

International Association for Obsidian Studies Bulletin

Number 29

Summer 2002

Bulletin edited by William J. McFarlane

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International Association for Obsidian Studies

2002 — 2003

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NEWS AND INFORMATION

Annual Board Meeting

Submitted by Michael Gottesman

The Annual IAOS Board Meeting was held last March in Denver during the SAAs. Attendees included Suzanne Stewart, Carolyn Dillian, Robin Torrence, Rob Johnson, Janine Loyd, Tom Origer, Michael Glascock, and Michael Gottesman.

The single most important matter discussed was the announcement and 'installation' of Carolyn Dillian as our new President and Janine Loyd as the new IAOS Secretary-Treasurer.

The 'hand-off' of the Secretary-Treasurers tasks are concurrent with this issue of the Bulletin. So please note the new address and email for Janine.

The Secretary-Treasurer (M Gottesman) reported that total funds were \$6149. This is nearly \$1500 less than last year but it was noted that during calendar 2001 a total of \$2000 in awards were issued (\$500 ea. to Maria Diakomatsiou, Carolyn Dillian, Barbara Vargo and Pip Rath).

Membership dues collection totaled \$720, a slight improvement from 2001. The three

Bulletins issued cost a total of \$571. With a plan of issuing only two per year, our 'burn' rate of funds annually should be less than \$600 allowing some monies for our Annual Meeting and miscellaneous costs - excluding, of course, any awards or grants for special programs.

On the issue of awards, we agreed to set aside \$500 for one or more stipends to support research or publishing costs of papers or symposia support. Another \$500 was set aside for the potential development of a hydration dating data base, to be investigated by Ted Jones of Sonoma State.

Membership currently totals 110 (vs. 106 last year). As of 4/20, there are 43 members with current dues (including the 27 life, comp or institutional members) and another 24 in arrears only this year. Thus there are 43 members in arrears since 2001 or earlier. This is better than last year but indicates that our "true" membership is probably in the 60-70 range.

Our final point of discussion concerned the Bulletin. It was pretty much agreed that we could and should expand the subject matter but in a careful manner. Further, it was noted that 17 of our members are non-US and that this group should be mined for articles. Future Bulletins will also try to have a write-up from one of the active labs on current activity and to try to have articles attuned to data-users.

The IAOS website now has downloadable copies of all previous Bulletins. Note also that a full set of Bulletins has been sent to Cal Berkeley, Sonoma State, SUNY and U of Missouri. There is also a new downloadable reference Bibliography for anyone interested in obsidian hydration dating.



Greetings from your new officers!

As your new, recently elected officers, we would like to introduce ourselves and offer a few words of welcome to both new and old IAOS members. We hope this will be a productive year for the IAOS, and have set our sights towards reviving the energy of the organization. We look forward to working with you!

Carolyn

My background, which includes both academic and CRM archaeology, ideally will help unite our membership, which includes obsidian researchers from a wide range of backgrounds. I recently migrated to the East Coast, where I'm working in CRM and teaching at Rutgers University. Unfortunately, there isn't as much obsidian here as I would like, but I plan to continue my research and involvement in the field!

Janine

I have been working in CRM and have also been affiliated with the obsidian laboratory at Sonoma State University. (See note about the Sonoma State lab below). One big goal for me in the IAOS is to see us gain more student involvement, folks who will stay with us for years.

As we begin this journey with you, we would ask for your help in improving and rejuvenating the IAOS. Talk with your friends, colleagues, and students about the IAOS! Encourage them to submit papers for publication in the IAOS Bulletin! And keep in touch with other IAOS members to take advantage of the expertise our organization has to offer! With your help and support, we hope to make the IAOS better than ever!

Sincerely,
Carolyn Dillian, IAOS President
Janine Loyd, IAOS Secretary-Treasurer

ABSTRACTS AND ANNOTATIONS

Compiled by William McFarlane

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**Abstracts from the 67th Annual Meeting of
the
Society for American Archaeology
Denver, CO.**

SYMPOSIUM:

**All Things Bright and Beautiful : Overlooked
Meanings of Obsidian**

The usefulness of obsidian for making easily flaked, sharp cutting implements is a given among archeologists. Less appreciated and understood are obsidian's nonutilitarian qualities. This session challenges long held assumptions about the primary roles of obsidian as a raw material and as artifacts in past societies. Case studies from around the world examine important, often overlooked symbolic meanings of obsidian. This global outlook on obsidian studies provides an opportunity to develop new and useful theoretical perspective on the value of obsidian and the kinds of social and economic contexts in which it was circulated and used.

