

OUTREACH EVENT REPORT AND RECOMMENDATIONS

Report Writer's Name:

**Joseph Kerski, Geographer:
Education/GIS. Denver, Colorado.**

Event: **98th Annual Meeting of the
Association of American Geographers
(AAG), Los Angeles, California - 19-24
March 2002.**

Executive Summary:

See Mara Tongue's AAG 2002 conference report for additional information about our USGS exhibit and insights and recommendations about the conference and our presence there.

In this report:

Jack Dangermond presentation - page 4

The National Map presentation - page 5

NCGE Board Report - page 6

USGS Graphics That AAG is Using - p. 6

Solid Terrain Modeling - p. 7

Recommendations begin on page 9.

USGS Activities at Conference

1. USGS staff gave at least 6 paper presentations during the conference. My paper's subject was "Geographic Education Through Biodiversity." See below for a list of the other presentations.

2. We operated a USGS Exhibit at the conference.

3. I attended board meetings of the National Council for Geographic Education.

4. I attended numerous educational presentations at the conference.

5. I attended the AAG Geography Education Specialty Group meeting.



*Westin Bonaventure Hotel, site of 2002
AAG Annual Meeting; quite a spectacular
facility.*

The AAG is **the** major geography research professional society in North America. Increasingly, it includes international members. AAG was founded in 1904 in Philadelphia. The society includes geographers in business and government but is primarily composed of 6,500 members from the academic geography community--professors at universities and community colleges, and graduate students. Their conferences attract between 3,000 and 4,500 people annually. This conference was not as large as prior AAG conferences but over 3,700 attendees still made for an excellent event. Furthermore, the proportion of AAG members who attend the conference is over 50%, which is very high for a professional society. Nearly half of conference attendees are graduate students.

The Executive Director of the AAG has been Ron Abler for many years; he steps down in 2003. The AAG President serves a one year term and is usually a university professor--currently, Dr Janice Monk from the University of Arizona. The AAG authors two academic journals through Blackwell Publishers, the *Annals of the AAG*, and *The Professional Geographer*. In addition, they publish a monthly *AAG Newsletter*, which I have received as a member since 1992.

By participating in this conference, we demonstrated the leadership that the USGS has in geographic data and research that not only geographers, but also anyone with an earth-based project, can use in their research. In so doing, the good will and recognition of the USGS in the geography community, while it could be improved in some areas, is quite excellent. Given increasing media attention on both the need for geographic skills, geographic data, and the need for geographic and environmental research, the potential is high for increased work with the AAG.

Geographic Education Through Biodiversity

I gave a presentation about a project I have been working on for over a year in Colorado. It was published early in March 2002 in the online journal *Meridian*, at www.ncsu.edu.

Biodiversity provides an excellent means of bringing geographic concepts and analysis to life and earth science teachers and students. A project between the US Geological Survey, the Colorado Natural Heritage Program, the University of Colorado, the Colorado Division of Wildlife, and a team of 10 secondary teachers funded by National Geographic called

“Exploring Biodiversity Along the Colorado Front Range,” successfully introduced these concepts to over 75 teachers and hundreds of students.

This paper analyses the reasons for the success of this program, and discusses the challenges of bringing spatial concepts to life and earth science teachers and students. The project created educational lessons and new scientific data for the scientific community in the state. Assessing the model of how teachers were trained in the project’s lessons showed that biodiversity can be used to introduce the interconnectedness of landforms, vegetation, climate, settlement, land use, and conservation, political, and economic development pressure. The rapid rate of population growth of the Denver metropolitan area coupled with its setting at the boundary between the Great Plains and Rocky Mountain biomes made it an ideal setting for this project. However, a natural heritage program responsible for biodiversity information, biology and education faculty in universities, federal and state education staff, and GIS expertise exist in each state, making it easy to transfer the program to other regions. The project also allowed the ability to compare GIS-based lessons to those based on paper maps and printed charts.

Other presenters in this session focused on changes in understanding of geography students, application of research technique to the classroom, and understanding geographic concepts through journal writing and content analysis. We had a full room for this session, even though it was the first session of the morning.

USGS Exhibit

See Mara Tongue’s excellent summary of what we displayed at the USGS exhibit.

