THE BEAD FORUM

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Munsell Color Company to Produce a Bead Color Book for the use of Bead Researchers, Archaeologists and Art Historians

Generally speaking, color is the principal physical characteristic of a bead and one of the basic attributes for classifying them. Consequently, colors *must* accurately be recorded to facilitate comparisons of different bead assemblages and beaded artifacts. Up to now, this has been hampered by a lack of a widely available and relatively inexpensive color notation system. Over the years, researchers have used various systems but the one that has gained the widest acceptance is the *Munsell Book of Color*. Unfortunately, its high cost (normally around $1,000) has prevented most individuals and research organizations from obtaining and using it. What was needed was a more reasonably priced color guide, preferably one more compact and containing just recorded bead colors, unlike the massive *Munsell Book of Color*. So it was that during the spring and summer of 2011, the Society's officers worked with Munsell Color, a division of X-Rite Pantone Inc., to create a bead color book for the use of archaeologists, art historians, bead and beadwork scholars, and others. This book, similar to *Munsell's Soil* and *Plant Tissue Color Books*, offers a set of colors from their line in a portable field guide. These smaller guides offer more affordable and portable alternatives, especially for those without the backing of a large institution, or for field schools and other educational opportunities, and additionally brings the cost to where it is possible for students to purchase a set of Munsell colors for their own use.

Alice Scherer and Karlis Karklins, with help from Laurie Burgess, compiled a set of 176 colors. Drawn from archaeological reports and lists previously assembled, these colors span the color spectrum and include a few off-whites, greys and black.

As of mid-November, Munsell is preparing to go to press with this guide and hopes to have it available by sometime in December. The cost is expected to be around $165 plus shipping.

We encourage anyone associated with an institution to arrange for the purchase of one or more of these for their organizations' libraries and labs.

To get on a mailing list to be alerted when the *Munsell Bead Color Book* is in print and ready for purchase, or for more information, contact Theresa Domico (tdomico@pantone.com).

Cover items from the collections of the Center for the Study of Beadwork and Jane Olson-Phillips.

About Ostrich Eggshell Beads

By Robert G. Bednarik

To understand the significance of flat disc beads manufactured from ostrich eggshell, and their role in interpreting the cognitive evolution of humans, we need first to consider two factors: the distributions, in both time and space, of such finds, and then the taphonomic explanation of both these distributions.

Disc beads such as those made from ostrich eggshell are a form of artifact that is not likely to have been made singly or in very small numbers. To provide such symbolic objects with a social meaning it would have been essential that they were made in quite large numbers, because it is repeated and 'structured' use which confers meaning on symbolic artifacts. The role of beads, as well as pendants, would have always been non-utilitarian, ideological, emblemic or symbolic. Moreover, very small beads such as those made from ivory or ostrich eggshell were probably not worn singly, because to achieve a decorative effect they are generally worn as sets in ethnographic specimens.

This renders it necessary to explain why—wherever ostrich eggshell beads have been found in Pleistocene contexts—only extremely small numbers were recovered. Moreover, why are the few known occurrences so extremely isolated in both time and space? Major intervening time spans have yielded no such artifacts, nor have vast geographic regions in which the ostrich is known to, or can be assumed to, have occurred. Taphonomic logic offers the most realistic explanation for this pattern (Bednarik 1986, 1992a, 1994a). Accordingly we are almost certainly dealing with a phenomenon of a very long taphonomic lag time. The extreme paucity of Pleistocene finds can readily be explained by postulating that they survived from beyond the taphonomic threshold of the phenomenon category in question (Bednarik 1994a: Fig. 2).

Ostrich Eggshell Beads of Prehistory

In India we have only a few specimens from the entire Paleolithic (Bednarik 1993a, 1993b). Two are from Bhimbetka, south of Bhopal, and three from Patne, Maharashtra. Two of the latter are not perforated, although one is centrally scored. The Bhimbetka specimens were found in the neck region of an Upper Paleolithic human burial (in shelter No. III A-28), so it has been suggested that they formed part of a necklace made up of beads of perishable materials. While the Patne specimens range from 7 mm to about 10 mm diameter and are rather angular, those from Bhimbetka measure about 6 and 7 mm respectively and are well rounded. In all, some forty-one Indian sites have yielded fragments of Pleistocene ostrich eggshell (Kumar et al. 1988). Radiocarbon dates ranging from about 39,000 to 25,000 years BP have been cited as relating to these finds. Of the 46 marked fragments I have examined, which are all those that have been found in India so far, 45 bear no anthropic decoration. A natural process I have described in detail, involving mycorrhyzal organisms, marked them and also affects other mineralized calcium carbonate-dominated substances of animal origin (ivory, limestone, bone; Bednarik 1992b, 1993b).

