

EDUCATION EVENT REPORT AND RECOMMENDATIONS

Attendee's and Report Writer's Name:

**Joseph Kerski, Geographer, USGS
Denver**

Events:

- 1) Geographical Association 2003 Annual Conference, University of Derby, UK
- 2) International Geographical Union Commission on Geography Education Conference, University of London, UK

Event Dates: 20-30 April 2003

Executive Summary

I attended the 2003 Annual Conference of the Geographical Association (GA) as a representative of the USGS. I attended also as a member of the Research and External Relations Board of the National Council for Geographic Education (NCGE), where my term lasts from 2002-2004. I did so to further investigate ways for the USGS, NCGE, and the GA to partner in educational endeavors. I operated a USGS exhibit at the conference and met with many GA board members and other GA members individually. I co-conducted a GIS workshop for educators with Dr Patrick Wiegand from the University of Leeds. I presented a paper on how teaching with GIS can contribute to Citizenship Education at the International Geographical Union's Commission on Geography Education conference.

Funding sources for this trip included:

- 1) The Geographical Association's International Scholar Program, airfare,
- 2) USGS, 3) my own funds.

The Geographical Association's Annual Conference

The GA is the largest geography education association in the world. The NCGE is probably the second largest geography education association in the world. The USGS is one of the world's largest science organizations. I sought to meet these international and educational goals at once among these three large, respected organizations.



Joseph Kerski at the University of Derby, 2003 conference site. The University includes over 15,000 students and a large geography department. I had the good fortune to meet most of the geography department staff, who gave me a personalized tour of the department and the map library.



Our USGS exhibit at the conference featured maps, GIS information, the

Europe Global GIS CD, books, and other educational resources. As usual, the maps were the first item to run out!



Approximately 80 vendors exhibited at the 2002 Geographical Association conference, including textbook publishers, aerial photography companies, fieldwork centers, educational associations, software vendors, assessment and curriculum companies, scientific instrument companies, and nonprofit organizations. Other exhibitors included the Ordnance Survey, the Royal Geographical Society, the Geomatics Society, the Association for Geographic Information, and the UK meteorological agency Met Office. The GA itself was an exhibitor, which displayed a vast series of resources as well as highlighted activities of its many subgroups.



Approximately 650 people participated in this year's Geographical Association

conference. This gathering was to hear 2003 GA President Chris Kington give his Presidential Address. The attendees were from primary, secondary, and university levels as well as private companies, education authorities, government agencies, and nonprofit organizations.



Presidents past and present: 2002 GA President Jeremy Krause, Left, and 2003 President Chris Kington before Mr Kington's Presidential Address.



I'm always very impressed with the professionalism of the student assistants at the GA conferences. These geography students from the University of Derby were a great help to me and a delight to get to know during the week of the conference. They all are quite enthusiastic about geography and their own future role in the discipline.



The final round of the Worldwise Quiz is always exciting to witness, with teams of geography students competing from different schools from across the country.



Attendees at our USGS exhibit. The paragraph I submitted to describe the exhibit was, "The US Geological Survey publishes nearly 100,000 titles of topographic and thematic maps, books, and satellite images, aerial photographs in paper and digital form, excellent for teaching about watersheds, earthquakes, volcanoes, population, coastal processes, geology, biodiversity, landforms, historical settlement, and water resources."



Joseph Kerski at the Geographical Association conference. The conference rotates each year, usually to a university campus. The 2003 conference and exhibits were held at the University of Derby in the building directly behind me.

The GA gave us a discount on the exhibit space, which I greatly appreciated. This year, I created a disposable exhibit backdrop from foam board and maps that I had shipped from the conference, which saved hundreds of dollars in shipping fees.

I attended the following excellent sessions at the conference:



Joseph Kerski at the conference site.

1. GA Annual General Meeting.
 2. Presidential Address: You Can't Judge the Book by Its Cover.
 3. The Exaggerated Death of Geography.
 4. Using ICT in Key Stage 3 Geography.
 5. AEGIS GIS workshop.
 6. New initiatives at the Royal Geographical Society.
 7. Using Ordnance Survey Resources.
 8. International Reception.
- Approximately 25 attendees at the

conference were from countries outside the UK.