Torrence, Robin (Australian Museum)

Shimmering Stones, Lustrous Lithics: Potential Values of Obsidian

Obsidian is renowned among archaeologists for its flakeability and razor sharp edges. Are these the same or only characteristics that were valued by the people from many parts of the world who flaked, used, and exchanged obsidian in the past? I argue that we should consider the attractiveness of other traits that might explain its widespread use and long distance movement. For example, shininess and brilliance of physical objects are properties

valued by many cultures. Meanings could also have been attached to pieces because they provided a link with the circumscribed and special places from which the obsidian was obtained.

Rath, Pip (University of Sydney)

Obsidian Stemmed Artifacts from Papua New Guinea: A Case of Coals to Newcastle?

Two forms of highly unusual and distinctive retouched, stemmed obsidian artifacts made on Garua Island, West New Britain, Papua New Guinea more than 3000 years ago provide evidence that the artifacts were both useful and valuable exchange items in the pre Lapita societies of West New Britain. New data from a PIXE-PIGME study unexpectedly revealed large quantities of imported obsidian were being worked into stemmed artifacts at locations at or near a good quality local source. This raises a number of issues about the meaning of primitive valuables and the types of societies generally associated with prestige goods.

Dillian, Carolyn (University of California, Berkeley)

Obsidian Sources in a Cultural Context: Biface Production in Northern California

Large obsidian bifaces from Northern California have long been known as non-utilitarian ceremonial and wealth objects. Despite their stylized form, bifaces were manufactured from several different obsidian sources. Glass Mountain in Siskiyou County, California was one source for black obsidian bifaces. The lithic assemblage at Glass Mountain and x-ray fluorescence data from the surrounding region indicate that Glass Mountain obsidian was used almost entirely for biface production, and was neglected as a source for utilitarian objects. Just as obsidian objects fulfilled utilitarian or non-utilitarian functions, obsidian sources retained special roles within the context of prehistoric culture and belief systems.

DeBoer, Warren (Queens College, CUNY)
Little Big Horn on the Scioto: Implications for Hopewell Obsidian

An effigy pipe and a copper horn from Mound City, Ohio are reidentified as representation of the bighorn sheep (*Ovis canadensis*), a species native to the Rocky Mountain west. If warranted, this identification suggests that Ohio voyageurs actually observed the animal in its distant habitat. This finding has implications for the procurement of other Rocky Mountain products such as obsidian, and prompts reexamination of the nature and social significance of long-distance "exchange" and crampon during Middle Woodland times.

Parry, William (Hunter College - CUNY)
Nonutilitarian Aspects of Obsidian Use in the Basin of Mexico

Nonutilitarian aspects of prehispanic obsidian artifacts from the Basin of Mexico will be discussed. First, some objects, such as chipped eccentrics and polished ornaments, were clearly nonutilitarian. Second, functional cutting tools were used in ritual contexts, either as offerings in their own right, or to facilitate the offering of human blood in sacrifice or autosacrifice. Some of these are distinctive in size (either giant or miniature) or form, but others are indistinguishable from "utilitarian" implements. Third, distinctive colors of obsidian (green or red) were preferentially used for both "utilitarian" and nonutilitarian objects, possibly due to symbolic associations.

Otis Charlton, Cynthia L. (Independent Research) and Thomas H. Charlton (University of Iowa)
The Green and the Gray: Obsidian Jewelry at Otumba, Mexico

Obsidian core/blade workshops in the Late Postclassic Aztec city-state of Otumba favored green obsidian from Cerro de las Navajas over gray obsidian available locally. The obsidian lapidary jewelry workshops also show a bias towards green obsidian. Is this merely a result

of greater availability of recyclable green cores used as tools and blanks, does it reflect differences in the workability of the obsidian, or perhaps should symbolic issues be considered? Differences between green and gray, utilitarian and exotic, common and elite, exchange-tribute-trade, and cultural significance are discussed.

