well as earlier Humped bannerstones were also recovered, but the site was not excavated for a specific date.

A fragment of a wing that appeared to be from a Biface Bottle was found at Site Nm23, Missouri (Hopgood 1969:18). The material appears to be from the Baytown period, which would be later than the Archaic. It is possible that this piece is intrusive, curated, or that it had a longer time-span than believed.

The Quartz Butterfly (see Table 16) appeared on several sites, most notably of the Poverty Point culture. At the Poverty Point site (Webb 1977:47-52) the Quartz Butterfly was found, as well as at Jaketown (Ford, et al. 1955:124-125), a Poverty Point site in Mississippi. Jaketown has a date of ca. 479-319 B.C. (Ford, et al. 1955:154). Some complete pieces and fragments of Quartz Butterflies were recovered at Stallings Island, Georgia (Claflin 1931: Plate 47), which is dated 3500-1000 B.C.

Two Quartz Butterfly “blending forms” were found with burials from Indian Knoll (Moore 1916; Webb 1974), and one type specimen was recovered from the surface.

The last two samples show an interesting occurrence of a shift from bannerstones to two-hole gorgets. The first example is from the Cedarland Plantation site (Gagliano and Webb 1970:36). Mostly Quartz Butterfly bannerstones (as well as a few “prismatic and cylindrical forms) were recovered from this site, which dates to ca. 1150 B.C. At the nearby Claiborne site, Mississippi, which dates to ca. 1240 B.C. all cultural material appeared to be similar, except for the introduction of microflints and two-hole gorgets, and the absence of bannerstones. Gagliano and Webb (1970:69) feel that this shift occurred about 1200 B.C. at the beginning of the Poverty Point culture.

A second example of this occurs at the Neill and Teoc Creek sites in Mississippi. The Neill site, on which were found Quartz Butterfly bannerstones, was occupied by ca. 1500 B.C., while Teoc Creek was occupied ca. 1700-1100 B.C. (Connaway, et al. 1977:114). Connaway, et al. says, “Some temporal priority to the assemblage from Neill over the Teoc Creek assemblage is indicated by the presence of bannerstones at the former and two-hole gorgets at the latter, and by the advent of corner-notched barbed points, well made of northern gray flint, at Teoc Creek but not at Neill (Connaway, et al. 1977:114).” They conclude, “It may be that the Teoc Creek and Neill sites represent the early or incipient stages of Poverty Point Cultural development in the Mississippi valley, before the advent of high ceremonialism and extensive esoteric trade (Connaway, et al. 1977:116).”

Discussion

From this conglomeration of data, a pattern seems to be emerging (see Figure 3). Unfortunately, it is only a rough pattern, full of many grey areas.

At the very beginning of the time period in which bannerstones were produced, the early Middle Archaic, there are three types that make their appearance. The
Crescent forms are found corresponding with early dates from the Icehouse Bottom (5840 B.C.), Eva (6000-4000 B.C.), Doerschuk (5000 B.C.), Hardaway (6000 B.C.), and Modoc Rock Shelter (5500 B.C.) sites. The single find of a Double-edge Primary at the Icehouse Bottom site (5045 B.C.) also has an early date, and the Shuttles found at Eva (5200 B.C.) and Hester (ca. 5000 B.C.) signal an early appearance as well. Insufficient data in the literature prevent a determination of a date for the disappearance of these types at this time. The Reel, Double Bitted Axe, and Knobbed Lunate, bearing a similarity in shape, may also date to this early period, but there is, as yet, no hard evidence to prove this.

The Geniculate is probably the next form to appear. It is found stratigraphically above a Crescent form and below a Triangular form at Modoc Rock Shelter. Although single finds from only one site such as this hardly would be considered as sufficient data, Modoc Rock Shelter is a site that was excavated with careful attention given to the stratigraphic levels. Since there are no other data to draw conclusions upon, good stratigraphic information such as this does, at the very least, suggest the manner in which a chronology may be formed.

Along with the Geniculate, it is possible that the Tubular forms appear at this time. According to Lewis and Kneberg's trait-chart for the Middle South (Lewis and Kneberg 1959:177), "winged" (Crescent) forms seem to appear slightly earlier than "cylindrical" (Tubular) forms. At Flint Creek Rock Shelter, a Shuttle form was found in the upper third of the same Stratum. All these examples suggest the slightly later appearance of the Humped/Triangular form.

