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2015 National Conference on Geographic Education

National Council for Geographic Education
100th Anniversary Meeting
Washington, DC

JW Marriott
1331 Pennsylvania Avenue NW
Washington, DC 20004
August 6–9, 2015
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National Council for Geographic Education
Supporting geography education since 1915
The National Council for Geographic Education (NCGE) supports geography teaching at all levels—from kindergarten through university. Our members include teachers, professors, students, libraries, and others who support geographic education.
Membership in NCGE is open to all.
Annual membership dues range from $30–$95 for individuals. Membership includes the bimonthly Journal of Geography, The Geography Teacher, a weekly electronic newsletter, reduced registrations for annual meetings, and access to a wide variety of information sources and publications.
Inquiries about membership and services should be addressed to:
National Council for Geographic Education
1101 14th Street NW, Suite 350
Washington, DC 20005
E-mail: ncge@ncge.org Web: www.ncge.org
Tel. 202-216-0942
Dear Attendees,

On behalf of NCGE’s board members and staff, welcome to our centennial celebration – a once in a lifetime event! A century ago, George J Miller, former school teacher and head of geography at Mankato Normal College, envisioned a national organization to bring together teachers of all academic levels to promote geographic education. Gaining support from others across the country, the organization held its inaugural meeting in Washington, DC, on December 31, 1915. In an era in which the telephone was in its infancy, a conference was required to support the instantaneous exchange of ideas. Today, the diversity and reach of communication technologies have changed many of the ways in which NCGE promotes its mission and serves its members. However, even in a world of virtual communication, our annual conference continues to be a meaningful and joyful gathering for hundreds of educators and practitioners with a passion for teaching geography and promoting geographic education.

We gather to exchange ideas and best practices, and network with fellow teachers, researchers, curriculum writers, and practitioners through workshops, paper sessions, panel discussions, plenary talks, and poster sessions.

We gather to reconnect with long-time friends and colleagues, encourage and support those who have more recently joined our organization, and welcome our first-time attendees into the fold with the first timers breakfast.

We gather to honor the contributions of outstanding teachers, mentors, researchers, authors, students, and those who have served to improve geographic education in our awards ceremony, distinguished mentor sessions, Women in Geographic Education luncheon, and 100th anniversary gala luncheon.

We gather to explore the home city of NCGE’s headquarters – Washington, DC, and its environs through fascinating half- and full-day field trips.

We gather to discover new print materials, ancillaries, tangibles, and technologies to support teaching and learning geography in the exhibit hall and in workshops.

We gather to support Advanced Placement Human Geography teachers with a half-day workshop and multi-day session strand.

We gather to strengthen teaching competence and confidence of early-career faculty and graduate students destined for careers in higher education through a full-day seminar.

We gather to investigate interdisciplinary opportunities for spreading geography across the curriculum with a multi-day session strand.

We gather to build relationships and learn from our counterparts in other countries through a multi-day session strand.

We gather to both inform and include our members in our organization’s governance during the NCGE Business Meeting.

We gather to thank our members for their contributions to NCGE and geographic education through our opening session and reception, conference dinner, and farewell thank you breakfast.

We gather to celebrate our past, present, and future in myriad ways.

I am honored to preside over this gathering. Please take full advantage of this experience. On behalf of the staff and board of NCGE, again, welcome to Washington, DC!

Susan E. Hume
2015 President, National Council for Geographic Education
Gain Knowledge While Exploring the Colorado River
This adventurous certificate can be completed in just three terms! Courses in the Fall and Spring are offered online. In the Summer, you will travel to Colorado for a river trip on the Colorado River.

FOR MORE INFORMATION:
Dr. James Dunn
970-351-2834
extended.unco.edu/GeoCert
Gamma Theta Upsilon
The International Honor Society in Geography

Founded 1928

Gamma Theta Upsilon would like to honor the extraordinary commitment of our senior chapter sponsors:

Richard S. Courtney, Gamma Psi, Kutztown University of Pennsylvania – 20 years
Gregory A. Pope, Iota, Montclair State University – 15 years
Leslie A. Duram, Lambda, Southern Illinois University-Carbondale – 10 years
Maria Fadiman, Theta Upsilon, Florida Atlantic University – 10 years
Robert S. Bednarz, Zeta Zeta, Texas A&M University – 5 years
Daniel Block, Delta Theta, Chicago State University – 5 years
Kristen B. Crossney, Gamma Eta, West Chester University – 5 years
Richard E. Deal, Gamma Beta, Edinboro University of Pennsylvania – 5 years
Gregory Faiers, Delta Rho, University of Pittsburgh at Johnstown – 5 years
John Hasse, Lambda Kappa, Rowan University – 5 years
Curtis D. Holder, Theta Chi, University of Colorado at Colorado Springs – 5 years
Rajrani Kalra, Lambda Chi, California State University, Santa Barbara – 5 years
Ryan Kirk, Lambda Delta, Elon University – 5 years
John C. Kostelnick, Alpha, Illinois State University – 5 years
Clark S. Monson, Kappa Alpha, Brigham Young University – 5 years
Julie Rich, Delta Phi, Weber State University – 5 years
Dale K. Splinter, Gamma Upsilon, University of Wisconsin-Whitewater – 5 years
Lucius S. Willis, Zeta Rho, Binghamton University – 5 years
Susy S. Ziegler, Eta Chi, Northern Michigan University – 5 years

Welcome to our new chapters:

