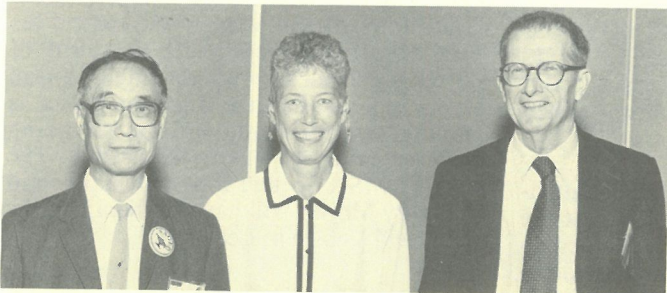


# The Lattice

Vol. 7, No. 4, November 1991

## The Annual MSA Awards Luncheon

San Diego, October 22, 1991



Roebing Medalist E-An Zen is pictured with his citationist, Susan Kieffer, and President Malcom Ross.



President Ross presents the MSA Award to Mark D. Barton, who was introduced by Robert C. Newton.



H. Catherine W. Skinner, recipient of the Public Service Award, is pictured with her citationist Kenneth M. Towe, and President Ross.



After the luncheon, Macolm Ross, now Past-President, happily passed the gavel to our Society's new President, Michael Holdaway.

### MSA Short Courses:

#### *Minerals and Reactions at the Atomic Scale: High Resolution TEM*

October 23-25, 1992 (before GSA)

*Organizer:* Peter R. Buseck (Arizona State University).

*Goals:* to introduce principles of HRTEM operation, to provide a background in the use of TEM as a mineralogic and petrologic tool, and to explore applications and ways in which TEM can augment our knowledge of mineral structures, chemistry and origin.

*Topics and speakers:* general principles of TEM; EELS and electron channeling [= ALCHEMI] (P.R. Buseck); electron diffraction—SAED and CBED (J. Steeds); HR image formation, simulation and analysis (P. Self); analytical theory and applications; diagenetic processes—clays and shales (D.R. Peacor); non-stoichiometry, polysomatism and reactions (D.R. Veblen); polytypism and stacking disorder (A. Baronnet); phase definition (F. Allen); carbonates (R.J. Reeder); deformation in geological materials (D. Green); transformation-induced microstructures (G.L. Nord).

*Location:* Hueston Woods State Park near Oxford, Ohio.

There will be at least one TEM for "hands-on" demonstrations and exercises. To register, write to the MSA office.

#### *Physical Properties of Minerals*

December 4-6, 1992 (before Fall AGU)

*Organizer:* Subrata Ghose (University of Washington).

*Day 1:* microscopic theory that serves as a basis for understanding macroscopic physical properties of minerals and materials. *Days 2 and 3:* theory, experimental techniques of measurement, and results.

*Topics and speakers:* band theory and electronic structure (R.E. Cohen); lattice and molecular dynamics: theory and experiment (S.L. Chaplot, R.J. Hemley); thermal expansion, compressibility and equations of state (H.K. Mao, Y.W. Fei); symmetry and physical properties (S. Ghose); elasticity (D.J. Weidner); piezoelectricity and ferroelectricity (R.E. Newnham); magnetic properties (J.M.D. Coey); electrical conductivity (A.G. Duba); diffusion (J. Ganguly); deformation and creep (J.P. Poirier); and ceramic applications of silicates (G.Beall).

*Location:* Marconi Conference Center in a state historic park overlooking scenic Tomales Bay, an easy drive from the San Francisco Bay area.

For registration form, write or call the MSA office.



*The Lattice* is published quarterly (February, May, August, November) by the Mineralogical Society of America. It is distributed to MSA members as a service. Articles and letters from readers are welcome.

The Mineralogical Society of America is composed of individuals interested in mineralogy, crystallography, and petrology. Founded in 1919, the Society promotes, through education and research, the understanding and application of mineralogy by industry, universities, government and the public.

Membership benefits include: the bi-monthly *American Mineralogist*; a 30% discount on volumes in the *Reviews in Mineralogy* series; *The Lattice*; a membership directory; special subscription rates for *Mineralogical Abstracts*, *Physics and Chemistry of Minerals*, *Journal of Petrology* and *Journal of Metamorphic Geology*; reduced registration fees at MSA short courses; member rates for the MSA/Geological Society of America annual meeting and MSA's spring meeting with the American Geophysical Union; and participation in a Society that supports the many facets of mineralogy.