Other Asian regions producing ostrich eggshell beads are Siberia (Krasnyi Yar, Trans-Baykal), Inner Mongolia (Hutouliang) and the Gobi desert in northern China and Mongolia. In particular, an Epipaleolithic or perhaps Mesolithic stone tool industry of the Gobi, usually named after the site of Shabarak-usu, has produced many disc beads, made of freshwater shells as well as ostrich eggshell (Narr 1966: 366). This tradition, typically of non-geometric microliths, is not dated but seems to precede the local Neolithic (Bednarik and You 1991). The ostrich (*Struthio camelus ssp.*), now extinct in Asia (Andrews 1911), seems to have been widely distributed to the end of the Pleistocene and even well into the Holocene (in Arabia; Bednarik and Khan 2005). Depictions of it have been reported from the rock art of Inner Mongolia but their identification has been questioned (Bednarik and Li 1991; Tang 1993).

Both southern and northern Africa have produced finds of worked ostrich eggshell. The southern African sites yielding such finds date from the Middle Stone Age right up to the protohistoric period. Decorated specimens from the Howieson's Poort phase in Apollo 11 Cave, Namibia (Wendt 1974), may well be 70,000-80,000 years old, even older. This site has also yielded beads made of eggshell from a layer thought to be 22,000 years old. Diepkloof Cave in the southwestern Cape, South Africa, contained about a dozen supposedly decorated ostrich eggshell fragments of the Middle Stone Age (Beaumont 1992). Ostrich eggshell beads from Bushman Shelter near Ohrigstad, Transvaal, have been suggested to date from somewhere between 12,000 and 47,000 years ago (Kumar et al. 1990). Such beads still occur in much more recent periods in southern Africa. For instance they are found in the Smithfield B, a tool complex of the subcontinent's interior regions of the 14th to 17th centuries (Hirschberg 1966). The use of ostrich eggshell for a variety of purposes, including the production of disc beads and as water vessels, continued to be practiced by the Bushmen of southern Africa until recent times, and has been described ethnographically (e.g. Forde 1934).

In the far north of Africa, where the ostrich has been extinct for millennia, two prehistoric periods have provided evidence of the past use of ostrich eggshell: the Capsian and the Acheulian. The Capsian is an Epipaleolithic blade and burin industry in northern Algeria and Tunisia, dating from the first half of the Holocene. It includes not only numerous figurative and non-figurative engravings on ostrich eggshell fragments (Camps-Fabrer 1966), but also beads of snail shells, teeth and small stones (Camps-Fabrer 1975: 280-2). Almost any excavation of major Capsian deposits produces ostrich eggshell beads, usually well rounded with central perforation. Containers of wholly preserved ostrich eggshells, too, have been recovered from the Capsian. The decoration they bear suggests that the engraved fragments found in the Capsian deposits may well be from such containers. Saharan rock art depictions convincingly resembling the ostrich are known and may well be of the mid-Holocene. Examples are from Wadi Tilizahren (Jelínek 1985a: Figs 4, 6, 31, 34, 55, 56; 1985b: Figs 5, 28) and Wadi Mathendous, Fezzan (Striedter 1984: Fig. 7); Tzeretegem, Niger (Striedter 1984: Fig. 187); Iheren, Tassili-n-Ajjer (Striedter 1984: Fig. 125); and North Thyout, Atlas (Muzzolini 1995: Fig. 200).

Of very considerably greater age than the Capsian are the more than forty disc beads from a major Libyan occupation site of the Acheulian (Ziegert 1995). Also made from ostrich eggshell, they closely resemble those from other regions and later periods (Figure 1). These first Acheulian ostrich eggshell beads ever reported come from the El Greifa site complex (Wadi el Adjal, near Ubari). The site is located on what was a peninsula of the huge Fezzan Lake of the Pleistocene, which then occupied a large part of south-western Libya, measuring about 200,000 km^2. The calcareous sediments have provided excellent preservation conditions for insect remains, seeds, bone and ostrich eggshell fragments. They have also yielded U/Th dating of 200,000 years. At the nearby Budrinna site, the remains of what appears to be a village of round semi-permanent dwelling structures, about 400,000 years old, have been found on the former lakeshore (Ziegert 2010). There is ample evidence of quarrying of quartzite, and substantial ash beds indicate that the reed belt was annually burnt for a period of many millennia. The sites' lithic inventory includes generally 'handaxes', scrapers, borers and burins, but is dominated by large Acheulian types.