Our focus areas for the backdrop were The National Map, Landsat data, and GeoMac (wildfire research). Our themes for the exhibit itself were USGS products and data to support geographic research.



Jeannette Candau, Joseph Kerski, Sarah Swanson, and Mara Tongue staffing the USGS exhibit.

We distributed USGS fact sheets and booklets on data and research focusing on geography, and, as Mara pointed out, the circulars were very popular and should be used for future conferences. I supplemented these materials with lessons and guidelines that I have written on Terraserver, USGS spatial data, and topographic maps, as well as an announcement on a summer GIS training course for educators that I am co-teaching.



Our exhibit was busy right up to the end of the conference on the fourth day of exhibits!

Our goal at the conference is to reflect applications and use of GIS at the USGS, rather than simply the base data we produce. We also seek cooperative research and development agreements, and production agreements with those we come into contact with.

The digital demonstrations, backdrop posters, and handout materials with which we operated the USGS exhibit were excellent.



Mara Tongue working with visitors in our USGS exhibit.

The exhibitors were well equipped to handle the questions of this audience. They had

experience in using USGS data, were familiar with data and services from all disciplines, and were those who work well with the public. It was good to work with Sarah Swanson for the first time as well.



Sarah Swanson explaining USGS web resources to USGS exhibit visitor.



EDC DAACs themes across the aisle from us were Aster, Modis, Terra, and Landsat data. Innovative design of EDC DAAC exhibit. It occupied two booth spaces and featured a "theatre" where visitors to the exhibit could sit and ask questions of EDC staff.

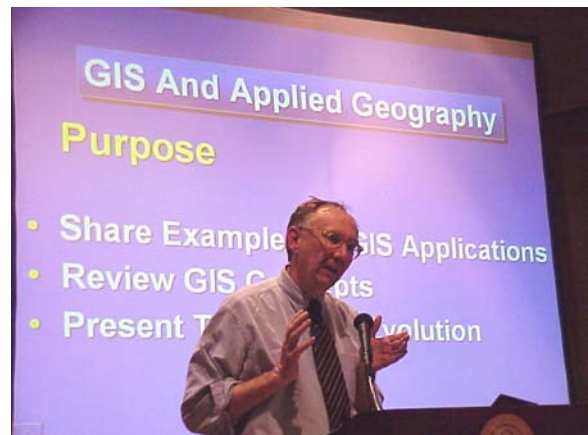


Joseph Kerski at the AAG exhibit hall.

Geography Education Specialty Group Meeting

AAG includes at least 40 specialty groups, and I am a member of six of them. I attended the meeting of the Geography Education specialty group, where we discussed future sessions we would sponsor, the listserv, and the budget. We have 525 members in the specialty group, making it one of the largest in the AAG.

Jack Dangermond Presentation



ESRI President Jack Dangermond shares his vision about GIS and Applied Geography.

Jack Dangermond, ESRI President, spoke at the conference. I first saw Mr Dangermond on the elevator before his presentation. I had just exited the exercise room and must have looked pretty scary, but Mr Dangermond recognized me and even remembered where we met at the AAG 4 years ago. He speaks very highly of the USGS in every presentation that I have seen. In addition, he always mentions education as a priority--and that always resonates with me since that is one of my main areas of interest.

Mr Dangermond emphasized that we are part of a global society and form natural communities, how human communities are defined by communication. Geography is essential because we require a greater consciousness of other communities. Geography "is a sort of nervous system for our planet," says Dangermond, "a network that integrates our natural world with human needs and values." He said that the Internet created a technology that allows many collaborative organizations to move in this direction. We need standards and a network of standards providers, policy framework for dissemination of information, technology for easy deployment, people who know how to determine what people need or want, and enabling technologies.

He argued that a global community requires creating standardized data sets, a network of providers, a policy framework for dissemination, leadership and organizations, and technology for easy deployment.

The National Map Presentation

I attended a session entitled "New Directions for The National Map." This featured John Kelmelis (below), who spoke about what The National Map is, RJ

Thompson who spoke about remote sensing, William Acevedo who spoke about the landscape analysis program, and Chuck Ogrosky, who spoke about the cooperative topographic mapping program.