The Ovoid form may also appear at about the same time as the Humped/Triangular forms. An example of this from the Denton site bears a date from the Middle Archaic of ca. 3300 B.C. This form was also recovered from Indian Knoll, Eva, Stallings Island, and the Ferry sites. However, no stratigraphic evidence exists to tie this form down to a specific period.

The Hourglass form appeared at a number of sites with late Middle Archaic dates, but again, none of these exhibit good stratigraphic information. This form is found in greatest abundance at the Indian Knoll site. Although there are some examples of Triangular, Ovoid, and Butterfly forms, the Hourglass is the predominant type. This might suggest that the other forms were of earlier and later periods. It is possible that the Triangular and Ovoid forms were somewhat earlier than the Hourglass forms. The two Quartz Butterflies are of a Class B, or "blending form." These examples could signal the appearance of this type, since it is found more frequently at sites of the Late Archaic period. The Saddle-face type may be contemporaneous with the Hourglass which it greatly resembles. It also is found at Indian Knoll.

The Biface Bottle form appears to be Late Archaic. It is found at two locations at Poverty Point (the main site and Location 2), as well as in a possibly Late Archaic
context at Nm23. The Single-face Bottle form, found only at one site, bears a great deal of resemblance to the Biface Bottle. It is from a site with a Late Archaic component.

The final example is the Quartz Butterfly found at a number of Late Archaic sites, such as Poverty Point, Neill, Cedarland Plantation, and Jaketown. It is found slightly earlier at Indian Knoll and Stalling Island, which may signal its appearance.

The most important information for this period seems to come from the Cedarland/Claiborne shift and the Neill/Teoc Creek shift, in which bannerstones were discontinued, and two-hole gorgets begun. This shift occurred ca. 1200 B.C. As Webb stated:

"We noted a shift from bannerstones to two-hole gorgets at Cedarland/Claiborne and a differential occurrence at Teoc Creek and Neill, with the suggestion that the change occurred about 1200 B.C. Griffin (personal communication) has stated that the entire valley witnessed a shift from round to flat atlatl handles at about 1500 B.C. Another shift in popularity occurred about 600-500 B.C., from two-hole gorgets to boatstones: This change persisted to about 1000 A.D. (Webb1977:48)."

Although a tendency towards a pattern seems to be emerging, there are still many "grey areas" that cannot be pinned down to any specifics. The data base is small at this time, both numerically and informationally. Very few bannerstones are recovered from sites, as compared with the much larger numbers of projectile points and potsherds. Many of the excavations that yielded bannerstones were conducted several decades ago, before the Carbon-14 dating technique was available. Many sites are multicomponent, and poor recording or badly mixed material prevent specific period connections.

In many instances poor reporting of the excavated data was responsible for lack of information. A report might mention that a bannerstone was recovered, but fail to specify at what depth or in what association it was found. Sometimes poor or no photographs of the artifact are included in the report. Descriptions may be non-existent or cursory at best, describing the piece as simply "winged" or "ovoid".

In order to aid future researchers, it is important to include as much information as possible in site reports. As has been stressed so many times, "archaeology is destructive," and whatever data are retrieved need to be recorded. The problems encountered in doing this research are a good example of failings in this area.

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REFERENCES
Bannerstones have been of interest to archaeologists since they were first found. The greatest debate over them has been their problematical use as atlatl weights. This paper reviews some of the past studies that have been done on bannerstones.

One can define bannerstones in a morphological as well as functional manner. Morphologically, a bannerstone is one of that set of polished stone objects (along with birdstones, boatstones, etc.) made by prehistoric North American Indians. They occur in a variety of geometric shapes (43 identified styles according to Knoblock 1939:149) and materials usually of the more brightly colored and patterned stones, such as spotted granite, quartz, and banded slate. (Knoblock 1939:148). They are identified by their fine workmanship, highly polished surface, and single center perforation.

They differ from a similar object, boatstones, which are also polished and occasionally drilled. Boatstones tend to be boat shaped and grooved on the underside. The perforations on boatstones, when they do occur, are smaller in diameter, more like those found on gorgets and pendants (Brooks 1980:45). Gorgets and pendants, although also geometrical, differ from bannerstones in that they are thin and flat. Bannerstones are thicker, bulkier artifacts.

It has been established that bannerstones first appear in the Middle Archaic and continue through the Late Archaic (Kwas 1981). They occur in the eastern United States, although boatstone like objects have been found in the west (Fenega and Wheat 1940, Guernsey and Kidder 1921, Neuman 1967).