United Arab Emirates University (Mu Psi), October 15, 2014
University of South Florida – St. Petersburg (Mu Chi), November 19, 2014
University of Massachusetts – Amherst (Mu Omega), February 18, 2015
Sinclair Community College (Mu Phi), May 1, 2015

Congratulations to our 2014 student scholarship winners:

Maxfield Scholarship: Ellen Heenan, University of Oregon (Theta Kappa)
Richason Scholarship: Amanda Sankey, Texas State University (Kappa Upsilon)
Rechlin Scholarship: Charles Hockett, University of Oregon (Theta Kappa)
Buzzard Undergraduate Scholarship: Andrew Valenski, University of Richmond (Mu Delta)
Buzzard Graduate Scholarship: William Wetherholt, Kansas State University (Beta Psi)

To learn more about GTU, visit: http://www.gammathetaupsilon.org/
Brief History of NCGE

The Early Years: 1915–1940

In December 1915, George J Miller’s dream of a national organization that would bring together geography teachers at all levels became reality. During the annual meeting of the Association of American Geographers (AAG), in Washington, DC, the National Council of Geography Teachers (NCGT) [later the National Council for Geographic Education (NCGE)] held its first meeting. Richard E. Dodge (Columbia University) was elected the first president of the fledgling organization, and annual dues were $1.00. George J Miller (State Teachers College, Mankato, MN) was elected secretary, a position he would hold for the first 14 years (1916-1929). In addition, he would serve as editor of the Journal of Geography for 30 years (1920-1949), and as president in 1933. Women also played an active role in the young NCGT, but none more so than Cora P. Sletten (State Teachers College, Mankato, MN), who served as assistant editor of the Journal of Geography for 23 years (1925-1948).

A fire in early 1922 destroyed all the records of the National Council, as well as those of the Journal of Geography, but George J Miller persevered. He said:

I had to get out the Journal no matter what happened, so I put a room in my house as an office for the Journal and bought all of the new equipment out of my own pocket because we had to go ahead, money or no money.

Membership in the Council grew rapidly and ranged from 800 to 1000 members in the early years. By 1940, membership dues had increased to $2.50.

One of the first committees appointed by the Council researched the status of geography in junior and senior high schools in the U.S. and made recommendations regarding the teaching of geography. During this period the emerging trend toward social studies education attracted both attention and criticism among the Council’s leadership, but neither professional geographers nor the Council took an active role in the social studies movement during this time.

Throughout the first quarter-century, annual meetings of the Council were held in conjunction with annual meetings of AAG.

<table>
<thead>
<tr>
<th>1895</th>
<th>1905</th>
<th>1915</th>
<th>1920</th>
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<tbody>
<tr>
<td>1897 George J Miller founds NCGT; inaugural meeting held on December 31; state councils are established in many states</td>
<td></td>
<td>1915</td>
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<tr>
<td>1902 Fire at Mankato office destroys journal publishing equipment and early council records</td>
<td>1905</td>
<td>1915</td>
<td>Committee on Social Studies of the Commission on Reorganization of Secondary Education recommends consolidation of social science subjects including geography as civics education in their report, “The Social Studies in Secondary Education”</td>
</tr>
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</table>
1940–1965

As the National Council entered its second quarter-century, George J Miller remained a dynamic force, keeping the Council focused on the teaching of geography. The outbreak of war in Europe drew American attention to the importance of geographic knowledge and created demand for the analytical skills of geographers. Geography in higher education benefited from rising interest in international topics, but the opposite seemed to be true in K–12 schools. Social studies gained momentum at the expense of geography and teachers had little or no training in the discipline. In 1944, George J Miller noted in the *Journal of Geography* that,

> World War II has brought strikingly to the attention of educators the failure of American schools to provide adequate geographical training for our high school students.

The National Council was doing its part to address this issue with the publication of *Standards of Certification for the Teaching of Geography*, which was well received among educators. But many high schools still offered no courses in geography, and a study published in the *New York Times* in 1951 (for reference: http://query.nytimes.com/gst/abstract.html?res=980CE1DB1331E23BBC4952DFB066838A649EDE) found that less than 5% of college students in the U.S. were enrolled in any geography course.

During the post-war years, Council membership soared to more than 4500, and by 1961 annual dues had increased to $5.00.

Annual meetings were suspended during the war years. In 1945, the National Council broke the pattern of meeting in conjunction with AAG, although joint meetings were held from time to time in years following. In the late 1950s, field trips became an important addition to the annual meetings.

In 1956, the NCGT adopted a new name: the National Council for Geographic Education (NCGE).

In 1960, the National Council and AAG, through a Joint Committee on Education, began work on the ground-breaking High School Geography Project, which was ultimately completed by AAG with funding from the National Science Foundation and published as *Geography in an Urban Age*.
Brief History of NCGE

1965–1990

The third quarter of the National Council’s story witnessed much change. Social studies gave way to social science, with an emphasis on concepts, theories, problem solving, and scholarly inquiry. However, by the mid-1970s, the pendulum had swung back to “basics” and citizenship education. Geography thrived in the elementary grades, but lost ground to history in higher grades.

In the mid-1970s, membership in NCGE, which had peaked near 7000 in 1969, began a dramatic fall to 2861 in 1984, with most of the loss occurring among K–12 teachers.

Since 1932, the National Council had awarded a Distinguished Service Award, but in 1975, the award was renamed the George J Miller Award for Distinguished Service in honor of the Council’s founder. Awards were also given for other contributions, including *Journal of Geography* articles, teaching excellence, both K–12 and university, and original instructional materials.

