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Editor: Jeffrey Weld, Department of Biology, University of Northern Iowa

President's Message

Getting Involved in AETS

Molly Weinburgh, President

I am pleased to be able to publicly give a special "thanks" to all who helped make the 2001 Annual Meeting a huge success. The list is very long and includes everyone from the Annual Meeting Coordinators and their committee members to all the presenters and attendees of the meeting. I am always glad to have the time to share with "old timers" and to get acquainted with first time attendees. This year lived up to all my expectations and once again I was personally refreshed and renewed by the whole experience. I am grateful to all who participated directly and indirectly to the meeting.

The Leadership Team of AETS has worked very hard under the guidance of Julie Gess-Newsome to address restructuring the organization so that it can work more effectively for the members while preserving the values and commitments that make AETS unique from other professional associations and are cherished by our members. The Leadership Team is committed to continuing the dialogue that has been taking place over the last two years. Please read "How would we change if we were not afraid?: The redesign of AETS" for a more in depth look at this issue.

Getting Involved. Through informal discussions with members attending the annual meeting, I became concerned that many of our members are not aware of how vital it is for all members to participate in all phases of AETS. For that reason I want to take this opportunity to remind all of us of how to become more involved in AETS. As we grow in numbers, it becomes even more important that new members (and established members) know how the organization works. Ways to participate include attending the Annual Meeting, presenting at the Annual Meeting, submitting articles for publication in the AETS sponsored journals, working through committees, and voting!

Members seem to know about attending and presenting but not about submitting and membership on committees. In fact, the most often asked question is "How can AETS?". By this, most people are asking about being appointed to a committee. I clarify how AETS currently operates and how members can become involved. As per 2000 Newsletter, the current composition of the Leadership Team is as follows: members-at-large, 7 Regional Directors, and 3 Ex-Officio members.

The members of the Elections Committee are voted on by the membership rather than appointed by the president. This is important because the Elections Committee is then responsible for didates for president-elect, Elections Committee members, and members-at-large. a three-year team and chair the standing committees. Two committees currently pointees of the President rather than members-at-large. Each of the standing committee of members that are appointed by the President-elect and serve for a two or rent list of Regional Directors and committee chairs follows this column.

Any AETS member can suggest the names of potential candidates to the Elections Committee by e-mailing or calling Meta. Having a list of suggestions from the membership would certainly make their job much easier. It would also help them establish a slate that would reflect the desires of the membership.

As we grow in numbers, it becomes even more important that new members (and established members) know how the organization works.

manuscripts to our journals I get more involved in hope the following will help Julie indicated in the Sum-3 Presidents, 6 Board Mem-

than appointed by the president. The members-at-large serve exist that are chaired by committees has a designated three-year term. The cur-

(continued next page)

President's Message (cont.)

As I hope you know by now, all committee meetings are open to the membership. You are encouraged to attend the committee meetings during the Annual Meeting. All you have to do is look in the Annual Meeting Program for the day and time of all committee meetings. The committee chairs would love to have any interested member attend the meeting and join in the discussion. This is an excellent way to become involved! As the committees continue to work throughout the year, you may be given a job to do in helping complete the charge of the committee. New members of the standing committees are often selected from the people who have attended in this way.

Ad hoc committees also exist as a part of the organization of the bylaws. Currently there are three: the Committee on Political Action (Barbara Spector), the Committee on Technology Integration (Jon Pedersen and John Settlage) and the Special Project on Public Understanding of Science (John Staver). Anyone interested in working on these committees should contact the chair.

A proposed way to become involved is through the establishment of forums. A forum would be a member-originated group designed to promote the professional development of its members through the sharing of ideas and the development of teaching, research, and/or program initiatives. As noted in the Summer 2000 AETS Newsletter, forums would establish their own leadership structure, recruitment mechanisms, and goals. There would be no restriction on size, allowing all interested members to participate. Already, the AETS list-serve has been used to generate interest in creating a forum. The Leadership Team anticipates that this could be a very strong addition to AETS organization.