John Kelmelis of the USGS leads series of presentations on The National Map.

Comments by National Research Council - Dr Graf - to the USGS

One of the highlights of The National Map session was to hear the comments from Dr William Graf of the University of South Carolina. He is on the advisory committee to the USGS on The National Map. When the report from the National Research Council is complete later this spring, **I strongly advocate that every geographer at the USGS read this report!**

Dr Graf pointed out that the AAG was founded partly by USGS scientists. Over the decades, the relationship between the USGS and AAG has "atrophied." The National Map represents a return to close association of the two groups. Geography is represented at the USGS in every discipline. The USGS needs to conduct research in geography, and needs partnerships with geographers in non-USGS organizations to increase the amount of research being done. Dr Graf also

advocated that the USGS increase the amount of research on human health and in the social sciences.

NCGE Board Meeting

During the fall of 2001, I was elected to the board of the National Council for Geographic Education (NCGE), and will serve on the Research and External Relations committee from 2002 through 2004. The board meets during NCGE and AAG conferences, twice each year. The USGS has 2 members on the board now, because Larry Handley from the USGS National Wetlands Research Center is on the same committee. The Vice President for the committee is Dr Susan Hardwick, who will become NCGE President in 2004.

It is a great privilege to be on the NCGE board and one of my lifelong goals. I have immense respect for the organization and its people. The NCGE has been serving and representing the geography education community since 1915 and has grown to over 3,200 members. The USGS has participated in their annual conferences for many years. I have attended and presented at each annual conference since 1995. We have also contributed to their newsletter *Perspectives*, and to their journal, the *Journal of Geography*. In 2001, Ruth Shirey, their Executive Director, flew me to Pennsylvania to co-teach a part of the technology institute.

The committees include Curriculum and Instruction, Finance, Research and External Relations, and Publications and Products. In our committee, we spoke about graduate student mini-grants, our special interest network, our EMBARC research project, and the Geographical Association. As a group, we discussed an exciting

collaboration possible with Cambridge Studios to create a series of geography videos to be shown on television.



2002 NCGE Board Members. Second from right, back row: Incoming Executive Director Michal LeVasseur. Third from right, back row: 2002 President Jody Smothers Marcello. Not pictured: Larry Handley, USGS, Connie McCardle, and Madeleine Gregg.

USGS Photo Contributions to AAG Exhibit and Career Pamphlet

I'd like to thank all at the USGS who helped respond to my call to deliver photographs to the AAG at the end of February. The photographs were of USGS geographers/scientists at work. The results can be seen below! The AAG used these photographs in their exhibit backdrop and in their newest geography career pamphlet. It was excellent that we could contribute to their efforts and work once again with the AAG.



AAG exhibit that now features three USGS photographs that we sent them--the three photos on the right.



AAG geography career flyer featuring USGS photograph on the lower left.

Geographical Society Presidents' Presentations

I attended a presentation by presidents of three geographical societies concerning contemporary challenges facing the discipline--including the president of the Institute of Australian Geographers, the President of the Catalan Geographical Society (Spain), the California Geographical Society President, and the AAG President (Janice Monk). This was a rare event, and was also notable in that all of the presidents were female.

GIS In Education

Brooks-Cole Thomson learning has produced three new GIS-in-education guides using real-world earth science problems. I know two of the authors of the lessons, and all are from the University of Arizona. I plan to use several of their modules in future GIS training.

Solid Terrain Modeling

I spoke with representatives from Solid Terrain Modeling, who have produced some of the finest 3D physical models of terrain using DEM data that I have ever seen. They have a patented process that can plot an aerial photo or a map base directly onto the molded 3D model for any area. This company - www.solidterrainmodeling.com - should be considered for any future exhibits work or visitors centers, in my opinion.

New Remote Sensing Software

I talked with a representative from Pixoneer, Inc. who developed a remote sensing package called Earth. It was quite versatile, only \$1500, and powerful. The company has been in business for quite awhile but has concentrated on the Asia market until now. This might be something to look into further.

Other Discoveries and Sessions Attended

I found out that the 25th annual Applied Geography Conference will occur 23-26 October 2002, this time in Binghamton NY. This would be a good venue especially for our USGS folks in that region to attend.