Throughout the third quarter, most annual meetings were held in major U.S. cities, but in 1975, NCGE ventured north to Toronto and in 1979, the annual meeting was held in Mexico City. During the 1980s, meetings were held in Ocho Rios, Jamaica, and again in Toronto.

In 1969, a newsletter, called *Perspective*, was introduced and, in addition to news items, included feature articles, lesson ideas, resources reviews, and ads for NCGE special publications.

During the third quarter, NCGE produced almost 100 special publications ranging from short instructional monographs to the Pacesetter series that included books on such far-ranging topics as Africa, census data, and remote sensing. But perhaps the greatest impact resulted from the publication in 1984 of the *Guidelines for Geographic Education* by a joint committee of NCGE and AAG. This small publication triggered a tidal wave of change in geographic education that would alter the place of geography in the curriculum. The Guidelines introduced the “five themes” of geography: Location, Place, Relationships within Places, Movement, and Regions, and proposed key concepts and a learning sequence for geography instruction in the schools.

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<tr>
<td>NCGE publishes popular <em>A Handbook for Geography Teachers</em> (Gabler, R., ed.)</td>
<td>NCGE establishes the newsletter, <em>Perspective</em></td>
<td>NCGE relocates to Oak Park, IL</td>
<td>NCGE relocates to the University of Houston</td>
<td><em>A Nation at Risk</em> published, initiating an era of U.S. public education reform</td>
<td>Geography Education National Implementation Project (GENIP) created as joint venture between AAG, AGS, NCGE, and NGS</td>
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### Key Events

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>1966</td>
<td>NCGE publishes popular <em>A Handbook for Geography Teachers</em> (Gabler, R., ed.)</td>
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<tr>
<td>1969</td>
<td>NCGE establishes the newsletter, <em>Perspective</em></td>
</tr>
<tr>
<td>1971</td>
<td>NCGE relocates to Oak Park, IL</td>
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<tr>
<td>1973</td>
<td>George J Miller dies</td>
</tr>
<tr>
<td>1977</td>
<td>NCGE relocates to Western Illinois University</td>
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<tr>
<td>1977</td>
<td>NCGE relocates to the University of Houston</td>
</tr>
<tr>
<td>1979</td>
<td>NCGE and AAG publish <em>Guidelines for Geographic Education</em>—a precursor to the geography standards—that sold over 70,000 copies</td>
</tr>
<tr>
<td>1983</td>
<td>A Nation at Risk published, initiating an era of U.S. public education reform</td>
</tr>
<tr>
<td>1985</td>
<td>Geography Education National Implementation Project (GENIP) created as joint venture between AAG, AGS, NCGE, and NGS</td>
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The Geographic Alliance Network is founded by Kit Salter in CA; Alliances grow with NGS leadership and funding.
1990–2015

The National Council entered the fourth quarter focused on advancing the place of geography in U.S. education. To allow the Council to operate and serve the membership more efficiently, the Constitution and leadership structure were revised. And a new publication series – “Pathways in Geography” – was introduced to provide both content and instructional resources to teachers.

During this period, the National Council engaged in watershed collaborative projects to advance the place of geography in the curriculum. In 1994, under the umbrella of the Geographic Educational National Implementation Project (GENIP), the National Council worked with the American Geographical Society, the Association of American Geographers, and the National Geographic Society to develop *Geography for Life: National Geography Standards*, a landmark publication that reached beyond the five themes of the *Guidelines* to propose 18 standards organized under six essential elements. A second edition of *Geography for Life* was released in 2012. The standards have been adopted by most states and hundreds of individual school districts since. In 1994, the first National Assessment of Education Progress (NAEP) in geography was administered to students in grades 4, 8, and 12. Also in the early 1990s, the College Board was petitioned to add an exam in geography to its Advanced Placement program. Following approval of the exam, many NCGE members served on the Test Development Committee and as exam readers. Don Zeigler, past president and current chief reader, Don Zeigler commented:

AP Human Geography has changed attitudes towards geography, both as a discipline and as a subject of instruction in the pre-collegiate classroom. Teachers, students, and even parents have come to see geography as a problem-solving discipline with multiple perspectives, skills, and technologies that apply at local, regional,
**Brief History of NCGE**

**The Present**

In 2015, over 160,000 students sat for the AP Human Geography exam.

The National Council continues to provide resources related to current research, instruction, and methodologies through its publications; its flagship *Journal of Geography*; *The Geography Teacher*; the NCGE Webinar Program, where we highlight classroom applications for geospatial tools and technologies as well as advances in geography content; and the latest professional development offering—a geography field course in Iceland.

In 2011-2012, NCGE members contributed to the NSF-funded Road Map for 21st Century Geography Education (Edelson et al. 2013) project, a series of reports which make important recommendations for geography professional development and instructional materials, research, and assessments.

Recently, thanks to member-geographers, geographic inquiry features prominently as part of the College, Career, and Civic Life (C3) Framework for Social Studies State Standards, which gives geography parity with civics, economics, and history in the curriculum where adopted.

In 2015, the Council returns to Washington, DC, to commemorate its first meeting and the contributions of all the geographers whose dedication has brought us this far. We also look to the future and the many challenges yet to be undertaken. Surely George J Miller would be proud.

**NOTE:** The history of the first three quarters of NCGE is based on: Vining, James W., et al. (1990) *The National Council for Geographic Education: The First Seventy-five Years and Beyond*. Indiana, PA: National Council for Geographic Education.