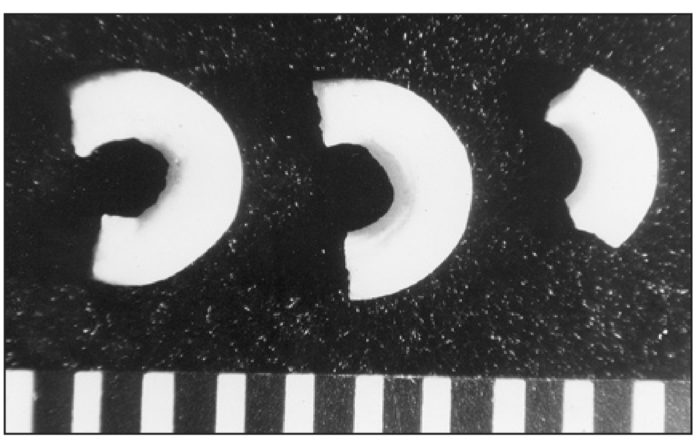

Figure 1. The first three Acheulian ostrich eggshell beads found, c. 200,000 years old, El Greifa, Libya; another forty have since been recovered (scale in mm).

The Technology of Ostrich Eggshell Beads

The near-perfect rounded circumference and perforation of the El Greifa ostrich eggshell beads demonstrate that even hominins of the Late Acheulian possessed a well-developed technology for working this fragile medium with the greatest possible confidence and skill. These perfectly made artifacts also imply the existence of the social structures necessary to provide an ideological context for the production and use of complex body decoration. The first three beads found are preserved as fragments only (c. 58%, 54% and 28% preserved respectively), but they share a similar perforation diameter of about 1.7 mm, and even their external diameter is very consistent (5.8-6.2 mm). This consistency in size and the near-perfect rounding of all preserved edges, internal and external, suggests the use of a standardized manufacturing process, a characteristic these beads seem to share with the much later beads of the Upper Paleolithic as well as those of various cultural traditions of the Holocene.

The immediate purpose of my experimental replication work between 1990 and 1996 was to determine the technological processes involved in the production of beads of, and engravings on, ostrich eggshell. The results relating to engravings have been reported (e.g. Bednarik 1992b), here I will summarize my findings relating to beads, and their implications in terms of the cultural context of their production.

Kumar has conducted experimental replication work with heavily weathered ostrich eggshell fragments collected from Chandresal, which are in the order of 36,000-39,000 years old (Kumar et al. 1990: 36). He used Mesolithic stone tools to produce the perforations of two experimental beads, which each took him 10 to 12 minutes to drill through, working from both sides. In my own replication work I have always used fresh ostrich eggshell, because that is what was presumably used in the distant past, and I applied freshly made stone tools of different types and materials to establish relative suitability (Bednarik 1991, 1992c, 1993b, 1997). I found it difficult to economically drill through the unweathered shell using thin pointed tools of cryptocrystalline sedimentary silica. The most effective tools for this purpose were found to be rather coarse-grained quartzites and quartz. With them I initially reported drilling through the shell of a complete ostrich egg in times ranging from 70 to 90 seconds, i.e. working from just one side (Bednarik 1991).

I have subsequently found it easy to reconstruct the production processes for these beads. The raw material is of unusually consistent properties: the shell thickness is uniform, as is the three-layered morphology of the shell (described in admirable detail by Sahni et al. 1990). The only significant material variable is attributable to the shell's curvature, which is of a smaller radius at the ends of the egg than it is along the sides. My replication work soon established that the manufacture procedure used followed a specific pattern, as demanded by the morphology and dimensions of the end product, work traces and the nature of the available stone implements. For instance I found that it was difficult and uneconomical to first shape the bead and then drill it, and that it was marginally easier to drill from the concave side than from the convex. Thus experimentation succeeded in reconstructing the work process quite convincingly, which it seems was as follows.

Once drained of its contents, an ostrich egg was dried and broken into fragments. These were then reduced further, into polygonal pieces of about 1-2 cm^2 area. This was done by carefully breaking the shell between fingers, probing for already existing fracture lines. The small fragments were then drilled individually, which is a little more difficult than drilling into the complete egg (Figure 2). An experienced operator takes between 70 and 145 seconds (average 121 secs, n = 11) to perforate the dry shell from one side. (I consider that I became an 'experienced operator' after attempting to produce 25 or 30 beads, and quantitative production details reported here refer only to subsequent work.) No significant differences in drilling time were noted according to direction (from outside or inside), but the outer veneer (< 0.1 mm; Sahni et al. 1990) is somewhat

Figure 2. Some of the bead blanks in replication experiments after creating polygonal fragments of the ostrich eggshell and drilling them with stone tools (scale in cm).

harder to start from, and is of course of convex surface, so I came to prefer the concave mammilary innermost layer (Sahni et al. 1990: Fig. 2) to start drilling from. Contrary to various opinions stated, I do not believe that ostrich eggshell beads were usually drilled from both directions, as it is very difficult to meet up with the center of the first opposite indentation. It is much easier to ream out the opening once the boring tool breaks through, using the point of a thin prismatic sliver of chert. I propose that this is the way ostrich eggshell beads were customarily perforated.

