

photographic results. Unfortunately, where archaeological specimens are involved, the original color of a bead is frequently obscured by a layer of patina, resulting in rather drab photographs, regardless of the photographer's skill. In such cases, it is important to try and reveal a bead's true color.

If the patina is thick, there is little that can be done. However, if it is relatively thin, an application of a high-quality mineral oil will bring out the original color without harming the bead. The best way to apply the oil is with a camel hair brush. Apply the oil sparingly as an excess will cause glare. Keep in mind that the oil will evaporate quite quickly under hot studio lights so, if not using a flash, perform bead layouts and focusing before the oil is applied. If the oil does evaporate, simply apply more. *Never* utilize vegetable oil or lubricating oil as these will leave a sticky, dust-collecting residue that will also stain whatever the bead touches.

Once the photographs have been taken, oil residue should be removed from the beads. To accomplish this, the beads, held in forceps or mounted on a wire loop, should be rinsed in a series of four beakers of petroleum ether 30-60 in a well-ventilated area. Both the mineral oil and ether are inert with glass and, consequently, the procedure described here will not conflict with the desire to preserve the specimens, a major concern to collection's managers and curators.

My thanks to John Stewart, Senior Conservation Scientist, Conservation Division, Parks Canada, Ottawa, Ontario, for his input regarding the procedure described above.

46. AN UNUSUAL MODERN BEAD (?) FROM CHINA, by Karlis Karklins (1996, 28:19-20)

Just when you think you know it all, along comes something to put you in your place. This was the case when Vonda Lee Adorno handed me a large bead at the Third International Bead Conference in Washington, D.C., last November and asked my thoughts on it. The object that sat heavily in my hand was globular, 24 mm in diameter, and weighed 15.5 g. It was coral colored and had been obtained in Beijing in 1994. Part of the bead had broken away, exposing the internal structure (Pl. IB top). The specimen had a wooden core with five lead plugs ca. 6 mm in diameter set 5-11 mm apart in a band that diagonally encircled the bead. The core was covered with a shiny, 1.5- cm-thick layer of a coral-colored material that was difficult to scratch with a pin and was also resistant to burning. The material exhibited a conchoidal fracture and a slightly laminated structure and may be some sort of plastic. The object had

a ca. 3-mm-diameter hole through it. The wood looked new and the lead plugs were only slightly oxidized, suggesting that the specimen was of recent manufacture.

So, what is this thing? At first I suspected that the lead had been added to give the bead extra weight to mimic that of coral. But, as Vonda pointed out, the lead actually made the object much heavier than coral. The weight suggests that it did not function as a necklace component but as an attractive weight on something—possibly a curtain pull or something similar. Anyone with any thoughts on this unusual object and its possible use(s) is asked to contact the editor.

47. MORE ON THE “UNUSUAL MODERN BEAD (?) FROM CHINA,” by Karlis Karklins (1996, 29:7)

In response to the item on “An Unusual Modern Bead (?) from China” in the April issue, Joan Eppen from California sent in a couple more examples found on a strand of imitation coral beads from Asia. Obtained in the early 1990s, the specimens are clearly imitation-coral beads. They are barrel shaped, measuring 11.8 mm in diameter and 9.5 mm in length, with deeply cracked surfaces. Like their larger counterparts, these have a wooden core as well but, due to their size, only have a single cylindrical lead insert which passes through the core perpendicular to the perforation. The latter has been drilled through both the wooden core and lead insert. As Joan said in her accompanying note: “Someone worked really hard to make these, but why?” Why indeed? It would take a fair bit of time to produce the core, drill it, insert the lead cylinder, then drill the perforation and cover the whole with a layer of coral-colored material. The reason for the lead inserts is clearly to give the beads weight like that of real coral, but since the finished products look like plastic, why go to the bother? Joan further informed me that, according to Paddy Kan who imports these, “they were indeed Chinese, 19th Century, and that the covering was of a kind of tree resin (early plastic?).” However, they just look a little too “fresh” to be that vintage and the identification of the outer layer still needs to be verified. Any plastics experts out there willing to look at one of these beads and give us an opinion?