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<tr>
<th>Year</th>
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<tr>
<td>2005</td>
<td>National Geographic Roper Poll finds American students limited in geographic content knowledge</td>
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<tr>
<td>2006</td>
<td>NCGE relocates to Washington, DC</td>
</tr>
<tr>
<td>2007</td>
<td>Taylor &amp; Francis Group takes over production and distribution of <em>Journal of Geography</em> and <em>The Geography Teacher</em> on behalf of NCGE</td>
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<tr>
<td>2008</td>
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<tr>
<td>2010</td>
<td>NCGE Webinar Program initiated</td>
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<tr>
<td>2012</td>
<td>GENIP releases 2nd edition of <em>Geography for Life</em>; U.S. HS students enter International Geography Olympiad for the first time</td>
</tr>
<tr>
<td>2013</td>
<td>U.S. Government Accountability Office launches study on the state of geography education; NCGE celebrates first 100 years and looks to the future</td>
</tr>
<tr>
<td>2015</td>
<td>APHG participation crosses 100K threshold; <em>Road Map for 21st Century Geography Education</em> reports published; results of Google-commissioned study details increasing demand for geospatially trained workforce in the U.S. (Boston Consulting Group)</td>
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<tr>
<td>2015</td>
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Conference Information

Audience Codes
- PR - Pre-Registered
- I - Invited
- ES - Elementary School
- MS - Middle School
- HS - High School
- U - College/University
- All - All Inclusive

Session Strands

**APHG**
*Advanced Placement Human Geography*

**Careers**
*Careers in Geography*

**Content**
*Advancing Geography Content*

**Faculty**
*Early Career College/University Faculty Development*

**Future**
*The Future of Geography Education*

**Inquiry**
*Inquiry in Teaching and Learning Geography*

**Interdisciplinary**
*Geography Across the Curriculum*

**International**
*International Collaboration in Geography Education*

**Korea**
*Ongoing Research and Collaboration Between the United States and Korea in Geography Education*

**NCGE Retrospective**
*NCGE Retrospective (Celebrating 100 Years)*

**Pedagogy**
*Pedagogical Advances in Geography*

**Policy**
*Education Policy at the National, State, or Local Level*

**Research**
*Research in Geography Education*

**Spatial Thinking**
*Spatial Thinking*

**Technology**
*Technology Applications in the Classroom*

Acknowledgements
Thank you to all the individuals who helped with the planning and execution of the conference.

Mr. Zachary R. Dulli, Co-Chief Executive Officer
Dr. Jacqueline L. Waite, Co-Chief Executive Officer
Ms. Melissa Lepak, NCGE Events Coordinator
Ms. Shana Lerner, NCGE Membership Coordinator
Mr. Luis Sanchez, Experient Sales Network
Ms. Cheryl Frazier, Texas State University
Mr. Dan Zawacki, Creative Technology Events
Mr. Rick Beard, Creative Technology Events
Mr. Robert Andrew Kovach, Kovach Designs
Ms. Marty Mater, Michigan Geographic Alliance
Ms. Martha Sharma, NCGE Past President

2015 Local Planning Committee
Mr. Edward Kinman, Virginia Geographic Alliance
Ms. Annie Evans, Virginia Geographic Alliance
Ms. Penny Anderson, Virginia Geographic Alliance
Ms. Mary L Everhart, Virginia Geographic Alliance
Ms. Gwen Faulkner, DC Geographic Alliance
Mr. David Legates, Delaware Geographic Alliance
Ms. Margaret Legates, Delaware Geographic Alliance

2015 Conference Volunteers
Conference Information

Registration

Grand Registration Desk
- Monday: 6:00 pm–9:00 pm
- Tuesday: 7:00 am–9:00 pm
- Wednesday: 7:00 am–9:00 pm
- Thursday: 7:00 am–9:00 pm
- Friday: 7:00 am–8:00 pm
- Saturday: 7:00 am–5:00 pm
- Sunday: 7:00 am–11:00 am

Exhibit Hall

Capital Ballroom and Foyer
- Thursday Morning: 8:00 am–10:45 am
- Thursday Evening: 7:30 pm–9:00 pm
- Friday: 8:00 am–4:00 pm
- Saturday: 8:00 am–4:00 pm
**Exhibitors**

**Routledge**

Routledge is the official publisher of the NCGE journals: *Journal of Geography* and *The Geography Teacher*. Subscriptions to these journals are included with your NCGE membership! Visit our table to browse our publications, including an extended geographic education portfolio, and to learn more about how to subscribe or publish with us. http://www.routledge.com/

**TOP | TRANSATLANTIC OUTREACH PROGRAM**

The Transatlantic Outreach Program (TOP) was founded in 2002 to promote education about Germany, encourage intercultural dialogue, and provide the opportunity for North American social studies educators to experience Germany in person. TOP promotes awareness of Germany within the context of its education and political systems, vocational training, corporate social responsibility, environmental sustainability, culture, history, geography, and more. TOP currently produces two textbooks for the elementary, middle, and secondary levels, as well as videos, a series of online games, and a student workbook. Every summer, the program sends 100 social studies educators to Germany on all-expenses-paid study tours. www.goethe.de/top

**POPULATION EDUCATION**

Population Connection’s Education Program has been providing K-12 teachers with curriculum resources and professional development on human geography topics for the past 40 years. Our teaching activities, videos, maps, and online resources address global population dynamics, land and natural resource use, human impacts on the environment, and social justice issues. Stop by our booth to receive sample materials and to find out more about our workshops. http://www.populationconnection.org