The name bannerstone was supposedly coined by a Dr. C.C. Abbott (Baer 1921:445-447). It was believed that they were "mounted for use on a staff, on a handle as a ceremonial weapon, or on the stem of a calumet" (Hodge 1907:128). The first names applied to bannerstones came "by the way," as a need for collectors to call them something, without any systematic meaning to the name. They generally were of a descriptive and somewhat fanciful nature, likening the shape to other objects (butterflies, axes, whales' tails, etc.).

The first systematic approach appeared in 1917, in Moorehead's Stone Ornaments. At that time, Moorehead grouped the patterns of bannerstones into four categories, giving them Latin names. They were: Lunate (or crescent shaped), bilunate (or double crescent), bipennate (or double winged), and geniculate (or L shaped) (Moorehead 1917:28). Although this grouping was not particularly refined, nonetheless it gave researchers a descriptive base from which to begin.

In 1939, Knoblock published Bannerstones of the North American Indian, in which he presented a typology that began with a single preform, evolved into eight primary forms, and further evolved into 32 ultimate or developed types, describing various blending forms along the way (Knoblock 1939:149). Knoblock's system (Figure 1, Table 1) is by far the most detailed and...
Byron Knoblock's *Bannerstones of the North American Indian* (1939) was the first in-depth study of the subject, and remains today as still the most complete work on bannerstones. In his work, Knoblock addresses such issues as uses of bannerstones, techniques of manufacturing and drilling, materials used, distributional information, freaks and counterfeits, and even included articles by noted authorities of the time.

Although some of his work is now out of date (his comments on antiquity, for instance, and his distributional maps need updating), his book is still one of the most complete. The major strong point of Knoblock's book is the evolutionary system that he devised for naming styles of bannerstones, and the photographic plates that serve as a handy comparative collection. It must be stressed at this point that there is no evidence to prove Knoblock's system, so that its use as an evolutionary scheme is nil. However, his scheme is valuable as a source for naming varying shapes of bannerstones, thus aiding a clearer understanding of the shapes described in the literature. It is for this reason that Knoblock's scheme is described in depth.

In order to devise his "Bannerstone Tree of Evolution" (Knoblock 1939:149), Knoblock analyzed "the lines and planes of the modified designs" and noted "the similarity of construction" (Knoblock 1939:127). In other words, he used both a face and end view to classify his pieces. He also relied upon distributional material, since some forms were confined to certain areas of the country. Because he did his work prior to the use of radiocarbon dating, his evolutionary scheme could only be based on the objects themselves.

Knoblock set up his evolutionary scheme in an A, B, C system. Class A items were called the primary forms, Class B items were called the blending forms, and Class C items were called the ultimate or developed types (Knoblock 1939:131). According to Knoblock all bannerstones developed out of a "southern perforated pebble form," which was first made in the area of the southeast (Knoblock 1939: 26, 149). Out of this preform developed eight primary forms: (1) Southern Humped, (2) Southern Triangular, (3) Southern Double Edged, (4) Southern Ovate, (5) Southern Rectangular, (6) Southern Boat-shaped, (7) Heart Area Ovate and (8) Southern Tubular (Knoblock 1939: 148). They occurred in two areas. All except Number 7 were found in the Primary Area, which included parts of Alabama, Georgia, and South Carolina (Knoblock 1939: 124). Number 7 occurred in the Heart Area, which Knoblock felt to be the area where most bannerstones were made. This area corresponds roughly to the Ohio Valley (Knoblock 1939: 25).

According to Knoblock, from these eight primary forms, the bannerstone shapes changed gradually (Knoblock's Class B or blending forms), until they evolved into 32 ultimate types. These were recognized not only by extremes in design but also in many instances by the materials of which they were made. They differed from blending forms in that they were extremes of bannerstone shapes, and distinct from one another.

By using Knoblock's scheme virtually any shape of bannerstone can be given a descriptive name that will set it apart from other bannerstones, and clarify the object to a researcher without the object at hand.
One of the major problems in a study of bannerstones is terminology. Since bannerstones were made in a great number of shapes, it would aid description to have a name for each of these shapes, as is done with projectile points. A name can aid in the visualization of an object about which the author is writing.

Much of the difficulty in doing research on bannerstones has been that researchers tend to disregard the bannerstones amongst other artifacts, and give it only a cursory mention in their reports. Photos and sketches are rare, and description in most cases is simply stated as winged or crescent.