I also drilled shell fragments soaked in water for 24 hours, taking from 80 to 140 seconds (average 118 secs, n = 11), which suggests that this does not affect workability of the shell. The principal variable in drilling time is clearly the quality of the stone tool point, and this can vary considerably. In my replicative work I used a variety of stone tool materials, including cryptocrystalline flint, microcrystalline cherts of various types, chalcedony, coarse and fine quartzites, and quartz crystal. I also tried out a variety of tool morphologies, finding that thin points became blunt very quickly, as did finely-grained materials. Nevertheless, all materials I used necessitated the application of two or more points to produce a single perforation economically, so the time of making or resharpening borers has to be added to production time. Stout angular points on flakes or blades of 1-2 mm thickness at their end were found to be the most effective, and excessive pressure is counterproductive as it accelerates the wear of the tool point exponentially.

Once the perforation is complete it is reamed out from the other (convex or outer) side, using slender bladelets or prismatic points, which may be more fragile. The duration of this process depends on the desired hole diameter, but in about one minute an even diameter of around 2 mm, eliminating much of the drilling cone, can be attained. It is clear from my work that the three perforated beads of the Indian Upper Paleolithic were reamed out by alternating rotation of the borer: this usually results in a slightly oblong perforation, as already noted by Semenov (1964: 78) in drilling through other materials with stone tools.

Before commencing the abrading of the still angular fragment, the excess area is trimmed off by gripping the piece firmly between two fingers in the area that is to form the final bead, and pressing its convex side against a stone surface (Figure 3). This process of snapping off small angular fragments until the actual bead blank is obtained requires skill and judgment: if the bead is incorrectly held or handled, it can easily crack through the perforation. The average time of the trimming process is 34 seconds.

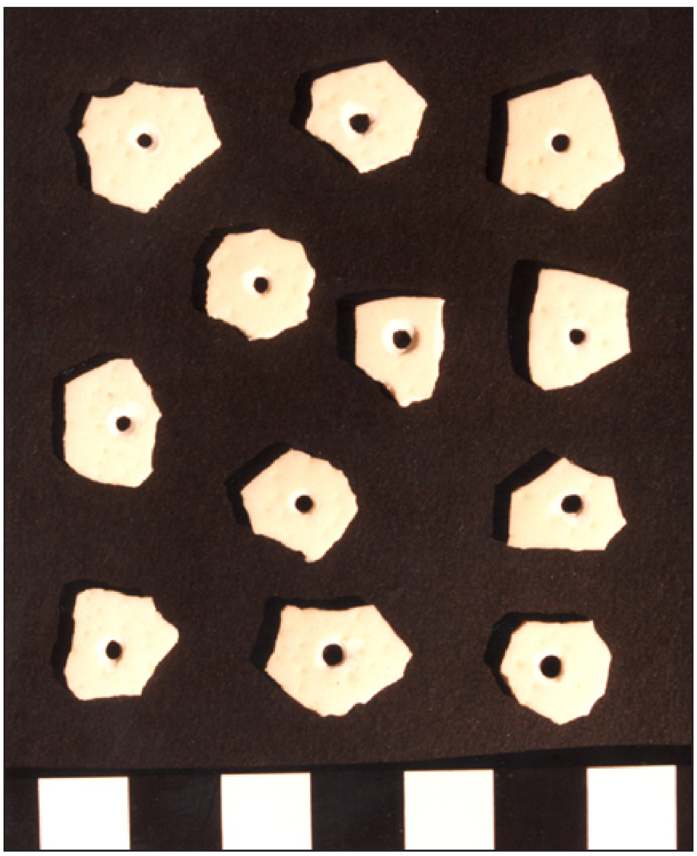

Figure 3. Bead blanks after excess material is trimmed off by pressure (scale in cm).

Grinding the excess material from the fragment's edge is easy, although very demanding on the operator's fingertips. I found it convenient to divide this process into two steps, first grinding the bead blank into a roughly circular shape of under 10 mm, resembling the Patne specimen. This requires between 65 and 270 seconds (mean 217 secs, n = 12), the duration being related directly to the amount of excess material to be removed. Siliceous sandstone, silcrete or quartzite provide excellent grinding surfaces, and an experienced craftsman should not break any pieces in this process (Figure 4).