**NAEP | NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS**

The National Assessment of Educational Progress (NAEP), a program of the Department of Education since 1969, is the largest nationally representative and continuing assessment of what America’s students know and can do in various subject areas such as math, reading, science, and social studies. http://nces.ed.gov/nationsreportcard/

**Esri**

Esri’s geographic information system (GIS) software gives you the power to think and plan geographically. GIS is used in more than 350,000 organizations worldwide. It helps cities, governments, universities, and Fortune 500 companies save money, lives, and our environment. Whether transporting ethanol or studying landslides, these organizations use GIS to collect, manage, and analyze geographic information, which helps them see relationships, patterns, and trends. They can then solve problems and make better decisions because they are looking at their data in a way that is quickly understood and easily shared. http://www.esri.com/

**JET CREATIONS**

We are the direct manufacturer of inflatables with both stock and custom items for fun, games, education, beach, souvenirs, and more. We have and can create inflatables of any style and size. We pride ourselves in providing the most up-to-date inflatable globes on the market. If you can imagine it, we can build it!
Sounds Around the World (SAW) is a model program for arts integration in geography education, offering educators a next-level teaching tool that is easy for anyone to use. Experience how the combination of music, maps, and team-based play produces uncommonly high levels of student engagement, excitement, and learning. Designed with 21st century thinking, SAW links the powerful appeal of music, curiosity, and collaborative-learning, preparing students for a world defined by global hyper-connectivity and economic interdependence. SAW addresses Common Core and NCSS C3 Standards and has been adopted by Baltimore City and Howard County, Maryland Public Schools. http://getsoundsaround.com/

The Gilbert M. Grosvenor Center for Geographic Education has been established to encourage research and provide leadership in the movement to increase the quality of geographic education. Our mission is accomplished through development and implementation of innovative actions and events related to how students and the general public learn geography. Research comprises an integral component of all these activities, with special attention paid to (1) teaching methods, (2) student and public learning of geography, (3) curriculum, (4) assessment, (5) cognitive mapping, and (6) uses of technology. http://www.geo.txstate.edu/grosvenor/

For more than four decades, NAAEE has been a leader in promoting excellence in environmental education throughout North America. It is the only national membership organization dedicated to strengthening the field of environmental education and increasing the visibility and effectiveness of the profession. NAAEE’s influence stretches across North America and around the world. NAAEE and its 54 state, provincial, and regional Affiliate organizations have more than 16,000 members. These members are professionals with environmental education responsibilities and interests across business, government, higher education, formal (K–12) education, nonformal education, early childhood education, science education, STEM, and other sectors of society. http://www.naeee.net/

The Association of American Geographers (AAG) is a non-profit scientific and educational society founded in 1904. Our members share interests in the theory, methods, and practice of geography and geography education. www.aag.org

We celebrate your sacred place with 12 beautiful and unique personalized map products. As cartographer-in-chief, you are in the driver’s seat (much like Google Maps) and can design your own map…skirt, scarf, coasters, clock, lamp shade, canvas, print, serving tray, neck tie, baby onesie, and even a jpg – from any address in the world. We use o.s.m. as our base data and would love to make your totally unique custom gifts. Let’s map! http://mapisart.com/#/

WILEY

Wiley is a global provider of knowledge and knowledge-enabled services that improve outcomes in areas of research, professional practice, and education. Visit www.wiley.com for more information.

The DBQ Project publishes high-quality writing resources and provides professional development training to schools and districts nationwide. We offer materials in history, civics, and literature, and we are proud to announce our first geography lessons which will be released during the 2015-16 school year. Our materials and our professional development help teachers implement rigorous reading, writing, and thinking activities with students of all skill levels in grades 4-12. We help teachers help students read smart, think straight, and write clearly. http://www.dbqproject.com/

SAGE provides educators and schools with immersive educational travel opportunities that can transform students into competent global citizens willing to positively impact their local community as well as the world at large. Through authentic cultural engagement, and custom designed curricula, students gain valuable international perspectives and insight. Traveling to more than 20 destinations around the world SAGE brings classroom learning to life through project-based learning and face-to-face interactions. At SAGE, working with schools, supporting educators, and inspiring students is our passion allowing us to fulfill our mission of creating engaged and responsible global citizens. www.SAGEglobaled.org
Iceland is a living textbook. For 38 years we have served geography student and university groups, whether carrying out field studies or seeking “awe and wonder” experiences – and Iceland provides plenty of those! Our courses include glaciation, volcanoes and geothermal activity, natural hazards, water cycle, tourism, conservation, soil erosion, and urban development, to name but a few. We have a friendly and experienced team with specialist geographical knowledge and teaching material. www.trex.is

The Virginia Geographic Alliance fosters and supports the enduring power of the geographic perspective in social, environmental, and geospatial sciences as they develop in schools, universities, businesses, governments, and communications media to advance geo-literacy. Acquiring geographic knowledge, skills, and technologies enables people to become productive citizens and lifelong learners who recognize the importance of place and local-to-global connections, understand changing human-environment interactions, and apply environmental and spatial perspectives in decision-making and problem-solving.

GeoCamp Iceland is an educational project dedicated to increasing knowledge and understanding in natural sciences with practical and active learning. We organize and receive international study groups of secondary school and college students, as well as teacher groups focusing primarily on geology, natural sciences and renewable energy. GeoCamp Iceland is an authorized tour operator. We are also part of the UNESCO Reykjanes Geopark project for aspiring geoparks.