As it now stands, we know that these items were beads made to imitate coral, probably in China, but we still do not know where or when exactly, by whom and why. Maybe someone can provide more information in the next *Forum*.

48. BEAD RESEARCH DOS AND DON'TS, by Karlis Karklins (1998, 32:10-15)

As ever-increasing numbers of people are drawn to beads, more and more of them want to know more

and more about various aspects of beads and beadwork. These individuals include archaeologists, ethnographers, conservators, and museologists, as well as bead stringers, beadmakers, artisans, and collectors, among others. Some people are content to peruse books and articles on whatever aspect of beads that interests them, while others are driven to boldly go where no researcher has gone before. It is for these brave souls that the following list of some bead research dos and don'ts is intended. Much of this will be old hat to some of you. For the others, I hope that you will find this information of use in your respective endeavors.

First, the Dos:

***DO* become familiar with your subject matter.**

Reading a few popular books and articles on beads and viewing one or two museum displays will not make you an instant bead expert. Before you begin any project, you need to seriously review the relevant literature. The best way to start off is to consult bibliographies. For North American trade beads, there are the two bibliographies compiled by Karklins and Sprague (*A Bibliography of Glass Trade Beads in North America* [1980], followed by the *First Supplement* [1987]). Although admittedly outdated, they still provide relevant references for researchers. Both of these publications are available through the Society of Bead Researchers.

Recent additions to the bead literature worldwide may be found in the "Recent Publications" section of the Society of Bead Researcher's newsletter, *The Bead Forum*, as well as in the extensive "Recent Published Work on Beads" section of the Bead Study Trust's *Newsletter*. The Trust is contemplating the compilation of a comprehensive bead bibliography and I wish them the best of success in this endeavor. Further references to specific subjects may be found simply by perusing the "References Cited" sections of the articles published in the SBR's journal *Beads*. And, of course, there are the resources of the worldwide web.

***DO* take archaeology and ethnology courses.**

Archaeologists and ethnologists go to university for years to be able to properly identify, classify, describe and interpret the objects they study. A person without this training is definitely handicapped and can get into real trouble when it comes to placing beads and beadwork into a sociocultural or historical framework. If you are serious about bead research and plan to work on either archaeological or ethnographical materials, take a few introductory college courses in the relevant fields to at least get you off on the right foot. If you

are too busy to do the course work, audit the class. Reading books on the subject is fine, but participating in a class and discussing problems with the professor and the other students can really give you a good foundation for whatever research you are planning to do.

***DO* be careful when interpreting bead material.**

One must be very careful when interpreting archaeological and ethnographic material. For instance, found loose in North American archaeological contexts, seed beads are generally considered to have been used in embroidery but this was not always the case, especially during the early contact period when various groups used them for necklaces and bracelets. Similarly, large beads are classified as necklace beads by many researchers but also served to adorn thongs on various implements as well as medicine bundles, among other things.

The designs that appear on ethnic beadwork can also be problematical. One really needs to thoroughly study the symbolism of the group that produced a particular piece of beadwork to provide a correct interpretation of what the design elements represent. The study should ideally include input from the people whose culture they relate to. Also bear in mind that in some cultures, design elements have different meanings, depending on which sex utilizes them.

***DO* consult the experts.**

Even if you are truly brilliant, you will eventually have questions that seem to be unanswerable. This is the time to stop tearing out your hair and consult an expert. As the officers of the Society of Bead Researchers between them know many researchers who have been studying beads and beadwork around the world, we can tell you who you should contact with a specific question. Most pros will gladly answer questions free of charge. However, if the questions are complex and require research, or if specimens are submitted for identification or interpretation, a fee may be levied, especially by those who operate consulting firms. But what is a small payment compared to premature baldness or ulcers caused by frustrating bead questions?