I hope this answers some of the questions about getting involved. Remember that AETS is only as strong as our membership.

- Meta Van Sickle (2002) – Elections Committee
- Barbara Crawford (2002) – Committee for Inclusive Science Education
- Larry Scharmann (2002) – Committee on Regional AETS Units
- Julie Luft (2003) – Publications Committee
- Randy McGinnis (2003) – Awards Committee
- Michael Kamen (2004) – Membership and Communications Committee
- Barbara Spector (2004) – Publications Committee
- Julie Gess-Newsome (Past President) – Long Range Planning Committee
- Molly Weinburgh (President) – Program Committee
- John Penick (President Elect) – Financial Advisory Committee
- Judy Sweeney (appointed) – Committee on Informal Science Education
- Mark Volkmann (appointed) – Committee on Liaisons with Professional Organizations
- Deb Hemler – Mid-Atlantic
- Valarie Akerson – Northwest
- Charles Eick – Southeast
- Michael Clough – North Central
- Carol Stuessy – Southwest
- Peter Veronesi – Northeast
- Kathy Norman – Far West

How would we change if we were not afraid?: The redesign of AETS

Julie Gess-Newsome, Past President

As we move into the next millennium, we are constantly reminded how the world has changed. Our college freshmen have never heard a phone ring. The technological sophistication of our students is outpacing our own as we search for ways to incorporate technological tools into our classrooms. And, on a personal level, the science education community is changing so fast that updating our address books becomes a weekly chore as we track the movement of our colleagues, friends, and former students.

Change is the only constant and we have two choices – to ignore change and pretend that it will go away, or to embrace the opportunities that change provides to recreate ourselves. Change is difficult, as is recognized by the popularity of the book *Who Moved My Cheese* and the proliferation of desk accessories that ask us, "What would I attempt if I were not afraid." I would like to challenge us and ask, "How would we change AETS if we were not afraid?"

In the last few newsletters, I have characterized the growth of AETS and the challenges and opportunities that we face. The mission of AETS is "to promote leadership in, and support those involved in, the professional development of teachers of science." As such, we are the only professional association with the purpose to improve ourselves so that we can improve the profession. But with our unique role comes unique challenges. How do we foster our own professional improvement? How do we remain responsive to our members' needs while carrying out the responsibilities of the association?

Over the last 4 years, the AETS board and its members have been steeped in conversation about how to make AETS a more responsive organization. As part of that process we critically examined the organizational structures that we collected over the years. We have worked hard to generate alternative structures that seem more effective. And we have talked and listened to our members. Through all this we have learned several lessons.

Change takes vision. The AETS mission statement has been a powerful force in helping us identify and enhance the unique contribution that AETS makes within the science education community. Our members are fiercely loyal to the association and protective of those values that make AETS unique: the ability to talk formally and informally with colleagues in an atmosphere of trust and respect, to interact with an audience that cares about the interface of practice and research, and to have opportunities to share in the leadership of the association and contribute back to the profession. As a board, we are indebted to the work of our members who helped shape the original mission statement and the continuing efforts of our members to articulate the vision for the association.

Change takes education. Through feedback, we have learned how personally engaged each AETS member is with our organization. With that engagement comes differing perceptions about how the organization does and should work. For instance, many of our members are only associated with AETS through the national organization. As members of other national organizations, easy parallels are drawn in expectations, perceived operating procedures, and mission between AETS and these other associations. Therefore, clarifying how AETS is similar to other professional associations and how we are unique is an important education issue. Other members are strongly committed to and involved in their regional units. Based on our organizational history, the buy-in of these members to the national association is essential to our health and mission. On occasion, however, the needs and operations of the regional associations become confounded with that of the national. Educating members about how these association levels can operate synergistically has been an important challenge in the redesign process. Finally, the board has a different relationship with the association than does its members. A board is responsible for the operation of the organization and, with that responsibility, must be concerned with issues of consistency, communication, efficiency, and the provision of high quality products such as annual meetings and publications. Members are the recipients of these efforts and evaluate the quality of the decisions that are made and the products that are produced. As a result, organizational structures are less important to members than the responsiveness of the association to meeting their professional needs. Educating both groups to the perceptions of the other is essential to the acceptance of change.