The Integrated Geospatial Education and Technology Training Project (iGETT) enables two-year colleges to expand existing Geographic Information Systems (GIS) programs to incorporate a wide range of remote sensing applications: igett.delmar.edu

NCGE Life Members

Casey D. Allen
Peter J. Anthamatten
Helen-Ruth Aspaas
Brent E. Bagley
Robert S. Bednarz
Sarah Bednarz
Frederick L. Bein
Judith K. Bock
Jeffrey P. Busse
Diana L. Casey
Keith Chu
Andrew G. Clem
Saul Cohen
Catherine W. Cooper
Percy H. Dougherty
Susan Dubose
Daniel C. Edelson
William W. Elam
Gary S. Elbow
Edward A. Fernald
Charles Fitzpatrick
Kenneth E. Foote
Erin Hogan Fouberg
Barbara E. Fredrich
Frank Friedman
Robert E. Gabler
Michael Garrett
Madeleine Gregg
Charles F. Gritzner
Christopher Haig
James Hantula
Becky Hatch
Mick Healy
Pastor Donald Heise
Miriam Helen Hill
Susan E. Hume
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John J. Katana
R. Earl Kelly
Richard T. Kennedy
James B Kracht
David A. Lanegrant
Debbie Ann Lange
Nancy B. Lemann-Carsaw
Michal L. LeVasseur
Thomas R. Lewis
Michael Libbee
Judith K. Lowery
Jonathan J. Lu
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Zachary A. Moore
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Doug R. Oetter
Carolyn V. Prorok
Melanie P. Renfrew
Arlene C. Rengert
William C. Rense
Paul Rich
Douglas Richardson
Kit Salter
Ira M. Sheskin
George W. Small
Janet S. Smith
Jody Smothers-Marcello
James N. Snaden
Andrew Stevenson
Douglas Stevenson
Joseph P. Stoltman
Cynthia Stout
Joseph V. Strunka
Michael D. Sublett
Bheru L. Sukhwal
Jim Tiller
Susan Gail Vander Heid
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Ingolf K. Vogeler
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NCGE Past Presidents

Richard E. Dodge.................................1916
Richard E. Dodge.................................1917
Albert P. Brigham..............................1918
Albert P. Brigham..............................1919
Ray H. Whitbeck.................................1920
Wallace W. Atwood...............................1921
R.D. Calkins.....................................1922
Robert M. Brown...............................1923
William R. McConnell.......................1924
Almon E. Parkins...............................1925
Erna Grassmuck.................................1926
Robert G. Buzzard.........................1927
Leonard O. Packard.........................1928
Nels A. Bentson.................................1929
DeForest Stull.................................1930
Douglas C. Ridgley............................1931
Zoe A. Thralls.................................1932
George J Miller..............................1933
Edith P. Parker.................................1934
Clyde E. Cooper..............................1935
Alison E. Atchison..............................1936
Earl E. Lackey.................................1937
J. Russell Whitaker...........................1938
Edwin H. Reeder..............................1939
Cora P. Sletten.................................1940
Alice Foster.................................1941
Floyd E. Cunningham.......................1942
Floyd E. Cunningham.......................1943
Floyd E. Cunningham.......................1944
C. Langdon White.............................1945
Katheryne T. Whittenmore...............1946
Alfred H. Meyer..............................1947
Thomas F. Barton.............................1948

Earl B. Shaw..................................1949
Loyal Durand, Jr..............................1950
Harry O. Lathrop..............................1951
Clyde F. Kohn.................................1952
Henry J. Warman..............................1953
Otis W. Freeman..............................1954
Melvina Svec.................................1955
Norman J. Carls..............................1956
Ina C. Robertson..............................1957
Mary V. Phillips..............................1958
Adelbert K. Botts.............................1959
John W. Morris..............................1960
Jewell A. Phelps..............................1961
Mamie L. Anderzohn.........................1962
Sidney E. Ekblaw..............................1963
Herbert H. Gross..............................1964
Neville V. Scarfe.............................1965
Phillip Bacon.................................1966
Lorrin Kenneth...............................1967
Daniel Jacobson..............................1968
Benjamin F. Richason, Jr................1969
William D. Patterson......................1970
Robert A. Harper.............................1971
Paul F. Griffin..............................1972
John M. Ball.................................1973
Robert E. Gabler.............................1974
Elizabeth EiseIen.............................1975
Herbert A. Augustine.......................1976
William H. Wake..............................1977
Karl A. Robert...............................1978
Peter V. Greco...............................1979
John F. Lounsbury............................1980
James M. Goodman.........................1981
Gary A. Manson..............................1982
Richard G. Boehm.........................1983
Walter G. Kemball.........................1984
Gail S. Ludwig..............................1985
Charles F. Gritzner.........................1986
J.B. Kracht/A.R. Longwell.................1987
A. Richard Longwell......................1988
Robert W. Morrill.........................1989
Dorothy W. Drummond......................1990
Norman C. Bettis............................1991
Michael J. Libbee.........................1992
Douglas A. Phillips.......................1993
M. Duane Nellis.............................1994
Edward A. Femald.........................1995
James F. Marran.........................1996
Donald J. Ziegler.........................1997
David A. Lanegran.........................1998
Gail A. Hobbs................................1999
James F. Petersen.........................2000
Robert S. Bednarz...........................2001
Jody Smothers-Marcello..................2002
Susan W. Hardwick.........................2003
Gwenda H. Rice............................2004
Martha B. Sharma.........................2005
Kenneth E. Foote.........................2006
Mark H. Bockenhauer......................2007
Janet Smith.................................2008
Joseph Stoltman.........................2009
Kristin Alvarez..............................2010
Joseph Kerski...............................2011
Eric Fournier...............................2012
Paul T. Gray, Jr.............................2013
Michael N. DeMers.........................2014

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100th Anniversary National Conference on Geographic Education
NCGE Centennial Awards

JACK DANGERMOND, Founder and President
Environmental Systems Research Institute (Esri)

Jack Dangermond is an American business executive and environmental scientist. In 1969, he and his wife Laura founded the Environmental Systems Research Institute (ESRI), a privately held Geographic Information Systems (GIS) software company.