9. Exploring Your World with GIS (my GIS workshop with Patrick Wiegand).

10. Hands on GIS in P-16 Geography by Dr Armitage.

11. Dr Wiegand's Teaching and Learning with GIS.

12. Why Bother With GIS? By Andrew Williams.

13. Making Digital Geography Work, by Richard Pole and Jason Sawle.

Each GA conference offers 8 professional development "pathways" to help attendees select the lectures, workshops, and field trips. These included leading and managing geography at the primary, secondary, and post-16 level, curriculum development for the new geography teacher at the three levels, Geography and ICT (Information and Communications Technology), and Improving Your Geographical Understanding.

The GA seems fairly well known, even among the general public, no doubt in part due to high visibility projects involving standards-based education and field projects such as the 1996 Land Use UK. This involved 10,000 students who mapped one square kilometer cells for the entire country.

About the Geographical Association

The Geographical Association (GA) (www.geography.org.uk) is an international association headquartered in the UK for geography teachers, with a membership of over 10,000, providing information and resources to teachers and students furthering the study and teaching of geography and promoting its contribution to education.

This was the third year in which I have participated in the GA conference. In 2001, at the University of Sussex, I conducted a GIS in education presentation and operated a USGS exhibit. I joined the GA in 2001. In 2002, at the University of Manchester, I met with the GA staff for the first time and operated another USGS exhibit. This year was the best, in my opinion, of the GA conferences to date. The conference theme this year was "Valuing Geography."

Like the NCGE, the GA is dedicated to promoting the development of geography as a subject. The GA believes that geography makes both a distinctive and a wide contribution to education and that it is an essential component in preparing young people for life in the 21st century. The GA is also committed to providing support to all those who are engaged with it—either for professional reasons or personal affinity with the subject.

The GA is slightly older than the NCGE, beginning in 1893, I believe. The GA is highly respected as one of the leading subject teaching associations and regularly consulted on a wide range of issues concerning geography in education. It is a major content provider. Members receive journals on a regular basis and the GA publishes books and other resources to support geography teaching at every phase. It also provides curriculum advice, professional development, conferences and other networking opportunities. The journals include *Geography* (research), *Primary Geographer* (elementary school), *Teaching Geography* (secondary school), and a quarterly newsletter "GA News."

I am always impressed by the numbers of people who tell me that they do some

work for the GA. This volunteer effort is amazing, considering that teachers are among the busiest folks on Earth. The GA is run by its members and its work is determined and monitored by committees that focus on and develop pieces of the subject. These committees are supported by a Headquarters staff based in Sheffield UK. The GA is a national association, but its regional and local structures provide a significant opportunity for the views of the geographical community to be heard and represented. The GA is locally active, maintaining over 40 branches that stimulate local activity throughout England, Wales and Northern Ireland.

Project-based activities include the Worldwide Quiz and Geography Action Week, both of which enjoy high reputations for quality and school involvement. GAW was the basis for our own Geography Action Week in the USA!

GA-NCGE Partnership Meeting

I met with GA Executive Director David Lambert, with incoming 2004 President Peter Fox, and Alison Lewis from the GA International Committee.

We discussed the following ideas for partnerships:

1. Advertising the GA conference in the NCGE's Perspective newsletter.

Advertising the NCGE conference in the GA's *GA News* newsletter.

Both of these are easily done.

2. The GA has an international relations fund to bring in NCGE and other international visitors. Does the NCGE have or could the NCGE set up such a fund? I will investigate.

3. Both the NCGE and GA publish frequently. We should mutually advertise our publications in each other's educational resource lists. The GA publications are already advertised in NCGE materials. Could the GA advertise NCGE materials in its GA publications? I will work with the NCGE to create a list that would be most useful to GA members.

4. Could we have a joint membership category for teachers to join both the NCGE and GA at the same time, but at a discount than if both organizations were separately joined? Further work is needed. One idea we discussed is a nominal fee for the electronic version of *GA News* served to NCGE members and vice versa.

5. Joint development of curricular resources; a collaboration on an educational development project. We discussed, for example, Barnaby Bear trips across the Atlantic Ocean. Barnaby's Local Area and Oxfam's Wakeup World are good examples of this. We could put an electronic version on the paid-members site for both organizations to contribute photos and text to. GA-NCGE could bring the schools together. A number of items we discussed in this category sounded very doable and promising and of benefit to teachers.

6. Joint research projects. What research projects could GA and NCGE members engage in together that would bring benefit to teachers and students on both sides of the Atlantic? This is occurring to some extent, for example, in a series of GIS-education articles in the journal *IRGEE* that Patrick Wiegand and I worked on together. We will seek ways to encourage additional research collaboration.