In many works it is found that a large number of bannerstone types are grouped under rather poor descriptive names such as winged. Winged varieties cover the gamut from very early Shuttle shaped types, found in the early Middle Archaic, to very late Quartz Butterfly types which occur in terminal Archaic contexts. Also winged forms of different shapes which occur only in the Lower Mississippi Valley, only in the Atlantic Northeast, or only in the Midwest are all grouped under a single heading of winged in some studies. In fact, at least 22 of Knoblock's 32 types could probably be called winged forms. This creates considerable confusion. For example, pictured in a paper by Lewis and Kneberg (1959) are both Shuttle and Hourglass forms (which are quite different physically), both of which are labeled as winged (Lewis and Kneberg 1959:168). Several types are listed as Prismatic (Lewis and Kneberg 1959:168), a term that never seems to be defined when it is used. The two bannerstones listed as prismatic appear to be a Hinge or Ovate form and possibly a Humped variety although the sketches look remarkably like several listed as being in the cylindrical class. According to vague descriptions in various other reports, prismatic may also be considered as Humped and Triangular forms, although it is impossible to say for certain. Equal problems are also encountered with such broad descriptive names as crescent or ovate. This author highly recommends that future researchers use Knoblock's terminology, if for no other reason than that of clarity and understanding.

Many hypotheses have been proposed for the function of bannerstones. As their name suggests, it was originally thought that they were mounted on a staff as a form with prestige or ceremonial significance.

There has been little evidence to support this hypothesis although some evidence does exist. Probably the most illustrative was the find of a cache of three bannerstones which had been plowed up in a field in North Carolina. All were mounted on the ends of stone handles, both the bannerstones and the handles being made of micaceous slate. The staffs were approximately one foot long and were ornamented with rings on both their upper and lower parts. The bannerstones were crescent shaped (Baer 1921: 445-447).

Knoblock suggests a similar use for bannerstones by his observation that the hole was often worn smooth on only half of its length. He suggested that this occurred by repeatedly placing the stone on and taking it off the staff (Knoblock 1939: 66,84). Also he observed that many of the breaks in bannerstones occurred at the ends of the perforation, the force originating from within the object (Knoblock 1939: 62), although these breaks can also be produced in other ways.

Their use as ceremonial objects could be suggested by Knoblock's observation that certain of his developed...
types or Class C bannerstones were only made of specific fancy materials such as banded slate or ferruginous quartz (Knoblock 1939: 148). The careful selection of these materials and workmanship of the objects suggests a ceremonial function.

As Binford suggests in his discussion of technomic, sociotechnic, and ideotechnic artifacts, a status symbol may be symbolic of technological activities. What may have at one time been a technomic item, may later take on the status symbolism demonstrated by being made of exotic materials, having elaborate decoration, or requiring painstaking manufacture (Binford 1972:28).

The bannerstone's possible ceremonial use was demonstrated by a find at the excavations of the Carlson Annis site. A bannerstone was found in a burial, strung together with beads and worn around the neck (Webb 1950a:348). Another one was found, also strung with beads, in one of the small mounds at Spiro (Hamilton 1952:47-48). Henshaw (1887) did a study of perforated stones from California and their uses. Several of the more interesting finds were: (1) Stones used as weights on digging sticks, (2) the same which were buried with the dead, (3) ethnographic examples from New Guinea of ceremonial staffs with perforated stones mounted on them. Precourt (1973) suggested that the inclusion of bannerstones in graves indicated that they functioned as status markers.

With Moore's excavation at Indian Knoll came the first utilitarian suggestion of the use for bannerstones. In a number of burials, bannerstones were found in association with hooks made of antler. Moore suggested that the hooks were netting needles and that the bannerstones were used as spacers or mesh measurers for net making (Moore 1916:432-433). He even illustrated a sample of a net that was made by utilizing these tools.

The currently preferred hypothesis about bannerstones is that they were used as weights on atlatls. This hypothesis was proposed by Webb in his various reports on his excavations in Kentucky and Alabama in the 1930s and early 1940s. The hypothesis proved so popular that in many later reports bannerstones are called atlatl weights and lumped in a group with other suggested weights such as boatstones and barstones. Despite the general acceptability of this hypothesis, data exists which casts doubt on the bannerstone's use exclusively as an atlatl weight.