A landscape architect by training, Dangermond founded ESRI with the vision that a mapping and analysis framework could provide a deeper understanding of our world and help us design a better future. He is dedicated to creating innovative GIS technology that enables people to make insightful decisions and improve the quality of life everywhere. His commitment is to ensure that research, education, and nonprofit organizations have access to the best geo-spatial, analytical, and visualization technology. ESRI has donated hundreds of millions of dollars in technology and expertise to these institutions. Dangermond and ESRI have transformed the world by developing technology that allows decision makers to manage our planet with increased understanding of the relationship between socio-economic, environmental, and economic information — for actionable change.

Mr. Dangermond has been awarded 13 honorary doctoral degrees from universities around the world and numerous awards and honors including: the 2015 Audubon Medal from The National Audubon Society; the 2014 Ocean Conservation Award from the Aquarium of the Pacific; the 2013 Champions of the Earth Award from the United Nations Environment Programme (UNEP); the Alexander Graham Bell Medal from the National Geographic Society; the Patron’s Medal from the Royal Geographical Society; the James R. Anderson Medal of Honor in Applied Geography from the Association of American Geographers, and the 1996 John Wesley Powell Award from the U.S. Geological Survey.

GILBERT M. GROSVENOR, Chairman Emeritus
National Geographic Society

Gilbert M. Grosvenor is chairman emeritus of the National Geographic Society and of its Education Foundation. He was president of National Geographic from 1980 to 1996, the fifth generation of his family to have served in that position.

Grosvenor was born on May 5, 1931, in Washington, DC. He graduated from Yale University in 1954 and joined the Society that year as a picture editor. He was editor in chief of National Geographic magazine from 1970 to 1980, when he became the Society’s 14th president. He served as a member of the Society’s board of trustees from 1966 to 2014.

In 1975, concerned about the lack of geographic knowledge among students, Grosvenor created National Geographic World, a monthly magazine for children, now known as National Geographic Kids. In 1985 he launched an effort to improve geography education in the nation’s classrooms. The Society’s Geography Education Outreach division and its local partners have invested more than $110 million in improving geography in America’s K–12 schools.

In June 2004, Grosvenor received the Presidential Medal of Freedom. He is a director or trustee of several foundations and corporations, including Chevy Chase Trust and Dian Fossey Gorilla Fund International. He is a member emeritus of the board of visitors of Duke University’s Nicholas School of the Environment; former vice chairman of the President’s Commission on Americans Outdoors; and former member of the President’s Commission on Environmental Quality.

Grosvenor retired as chairman of the National Geographic Society in 2010, having served in that post since 1987. In 2012, he retired as chairman of its Education Foundation, a position he had held since the foundation’s inception in 1988.
The George J Miller Award is the highest honor given by the National Council for Geographic Education, and is given for a distinguished record of service to geography education. George J Miller (1880-1973) was the founder of the NCGE and served as Editor of the Journal of Geography for 30 years.

2015 Awardee: Dr. Barbara Hildebrant

Dr. Hildebrant earned a BA in anthropology from Drew University in Madison, New Jersey, and an MA in anthropology from the University of Washington in Seattle. She spent several years as an archaeologist in Alaska, the American Southwest, and the northeastern United States before earning her PhD in geography from Rutgers University. She taught geography at Rutgers and Raritan Valley Community College while embarking on a career with the Educational Testing Service (ETS) in 1999. She was first assigned to work on the NAEP geography assessment. In 2000, Dr. Hildebrant was assigned to the Assessment Division—where she has been a driving force ever since—to work on the newly created Advanced Placement® Human Geography course and exam. She has organized popular annual workshops at NCGE for APHG teachers and has authored and co-authored several important AP-related articles. In 2008, Dr. Hildebrant received the Gilbert Grosvenor Honors for Geographic Education from the AAG. She also served on the Assessment Committee of the Road Map for 21st Century Geography Education Project (Edelson 2013). Dr. Hildebrant is a long-time member of NCGE.

### Past Miller Award Recipients

<table>
<thead>
<tr>
<th>Year</th>
<th>Recipient</th>
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<tbody>
<tr>
<td>1932</td>
<td>William Morris Davis</td>
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<td>George T. Renner, Jr.</td>
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<td>Mamie L. Anderzhorn</td>
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<td>Sidney E. Ekblaw</td>
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<td>Barbara J. Winston</td>
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<td>Roger M. Downs</td>
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<td>Ruth I. Shirey</td>
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<td>Janice Monk</td>
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<td>Martha B. Sharma</td>
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<td>Norman C. Bettis</td>
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<td>2001</td>
<td>E. Willard Miller</td>
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<td>Douglas G. MacLeod</td>
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<td>James F. Marran</td>
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<td>2004</td>
<td>Osa E. Brand</td>
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<td>2005</td>
<td>Sarah W. Bednarz</td>
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<td>2006</td>
<td>Harm de Blij</td>
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<td>Robert W. Morrill</td>
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<td>David Lanegrant</td>
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<td>Gary Elbow</td>
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<td>Dorothy Drummond</td>
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<td>James F. Petersen</td>
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<td>2012</td>
<td>Robert N. Saveland</td>
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<td>2013</td>
<td>Susan Hardwick</td>
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<tr>
<td>2014</td>
<td>Robert Bednarz</td>
</tr>
<tr>
<td>2015</td>
<td>Dr. Barbara Hildebrant</td>
</tr>
</tbody>
</table>
NCGE Awards