Change is threatening. It is easy to grow comfortable with what we know, and change threatens the perceptions of stability that we hold. As a board, we have learned to listen carefully to the anxiety that change has promoted and have worked hard to analyze the cause. For instance, two issues elicited strong reactions: discussions about the role of the regional directors and the designation of some current standing committees to forums. Why such concern?

How would we change if we were not afraid? (cont.)

"Change" is a simple yet insufficient answer. In a careful analysis of our member's comments, a more important answer was found. AETS members value the informal and accessible leadership structure of the association. Both our size and our mission allow leadership opportunities for individuals that seldom exist in other organizations. As a result, AETS is viewed as a mechanism for individuals to build leadership skills and impact the national or regional science education agenda. Therefore, some changes were seen as a threat to accessibility. Small changes in the annual meeting also increased the levels of anxiety felt by many. The 2000 annual meeting venue necessitated a decrease in presentation times and discouraged spontaneous informal conversations between sessions. Though not by design, these two changes highlighted the values of our members, elements that will be purposefully attended to in future meetings. As a board, this analysis helped us more clearly identify those values that AETS members cherish, and helped us to more specifically address the potential outcomes of the proposed changes.

Change takes time. While individuals can often make changes with amazing speed, groups move much more slowly. This is especially true when buy-in for change is considered essential, as is true for the changes proposed for AETS. The board has discussed some of these issues for more than five years, with concentrated conversations occurring in the last four years. Discussions with the membership have occurred for over two years, allowing us to be sufficiently convinced that the changes proposed will result in a stronger association and will be accepted by the membership. The time needed for such changes presents a special challenge for leadership, who often rotate out of office before the change efforts are complete.

Change takes courage and commitment. Change takes organizational courage. As a group, we must be willing to tolerate the short-term discomfort with change in order to achieve the long-term benefit to the organization. Change takes personal courage. In a leadership role, it takes courage to publicly propose changes that are often temporarily unpopular and to accept the criticism that it engenders. In a membership role, courage is needed to consider proposals, offer alternatives, and to voice resistance when needed. Most importantly, change takes the courage and commitment to venture organizationally into uncharted territory with the hope, but not guarantee, of success.

The leadership of AETS is committed to continuing the conversations about the redesign of our organization. Such conversations are essential to our organizational health and demonstrate our commitment to the profession and each other. Through AETS, we hope to have a collective impact on the shape of science education through our individual efforts. In order to achieve this mission, AETS seeks to support the professional development and achievements of our members. Through the redesign of AETS, we hope to more effectively support the professional development of our members by being more responsive to their needs.

During the next few months, the board will take the products of four years of concentrated efforts and submit for your approval a new set of By Laws and Standard Operating Procedures. In those documents you will find three major revisions: a new committee structure that encourages the formation of member initiated groups called forums; the composition and role of the board, including the role of regional units and affiliate groups; and the nature and format of our governing documents. I urge you to carefully consider the changes that your board has worked so hard to create and support the efforts to enhance the responsiveness of AETS. How would we change AETS if we were not afraid? We hope, as a board, we have found ways to help answer that question.

As I move into my new position as past president, I want to thank the board and committee members that have worked so hard on your behalf, thank all of you for making this such a vital association, and pledge my support to the future leadership of AETS as we venture forward to recreate ourselves as an association.

GO TO...

<http://www.aets.unr.edu/>

- ✓ join the AETS Listserv
- ✓ view archived annual meeting proceedings
- ✓ view Standards for Science Teacher Educators
- ✓ view information on AETS publications
- ✓ join AETS!

AETS Publications Information

Julie Luft, University of Arizona
Chair, Publications Committee

The AETS Publications Committee oversees several items of importance to AETS members regarding the Journal of Science Teacher Education (JSTE), affiliated journals, the AETS newsletter, and AETS sponsored documents. During the last year, the committee has been involved in a number of projects that directly impact the dissemination of knowledge in science teacher education.