The first clue to its use as an atlatl weight came from the work of Kidder and Guernsey in Arizona. In caves utilized during the Basket Maker period, several wooden atlatls were discovered. They were flat and approximately 26 inches long (Guernsey and Kidder 1921:81, Kidder and Guernsey 1919:179). Strapped to the spear throwers were one to three bar or boat shaped stones (Kidder and Guernsey 1919: plate 83). In the case of a single stone, the weight was located about seven inches from the handle end of the spear thrower (Kidder and Guernsey 1919:190). Another find of a spear thrower with an attached weight came from Texas (Fenga and Wheat 1940). The weight was located in the center of the atlatl. Of the several known at that time, a few were without weights, and Fenga and Wheat suggested that they had never had any (Fenga and Wheat 1940:222). A survey of atlatl weights was done in parts of the west by Neuman (1967). These were all of the biscuit or boatstone shaped variety, not bannerstones, and had radiocarbon dates ranging from
2500 B.C. to 800 A.D. (Neuman 1967:36)

In the reports of his studies in the Kentucky and Alabama area, Webb devoted several pages to the discussion of bannerstones and antler hooks. Like Moore, he found them in association with each other in many burials from the sites of Read (Webb 1950b), Parrish Village (Webb 1951), Indian Knoll (Webb 1974), Barrett (Webb and Hagg 1947), and Chippewa (Webb and Hagg 1939), as well as a number of sites from the Pickwick Basin area (Webb and DeJarnette 1942).

However, discarding Moore’s theory of net making, Webb felt that the antler hooks were attached to the ends of composite atlatls, and the bannerstone/net spacers were atlatl weights (Webb and DeJarnette 1942:285). Due to the soil conditions and poor preservation, none of the hypothesized atlatls were recovered, and Webb was forced to base his assumptions on the fact that the parts were often found in the same burials, and often in alignment (Webb and DeJarnette 1942: 285).

In a burial at Read (Webb 1950b:394), a bannerstone was found aligned about eight inches from a hook, and in a burial from Eva (Lewis and Lewis 1961), one was found aligned about one and a half feet from a hook. Both these figures are compatible with the western finds, in which we can expect the weight to be from one third to one half the distance of the atlatl from the hook end.

Assuming that hunting was a male activity and the atlatl a major and important hunting tool, Webb's atlatl hook and weight theory runs into some problems with the evidence. Hooks and weights do not always co-occur in burials (Webb and Hagg 1947:21-22), and most burials contain neither weights or hooks (Webb 1950b:368-376). Additionally, evidence from Read (Webb 1950b:368-376), Indian Knoll (Webb 1974:330), and Eva (Lewis and Lewis 1961:141-142) shows that atlatl parts were found in burials of individuals of all ages and both sexes.

Looking specifically at the itemization of grave lots from Indian Knoll (Webb 1974:173-20), for example, some interesting data are found. Out of 880 burials only 43 burials (or 4.9%) contain any kind of atlatl object, which may be a hook, handle, or weight. Among weights, Webb included not only bannerstones, but barstones and shell objects as well.

Of those 43 burials, (45 instances of objects, since two burials contained doubles), only 3 burials (6.7%) contained all three of the atlatl objects, one of which was a barstone, not a bannerstone. Five burials (11.1%) contained hooks and handles. Twenty one burials (46.7%) contained hooks and weights, but six of those weights were barstones or shell. Omitting those, only 15 (33.3%) had bannerstones and hooks. Twelve occurrences (26.7%) of weights only were recorded. However three of these were bar weights or of shell, thus reducing to nine (20%) the frequency of bannerstones only. Three burials (6.7%) had hooks only, while one (2.2%) had only a handle. No graves exhibited any instance on only a weight and handle being buried together.

With regard to age and sex group associations, 33 (73%) of the burials containing atlatl objects were male, while 10 (22.2%) were female. Twenty-eight were adults and 16 (35.6%) were children. Webb divided his age groups as follows: infant, x-3 years; child, 4-12; adolescent, 13-16; subadult 18-20; young adult, 21-35; mature adult, 36-55; old adult 56-x (Webb 1974:173).
The groups that had the most instances of atlatl object grave goods were young adults (23 instances or 51.1%; males 17 or 37.8%, females 6 or 13.3%), and infants (8 or 17.8%). Instances in other age groups were: newborns 1 or 2.2%, children 3 or 6.7%, mature adults 2 or 4.4% and old adults 0.

Although the young adults and infants show the greatest number of instances of atlatl objects as grave goods, suggesting that these two groups may be specially honored, by looking at the total number of burials by age, this is not so. Young adults with atlatl objects totaled 51.1% of burials with atlatl objects; however, 44.1% (209 out of 470) of the total burials were of young adults. Likewise, 17.8% of infants were buried with atlatl objects, the second highest group; but 23.8% (209 out of 880) of the total burials were of infants, also the second highest group. Other percentages by age of the burials were: child, 8.5% (75 out of 880); adolescent, 5.9% (52); subadult, 3.8% (29); mature adult 4.1% (36); and old adult, 3.3% (3). This suggests that age was not a primary determinant in the placement of these objects with the dead.