Dues for 1992 are \$50 for professional members, \$30 for students. Membership is on a calendar year basis. Those who join after January 1, 1992 will be sent all back issues of the journal for Volume 77, 1992.

For additional membership information and an application, and/or to receive a price list of MSA's publications, contact the Business Office.

Institutions may subscribe to the 1992 volume of the *American Mineralogist* for the annual rate of \$200 in the US, \$205 in Canada and Mexico and \$210 in all other countries. The subscription price includes any new volumes of the *Reviews in Mineralogy* series published during the calendar year of the subscription. Payment must be received in full before a subscription will be started.

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## FROM THE PRESIDENT

I accepted the gavel from retiring President Mac Ross, confident that he has led us through the worst of a financially difficult period. Highlights of the past year included: publication of the largest ever (2062-page) volume of the *American Mineralogist*, a journal which continues to grow in national and international reputation in the fields of mineralogy, crystallography, mineral physics and petrology; publication of the J. B. Thompson Issue of the *Mineralogist*, with 30 articles by Jim's colleagues and students; a successful Lecture Program with lectures by Darby Dyar and Harry McSween; and completion of short courses and associated *Reviews in Mineralogy*: Volume 25, "Oxide Minerals" edited by Don Lindsley, and Volume 26, "Contact Metamorphism" edited by Derrill Kerrick.

A subject deserving considerable attention is the financial state of MSA. At the 1990 GSA meetings, Council decided to transfer substantial funds from the endowment to pay for the Thompson Issue and to publish the growing number of papers being submitted to the *Mineralogist*. This was done to avoid a large backlog of manuscripts awaiting publication. Even though Council approved a deficit budget, the projected loss for 1991 will be greater than budgeted, primarily as a result of greater than expected costs for the *Mineralogist*, *The Lattice*, and the short courses. The 1992 budget is also in the red, but by a much smaller amount. Council has taken steps to alleviate this problem. Dues and subscription rates were increased for 1992 by amounts designed to minimize loss of members and subscribers, and the prices of *Reviews* will be increased slightly. This year we have budgeted the *American Mineralogist* for a total of 1344 pages. This size is commensurate with the number of manuscripts presently being considered for publication, if reports are trimmed slightly in size and if the rejection rate is increased somewhat. Editors Bohlen and Peacor tell us that they can maintain a minimal backlog and publish a high-quality journal at this size. Council resolved to no longer publish dedicated issues of the *American Mineralogist*. *The Lattice* has been restricted to 12 pages for most issues: Editor Flohr is in agreement with this.

Finally, Council has taken steps to eliminate financial losses for future short courses, which are supposedly budgeted to break even. The net affect of the Society's fiscal problems will be a \$200,000 transfer from endowment over a three year period; however, Council is trying to assure that this is a one-time event. The 1993 budget will again be in balance.

The third 1990 Council Meeting of MSA

was held on October 20, 1990 at the San Diego meeting of GSA, with Mac Ross presiding. Council selected Hatten S. Yoder, Jr. to receive the Roebling Medal and Jonathan Stebbins to receive the MSA Award. Congratulations, Hat and Jonathan!

The third Council meeting also included discussion of the reports of the various MSA officers and committees. The Tellers Committee reported the election of Alexandra Navrotsky as Vice-President, Stephen Guggenheim as Secretary, and Joseph Smyth and Michael Hochella as Councilors. David Veblen will extend his term of office to complete the term of Rosemary Buden, who resigned. Susan Myers reported that the Business Office is running smoothly and efforts are being made to cut costs wherever possible. The 1991-92 MSA Lecture Program, supervised by Henry Meyer, will have Barbara Dutrow and David Veblen as Lecturers.

The Committee on External Medals and Awards was disbanded due to the fact that the Committee has had great difficulty identifying specific awards and people to promote for such awards. Roberta Millard of Queen's University was selected for the biennial Crystallography Research Grant. The following 13 members were selected for fellowship: Ross Angel, John Cheney, Stefan Graeser, Ian Grey, Paul Hess, Roderick Hill, Guy Hovis, Erling Krogh, Peter Leavens, Stephen Ludington, Bruce Nesbitt, Nancy Ross, and Robert Woodtli.