JSTE Articles for Courses – If you are interested in including a JSTE article in your course readings, you can either work with your local bookstore/copy center or Michel Lockhorst at Kluwer to obtain permission to copy the article to include in your course readings. Michel Lokhorst can be contacted at michel.lokhorst@wkap.nl.

Indexes – The Publications Committee is working with Kluwer to get JSTE into the social science citation index and several international educational indexes. These indexes increase our readership and the pool of potential authors.

Monographs – The Publications Committee is interested in receiving proposals for AETS sponsored monographs. If you are interested in writing a monograph, guidelines for the process of submitting a proposal can be found on the AETS website or you can contact Julie Luft (luft@u.arizona.edu).

AETS SEEKS NOMINEES

The AETS Elections Committee is soliciting nominations for elected positions within the organization. The positions are:

- President (1)**
- Directors At-large (2)**
- Elections Committee (3)**

Please inform Meta Van Sickle of your nomination(s) by March 22 so that the committee can begin the process of contacting nominees. After the committee chooses you as a nominee and after March 22 you will be contacted about your desire to serve, your availability to serve at this time, etc.

Please review the AETS By-Laws for specifics about selection of organization members wanting to be considered for inclusion on the ballot.

Meta Van Sickle
vansicklem@cofc.edu
843-953-6357

.....
: Nominate a colleague for an AETS Award :

Are you aware that AETS presents 5 awards at the annual conference? Three awards recognize the personal achievements and contributions of its members (Award I, "Outstanding Science Teacher Educator of the Year," Award II, "Outstanding Mentor Award," and Award III, "Honorary Emeritus Membership"). Two other awards (Award IV—"Innovation in Teaching Science Teachers" and Award V, "Implications of Research for Educational Practice") recognize excellence in papers presented at the previous AETS Annual Meeting. While all the awards offer a plaque, Carolina Biological Supply, Delta Education, and Wards Natural Science sponsorship permits cash awards to accompany Awards I, II, IV, and V. Award III confers waived association dues for the recipients and a published tribute in the *Journal of Science Teachers Education*. Awards IV and V also offer the recipients consideration of publication of their award papers in the *Journal of Science Teachers Education*.

The deadline for submission of materials for the awards is JUNE 1.

For further information (including the criteria and required materials for each award) please contact:

Dr. J. Randy McGinnis, AETS Awards Chairperson
 University of Maryland, College Park
 Science Teaching Ctr., Rm. 2226J Benjamin Bldg.
 College Park, MD 20742
 E-Mail: jm250@umail.umd.edu

SEEKING NAMES OF PAST AWARD WINNERS:

AETS Outstanding Science Educator of the Year
 1976 to 1981, 1984, 1992

Implication of Research for Educational Practice Award
 1976 (and earlier?) to 1982, 1998

Innovation in Teaching Science Teachers Award
 1994, 1999

Please contact Jeff Weld at jeff.weld@uni.edu or 319-273-2723 if you have information on the winners of these awards in these years.

News from AETS Regional Units

FROM THE NORTHWEST AETS

At the recent International AETS meeting the Northwest Region held a lunch meeting to discuss goals for our region, and explore the option of holding a northwest regional meeting. There were 15 members in attendance, which is a very good representation of our region. Following is an edited report of our meeting.

- Larry Scharmann, Regional AETS Units Chairperson, attended to provide advice and support for what our region wants to accomplish.
- Those in attendance: Valarie Akerson, chair (final year as chair—let Valarie know if you are interested in running as regional chair), Mark Latz, Judy Morrison, Adele Schepige, Philip Wade, Lynda Hatch, Chris Obana, Kate Popejoy, Louise Baxter, Martha Kurtz, Dana Riley Black, Carole Kubota, Jim Carroll, Tisha Morrell, Kathy Weisemann (and there were a few more who arrived late whose names I do not have here, but we appreciate their attendance!)
- We discussed how our region may differ from others, such as retaining/recruiting locally trained teachers.
- We explored holding blocks of time for AETS presentations at state conferences, such as Oregon or Washington Science Teachers Association.
- Hold a main forum in conjunction with the national meeting, at a time slot reserved for such a meeting (maybe an evening reception) that does not conflict with other committee meetings.
- We feel that the National AETS meeting provides a comfortable forum for graduate students and faculty to present our work so we don't need a regional meeting. We would like to have a time set aside at the national meeting EXPLICITLY for regional meetings that does not conflict with other committee times. This will allow our region to meet and discuss any issues that were raised in our electronic conversations, or being passed down through the regional director from the National AETS Board.