Sheets, Payson D. (University of Colorado, Boulder)
The Sounds, Forms, and Colors of Nonutilitarian Obsidian Artifacts in Ancient El Salvador

Some obsidian artifacts from larger Salvadoran sites clearly functioned in domains beyond the utilitarian. Exhausted cores received special treatment at Chalchuapa, and "eccentrics" were made and used, along with at least some green obsidian from the Pachuca source in northernmost Mesoamerica. Prismatic blades may have been proximally modified for sound and reflecting light. Even small villages had at least some obsidian functioning beyond the nonutilitarian, as exemplified by the prismatic blade with human hemoglobin residue found in the feasting structure at Ceren. It probably was used in bloodletting ritual associated with deer ceremonialism and the first maize harvest.

Escola, Patricia S. (CONICET- UNCA)
Obsidian and Projectile Points: Searching for Other Meanings

In a "standard view of technology" it can be considered that physical and chemical properties contributed to obsidian being a highly sought-after material. Likewise, projectile technology can be referred to launched weapons used in both hunting and warfare. Within another view, it is here proposed that technology, besides having an obvious utilitarian aim, is also used in a number of social roles. This paper is an attempt to explore non-utilitarian roles of obsidian projectile points and how they affect technological decisions. This research includes an evaluation of early agro-pastoralism obsidian assemblages (ca. 2400 - 700 BP) from southern Puna, Argentina.

Carter, Tristan (Stanford University)
Modes of Consumption and Concepts of Appropriateness: Deconstructing the Use of Obsidians at Catalhoyuk

There is a growing body of evidence for obsidian enjoying nonutilitarian roles, its consumption owing little to its mechanical properties. Obsidian's potential symbolic potency is underlined by recurrent cross-cultural references to its medico-magical properties and cosmological associations. There is a risk, however, of reductionism by focusing on obsidian per se, rather than investigating variations in meaning and use of different obsidians. Drawing on new technological, typological and characterization studies from Catalhoyuk (Turkey), this paper attempts to disentangle what appear to be strong concepts of appropriateness with regard to which sources of obsidian were chosen for specific tasks, loci and times.

Healey, Elizabeth (University of Manchester)
Nonutilitarian Uses of Obsidian at the Halaf Site of Domuztepe and Other Sites in the Near East

Nonutilitarian items of obsidian, many of which have been ground and polished, are found at a number of sites in the Near East. At Domuztepe, in SE Turkey, over fifty such items have been found, including beads, pendants, links, some unusual tranchet forms, vessels and mirrors. Not only was obsidian treated differently from other chipped stone, but also obsidian from different sources was obtained and worked in different ways. At sites where obsidian constitutes a small proportion of the chipped stone and particularly where it was used for jewelry, etc. it seems to have been accorded a special role.

Moholy-Nagy, Hattula (University of Pennsylvania Museum)
Telling Time by the Sun: Aspects of Lowland Maya Obsidian Research

Research into their use of obsidian has already provided important insights into Prehispanic Lowland Maya economy. Our understanding

would be further advanced by a consideration of some of our widely held assumptions about the following, interrelated topics: visual identification of obsidian sources, the usefulness of behavioral typology, elite control of obsidian exchange, and the disposal contexts of production waste.

Blomster, Jeffrey (Brandeis University) and Michael Glascock (University of Missouri, Columbia)
Obsidian Exchange in Formative period Oaxaca, Mexico: A View from the Mixteca Alta

Excavations at the site of Etlatongo, in the Mixteca Alta, Oaxaca, encountered numerous obsidian artifacts from a variety of contexts. A selection of samples from Formative period contexts was analyzed through Neutron Activation Analysis. Through this technique, the geologic sources for each sample were determined. As a result, sources utilized during Formative period Etlatongo can be analyzed on an intrasite basis, to determine which contexts - associated with households had access to the most sources. A comparison of sources utilized by Etlatongo and contemporaneous Oaxaca Valley sites challenges views on differential levels of social complexity achieved in these regions.