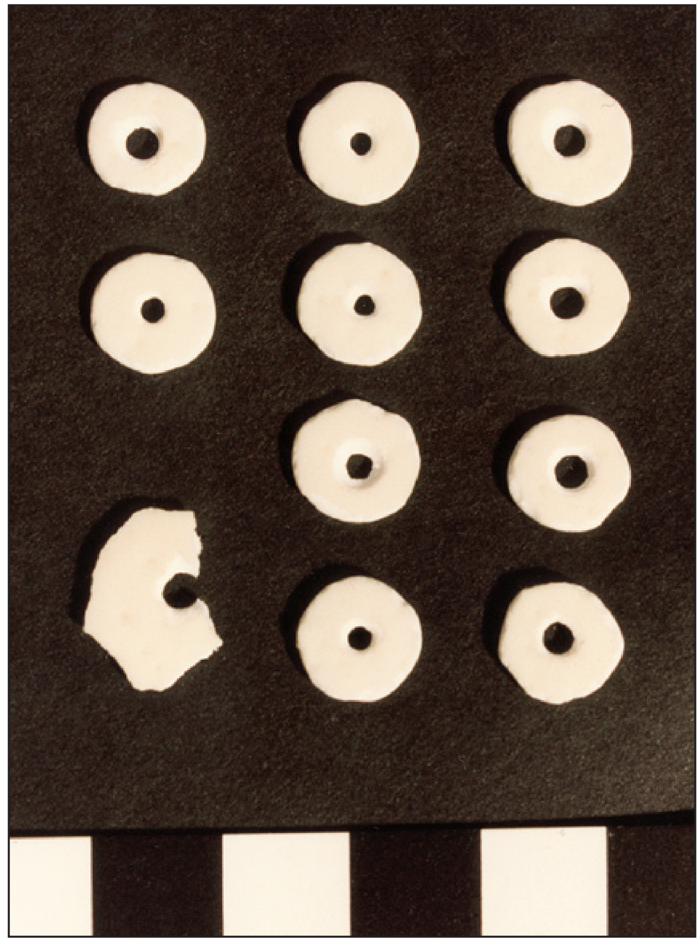

Figure 4. Some of the 65 ostrich eggshell beads I made with stone tools, at the stage of reaching a diameter of about 10 mm. Note that one specimen broke in the edge-grinding process.

Ethnographic specimens of disc beads are sometimes manufactured by a method called the *heishi* technique, named after the Santo Domingo Pueblo Indian word for 'shell bead' (New Mexico, U.S.A.). The *heishi* technique was a widespread method of mass-producing beads from ostrich eggshell and other thin materials, in which the perforated blanks are threaded onto a rod or stiff fibre, the entire set is ground together, resulting in very consistent sizes and shapes (Francis 1990: 47). I emphasize, however, that I have observed no evidence that this method was used in the Paleolithic period, anywhere in the world. Most particularly, the few Indian specimens we have were made singly (*contra* Francis 1982, 1990).

In attempting to replicate the Acheulian specimens from El Greifa, I found that I had to further refine the product of the last step. It takes between 580 and 645 seconds to reduce the <10 mm beads to almost perfectly round specimens of about 6 mm diameter (mean 618 secs, n = 12). On this basis we can estimate that the time it took to produce one of the El Greifa ostrich eggshell beads, assuming that the maker was a skilled craftsman, was in the order of 17 minutes, or about 25 minutes if we include the time of preparing and resharpening stone points (Figure 5).

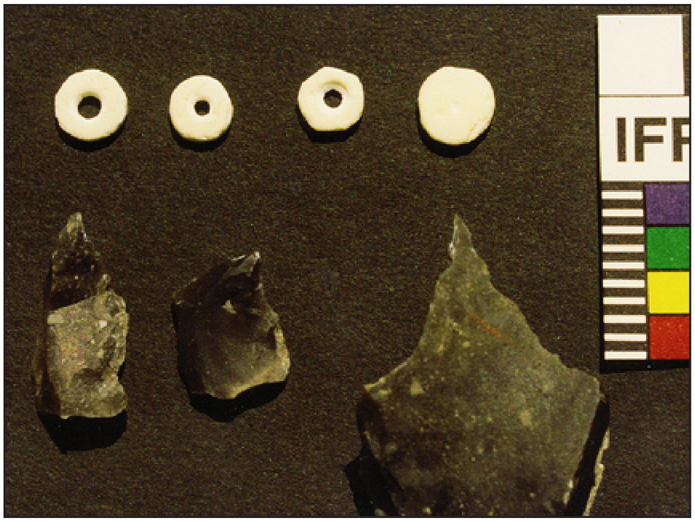

Figure 5. Experimental ostrich eggshell beads ground to about 6 mm diameter, with some of the chert borers or reamers used in drilling them.

Both the beads and the stone tools used in their manufacture were examined under a stereoscopic optical microscope at low to medium magnifications. The information so gained is not only useful in the microscopic study of prehistoric bead specimens and stone borers, it also explained the surprisingly rapid blunting I experienced with the stone tools. Expecting to find significant microscopic spalling on working edges, I was surprised to see that the 'blunting' of borers was not so much due to wear, but due to clogging up of recesses with compacted calcium carbonate. Nevertheless, a characteristic type of wear sheen was also noted on the edges at the point of many tools.

The ground and powdered eggshell material was also examined carefully, and was found to contain surprisingly large chips of eggshell layer, commonly measuring 0.1-0.5 mm, but in rare cases of up to 1.8 mm length. However, over half the volume of the white powder is of much smaller grain size, most of it 2-20 µm. Differences in its composition were noted according to the rock type used: a gritty siliceous sandstone and a silcrete produced slightly different cumulative grain size distribution curves than a dense central Indian quartzite.