Valarie Akerson (Dickinson), Ph.D., Chair, AETS NW, valarie@tricity.wsu.edu

FROM THE SOUTHEAST AETS

The SAETS 2000 annual meeting was held on October 6-7, 2000 at the College of Education (Haley Center) and the Auburn Hotel and Conference Center, Auburn University, Auburn, Alabama. The conference was attended by 68 participants (including 35 graduate students). Participants were from Arkansas, Tennessee, Alabama, Georgia, Florida, South Carolina, and Japan. Forty-five papers and presentations were presented on Saturday. Presenters took advantage of the "smart classroom" technology available in the rooms used on the Auburn University campus. Molly Weinburgh gave the key-note address on "reasons to belong to your professional association" at the awards luncheon.

The award for Outstanding Position Paper by a graduate student was presented to Mike Dias of Georgia State University. The award for Outstanding Position Paper by faculty was presented to Claudia Melear of the University of Tennessee. The John Shrum Award for outstanding science teacher educator was presented to Tom Koballa of the University of Georgia and the Rod Nave Award for scientist friend of education was presented to Marlin Simon of Auburn University.

Eddie Shaw remains faithfully committed to remaining the SAETS secretary/treasurer. The conference this year came out \$345.75 in the black. Charles Eick of Auburn University was elected to replace Molly Weinburgh as Regional Director. Dana Zeidler of the University of South Florida was elected President-Elect.

Dana Zeidler, President-Elect, SAETS, zeidler@tempest.coedu.usf.edu

INFORMATION ON JOURNALS OF INTEREST TO AETS MEMBERS

Journal: CESI Science (Council for Elementary Science International)

Profile: CESI Science is a peer reviewed journal which publishes classroom related qualitative, quantitative, and action research, as well as exemplar inquiry lesson plans for use in the elementary / middle level and science methods classrooms

Internet URL:

<http://unr.edu/homepage/crowther/cesi.html>

Contact Person: David T. Crowther, Ph.D., University of Nevada, Reno
775-784-4961, x2004; crowther@unr.edu

Journal: Contemporary Issues in Technology and Teacher Education (CITE)

Profile: AETS has sole responsibility for a section in Contemporary Issues in Technology & Teacher Education, a new online journal. Articles should address technology and science teacher education, and may be research-based, philosophical/position papers, or practitioner oriented.

Internet URL: <http://www.citejournal.org>

Contact Person: Alan Colburn, Ph.D., California State University-Long Beach, 562-985-5948; acolburn@csulb.edu

Journal: Electronic Journal of Science Education (EJSE)

Profile: The Electronic Journal of Science Education was the first on-line journal devoted to the timely dissemination of information relating to research and practice within the science education community.

Internet URL: <http://unr.edu/homepage/jcannon/ejse/ejse.html>

Contact Person: Dr. John R. Cannon 775-784-4961 x2001; jcannon@unr.edu

Journal: International Journal of Science Education (IJSE)

Profile: The journal is comprised of peer-reviewed general articles, papers on innovations and developments, research reports and book reviews.

Contact Person: Dr. John K. Gilbert, The University of Reading, UK, j.k.gilbert@reading.ac.uk
Joint Regional Editors for North America: Dr. James Wandersee, Louisiana State University, jwander@lsu.edu

Dr. Kathleen M. Fisher, San Diego State University, kfisher@sciences.sdsu.edu

Regional Editor for Australasia:

Dr. David Treagus, Curtin University of Technology, itreagus@info.curtin.edu.au

Journal: Journal of Research in Science Teaching (JRST)

Profile: The *Journal of Research in Science Teaching* publishes scholarly investigative articles on science teaching and learning employing a wide variety of methodologies as well as position papers, policy perspectives, and critical literature reviews.