GIS in Education in the UK



I conducted a workshop with Dr Patrick Wiegand from the University of Leeds. The teachers at our GIS workshop were a wonderful group to work with—willing to take on new challenges despite their busy schedules and academic pressures. In this hands-on workshop, we concentrated on world demographics and world earthquakes in ArcVoyager GIS software during the workshop. I have had several email exchanges with many of the attendees since the workshop.



Patrick Wiegand, Left, discusses GIS in education following his presentation on the topic with application to a local community within a National Park.

As in the USA, educators in the UK face curricular constraints to running GIS in the classroom. Training and data are critical factors in its success. However,

the National Curriculum includes GIS and spatial analysis.

A book published in 2001 entitled “GIS: A Sourcebook for Schools”, edited by David Green, as well as support from the Association for Geographical Information (AGI), and the new Geomatics Society all indicate that the disparate forces may be coming together for the use of GIS in UK schools.

GIS and the use of digital data face a challenge not only in education, but also everywhere in the UK, because of the fact that very little free government data exists. This is the case with many countries. Nevertheless, the interest and the potential of GIS and remote sensing in the curriculum are high, because the National Curriculum emphasizes real-world data in a problem-solving, inquiry-based environment. Things are gradually improving for educators to obtain spatial digital data. The Ordnance Survey, for example, gives a free map to all 11 year old students in the country, and they give away free local digital map data to schools.

GIS software available for educational use in the UK includes, but is not limited to: ArcView, from ESRI UK, AEGIS, Local Studies, and MapMaker Pro. ArcView sells for 395 pounds for a school site license. ESRI UK also makes MapExplorer, a free educational tool, with a goal similar to ArcVoyager in the USA—provide a ramping up approach into GIS. A company called Wildgoose provides wonderful aerial imagery for a discount for educators.

I had an extremely interesting discussion with Jason Sawle and Richard Pole who are modifying Leica’s Map Sheets software for use in schools.

Educational Reflections

Two of the four recommendations from the National Academy of Sciences in their recent report, *Geography at the USGS* were in part met through these two conferences, including “geographers should engage in scientific research,” and “geography should develop partnerships with the field outside the USGS” (page 4). One of my goals in the USGS communications and education program is to form formal partnerships with geography education organizations around the world. Geography education in the USA has been subsumed in the social studies since the 1920s and has only since the 1980s emerged as a science that society recognizes as a real need. In the UK, geography education never lost its prominence from the days when the Royal Geographical Society was sending explorers to the South Pole and beyond.

The GA's counterpart organization in the USA is the National Council Geographic Education (NCGE). Although I've conducted exhibits and workshops at every NCGE conference since 1995, I kept thinking that there was more we could be doing. I petitioned the NCGE board to be on the ballot and was elected for the 2002-2004 term.

Working in education is an excellent way of starting long-term relationships with people and organizations. For example, I've worked on a grant involving conservation biology that has links to the Colorado Division of Wildlife and the University of Colorado EPOB Department, and through that, perhaps to others and even to our own USGS biology discipline. These relationships could lead to USGS staff being included in major research projects, for interns, or even funding for data production by one

of these groups. Similarly, I spoke with the Ordnance Survey, the UK's national mapping agency, about their efforts and ours in education.

By participating in this meeting, we demonstrated the leadership that the USGS and NCGE have in partnering with educational associations on teacher training, development of curricular resources, and in resources for Geography Education that are high quality, science-based, project-based, and interdisciplinary. The fact that the conference chair, the GA president, and other GA executives took time to talk with me about future partnership opportunities demonstrated that their interest is genuine in doing so.

I recommend that we pursue these opportunities for collaboration between the NCGE and GA, and between the GA and the USGS. The GA is non-partisan and unbiased, concerned with education and scientific literacy, just as the NCGE and USGS are. I made a great many contacts that will be useful for pursuing these initiatives in the future.

The challenges facing geography education in the UK, despite their leadership in the world, are real. As in the USA, geography faces stiff competition. Therefore, I believe that the GA conference is a worthwhile one for the USGS to participate in, particularly as we seek to concentrate efforts on targeted audiences and de-emphasize “general public” events where the benefit is questionable for the resources expended.

Few attendees knew specifically about the NCGE. Most knew that there was a geography education counterpart to the GA in North America, but the NCGE had no bearing on what they did on the job

everyday. So, it is an appropriate time to pursue this educational effort.

