Archeology and Looting: Preserving the Record

I was dismayed to read Brian Alexander's article "Archeology and looting make a volatile mix" (News & Comment, 23 Nov., p. 1074). It is so filled with factual errors, innuendos, and half-truths, as to be totally inappropriate for publication in Science.

Alexander contacted me several times while he was preparing his article. He stated that he was a free-lance writer who had been requested by Science to provide a fair, balanced view of the question of whether or not archeologists should record looted material. In his article, however, he does just the opposite. By the end of his first paragraph his judgment is clear: he defines two extreme positions—not recording objects unless they come from scientific excavation versus recording looted objects so that data will not be lost. Then he states that the former position is the "high road," leaving the reader with the inference that the latter is the low and unscrupulous road. Also in his first paragraph Alexander states that making any use of looted material "means tacitly justifying looting"-something which simply is not true.

According to Alexander, because I have recorded looted material, I have been "severely criticized by the media." Yet the single instance where I have been criticized was in one article in Art and Antiques (1), written by another free-lance writer. Alexander also states that "an episode of the PBS television series Frontline devoted to [me] was critical." This is blatantly untrue. Not only was this program not devoted to me, but in the entire program I was not even

Alexander states that, in my 1990 National Geographic article (2), I included prominent color photographs of ceramics that had made their way from the Tomb of the Lord of Sipan into a private Peruvian collection by way of the huaqueros (grave robbers). This is also untrue. The Tomb of the Lord of Sipan was found intact and excavated months after the police stopped the looting at Sipan. All of the objects from it are property of the Peruvian government. This is made perfectly clear in the October 1988 issue of National Geographic (3).

It is true that National Geographic published some of my photos of gold objects from a private Peruvian collection in its 1988 article, but here Alexander has badly distorted the facts by leaving out informa-

tion. As I carefully explained to him when he was preparing his article, a policy was implemented at National Geographic whereby we would publish looted pieces from Sipan only if (i) the pieces had been confiscated by the police and officially turned over to the Peruvian government, or (ii) the pieces were in a Peruvian collection and had been officially registered with the National Institute of Culture in Peru.

According to Peruvian law (Law 24047), it is perfectly legal to possess Pre-Columbian artifacts, and many people do so. They are required to formally register these with the government, through the offices of the National Institute of Culture. The objects illustrated by National Geographic are formally registered. Alexander knew this, but saw fit not to explain it to the reader. Instead he characterizes the private Peruvian collection as "a large stash of prehistoric loot."

These are only a few examples of the inaccuracies and distortions in Alexander's article. Many other examples could be documented.

Near the end of his article, when Alexander says that researchers will have to make up their own minds about whether or not to record looted material, he states, "Donnan will have to live with his choice." I would like to publicly state that I am finding it quite easy to live with my choice. It is tragic that looting takes place, and I know of no archeologist who does not decry the loss of critical information that results. But to stand by when it is possible to make at least some record of whatever information can still be salvaged simply compounds the loss. It was not easy to record the looted material from Sipan. But if I had known then as I do now what a crucial difference the information would make in our ability to accurately reconstruct this ancient society, I would have gone about recording it with even deeper resolve.

Thus I can comfortably live with my choice. What I find rather difficult to live with, however, is the use of misinformation, half-truth, and innuendo to slander professional people and institutions whose actions are not only ethical, but critical to preserving the archeological record.

> CHRISTOPHER B. DONNAN Department of Anthropology, University of California, Los Angeles, CA 90024-1507

REFERENCES

- 1. C. Nagin, Art Antiq. 7, 98 (May 1990).
- 2. C. B. Donnan, Natl. Geogr. 177, 16 (June 1990).
- __, ibid. 174, 550 (October 1988).

Response: Science regrets any implication in author Alexander's article that any scientist who makes use of looted material to increase the body of knowledge is taking the low road. Alexander did not intend to imply this, for, after all, it is possible to use such material without justifying looting. We also regret Alexander's erroneous report that a Frontline television program on looting had been critical of archeologist Donnan-in fact, it never mentioned him.—EDs.

I read with fascination the article "Archeology and looting make a volatile mix." Christopher Donnan has shown commendable enterprise and should be applauded for saving knowledge that could have otherwise been lost. All of archeology that deals with burial will continue to be questioned. In the eyes of some, including native Americans, archeology is looting. I don't believe that, nor do I approve of huaqueros. But they exist. It's refreshing to find an archeologist or an anthropologist who can deal with this imperfect but real world.

> W. M. SUDDUTH Science World British Columbia, 1455 Quebec Street. Vancouver, BC V6A 3Z7

It seems that Christopher Donnan stands accused of archeological misconduct for practices that are acceptable and necessary in many sciences. Donnan's photographing looted artifacts is like a zoologist measuring tusks from poached elephants, an anthropologist studying bones looted long ago from gravesites, or a criminologist studying the profits of crime. Condemn the poachers, the looters, and the criminals, if you will, but not the scientist who tries to wrest knowledge from the grasp of the greedy.

> PARK ELLIOTT DIETZ Threat Assessment Group, Inc., 537 Newport Center Drive. Newport Beach, CA 92660

Alexander's article on archeology and looting was excellent. Two additional points need to be made. Even though looted artifacts may have some information value, they have usually lost 90% of that value by the time they reach a collector. Another fact is that the first article of the bylaws of the Society for American Archaeology prohibits members from engaging in any activity that may promote the commercial value of artifacts. Considering both points, it is apparent that Jeremy Sabloff and the "hardliners" are scientifically and ethically correct in their refusal to deal with looted artifacts. As for the differences between New York and Peruvian ethics, it is the Peruvians' national

patrimony, but if they choose to destroy it we should not help them do it.