From the EDC staff, I found out about a fine article about the NED data from the January

2002 PE&RS journal.

I attended the following sessions not mentioned elsewhere in this report:

1. Challenges and opportunities for conservation NGOs.
2. Teaching methods, sponsored by community college affinity group.
3. Internationalizing Teaching and Learning, sponsored by International Network for Learning and Teaching Geography in Higher Education.
4. The Geography in the USA in 2000.
5. K12 Geography Education with Sarah Bednarz, who was instrumental in creating the National Geography Standards.
6. A portion of "Writing Geography for the Public."
7. International Geographic Education.



Dr Eleanor Rawling speaks about the status of geography education and the UK National Curriculum. I've read several of her articles and have huge respect for her and for what the UK has done in geography education. In fact, I am meeting with her next week in conjunction with our work at

the Geographical Association conference in the UK.

8. GIS and Community Colleges. One of the presenters was Dr Brey from UW-Menasha, whom I have worked with in the past and participated in a GIS training he conducted in Wisconsin in 2000. It is encouraging to see what the Wisconsin educational community is doing with GIS as a tool in science education.

Geography In America Timeline

The Geography In America Timeline is being prepared to celebrate the AAG's centennial in 2004. It will become a website in 2004 and its goal is to provide an "unparalleled gateway to American geography." I would argue that the history of the USGS is in part tied to the history of US geography. I call on all USGS geographers to consider contributing to this effort. The POC is Dr. Donald Dahmann at ddahmann@yahoo.com.



Geography in America Timeline displayed outside the exhibit hall.

Field Trip

For years, I have been wanting to attend an AAG field trip, and am pleased to report that I finally took advantage of the opportunity.

Having a geographer conduct a field trip provides a wealth of data about, in the case of this field trip, the cultural, geographical, and historical make-up of downtown Los Angeles. Dr Curtis Roseman, whom I met at a Geography on the Web workshop in 1997 at the University of Texas, led the field trip. I have to conduct tours quite often for conferences and at the USGS, and so the field trip was useful in obtaining new ideas.



Dr Roseman (with hat, on left in back) explains downtown in front of the Los Angeles Public Library.



Dr Curtis Roseman, Geography Professor from UCLA, begins field trip.



The Biltmore Hotel and the highest building in Southern California behind it and a bit to the left.

Observations and Recommendations:

1) The AAG conference is definitely a worthwhile one for the USGS to participate in, particularly with national attention on our spatial data in conjunction with homeland security. I highly recommend that we participate in this conference **each year**. AAG is ***the*** geographic research professional society in the USA and one of the largest in the world.

By participating in the AAG conference, we sought to demonstrate the leadership that the USGS has in data and research. We sought to further our partnerships on many levels.

2) Our Earthlink ISP account worked extremely well both at the exhibit and in the hotel room. It was much faster than the USGS RMMC 1 800 connection.

3) This event showed once again the excellent cross-regional coordination that can be accomplished, in this case, WGSC and RMMC.

4) I recommend that we continue to include materials from other USGS divisions in AAG

exhibits. Geographers are interested in interdisciplinary studies, and also in applications of data. Most geographers are familiar with our maps and digital data, but they are not aware of the breadth of science in the USGS. I still think we could do better to coordinate the BRD materials, in particular--I know about some BRD materials, but certainly not the bulk of what we do offer in biology.

5) Once again, it was difficult to advertise for ALL USGS presentations on our backdrop because we did not receive a list of such presentations by those presenting. USGS staff had at least 8 presentations at the conference, on a wide variety of topics. We need to advocate that anyone presenting at a conference give that information to a centralized point of contact so that everyone at that conference will be able to direct attendees to those presentations. We've said this before, but it needs to be brought up again.

6) The AAG is interested in partnering with the USGS on an educational outreach product. I have spoken with Osa Brand, AAG educational affairs director, about this several times. Both of our organizations are highly respected and it would be mutually beneficial. It would help move the USGS from being viewed by many as just a source of data, to a partner with the academic community.

7) **** NEXT AAG CONFERENCE: March 2003 in New Orleans. This coincides with Mardi Gras, so we need to PLAN AHEAD in terms of accommodations and even on travel.*

*** End of AAG 2002 report ***