Another problem is the lack of points found in the burials in association with the objects. At Read (Webb 1950b:368-376) and Indian Knoll (Webb 1974:330) their lack is conspicuous. Webb and DeJarnette mention that bone or wooden points were being used and even mention the possible use of cane for spear shafts (Webb and DeJarnette 1942:281). The use of bone and wood points and shafts could, of course, reasonably allow for a lack of evidence due to poor preservation conditions.

Using the same data cited earlier, of the 15 occurrences of atlatl objects as grave goods at Indian Knoll, only 5 or 11.1% had points associated with them. Three were associated with burials with hooks and two were with weight and hook combinations.

At the time of Webb's death he was working on a report on the Archaic, one chapter of which was entitled "The Development of the Spearthrower." This single chapter was finally published posthumously by the University of Kentucky (Webb 1981). In it Webb outlined the development of the atlatl through several logical steps, which were: (1) use of a wooden throwing board, (2) development of an elastic or non-elastic throwing stick, (3) a weight added to the atlatl going through the steps of, bar weights, prismoidal weights, winged forms, and finally a stone with hook attached (Hooked type bannerstone), and (4) with the weight as close to the hook as possible or combined, maximum efficiency was reached (Webb 1981:75).

Again, although this seems to be a sensible and logical sequence, and may in fact have some validity, the major faults in Webb's theory lie in the fact that there is no evidence that he tested his hypotheses.

His suggestion that the weight and hook would have maximum effect when placed together was derived from the model of a pendulum and its physical properties (Webb 1981:21-25). However, Webb never actually tested the validity of this model by experimenting with atlatls and weights. Later experimenters have arrived at a variety of results, most of them related to weighting the atlatl being negative.

Petts (1960) proposed that the weight was used for a proper balance in the hand, but was unable to find any increase in distance with its attachment. Davenport (1943:34, 37) experimented with atlatls weighted for
balance. The weight was moved to various positions. No benefit or detriment could be observed. Mau (1963:11) was able to increase his throwing distance by 15-25 percent when he attached weights to the atlatl three inches behind the hands. However, he also found that for maximum effect, specific lengths of the atlatl had to be combined with precise weights of selected stones. Howard (1974), on the other hand, discovered that a longer spear and atlatl would increase the thrust and distance of the throw, but that the added weight had a detrimental effect, decreasing the range by 18 percent. Cole (1972) also found the weight to be detrimental when attached to the atlatl, but suggested that perhaps the weight was attached to the spear instead, as a way of increasing impact pressure. He mentions that many of the hook and weight finds in burials at Indian Knoll were not in alignment, which could possibly suggest that the weight was on the spear.

Parker (1917:168) described an experiment he conducted by attaching the weight to the spear as a “guide in place of feathers”. He was able to increase his throwing distance by 25 percent. He also discovered that when the spear hit a stone or other heavy object with great force, an improperly fastened bannerstone would often break in the manner that had been observed on damaged pieces, that is, the ends of the perforation would be snapped off by an internal pressure. Also related to weighting the spear, Webb and DeJarnette (1942:284) observed that when bone points were made, the thickest portion of long bone was utilized in order to get as heavy a point as possible. This also might suggest the need for weight on the spear. However, an interesting discovery by Mau (1963:9) was the fact that a fletched shaft could utilize a lighter point and that balance was not a problem when fletching was used.

Palter (1976), in a review of some of the earlier experiments, noted that experimenters may have been erring in their use of a stiff atlatl, and instead should have conducted their experiments using a flexible shaft. This was not an altogether new idea, as Webb (1950b:393) suggested flexible shafts in his Read report and again in his proposed development (Webb 1981:75). Guernsey and Kidder’s (1921) Basket-Maker find was also a flexible atlatl. Palter makes a good case. ‘By utilizing a flexible spear thrower it is conceivable that the resultant whip-like action of the shaft during the throw might release sufficient additional propulsive force to make such a weapon superior in some ways to the non-flexible spear thrower. The purpose of attaching adjuncts to the shaft of such a weapon may have been intended as a means of exploiting the full potential of a more effective method of casting projectiles (Palter 1976:506).”