On the morning of October 22, Mac Ross gave his presidential address, entitled "Crystalline Solution Series and Order-Disorder within the Natrolite Mineral Group." Mac related crystallography and chemistry for the natrolite group and cleared up a number of misunderstandings in our knowledge of these zeolites. The audience was especially interested in the excellent illustrations of crystal structures. That evening, the MSA/Geochemical Society reception was well attended by members of both societies.

The first Council Meeting of 1992 was held the evening of October 22. Our newly elected officers were introduced. Charlie Gilbert, AGI Representative, reported on the AGI Council Meeting of October 21 and noted that AGI is beginning its Geoscience Advocacy program with a full-time person to act as an advocate for the earth sciences in Washington. Council decided not to support the program beyond MSA's regular contribution to AGI at the present time. AGI's K-12 education initiative was discussed, and Maria Luisa Crawford volunteered to head a committee to provide an outline for

## FROM THE PRESIDENT, continued

the mineralogical and petrological aspects of a K-12 curriculum. Paul Ribbe is retiring from his faculty appointment at VPI. He has expressed a willingness to stay on as editor of *Reviews in Mineralogy*, but will need additional funds for office equipment. It was agreed that such funds are a very worthwhile investment in the future of the *Reviews*. Council discussed ways to improve our relationships with societies involved in materials research, mineral physics, biominerals, and mineral/water interaction. Alex Navrotsky and other members of Council will seek ways to interact with societies in these areas.

The editorial office of the *American Mineralogist* is functioning smoothly. Publication time for the September-October issue averaged 14 months, and the backlog of manuscripts which had accumulated as a result of the Thompson Issue is now gone. In addition, the publication delays (which had resulted from the moving of the editorial office and the larger size of issues of the journal) have been eliminated, and the September-October issue was published on time. The editors indicate that average publication time will continue to decrease during the coming year.

I thank 1991 President Mac Ross, Past-President Pete Robinson, Secretary Maryellen Cameron, Treasurer Jim Whitney, and 1991 Councilors Rosemary Buden, Maria Crawford, Frank Hawthorne, Jim Kirkpatrick, Jo Laird, and David Veblen for their fine contributions in running the society's affairs, and Editors Don Peacor, Steve Bohlen, Vicki Lawrence, Paul Ribbe, and Marta Flohr for doing such a fine job in publishing the *American Mineralogist*, *Reviews in Mineralogy*, and *The Lattice*. Susan Myers, Office Manager and Accountant, has kept the Business Office running smoothly and fulfilled orders in a very timely fashion. The untiring efforts of these people and many others have greatly helped to make the work of our society so successful during the past year.

In closing, I would like to emphasize that an important direction for the 1992 year for MSA will be seeking ways to strengthen the relationships between our society and other societies which promote research on minerals, and other crystalline substances. This can be done through shared symposia, shared publication sales, and our willingness to publish papers on these subjects in the *American Mineralogist*. It should be noted that the latest issue of the *Mineralogist* contained five Letters on mineral physics with publication times averaging less than four months.

Michael J. Holdaway



President

-----  
Please send me a copy of the *First Circular* IMA 1994.

Title: (Prof. Dr. Mr. Mrs. Ms.) \_\_\_\_\_

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Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## International Mineralogical Association 16th General Meeting

The 16th General Meeting of the International Mineralogical Association will be held in Pisa, Italy, 4-8 September 1994. The meeting, sponsored by Società Italiana di Mineralogia e Petrologia (SIMP), Consiglio Nazionale della Ricerche (CNR), and European Mineralogical Union (EMU), will be organized by SIMP.

The scientific part of the Meeting will consist of five invited plenary lectures, symposia, and poster sessions. The program will focus on recent aspects of research in all mineralogical fields, including mineralogy, petrology, geochemistry, ore deposits, and applied mineralogy. Emphasis will be given to subjects, such as: (a) recent volcanism and geothermal systems; (b) high pressure metamorphism; (c) mantle mineralogy: experimental results and theoretical approaches; (d) modular mineralogy: polytypism and polysomatism; (e) thermodynamic properties of minerals and crystal structure modelling. Following an IMA tradition, all commissions and working groups are invited to propose topics for the symposia. The Organizing Committee will add complementary symposia in order to achieve a comprehensive scientific program covering all fields of mineralogy. They will include oral invited and contributed papers. Open sessions of oral contributed papers are *not* planned; emphasis will be placed on high quality poster sessions.