Internet URL: <http://journals.wiley.com/0022-4308/>

Contact Person: Dale R. Baker and Michael D. Piburn, Editors, Arizona State University, 480-965-2241, JRST@asu.edu

Journal: Science Education

Profile: The science teacher education section seeks articles that address issues and problems that are central to the education of science teachers, both pre-service and in-service.

Contact Person: Dr. Deborah Trumbull, Cornell University, 607-255-4278, djt2@cornell.edu

Journal: School Science and Mathematics

Profile: *SSM* is an international journal which is published monthly, October through May, emphasizing issues, concerns, and lessons within and between the disciplines of science and mathematics in the classroom.

Internet URL: <http://osu.orst.edu/pubs/ssm/>

Contact Person: Norman G. Lederman and Margaret L. Niess, Co-Editors, Oregon State University, 237 Weniger Hall, Corvallis, OR 97331-6508

Journal: Journal of Science Teacher Education

Profile: *JSTE* serves as a forum for disseminating research and theoretical position statements concerning the preparation and inservice education of science teachers. *JSTE* is a publication that adds to what we know about science teaching and learning but, most importantly, serves as a catalyst for thoughtful discussion concerning the improvement of the education of teachers in science.

Internet URL: <http://www.aets.unr.edu/AETS/jsteinfo.htm>

Contact Person: Dr. Eric Hagedorn, University of Wisconsin-Milwaukee, jste@uwm.edu

Examining Pedagogical Content Knowledge

Edited By:

**Dr. Julie Gess-Newsome
and
Dr. Norman G. Lederman**

*Published in cooperation with
"The Association for the Education of Teachers in Science"*

Kluwer Academic Publisher
\$70.00 Plus shipping and Handling

Examining Pedagogical Content Knowledge

Contents and Contributors

Acknowledgments. Foreword; *L. Shulman.*

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2. The Complex Nature and Sources of Teachers' Pedagogical Knowledge; *G. Morine-Dershimer, T. Kent.*
3. Secondary Teachers' Knowledge and Beliefs about Subject Matter and their Impact on Instruction; *J. Gess-Newsome.*
4. Nature, Sources and Development of Pedagogical Content Knowledge for Science Teaching; *S. Magnusson, et al.*
5. Domains of Teacher Knowledge; *W.S. Carlsen.*

Section III: Emerging Lines of Research in Science Teacher Education.

6. Assessment and Measurement of Pedagogical Content Knowledge; *J.A. Baxter, N.G. Lederman.*
7. Changing our Teaching: The Role of Pedagogical Content Knowledge in Elementary Science; *D.C. Smith.*
8. Reconceptualizing Secondary Science Teacher Education; *N.G. Lederman, J. Gess-Newsome.*
9. Pedagogical Content Knowledge and Co-Participation in Science Classrooms; *K. Tobin, C. McRobbie.*

Section IV: Impacts of PCK on the Development of Science Teacher Education Programs.

10. Constructing a Framework for Elementary Science Teaching Using Pedagogical Content Knowledge; *C. Zembal, et al.*
11. Incorporating Subject Matter Specific Teaching Strategies into Secondary Science Teacher Preparation; *M.L. Niess, J.M. Scholz.*
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9. A Meeting of Two Cultures: The Experience of Facilitating a Teacher Enhancement Project for Egyptian Science Teachers
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10. International Partnerships as a Means of Reforming Science Teacher Education: Bolivia, Chile, Venezuela, and the US
Jon Pedersen, East Carolina University, USA; Ron Bonnsetter, University of Nebraska, USA; Marilu Rioseco, Universidad de Concepcion, Chile; J. Mauro Briceno-Valero, Universidad de los Andes, Venezuela; Herman Garcia, Cochabamba Cooperative School, Bolivia; & James G. Clark, Universidad de los Andes, Venezuela
11. International Perspectives on Scientific Literacy: Implications for Science Teacher Education
Deborah Tippelt, University of Bayreuth, Germany; L. Shulman, University of California, San Diego, USA; S. Gess-Newsome, University of North Carolina, USA; Elizabeth McKinley, New York University, USA; and Lilia Reyes Herrera, Colombia