In the same paper, Palter also suggests that the weights were simply used with a “decorative, magical charm, or ceremonial motive” in mind (Palter 1976:503), and cites instances of related fetishism.

Finally, Hobbs (1963) proposes an interesting hypothesis involving the utilization of spear thrower and weight. He devised a spear thrower that was two sided. The bannerstone sat on a rod running the length of the atlatl in the center (Figure 2). The sides of the bannerstone were braced on the insides of the atlatl. The bannerstone could be adjusted to different positions for maximum effectiveness (Hobbs 1963:4-5). Although he did not experiment enough to learn what advantage or disadvantage this design imparted, Hobbs at least made
a thought provoking design.

Although the experiments with the atlatl that have been published give variable and sometimes conflicting results, that fault probably lies in a lack of planned, concerted experimentation. Is one looking for improved distance or force of impact? Is one using a solid or flexible atlatl? What results are achieved by added weights at different positions? Until systematic experiments are conducted that ask these questions and take a variety of factors into account, the use of bannerstones as atlatl weight remains problematical.

Another criticism of Webb's (1981) hypothesis has to do with the development of the attached weight. As he suggests, the process began with a bar weight, progressed to prismoidal, then winged, then geniculate forms, and ended with a saddleface type of bannerstone. However, recent chronological evaluation of bannerstone types (Figure 3) indicates that Webb's progression does not follow the chronological order (Kwas 1981). Winged types (Crescent, Shuttle, Double-edge, Rectangular, Butterfly, Bottle, etc.) appear to be both early (ca. 6000 B.C. to 4000 B.C.), and late (ca. 2000 B.C. to 500 B.C.), depending on type. Prismoidal types (Tubes, Humped, Triangular, and Hourglass) seem to be intermediate types (ca. 9000 B.C. to 1500 B.C.), and Geniculate forms fall in the 4000 B.C. to 1500 B.C. range also, as do saddleface types (Kwas 1981:155). At about 1200 B.C., at several sites in the Lower Mississippi Valley, there appears to be a shift away from bannerstones and toward two hole gorgets (Connaway et al. 1977:114, Gagliano and Webb 1970:69). Thus, Webb's progression is contrary to this chronology.

Although the chronology has its weak points due to the lack of sufficiently dated material, it still suggests a usable and testable pattern.

One other disconcerting element in Webb's progression dealt with the saddleface bannerstone finds (hook on the stone). These are widely accepted as generally having a hook on both ends of one face. Webb insists that the only ones he ever excavated had only a single hook, and that all double hook varieties are fakes (Webb 1981:73).

But probably the weakest element that runs through his development theory is that in all the sites Webb excavated in Kentucky and Alabama, he never actually found an atlatl. Being made of wood, and considering the condition of the soil in the Southeast, no remaining pieces of an atlatl were ever preserved. Webb based his theory on the alignments of hook, weight, and handle found in burials.

However, looking again at the data from Indian Knoll of the 45 occurrences of burials containing atlatl objects, only three (6.7 percent) had each a hook, handle, and weight. Including the burials with at least two of the objects, only eight (15.6 percent) were aligned according to Webb's designation.

When the items weren't aligned, Webb explained this away by the practice of ceremonial destruction (Webb 1981:11, 39, 43). Once he decided that these parts were used on an atlatl, his logic seems to have worked backwards. When finding a grave with only a bar stone in it, he claimed that this proved that a bar stone was being used on an all wooden atlatl (Webb 1981:43). When bone points, but no lithics were found at the lowest levels at Pickwick, Webb claimed this was because wooden atlatls were being used (Webb 1981:35), and when only 43 out of 880 burials had various atlatl parts (handle, weight and/or hook) he again claimed that the...
other burials without artifacts had atlatls of wood (Webb 1981:36). They may very well have, but this is hardly proof.

Since Webb's hypothesis has been so widely accepted, would it not be well to investigate the data a bit more closely? Atlatls were almost certainly being used, but their use can hardly be proven by the absence of evidence.

If the ultimate hunting weapon of the Archaic was the atlatl, and if these atlatl parts actually do suggest the use of atlatls, and if weights were the optimum in efficient use, why then, were not all males buried with their hunting tools, and why are weights not found in all graves with hooks and handles? Why use an all wooden atlatl, when the addition of a weight was such an advantage, and being used by one’s peers?