The Organizing Committee intends to publish 'Extended Abstracts' like those for the 14th General Meeting in Stanford, but no 'General Proceedings.' The Committee will encourage conveners of symposia to publish the proceedings of their symposia in international mineralogical journals.

The following field excursions are planned:

- \*High pressure metamorphism in the Western Alps  
(B. Messiga)
- \*Orogenic peridotites from the Western Alps and Northern Apennines  
(G.B. Piccardo, G. Rivalenti)
- \*Mineralogy, petrology, and ore deposits of Sardinia  
(C.A. Ricci)
- \*Recent magmatic rocks and ore deposits of the Tuscan anatectic province  
(G. Marinelli, G. Ferrara, G. Tanelli)
- \*Pegmatites of the central Alps and their minerals  
(A. Mottana)
- \*Volcanoes of the Neapolitan area: Vesuvius, Ischia, and Phlegraean fields  
(R. Santacroce, L. Civetta)
- \*Active volcanoes of Sicily: Aeolian islands and Etna  
(F. Innocenti, L. Villari)
- \*Minerals and ornamental stones of Tuscany  
(M. Franzini)
- \*Stones: from the quarries to the monuments  
(M. Franzini)
- \*Archeological and natural heritage of the mineral resources of Tuscany  
(G. Tanelli)

The *First Circular* will be sent to all national representatives in early 1992. To receive a personal copy, please return the following form to:

Prof. S. Merlino, Organizing Committee, IMA 1994  
Dipartimento di Scienze della Terra,  
University of Pisa, Via S. Maria 53,  
56100 Pisa, ITALY

Fax: 0039-(0)50-500932  
E-mail: MINER at ICNUCEVM

← ← ← ← APPLICATION

# WELCOME!

Welcome to new members and students who have joined MSA effective January 1, 1991.

Applications for membership may be obtained from the Business Office, 1130 Seventeenth St. N.W., Suite 330, Washington, DC 20036.

*Only sponsors other than MSA are noted.*

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**ABSTRACTORS FOR  
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The Council of MSA gratefully recognizes the following members for their services as abstractors for *Mineralogical Abstracts*.

| Abstractor            | Assignment [State ± Journal]   |
|-----------------------|--|
| John H. Barnes        | Ohio   |
| Bruce Bathurst        | New Jersey, <i>Norelco Publications, Doklady Earth Sciences</i>                  |
| Earl Bennett          | Idaho  |
| Wallace A. Bothner    | New Hampshire, <i>Northeastern Geology</i>                                       |
| Adrian Brearley       | <i>Analytical Chemistry</i>  |
| Philip Brown          | <i>Economic Geology</i> , 1989   |
| David P. Bucke        | Vermont  |
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| Steven Chamberlain    | <i>Rocks &amp; Minerals</i>  |
| Hughbert Collier      | Texas  |
| Maria Louisa Crawford | Pennsylvania   |
| Wilbert Danner        | <i>J. Sed. Petrol.</i> (1988 to date)  |
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| Steven A. Markgraf    | <i>Soviet Physics Doklady</i>  |
| Brian Mason           | <i>J. Geophys. Res.</i> (meteorites)   |
| Ralph Nafziger        | U.S. Bureau of Mines   |

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| Philip Osberg       | Maine   |
| Kost A. Pankiwskyj  | Hawaii  |
| Ted Paster          | Colorado  |
| Eric U. Peterson    | <i>Economic Geology</i> , 1990  |
| Donald F. Phillips  | <i>Lunar &amp; Planetary Sci. Proc., Soviet Physics Crystallography</i> |
| Jeff Reed           | North Carolina  |
| George Robinson     | <i>Mineralogical Record</i>   |
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| Lady Marie Siegrist | <i>American Journal of Science</i>                                      |
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| David L. Southwick  | Minnesota   |
| Ian M. Steele       | <i>Journal of Geology</i>   |
| Daniel Sundeen      | <i>Southeastern Geology</i>   |
| Jeffrey L. Warner   | <i>Bull. A.A.P.G.</i>   |
| John P. Wehrenberg  | Montana   |
| Peter M. Whelan     | <i>G.S.A. Memoirs, G.S.A. Special Papers</i>                            |
| Janet A. Zilczer    | <i>American Mineralogist</i>  |
| Karl A. Riggs*      | Organizer for America   |

\*Karl Riggs abstracts for Mississippi, Louisiana, Alabama, Florida, *The University of Wyoming - Contrib. to Geology, Am. Philosophical Soc. Proc., Trans. Gulf Coast Assoc. of Geol. Societies, Economic Geol.* (1991), the U.S. Geological Survey, and other assignments that are open.