Kardulias, P. Nick (College of Wooster)
Lithics in the Classical Economy: An Assemblage from Halieis, Greece

This paper discusses an assemblage from the site of Halieis, a Classical city-state in eastern Greece. The material consists largely of obsidian blades, with few cores and other production residue, reflecting primary reduction off-site and importation of finished tools or preforms. The blades reflect fine workmanship, probably that of a specialist. Despite the small size of the assemblage, the lithics reveal some nuances of a neglected aspect of the ancient Greek economy.

Tykot, Robert H. (University of South Florida), Michael D. Glascock (University of Missouri) and Robert J. Speakman (University of Missouri)

Using Laser Ablation ICP Mass Spectrometry to Source Mediterranean Obsidians

Several instrumental methods of chemical analysis have been proven successful in the source tracing of obsidian artifacts in the Mediterranean, including NAA, XRF, PIXE, and the electron microprobe. ICP mass spectrometry, however, which can rapidly and precisely determine the concentration of 50-60 elements, is rapidly becoming widely used in archaeological research. For obsidian artifacts, the use of a laser ablation device to remove a tiny sample makes this technique virtually non-destructive. Analyses of geological source samples systematically collected from Sardinia, Lipari, Palmarola and Pantelleria demonstrate the ability of LA-ICP-MS to attribute artifacts to specific source localities on these islands.

Tabares, A. Natasha (California State University, Northridge) and Michael W. Love (California State University, Northridge)
Obsidian Prismatic Blades, Power and Consumption in Pacific Guatemala

Obsidian has been recognized as an item to legitimize power among elites and as an important economic commodity throughout Mesoamerica. This paper addresses the organization of long distance obsidian exchange and centralized political power at Ujuxte, a Middle to Late Preclassic site of Pacific Guatemala. It is hypothesized that heterogeneity of obsidian sources per household might indicate a lack of centralized political power. Thus, the household consumption of prismatic blades and the diachronic variability of the obsidian sources are examined. Over 2000 blades were analyzed visually. A subset of 180 was characterized by Laser Ablation Inductively Coupled Plasma Mass Spectrometry. The results reveal three sources, El Chayal (dominant source), San Martin Jilotepeque (varies slightly over time) and Ixtepeque (scarce), whose distribution suggests a form of centralized control.

Bennett-Rogers, Ann (Oregon State University), Craig Skinner (Northwest Research Obsidian Studies Laboratory) and Jennifer Thatcher (Northwest Research Obsidian Studies Laboratory)

Bulldozing for Bifaces: Production, Procurement, and Provenance Analysis of an Obsidian Biface Cache from the Central Cascades of Oregon

Obsidian Cliffs, in the Three Sisters Wilderness area of Oregon, was a major obsidian source within the homeland of the Molala. We consider the distribution of lithic scatter sites along trail systems, and the long distance and intra-regional exchange system that extended into other cultural areas. The nature of the lithic technology at the quarry, and the variability of artifacts at near and distant sites helps us to understand how various artifact types are represented at sites and the regional technologies of western Oregon. We show how obsidian sourcing enriches our understanding of long distance exchange and cultural affiliation.

Beyer, Lisa G. (University of South Florida) and Robert H. Tykot (University of South Florida)

Placing Obsidian in Its Rightful Context: An Analysis of Geological Sources and Archaeological Materials from the Island of Lipari (Italy)

Lipari was a major source of obsidian during the central Mediterranean Neolithic and Bronze Ages. While the ability to identify Lipari as the source of artifacts is well established, our work has attempted to individually characterize multiple obsidian-bearing volcanic flows on the island. The analysis of source material collected during an intensive survey of Lipari allows us to discern distinctive visual and physical characteristics, and chemical signatures were obtained using several analytical techniques. Our results have challenged us to reconsider the role of the obsidian trade in the social dynamics between Lipari, Sicily, and peninsular Italy during the Neolithic period.