Discussion

The replication of archaeological specimens is part of experimental archaeology, without which interpretation in this discipline is of very limited use. It is through the experimentation with technologies that we gain credible insights into how materials must have been utilized to produce the kind of record the archaeologist encounters. In this sense experimental archaeology is related to the study of the taphonomy of archaeological remains, and together these two areas of research can bring archaeological interpretation to life. I will try to illustrate this with the presently considered evidence.

The most important deductions we can draw from the present study concern the Acheulian beads from Libya, and what we can learn about the circumstances of their manufacture, in terms of illuminating the conceptual world of their makers. The first observation we can make concerns the considerably finer workmanship of these Acheulian specimens in comparison to those we have of the Upper Paleolithic. This may be unexpected, but it mirrors an experience we had recently with European rock art; the most sophisticated we have found so far, that of Chauvet Cave in France, turned out to be also the earliest we know of in the Upper Paleolithic (Clottes et al. 1995). Hence the idea of evolution towards increased sophistication is a Eurocentric myth in rock art development, and may well be so in other areas of archaeology.

The near-perfect roundness of the Acheulian beads can be obtained only by constant checking of the shape during the final abrading process, using not just a developed sense of symmetry, but possessing a very clear concept of a perfect geometric form. This roundness cannot be the result of chance or some 'instinct' driven by a mere desire to reduce the size of the beads. It is the outcome of a very clear abstract construct of form — a concept-mediated, geometrically perfect form. Moreover, it is the result of a determined effort to produce high-quality work. To extract the full potential information offered by these few beads, I find the following point particularly important, and it also demonstrates vividly the enormous benefits of replication studies.

During my experiments I found that as the beads are ground to a diameter of 8 or 7 mm it becomes increasingly difficult to hold them while grinding them, and after a time it becomes a rather painful task. The fingertips not only have to maintain a tight grip, they are also subjected to abrasion from the siliceous stone. About 6 mm is the diameter at which it becomes uneconomical to continue reduction further, and this is precisely the size of the Acheulian bead fragments. This, too, is not a coincidence, but the result of a deliberate decision to *reduce the beads to the smallest realistically possible size*. It must be considered also that at sizes of under 6 mm, the beads become increasingly fragile: with a perforation of almost 2 mm, their rim width falls to under 2 mm. Moreover, because of what remains of the bi-conical perforation profile, the innermost part of the rim is never of full eggshell thickness. I found that if the beads were ground to a smaller size, they would become susceptible to fracture, either during manufacture or during subsequent use.

So we have two limits on minimum size imposed by practical considerations, and we need to ask: why did the makers of these beads push their technology to its practical limits? After all, a larger bead is much easier to see, yet a smaller bead represents a significantly greater work effort. This observation coincides with the already mentioned geometric perfection of the form, which is most certainly deliberate. The most parsimonious explanation for both the size and the form of these objects is that these characteristics reflect a highly developed abstract value system and a considerable social complexity in the society that made and used these beads. Without a cultural impetus placing value and meaning on such perfect forms, and on a standard of craftsmanship that pushes the available technology to the utmost limit, it seems simply impossible to account for the empirical characteristics of the evidence. There is certainly no utilitarian explanation to account for them, so the motivation of these artisans is to be found in an emerging sense of perfection hundreds of thousands of years ago.

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Selected Publications/Other Media

Arnold, Jeanne E.
2011 Detecting Apprentices and Innovators in the Archaeological Record: The Shell Bead-Making Industry of the Channel Island. *Journal of Archaeological Method and Theory*. Electronic document, http://www.springerlink.com/content/f011v43xg2104331/, accessed 4 May 2011.

Using the large bead-making assemblages of the Channel Islands of California, Arnold seeks evidence of apprentice bead-makers in the archaeological record.

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2011 Neolithic Amber Processing and Exchange on the Eastern Coast of the Baltic Sea. In *Exotica in the Prehistoric Mediterranean*. Edited by Andrea Vianello, Oxbow Books, Oxford.

Loze provides an overview of amber production and trade along the eastern Baltic, including a site near Lake Lubans where there was extensive amber production but no local amber source. The area of the Baltic produced amber beads, pendants and zoomorphic objects.