The following need an abstractor:

*Bull. New Jersey Academy of Sciences, Compass, Gems and Mineralogy*, N.Y. State Museum Publications, *J. Geophysical Research, Science, Tulsa Geological Society Digest*; California, Illinois, Iowa, Kansas, Kentucky, Michigan, Missouri, Nebraska, North Dakota, South Dakota, Tennessee, Washington, Wisconsin

Volunteers should contact: Dr. Karl A. Riggs, Jr., P.O. Box KR, Mississippi State, MS 39762-5857 Telephone: (601) 325-2910

**SMITHSONIAN INSTITUTION  
RESEARCH FELLOWSHIPS AND INTERNSHIPS**

Applications are due January 15, 1992 for the Smithsonian Institution's research fellowships and internships for 1992.

Fellowships support independent research in residence at the Smithsonian in association with research staff. Students are given use of the Institution's resources. In Earth Sciences areas, proposals may address mineralogy, meteoritics, paleobiology, petrology, planetary geology, sedimentology, and volcanology. Awards cover predoctoral and postdoctoral fellowships for 6-12 months, and graduate student appointments for 10 weeks.

Stipends are \$26,000 per year plus allowances for post-doctoral fellows, \$13,000 per year plus allowances for pre-doctoral fellows, and \$3,000 per year for graduate students. For more information and application forms, write

Smithsonian Institution, Office of Fellowships and Grants, Suite 7300, 955 L'Enfant Plaza, Washington, DC 20560.

Indicate research area and dates of degrees received or expected.

**EDITOR'S NOTE:** Efforts are being made to reduce the cost of publishing *The Lattice*. That accounts for the new "in-house" formatting and layout. Many thanks to Paul Ribbe for his work on this issue.

Marta Flohr

**Now available: NEW SURVEY OF  
COLLECTION REGULATIONS**

Regulations governing geological, paleontological, and archaeological collecting on state lands are in place in all states.

An updated survey of the collection regulations is available in a 1991 report from the American Museum of Natural History. The report is written by Robert M. West, director of Cranbrook Institute of Science. Based on existing legislation and current reports from regulating agencies and projections derived from upcoming legislation, the report describes the state-by-state and discipline-by-discipline regulations and statutes. Names, addresses, and special responsibilities of the agencies are included.

The report is available at cost (\$5.00, including postage) from *American Museum of Natural History, Special Publications, Central Park West at 79th St., New York, NY 10024.*

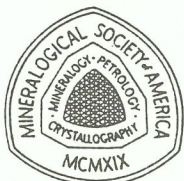
Make checks to the American Museum of Natural History.

**IN MEMORIAM**

We are saddened to report the deaths of the following members. We extend condolences to the families and friends of these scientists.

Paul Desautels, Fellow, 1957

E. William Heinrich, Life Fellow, 1944



REVIEWS in  
MINERALOGY  
Volume 26

CONTACT  
METAMORPHISM

DERRILL M. KERRICK, Editor

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CHEMICAL AND PHYSICAL PROPERTIES OF FLUIDS *T. C. LABOTKA*  
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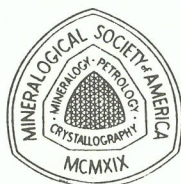
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MSA-NIC Meeting Report

Following the MSA luncheon in San Diego on October 22, a dozen MSA members met with Catherine Hawkes of the National Institute for the Conservation of Cultural Property (NIC) to describe the preservation and conservation needs of earth science collections in this country. NIC has held twenty such meetings with discipline-specific natural science organizations to gather data and develop a report on conservation challenges facing the natural science community. Hopefully, NIC's report will be as compelling as those that led to the development of the National Heritage Preservation Program administered by the National Endowment for the Humanities.



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