Vargo, Barbara (University of South Florida), Robert Tykot (University of South Florida), Maurizio Tosi (University of Bologna, Italy) and Sebastiano Tusa (Regional Superintendence for Cultural Patrimony, Trapani, Sicily)
The Identification of Primary Obsidian Sources on Pantelleria (Italy): The impact of Provenance Identification on the Study of Prehistoric Exchange Networks

Current research on the island of Pantelleria, located between the southwestern tip of Sicily and the northeastern coast of Tunisia, has revealed the importance of identifying discrete locations of primary source material. Specific collection areas were identified, accessibility by land and sea was determined, tool and raw material workstations were located and the distance from primary sources to the final disposition of raw material and finished products was established. The results of this research demonstrate the connection between the obsidian lithic industry and prehistoric trade networks and directly affects the archaeological study of exchange systems and technology during the Neolithic.



ANNOUNCEMENTS

Special Congratulations

Let's raise our glasses to Robin Torrance for receiving the Excellence in Archaeological Analysis Award from the Society for American Archaeology.

Congratulations Robin!

Lab Notes

The Obsidian Laboratory at Sonoma State University is closing its doors as of the first of July. Tom Origer, Director of the Sonoma State Lab, will continue to provide hydration analysis. For revised contact information check out the laboratory listing on the IAOS website.
<http://www.peak.org/obsidian/lablist.html>

Upcoming Events

Natural Glasses 4 Conference:

This conference on glasses in geosciences, environmental sciences and archeometry is planned for August 29-31 (2002) in Lyon, France. The IAOS website has links to more information.

ABOUT THE IAOS

The IAOS was established to:

1. Develop standards for analytic procedures and ensure inter-laboratory comparability;
2. Develop standards for recording and reporting obsidian hydration and characterization results;
3. Provide technical support in the form of training and workshops for those wanting to develop their expertise in the field, and;
4. Provide a central source of information regarding the advances in obsidian studies and the analytic capabilities of various laboratories and institutions.

Membership

The IAOS needs membership to ensure success of the organization. To be included as a member and receive all of the benefits thereof, you may apply for membership in one of the following categories:

Regular member \$20.00/year

Institutional member \$50.00

Student member \$10.00/year or free with submission of paper to newsletter and copy of current student identification

Life-Time Member \$200.00

Regular members are individuals or institutions who are interested in obsidian studies, and wish to support the goals of the IAOS. Regular members will receive any general mailings; announcements of meetings, conferences, and symposia; bulletins; and papers distributed by the IAOS during the year. Regular members are entitled to vote for officers.

Institutional members are those individuals, facilities, and institutions who are active in obsidian studies and wish to participate in inter-laboratory comparisons and standardization. If an institution joins, all members of that institution are listed as IAOS members, although they will receive only one mailing per institution. Institutional members will receive assistance from, or be able to collaborate with, other institutional members. Institutional members are automatically on the Executive Board, and as such have greater influence on the goals and activities of the IAOS.

*Membership fee may be reduced and/or waived in cases of financial hardship or difficulty in paying in foreign currency. Please complete the form and return to the Secretary-Treasurer with a short explanation regarding lack of payment.

**Because membership fees are very low, the IAOS asks that all payments be made in US dollars, in international money orders, or checks payable on a bank with a US branch. If you do not do so, much of your dues are spent in currency exchange.

For more information about the IAOS contact the Secretary – Treasurer:

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About Our Web Site

The IAOS maintains a website at <http://www.peak.org/obsidian/>

The site has some great resources available to the public, and our webmaster (Craig Skinner) has started a members' section.

The 'member's lounge' has a message board to allow folks to post questions or just keep in contact with fellow IAOS members and their research. There is also a link for the IAOS list-serv.

Other Items on our web site:

- ◆ World Obsidian Source Catalog
- ◆ Back Issues of the Bulletin
- ◆ The Obsidian Bibliography
- ◆ An Obsidian Laboratory Directory

Craig also posts photos of different source locations.

P.S. There is a question on the message board regarding ARC-view and source locations that has had no answer posted. Maybe one of you has an answer, please check it out.

CALL FOR ARTICLES AND INFORMATION

Submissions of articles, short reports, abstracts, or announcements for inclusion in the newsletter are always welcome. We accept electronic media on IBM compatible diskettes in a variety of word processing formats, but WordPerfect (up to 9.0) or Word is preferred. A hard copy of the text and any figures should accompany diskettes.

Deadline for Issue 30 is November 1, 2002.

Send Submissions to –

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To send announcements, short contributions, discuss article ideas, or make suggestions, please get in touch by e-mail:
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