***DO* use a microscope.**

A binocular microscope is probably one of the handiest things that a bead researcher can possess besides an inquisitive mind. It reveals details indistinct to the unaided eye, and can help to resolve questions regarding how a bead

was made, if it has been flashed, what colors the layers are of small multi-layered beads, and so forth. Some binocular microscopes are quite expensive but there are cheaper versions such as those used by gemologists. They can occasionally be obtained second hand. Numerous good ones are available on eBay. If you cannot afford one, biology and geology labs at universities usually have them and getting permission to use one should not be difficult.

DO include good color illustrations in your reports.

If you are planning to publish your findings, make sure you include good color photographs or drawings which show details. B&W photos, especially out-of-focus ones, just do not suffice. If you do not feel competent enough to get good results, contact a professional photographer, though keep in mind that photographing beads does take special skill and just because a photographer is good at portrait photography does not mean that he or she will do as well on a group of beads. If your photographs are sharp and clear, and the color is accurate, just about anyone can figure out what you have, no matter how poor your descriptions might be.

DO join the Society of Bead Researchers.

The Society of Bead Researchers was formed in 1981 to foster serious research on beads of all materials and periods, and to expedite the dissemination of the resultant knowledge. To facilitate these aims, the Society publishes a semi-annual newsletter, *The Bead Forum*, and an annual journal, *Beads*. If you are seriously interested in beads, you really should be a member. That way you can find out what other researchers are doing and also share your information with them. If we continue to share our knowledge, we will achieve much more than by working as isolated researchers scattered all over the world.

Now for the Don'ts:

DON'T believe everything you read or hear.

There is a lot of misinformation about beads out there—in books, in articles, in talks, on the Web—and weeding out the good from the bad takes a bit of expertise. Until you gain this expertise through long hours of original research, keep an open mind. If something doesn't sound right or if it conflicts with someone else's statements, check it out with others working in the field. If you are working on ground-breaking material, use your common sense.

Researchers are constantly fine-tuning bead chronologies and more accurately determining the place(s) of manufacture for specific bead types. Consequently, books and articles written 20 or more years ago may present information that is quite outdated. This is especially true of such classics as van der Sleen's *A Handbook on Beads* and Horace Beck's *Classification and Nomenclature of Beads and Pendants*. I would, however, still strongly recommend that you read both of these volumes, if for nothing else than to gain an historical perspective on the field of bead research. Unfortunately, what I have said above for older publications is also true of much more recent reports on beads written by individuals who do not fully understand the subject.

As for what you are told, if someone is trying to sell you a bead or a piece of beadwork, especially in the Developing World, he or she will frequently tell you just about anything to make the sale. Other individuals will tell you stories that blend legend with historical fact and tribal pride. This sort of information must not be taken at face value. Ethnographers often spend years living with the people they are studying, familiarizing themselves with their culture, learning their language, and gaining their confidence. You cannot hope to achieve this during a two-hour stop at a market in Ghana or Sarawak, so remember to keep an open mind in this sort of situation and pose your questions as craftily as the dealers formulate their answers.

Also keep in mind that in some cultures, rather than offend a person by having to give a negative response, the person being questioned (and this includes governmental officials and representatives) will tell what we in our culture would consider an outright lie but to them is the polite thing to do. Roderick Sprague encountered this during his stay in China some years back. The misinformation was not given maliciously but to keep from possibly offending the researcher (political correctness strikes again). Taking such an answer at face value could, therefore, have serious implications concerning your findings. In Rick's case, continued questioning of other individuals garnered the correct information.

Finally, remember that some people just like to pull researchers' legs for the heck of it, so beware!

DON'T ask questions which can be answered with a yes or no.

No one wants to look stupid, especially to a foreigner, so rather than appear like an ignoramus and keep saying "I don't know" to your numerous queries about a certain bead or piece of beadwork, given the opportunity, a native

informant will generally jump at the chance to say either “yes” or “no,” depending on which response seems most likely to please the person asking the question.