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 (see additional information on the back of this newsletter)

Science Teacher Education: An International Perspective

Edited By:

Dr. Sandra K. Abell

*Published in cooperation with
"The Association for the Education of Teachers in Science"*

Kluwer Academic Publisher
\$70.00 Plus shipping and Handling

Science Teacher Education: An International Perspective

Contents and Contributors

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Sandra K. Abell, Purdue University

Section II: Policy and Practice in International Science Teacher Preparation

2. The Development of Preservice Elementary Science Teacher Education in Australia
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3. Reform in Science Teacher Education in Italy: The Case of Physics
L. Borghi, A. De Ambrosis, & P. Mascheretti, University of Pavia, Italy
4. Science Teacher Preparation in Lebanon: Reality and Future Directions
Saouma BouJaoude, American University of Beirut, Lebanon
5. Science Teacher Education in Pakistan: Policies and Practices
Hafiz Muhammad Iqbal & Nasir Mahmood, University of the Punjab, Pakistan

Section III: Marking Sense of Science Teacher Learning

6. Higher Order Thinking in Science Teacher Education in Israel
Yehudith Weinberger, Kibbutzim College of Education; Anat Zohar, The Hebrew University, Israel
7. Secondary Science Student Teaching Assessment Model: A United States and United Kingdom Collaborative
Kate Baird, Learning by Design, USA; Marilyn Brodie & Stuart Bevins, Sheffield Hallam University, UK; Pamela Christol, NASA/AESP, USA
8. Thinking Like a Teacher: Learning to Teach Science in a Study Abroad Program
Sandra Abell and Amy Jacks, Purdue University, USA

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Science Teacher Education: An International Perspective

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Examining Pedagogical Content Knowledge

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ANNOUNCEMENTS OF INTEREST TO AETS MEMBERS

Come Celebrate the 100th Birthday of SSMA!

The School Science and Mathematics Association invites you to participate in our annual conference in Chicago, IL, November 1-3, 2001. The program, which honors SSMA's first century of service, will focus on past, present, and future accomplishments in mathematics, science, and technology education. For information concerning proposal submissions, contact Susan Westbrook at susanwestbrook@mindspring.com or at 919-362-4693.



In a first-ever joint publishing arrangement, Project 2061 of the *American Association for the Advancement of Science (AAAS)* and the *National Science Teachers Association (NSTA)*

provide educators with an innovative tool that graphically depicts connections among key learning goals for students in kindergarten through 12th grade.

Atlas of Science Literacy presents a series of strand maps that illustrate how student understanding of key science, mathematics, and technology topics builds and grows from grade to grade. Each map displays the ideas, skills, and the connections among them that are part of achieving literacy in a particular topic, showing where each step along the way comes from and where it leads. In addition, each map is accompanied by a summary of the relevant research on student learning. Topics mapped include gravity, plate tectonics, flow of matter in ecosystems, natural selection, maintaining good health, communication technology, and statistical reasoning.

Copies of Atlas of Science Literacy are available for \$49.95 from both AAAS and NSTA. Contact AAAS (item #00-12S) at the AAAS Distribution Center, P.O. Box 521, Annapolis Junction, MD 20701, 1-800-222-7809, or use the on-line order form at www.project2061.org/order/AtlasOrder.pdf. Contact NSTA (stock #PA001X) at 1-800-722-NSTA or visit the NSTA on-line Science Store at www.nsta.org/store/.



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1-800-452-1261, E-mail: flinn@flinnsci.com

AETS On-line:

<http://www.aets.unr.edu/>

AETS 2002!