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In Memoriam: Gabrielle Liese (1914-2011) Founder of The Bead Museum

Gabrielle Liese died peacefully at home on June 14, 2011. She was born on July 28, 1914, to Dr. and Mrs. William Dennison Morgan (Gabriella Sengastak) of Hartford, Connecticut. She graduated from the Spence School in New York City in 1933 and later studied interior design as an apprentice in the architectural firm of William Wright Crandall in New York City. In July 1940, she married Theodore William Liese of Danville, Illinois. Ted was a member of Squadron A, 101st Calvary, National Guard, New York City. Their son, Theodore Burton Morgan Liese, was born in September 1941 and their daughter, Gabrielle Brinley Liese, was born on March 17, 1943, while Ted was fighting the battle of Kasserine Pass in Tunisia. In 1949 they bought a cattle ranch and moved permanently to Prescott, Arizona. In the early 1970s Gabrielle became interested in the historical uses of beads, which included aspects of anthropology, archeology, sociology, religions and world trade. Gabrielle founded The Bead Museum and the Gabrielle Liese Research Library in Prescott in 1986. The museum featured beads from around the world to show how they pertained to various cultures and civilizations. The purpose of The Bead Museum was to "collect and preserve, identify, document and display beads and ornaments used in personal adornment from ancient ethnic and contemporary cultures, covering all periods of history". Its goals were to "educate the public, promote and publish research in these areas and to act as a permanent repository for beads and ornaments and related books and publications." In 1999 The Bead Museum moved to Glendale, Arizona, where it remained until 2011, at which time the Museum's collection was incorporated with that of the Mingei International Museum in San Diego with material from the Center for Bead Research going to the American Museum of Natural History in New York. In 2003 Gabrielle was awarded the "Governor's Arts Award Individual Category" through the Arizona Commission of the Arts. During the early years of the Society of Bead Researchers, she was very supportive, both in spirit and financially, and was one of its longest-standing members. Her son, Theodore Burton Morgan Liese, her daughter Gabrielle Brinley Liese Thomas, two grandchildren, Theodore and J'lein Liese, and three great grandchildren, as well as her niece, Diane Novakov, survive Gabrielle.

—Frederick Chavez

Gabrielle Liese at her home, Bullwhacker Ranch, in Prescott, Arizona. Photograph Alice Scherer April 2009.

Update from the Mingei International Museum on The Bead Museum's Collection

An extraordinary collection was given to Mingei International in mid-March. The Bead Museum of Glendale, Arizona, closing its doors after 25 years, transferred title to its holdings —11,600 individual beads and beaded objects — to our museum. Objects in the collection range from a pierced bone from 20,000 BCE to polymer clay beads made nearly yesterday. The Bead Museum trustees had realized for some time that, though beads are immensely popular, a museum dedicated solely to them is difficult to sustain. They were thrilled to have our board's positive response to their offer and to know that the collection will have a secure future. This collection meshes well with Mingei International's mission, and beads have been the subject of two specific exhibitions here and included in many others over the years. The collection arrived in late April with its important accompanying library of 2,200 volumes and 1,800 periodicals. Funds given with the collection will allow us to hire the collections manager of the Glendale museum to work with our staff on a half-time basis for the next year, acquainting us with the collection, helping us decide what to accession into Mingei International's collection, organizing it in a state-of-the-art storage system, and entering it into a digital database. The first public use of the collection will be to include its polymer clay beads with polymer clay beads and beaded objects that our Museum already holds in an exhibition opening in December titled *New Jewelry in a New Medium*.

The Resolution of the Collection of Peter Francis, Jr., formerly in The Bead Museum

Following the death of Peter Francis, Jr., the collections of the Center for Bead Research (CBR) were delivered to The Bead Museum in Glendale, Arizona, for safekeeping and availability to researchers. Upon the recent closing of that museum, due to the Francis collection's non-fit with the goals of the new repository of the Gabrielle Liese collection and Bead Museum's holdings—The Mingei International Museum, San Diego—a new home for the CBR collection was needed. Alice Scherer of the Center for the Study of Beadwork, who had been working with The Bead Museum's board president to rehouse the museum's holdings, contacted Lorann Pendleton of the American Museum of Natural History (AMNH) to see if AMNH would be interested as Francis had worked with them on their St. Catherines Island collection. They were indeed and in the summer of 2011, Francis's collection became part of the St. Catherines archive at AMNH. An archivist from New York University has now processed the collection and a catalog of the CBR's holdings has been created.

One element of Francis' material, his website, had been kept up and running by The Bead Museum with periodic fine-tuning by David Nevill of African Trade Beads, based in Norwich, England, until the closure of the museum.

Following that closure, at Scherer's suggestion, Nevill contacted Pendleton and together they arranged for the AMNH to transfer the administration of the CBR's domain name to Nevill, who edited the website to correct page layout irregularities caused by the transfer and updated the contact and copyright information, before uploading it back onto the internet. Were it not for Nevill, this website might have become a part of history and not something still available for perusal today.

Peter Francis, Jr., photograph Dee Mueller, c. 2001.

Plans are in the works to upload copies of many of Francis's papers in .pdf format to the web site in the very near future. To visit the site, which contains all the information present at the time of Francis's death in 2002, please go to http://www.thebeadsite.com.