***DON'T* buy archaeological specimens.**

I cannot stress this enough. Purchasing specimens recovered from archaeological contexts, especially those obtained by illicit digging, contributes to the wholesale destruction of archaeological sites all over the world. This is now most prevalent in Mali and Southeast Asia where ancient sites look more like World War I battlefields after the looters have done their work. This has resulted in the loss of truly incredible—and irreplaceable—amounts of scientific data. It is ironic that many collectors who buy such looted beads then turn to archaeologists to get more information about them, information the archaeologists cannot provide because the contexts in which the beads were found have been destroyed.

And sometimes it is not just information that is lost but human dignity as well. The worldwide craving for ancient beads has driven some looters to the ghoulish practice of unearthing recent human burials which were buried with heirloom beads. This has led elderly women in some regions of Southeast Asia to request that their old beads be pulverized before being interred with them upon their death.

As an archaeologist who looks upon beads as repositories of information and not just beautiful objects, my fervent hope is that you will not buy ancient beads and will tell others to do the same. While some come from collections that were amassed by archaeologists and others in the old days through legal means, the majority available today have been illegally plundered from sites that local governments cannot protect because of a lack of proper funding. Let us help these nations protect what remains of their heritage.

[Ed. Note: This article is an updated version prepared in 2009.]

49. AN EARLY 19TH-CENTURY ACCOUNT OF BEADMAKING IN MURANO AND VENICE, by Karlis Karklins and Derek Jordan (1990, 17:5-8)

Introduction

In 1816, two German botanists recorded one of the earliest comprehensive descriptions of the manufacture of drawn glass beads in Murano and Venice (Hoppe

and Hornschuch 1818:135-142). An English translation appeared a few years later (Anonymous 1825:120), and this was used almost verbatim by Dionysius Lardner (1832:233-235) in his treatise on the manufacture of porcelain and glass. Unfortunately, the initial English translation is flawed by several errors and inadequately translated terms and descriptions. Furthermore, a few interesting bits of information were deleted while others were added by the translator. As Hoppe and Hornschuch's record is important to our understanding of how beadmaking technology changed through time, an annotated translation prepared by K. Karklins and Derek Jordan is presented below.

Hoppe and Hornschuch's Account

The initial stages in the production of glass beads on Murano are not very different from those used in the normal production of glass. The melting furnace and even the glass mass are the same, except that a secret colorant is added to the latter. When the glass is in a sufficiently molten state, a quantity of it is taken up on a blowpipe, as is the practice in the normal glass works, and a little air is blown into it to make it hollow. Using a similar instrument, another worker then takes hold of the gather and the two workers then run¹ in opposite directions at great speed, pulling the glass out into a thin tube that can often be 50 feet or more in length.² A long walk is provided near the glass oven for this purpose.

Once the tube is cool, it is broken into sections of equal length, sorted, packed into boxes, and sent to Venice for transformation into beads. To obtain tubes for striped beads, a small quantity of differently colored glass is taken from another pot and laid in strips on the initial gather.³ The whole is then pulled out. Such a gather of glass is also used to produce tubes three feet in length and the thickness of a finger which have a spherical bubble blown in one end. These are used to tie up plants in flowerpots.

When the tubes arrive at the factory in Venice, they are converted into beads in the following manner. A person selects tubes of equal length⁴ from those which have been packed in the boxes by color and arranges them in batches of such a size that the tubes lie side by side when held in the hand. This work is usually done by women or children. Another person, a man, takes the batches of tubes and chops them into beads of any desired size. The instrument required for this purpose consists of a sharp iron in the form of a very broad chisel set in a block of wood. The tubes are laid on the cutting edge and, using a similar iron held in the hand, the worker cuts, or rather chops, the tubes into beads while constantly advancing the tubes held in his other hand.⁵