Geography Education in the UK

The following is my own interpretation of UK geography education; unintentional interpretation errors may exist. This description is somewhat different for Scotland. The UK has had a National Curriculum in place since 1991. Its core subjects are English, science, and mathematics. These are taken by all students. Foundation subjects, such as geography, are compulsory from Year (Grade) 1 to 9, after which they are optional.

Nevertheless, geography is a popular option and is taken by approximately 60% of students. The General Certificate of Secondary Education (GCSE) examination is taken at the age of 16 (Year 11), and students who pass in geography may go on to "A Levels" in Years 12 and 13. Local Education Authorities (LEAs)--the UK's equivalent to the USA's school districts--have curriculum advisors in different subject matters. The test is roughly analogous to the ACT or SAT, but it is given during the middle, rather than at the end of, high school.

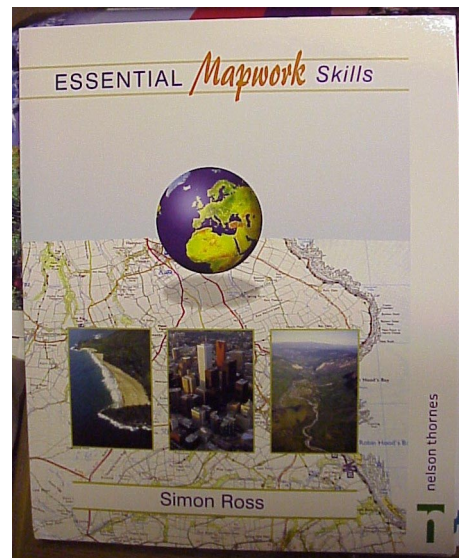
At age 11, students go to secondary school, which is from age 11 to age 16; these are the "O levels/O grades". The old terms were lower 6th form and then upper 6th which was age 17/18. Age 18 is when students in England go to University, which where tuition was free until just a few years ago, graduating when they are 21 (after a three or four year degree program).

Physical Geography is very strong in the UK, and thus USGS hazards and water resources information were incredibly popular.

I would say that $\frac{3}{4}$ of the attendees were very familiar with at least one USGS resource. Of these, the near-real time earthquake bulletin seemed to be the resource about which attendees were most knowledgeable. The UK geography curriculum is also much more focused on the world at large than seems USA geography. Still, local studies and data are still valued and important to educators.

Field work is required of all geography students, and I counted several exhibitors that were private and nonprofit organizations that ran fieldwork centers. These, including a center in Wales featuring multi-language studies in the highlands and another island off the Scotland coast, were fascinating programs that I'd love to share with anyone who is interested. I'd also love to visit these places for first-hand experience!

Recommended Books



Simon Ross' book, Essential Mapwork Skills. I have read this book in its entirety and highly recommend it as an

important contribution to not only map and aerial photo reading and landscape interpretation, but to help students understand what geographers study, and why they study it. It was very kind of Mr. Ross to mention the USGS for the assistance and data that I provided him in the book.

A book I consider to be essential reading has been published in 2002 by long-time GA member and Oxford University research associate and Geography Principal Officer at the Qualifications and Curriculum Authority Eleanor Rawling, entitled "Changing the Subject—The Impact of National Policy on School Geography 1980-2000."

Another book I recommend is *Thinking Through Geography* by David Leat and *Reflective Practice Through Geography Teaching* by Ashley Kent.

International Geographical Union Commission on Geography Education Conference

I attended the International Geographical Union's (IGU) Commission on Geography Education conference on Citizenship and Geography Education at the University of London. The IGU is the one organization that brings together geographers from all over the world. Specialist groups in the IGU engage in research, publishing their findings and sharing them at conferences. The IGU's next biennial conference will be in Glasgow Scotland in August 2004.

One of the longest running (1952) groups is the Commission on Geography Education. The Commission seeks to promote geography education development, knowledge, research, and collaboration. The Commission held a

conference at the University of London entitled: Geography and Citizenship Education: Research Perspectives.



Delegates to this conference came from such places as Lesotho, Japan, Finland, Portugal, USA, Canada, the Netherlands, Germany, and Ireland. Therefore, it was a wonderful privilege of talking with international geography education colleagues and finding out what some of their research and development projects are.



IGU President Anne Buttimer, left, and University of London geography professor Ashley Kent, right. We were very privileged to have the IGU President with us. Dr Buttimer shared her vision of how international geography education research has developed over the decades, and also some of her presentation of the IGU Planet and Humanity award to Nelson Mandela last year in Durban.