The Mid-Atlantic Regional Unit and the City of Charlotte are proud to host the 2002 Annual International Meeting of the AETS. I would like to take this opportunity to invite each of you to mark your calendars and join in in Charlotte, North Carolina.

The 2002 Annual International Meeting of the AETS will be held at the Charlotte Marriott City Center January 10-13, 2002. The conference theme is *Science Education: Financing Scientific Literacy for Global Success*. The hotel is located in the heart of "Uptown" Charlotte, within walking distance of restaurants, nightlife and shopping. A flat rate of \$110 per night has been negotiated. It is generally in the mid 50's in Charlotte during the month of January.

Charlotte is easily accessible with over 570 flights per day, direct and non-stop from Douglas International Airport, to over 150 cities. Seven (7) major carriers, USAirways (a major hub), United, American, Delta, TWA, Continental, and Northwest serve the Queen City. The airport is located less than a 20-minute ride to the "Uptown" area with shuttle/limousine services available at \$8.00 each way.

Events at the conference will include, but are not limited to the following:

- A reception on Thursday January 10th from 6:00 p.m. - 9:00 p.m. will feature a Southern Reception Buffet, cash-bar, and entertainment by the Band of Gold, an oldies band playing your favorite tunes from the 1950's and 1960's.
- Tours and off-site events including the possibility of a cultural event at the Blumenthal Center for the Performing Arts.

There are many reasons to visit the city of Charlotte- The number one reason however, is to participant in the 2002 AETS Annual International Meeting. - Warren

Gala for Dr. Ertle Thompson Mark your calendar: April 28th, 2001 at the University of Virginia, from 6-9pm.

Come celebrate the outstanding career of Dr. Ertle Thompson and his contributions to science education. In addition to the celebration, another goal of this event is to raise sufficient funds to present a current Science Education student with a scholarship award in Dr. Thompson's name. For further information you can contact Jackie McDonnough at 804 924-0765 or jtm3j@virginia.edu, or Juanita Jo Matkins at jjm7k@virginia.edu.

Teacher's Guide to Geology of the Northeastern U.S.

The Paleontological Research Institution of Ithaca, NY, recently published "The Teacher-Friendly Guide to the Geology of the Northeastern U.S." by PRI staff member Jane Ansley, the first guide of what will be a series of teacher-friendly guides on regional geology for the entire country. The Teacher-Friendly Guide gives teachers the background necessary to make sense of regional and local geology. Using non-technical language and a three-ring binder format for easy use in the classroom, the Guide gives regional examples of traditional Earth Science topics, such as rocks, minerals, fossils, topography, and natural resources, based on the geologic history of the Northeast. The Guide provides corresponding student activities for each topic, and contains a compilation of Earth science resource information listed by state and topic. Although originally targeted for 8-9 grade Earth science teachers, the Guide is appropriate for anyone who incorporates Earth science into their curriculum, from elementary school to college. For more information or to order a copy of The Teacher-Friendly Guide visit our Website at www.priweb.org or call (607) 273-6623 x10.



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Books Offered By AETS

Currently, two new books are being offered by AETS. These books, Examining Pedagogical Content Knowledge Edited By: Dr. Julie Gess-Newsome and Dr. Norman G. Lederman and Science Teacher Education: An International Perspective Edited By: Dr. Sandra K. Abell (see the order form in this issue of the newsletter). Each of these books are being offered at a significant discount to our members compared to the publishers price. In addition, AETS is offering members additional discounts for ordering both books and/or ordering books in large quantities for students where the book is being adopted for course use. The following is the discount offered on these books:

- o Order both books and receive a 10% discount off of the total price.
- o Order between 2-5 books and receive a 15% discount off of the total price.
- o Order between 5-10 books and receive a 20% discount off of the total price.
- o Order more than 10 books and receive a 25% discount off of the total price.

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| Issue | Items Due by |
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Please send items and suggestions for best serving you to:

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If you are ordering more than one book, use the same order form but indicate the number of books to be ordered and then simply input the appropriate total cost. If you have any questions, please contact:

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