RICHARD E. W. ADAMS
Center for Archaeological Research, and
Director,
Rio Azul Archaeological Project,
University of Texas,
San Antonio, TX 78285

Cold Fusion Results

Robert Pool, in his description of the positive report issued on cold fusion by Texas A&M University (News & Comment, 14 Dec., p. 1507), states that my co-workers and I have not obtained tritium over the last year.

- 1) Since our pioneering work in discovering the formation of tritium at the palladium electrode in the electrolysis of deuterium oxide at palladium, 37 independent groups have replicated our work qualitatively, that is, they have found the formation of tritium when deuterium is electrolyzed on palladium.
- 2) Thomas Claytor, at the Los Alamos National Laboratory, by using an entirely different method from the one we have used, can reproducibly produce tritium from the passage of current through palladium charged with deuterium (1).

Correspondingly, Pool reports that I restricted the timing of Manuel Soriaga's questioning of Nigel Packham at Packham's Ph.D. oral without stating that this procedure (requesting Soriaga to submit further questions in writing) was advised by the Graduate School Representative, or that two persons (Norman Hackermann, and Ernest Yeager) had been appointed to Packham's committee because both were experienced in cold fusion work (Soriaga was not).

Reporting of a selected part of the situation may sometimes confuse the reader.

J. O'M. BOCKRIS
Department of Chemistry,
Texas A&M University,
College Station, TX 77843–3255

REFERENCES

 T. Claytor, paper presented at a conference on Anomalous Nuclear Effects in Deuterium/Solid Systems, Brigham Young University, Provo, UT, 23 October 1990.

Response: The report of Texas A&M's Cold Fusion Review Panel itself states that unusually high levels of tritium were observed in Bockris's lab through November 1989, but that "Since that time, no additional cells have been reported to have unusual levels of tritium. . . ." The 37 "inde-

pendent" groups to which Bockris refers include many that have seen small amounts of tritium once or twice and never again.

As for the handling of Nigel Packham's dissertation defense, the review panel stated that "A very serious breach of academic procedure may have [occurred]." The report states that "While the Graduate College Representative functioned reasonably in a difficult situation, he was not privy to many of the events leading up to the defense," and it pointed out that "It was the duty of the committee chairman [Bockris] to see that the examination was conducted properly." The panel was unsatisfied with the final composition of the dissertation committee, even after the addition of Hackerman and Yeager: "The addition of outside experts [to a dissertation committee] can obviously be of value. While some were added in the case in question, experts in nuclear science were notably absent. . . . "—ROBERT POOL

Units Unite!

Bernard M. Oliver (Letters, 2 Nov., p. 611) rejects metrification with historical and other irrational arguments for using both metric and English units. One argument is that the constants of physical laws are not even units. Nor are they in the English system. This point is a red herring. A second argument—that a pocket calculator can convert among English units as easily as moving decimal points-ignores the knowledge required to convert. A foot is 12 inches, but a pound is 16 ounces (well, 12 troy ounces). A mile is 5280 feet; a pace is 5.28 feet or 63.36 inches. A third argument, the need for a wealth of units, is also flawed. With which English unit should one estimate microscopic distances? Perhaps 1/1,000 or 1/10,000 inch—this looks suspiciously metric. The alleged Big Brother effect of metrification seems pale. Does Oliver believe that package weights from candy bars to box cars are not legislatively directed? Finally, did the English invent the units of galaxies, stars, worlds, and light-years?

One thing seems certain: relieving the burden of multiple measurement systems by using metric prefixes that carry the same meaning across differing units seems attractive, even rational. Further, who can resist the cuteness of metrification? If I see many more letters such as Oliver's, I will have to again indulge in 10^{-15} bismols (that's 1 femtobismol).

JAMES R. PRATT School of Forest Resources, Pennsylvania State University, University Park, PA 16802 Oliver makes linkages where none exist between American competitiveness and our failure to adopt the metric system. True, America's past dominance of the world economy came about from hard work and quality products, and depended in no way on the system of measurement used—but that dominance was achieved at a time when Europe was fragmented by wars and Asia was just emerging from semifeudalism. It was also achieved with slide rules and log tables, and no one can reasonably suggest that we return to the political, economic, or technological realities of that long-gone age.

The issue now is not whether we can recapture our position by brute force, it is whether we can prosper in a world whose economy is increasingly integrated and multipolar. Part of that integration involves the use of common standards, including measurement. The United States is the only industrialized country not officially committed to metric measurement, and no amount of hard work or emphasis on quality will help to sell products that are at best incompatible, and at worst illegal, in the rest of the world.

JEFFREY J. KARPINSKI 294 Adams Road, King of Prussia, PA 19406

Oliver does not wish to forget that "a pint's a pound the world around," but this is not true and is taught only in the United States. In the empire on which the sun never set, the Imperial pint was defined by the phrase "a pint of water is a pound and a quarter," as were "five and a half yards one rod, perch or pole." Standardization by use of the metric system is much more efficient than remembering these and many other anachronisms.

ROBERT E. DAVIES
Departments of Animal Biology,
Astronomy and Astrophysics,
University of Pennsylvania,
Philadelphia, PA 19104

Like Oliver, in my engineering work I have for 40 years used whatever unit of measure my clients preferred. It makes no sense to advise a U.S. homeowner how to save energy in a report that measures temperature in degrees celsius, distance in meters, and fuel oil in liters, but for an international audience, I would probably use these International System of Units (SI) units. When a "metric" fanatic (usually a physicist) mocks my use of British thermal units, square feet, cubic yards, and 1/2-inch pipe, I ask "What time is it?", "When were you born?", and "Can you lend me a quarter?"