For more information about the current status of the collection of the Center for Bead Research, contact Lorann Pendleton, Division of Anthropology, American Museum of Natural History, 200 Central Park West at 79th Street, New York, NY 10024, lsap@amnh.org.

Coming in *Beads*, Volume 23

Beads From Gablonz

Waltraud Neuwirth

The English portion of this classic study on the beads of Gablonz has been re-edited and will be released in *Beads* 23.

Journal: Borneo International Beads Conference 2011

The second Borneo International Beads Conference was held in Kuching, Sarawak, Malaysian Borneo, 7-9 October 2011. The proceedings of the event, *Journal: Borneo International Beads Conference 2011*, has already been published and includes the following articles:

The Significance of Beads in Kayan-Kenyah Customary Law (Adet Kayan-Kenyah 1994), by Henry Anyi Ajang and Anthonius L. Sindang — Beaded Wedding Baskets of Southwestern Sumatra, by Peggy and Arthur Astarita — Art on a String from Arnhem Land, by Louise Hamby — Melanau Bead Culture, by Hat Bin Hoklai — Ornaments of the Dead Among the Nagas, by Alok Kumar Kanungo — Something for Everyone: Haudenosaunee Souvenir Beadwork, by Karlis Karklins — Beads and Heritage: Sarawak Museum Beads Collection, by Tazudin Mohtar — Blue Beads to Trade with the Natives: A Case Study, by Heidi Munan — Speaking with New Voices: South African Beadwork, the Global Market, and the Reinvention of Culture, by Eleanor Preston-Whyte — Karoh: A Sacred and Secular Symbol of Identity among the Lotud, by Patricia Regis and Judeth John Baptist.

Second Borneo International Beads Conference

The journal may be ordered by contacting Crafthub (crafthub@gmail.com). The price had not been set as of this writing. Copies of the proceedings of BIBCo 2010 are also available from them. Those are US$25.00, including registered postage worldwide.

Conferences

International Iroquois Beadwork Conference 2011

The Third International Iroquois Beadwork Conference was held on the beautiful campus of Colgate University in Hamilton, NY, 16-18 September 2011. It was held in conjunction with the opening of the exhibition "Birds and Beasts in Beads: 150 Years of Iroquois Beadwork" which was prepared by Carol Ann Lorenz, Director of the Longyear Museum of Anthropology, and Candace Bemont who installed the exhibition, edited the accompanying catalog, and made all the arrangements for the conference. Most of the exhibited pieces came from the collection of Iroquois beadwork expert Dolores Elliott.

Presentations included:

Karen Ann Hoffman, Oneida Nation of Wisconsin *Written in Beads: Iroquois Stories in Raised Beadwork*;

Richard Green, researcher, bead expert, Birmingham, England (read by Karlis Karklins) *East by Northeast: A Haudenosaunee Beaded Purse from the Montreal Region*;

Dolores Elliott, researcher, Binghamton, New York: *Mohawk Beaded Collection Baskets*;

Dolly Printup Winden, Tuscarora, Niagara Falls, New York *Beadwork: A Family Tradition*;

Tom Schantz, collector, Pennsylvania *More Examples of Birds and Beasts in Beads*;

Dolores Elliott, researcher, Binghamton, New York *Beadwork Time Lines*;

Karim Tiro, Xavier University *The Socio-Economic Context of Oneida Beadworking c. 1850.*

The Saturday-evening keynote lecture was presented by Dr. Ruth B. Phillips, Carleton University, Ottawa: "From 'Naturalized Invention' to the Invention of a Tradition: The Victorian Reception of Onkwehonwe (Iroquois) Beadwork." Open to the general public, it was very well attended.

In addition to the presentations was a beadwork competition for both beaders and collectors, a silent auction, a sales room, and a tour of the Shako:wi Cultural Center, Oneida Nation Territory.

The conference not only allowed the attendees to exchange information, but once again provided the ability for collectors and researchers to mingle with current Haudenosaunee beadworkers whose relatives created many of the items collectors and researchers possess and study.

—Karlis Karklins

Who We Are

The Society of Bead Researchers is a non-profit corporation, founded in 1981 to foster research on beads of all materials and periods. Membership is open to all persons involved in the study of beads, as well as those interested in keeping abreast of current trends in bead research. The society publishes a semi-annual newsletter, *The Bead Forum*, and an annual journal, *Beads: Journal of the Society of Bead Researchers*. The society's website address, as of Spring 2010, is http://www.beadresearch.org.

Contents of the newsletter include current research news, requests for information, responses to queries, listings of recent publications, conference and symposia announcements, and brief articles on various aspects of bead research. Both historic and prehistoric subject materials are welcome.

The deadline for submissions to the next *Bead Forum* is March 1, 2012. Electronic submissions should be in Word for Windows 6.0 or later with no embedded sub-programs such as "End Notes." References cited should follow *Historical Archaeology*'s format: http://www.sha.org/publications/style_guide.cfm.

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