We were also privileged to have at the conference Dr Lea Houtsonen, IGU Commission on Geographical Education Chair, from the University of Helsinki.

Conference papers included such topics as assessing students' environmental knowledge, how computer technologies can contribute to geography and citizenship, teacher training strategies, a new network (HERODOT) for geography education in higher learning, and how children become aware of their surroundings. My presentation focused on how teaching with GIS can contribute to understanding geography and citizenship, based on the teacher training, curriculum development, and research I have conducted in my role as USGS education geographer. The conference was a wonderful experience and I am glad I had the opportunity to attend.

At the University of London are several faculty members who are world leaders in geography education. It was a pleasure to talk with them, including Ashley Kent. Another faculty member, David Lambert, is now the GA executive director.

The Institute of Education has been offering a master's distance learning program for at least a year in Geography Education. Dr Kent

described the program to me at the Association of American Geographers (AAG) meeting in 2001 and is one of the very few of its kind if not unique in the world.



One of the main organizers for the conference, Ernest Munowenyu, who recently received his doctorate from the University of London.



One of the erosion tables for physical geography instruction at the University of London—these were enormous and very impressive!



Dr Andrew Powell, conference chair, left, receives congratulations from IGU Geography Education Commission Chair Lea Houtsonen for his role in organizing the IGU Geography Education Conference. The conference included two days of presentations and one day of field work.



Institute of Education at the University of London, site of the IGU Conference, near Russell Square, Central London.

IGU Conference Field Trip



Andrew Williams, left, and Andrew Powell address our group on the first field trip stop out of the London Underground, Spitalfields, a neighborhood that has endured rapid physical, economic, and cultural change for nearly a century and therefore a fascinating one to study from a geographic perspective. This, to me, is some of the heart and soul of geography—to examine the Earth and the reasons it is changing. Andrew Williams, our field trip host, provided excellent and fascinating perspectives on these areas and a good model for how to effectively conduct geography field trips.



'Tis a global world: At the Al Hallal Fried Chicken outlet in Spitalfields, there was a sign in the window...



...advertising real Kansas-maid shakes. I'm not sure what a Kansas shake is!



One of the historic streets in Spitalfields, often used for 19th century movie sets.



After Spitalfields, we studied Bankside, on the south bank of the Thames, another area that has and is currently undergoing rapid change.



Our group stops at the old Brewery in Spitalfields. The city of London's financial district is encroaching on some of the traditional land use in the area. The neighborhood includes a large Bengali population.



The final stop on our field trip was a ride on the London Eye, from where we received a new perspective on the neighborhoods we had visited.



I took my own field trip during the evening before I flew to the USA to the Battersea Power Station and surrounding neighborhoods in London. Pink Floyd fans will recognize this power station from the front of the 1977 album, Animals.

Prime Meridian Pilgrimage

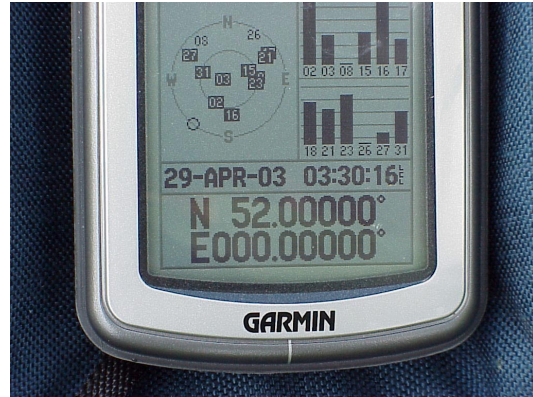
I took the train and hiked to the Prime Meridian, at 52 North Latitude, 0 Longitude. This was a wonderful adventure through south-central English countryside.



Joseph Kerski in a field on the Prime Meridian, 52 N 0 E.

The full details of the expedition are on:

<http://www.confluence.org/confluence.php?lat=52&lon=0>



Latitude 52 North, Longitude 0 East—the Prime Meridian!



Public trail through the scenic countryside en route to the confluence.

Acknowledgements

I would like to thank Dr. Patrick Wiegand for working with me to make the GIS workshop a success.

I thank the Geographical Association for funding my airline ticket to the UK under their International Relations fund. In particular I would like to acknowledge Julie Legg and Sarah Clarke.

I appreciated the time that GA staff spent with me during the busy conference week.

I thank the attendees of both of these conferences for their work in geography and for speaking with me.