Even Knoblock addressed contentions to Webb's hypothesis. Assuming that if bannerstones were atlatl weights, and that each adult male possessed one, Knoblock asked such questions as: (1) Why are stone axes more plentiful than bannerstones?, (2) Why were bannerstones buried with women and children?, (3) Why were points not found in association with all the bannerstones/hooks/handles in burials?, and (4) Why are many bannerstones large and cumbersome, and others small and fragile (Knoblock 1979:12-13)?

And one might also add to this that if a weighted atlatl was the ultimate in spear thrower technology, as Webb suggests, then why do bannerstones disappear at the end of the Archaic? What is being used to hunt with between the end of the Archaic, and the beginning of the use of the bow and arrow? It appears there have been few attempts to answer these questions.

Precourt (1973), who viewed bannerstones as both atlatl weights and status markers, is one of the few who have attempted to answer these questions. Re-examining the burials from Webb's Kentucky sites, Precourt draws some interesting conclusions. First, she found that most burials had no artifacts whatsoever associated with them, not even any remnants of their personal clothing or jewelry. This she felt to be the standard burial practice during the Archaic, as Archaic grave goods are rare (Precourt 1973:16). She found that only 3 percent of the burials contained bannerstones, while eighty-five percent of the bannerstones found at the sites were found in non-burial contexts. She felt that this indicated that the bannerstone was available to most individuals and that its inclusion in a burial indicated a status situation (Precourt 1973:14, 23). She also suggested that bannerstones found in burials of women and children might suggest that these individuals merited a status burial due to their relationship to a high status male (Precourt 1973:15).

Winters (1968) also investigated Webb's data. He hypothesized three classes of burial artifacts, which relate to Binford's technomic, sociotechnic, and ideotechnic artifacts (Binford 1972:23-25). These burial classes were: Class I - artifacts of a functional worth to the owner, Class II - artifacts of personal equipment of a ceremonial nature, Class III - items with a special value (Winters 1968:184). He suggested that Class I objects were generally found in midden deposits, while Class III objects were most often found in burials (Winters 1968:189). If we assume that the atlatl objects were actually part of an atlatl, we would expect them to be generally available to the population, and according
to Winters, most often found in the midden. Lending some weight to this hypothesis, Webb found that bar stones were found in the fill and that they were more numerous than bannerstones (Webb 1974:332). Also, he found that hooks were more common in the midden (Webb 1974:311). As stated earlier, in Precourt's study, 85 percent of the bannerstones found were in non-burial contexts (Precourt 1973:14). This then suggests that these atlatl objects were generally available to the population, but that those found in burials were likely to have functioned as some sort of status markers.

As to rare artifacts buried with children, Winters states, "... that the association reflects ascribed status, whether... by psychological factors, sociological factors or a combination of the two" (Winters 1968:203). As to associations of atlatl objects with females, Winters states that this could possibly reflect the transfer of a "corporate estate", or the possibility that females and males were given equal attention to certain aspects of the burial customs, and therefore identical burial equipment (Winters 1968:206-207).

Rothschild, in a related study dealing with mortuary practices, suggests reasons for the inclusion of grave goods, which include the ownership or imagined need of the deceased, the friendship or affection of the giver toward the deceased, and the symbols pertaining to the unique status of the deceased (Rothschild 1975:27, 148). Any or all of these may have affected the inclusion of atlatl objects in burial contexts.

When one considers the selection of material and energy expended in manufacturing bannerstones, the variability of burial contexts, and the hypotheses relating to reasons and patterns for burial inclusion, we can see that there is no single explanation as to the function(s) of atlatl objects. They may have functioned in both technomic and sociotechnic contexts. Thus, if bannerstones are viewed as both utilitarian as well as status objects, a clearer picture of their function may be possible.

**CONCLUSIONS**

From this review, it is obvious to see that the solution as to what bannerstones truly are is far from satisfactorily answered. Although some evidence does point to their suggested use as atlatl weights, a sufficient body of evidence also exists to suggest that bannerstones had another function. It is unfortunate that researchers took so easily to the hypothesis that bannerstones functioned as atlatl weights. That idea will be hard to dislodge.

A great deal of research remains to be done to resolve this question. Certainly much more experimental archaeology needs to be conducted on the use and types of atlatls and the effects with and without a stone weight. Or if this work is being done, it needs to get published. It may turn out that, in fact, the bannerstone was used as an atlatl weight. But until we have more concrete evidence, is it really appropriate to make that assumption?

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**REFERENCES**
EARLY EVOLUTION

MIDDLE ARCHAIC

LATE ARCHAIC

Click on a Label to See Examples

The chronology and evolutionary links in this timeline are based on discoveries by David Lutz.