GEORGE J MILLER AWARD
Our highest award for lifetime service to geography education
Dr. Barbara Hildebrant, Educational Testing Service, Stewartsville, NJ

DISTINGUISHED MENTOR AWARD
For mentoring future geographers and geography educators
Dr. Sarah W. Bednarz, Texas A&M University, College Station, TX
Dr. William Reese Strong, University of North Alabama, Florence, AL
Dr. Robert W. Morrill, Virginia Polytechnic Institute and State University/Virginia Geographic Alliance

OUTSTANDING SUPPORT FOR GEOGRAPHIC EDUCATION AWARD
For outstanding contributions to geographic education outside the formal classroom
Dr. Patricia Bennett Solis, Texas Tech University, Murphy, TX
Mr. Andrew Mink, Mink’ED, Chapel Hill, NC
Mr. David Hunter, Zombie-Based Learning, Seattle, WA

WOMEN IN GEOGRAPHIC EDUCATION AWARD
For a female graduate or undergraduate student who has made significant contributions to geographic education
Ms. Stephanie Bradshaw, Calvin College, Grand Rapids, MI

DISTINGUISHED TEACHER—HIGHER EDUCATION
For excellence in teaching and leadership at the post-secondary level
Dr. Andrew Milson, University of Texas at Arlington, Arlington, TX
Dr. Gillian Acheson, Southern Illinois University Edwardsville, Edwardsville, IL
Dr. Micheline van Riemsdijk, The University of Tennessee, Knoxville, TN
Dr. Christina Dando, University of Nebraska at Omaha, Omaha, NE

DISTINGUISHED TEACHER—K–12
For excellence in teaching and leadership at the K–12 level
Mrs. Amy Stalker, Fleming Island High School, Orange Park, FL
Ms. Christine Esposito, Walker Upper Elementary School, Charlottesville, VA
Ms. Erica Varites, Brookside Elementary School, Newark, DE
Mr. Greg Sherwin, Adlai E. Stevenson High School, Lincolnshire, IL
Ms. Jane Sparr Morgan, Corona del Sol High School, Tempe, AZ
Ms. Katelyn Brown, Gunning Bedford Middle School, New Castle, DE
Mr. Kevin Turner, Spanish River Community High School, Boca Raton, FL
Mr. Kevin Witte, Kearney High School, Kearney, NE
Ms. Lynn Tilley, Comanche Public Schools, Comanche, OK
Ms. Melissa Thom, Renzulli Academy, Hartford, CT
Ms. Nicole Eshelman, Manheim Township High School, Lancaster, PA
Mr. Richard Katz, Roosevelt High School, Seattle, WA
Ms. Sharon Shelerud, Metcalf Junior High School, Burnsville, MN
Ms. Sonia Saunders, Brandywine Springs School, Wilmington, DE
Ms. Susan Smith, Eisenhower Middle School, Lawton, OK
Ms. Tama Nunnelley, Guntersville Middle School, Guntersville, AL

GEOGRAPHIC EXCELLENCE IN MEDIA AWARD
“Jamestown to Appomattox: Mapping U.S. History with GIS”
Mr. Chris Bunin, Virginia Geographic Alliance/Carte Diem Press
Ms. Christine Esposito, Virginia Geographic Alliance, Charlottesville, VA
NCGE Awards

JOURNAL OF GEOGRAPHY AWARDS

Best Elementary Education Article
“Pupils’ perceptions of geography in Dutch primary schools: Goal, outcomes, classroom environment and teacher knowledge and performance”
Mr. Gert Jan Bent, Reformed University of Applied Science, Grasdorpstraat, Netherlands
Dr. Anouke Bakx, Fontys University of Applied Sciences, Rachelsmolen, Netherlands
Dr. Perry den Brok, Eindhoven University of Technology, Den Dolech, Netherlands

Best Secondary Education Article
“Promoting teacher adoption of GIS using teacher-centered and teacher-friendly design”
Dr. Jung Eun Hong, University of West Georgia, Carrollton, GA

Best College/University Article
“Beyond representation: Film as a pedagogical tool in urban geography”
Dr. Thomas Sigler, University of Queensland, Brisbane, Queensland, Australia
Dr. Roberto I. Albandoz, Pennsylvania State University, University Park, PA

Best Article for Geography Program Development
“Technology integration in K–12 geography education using TPACK as a conceptual model”
Dr. Aaron Doering, University of Minnesota, St. Paul, MN
Dr. Susan Koseoglou, University of Minnesota, St. Paul, MN
Dr. Cassie Scharber, University of Minnesota, St. Paul, MN
Ms. Jeni Hendrickson, University of Minnesota, St. Paul, MN
Dr. David Lanegran, Macalester College, St. Paul, MN

THE GEOGRAPHY TEACHER AWARDS

Best Content Article
“Navigating maps to support comprehension: When textbooks don’t have GPS”
Dr. Kathryn L. Roberts, Wayne State University, Detroit, MI
Dr. Kristy A. Burgar, University of Oklahoma Norman, Norman, OK

Best Lesson Plan
“Map skills, oceans currents, pollution, and…a rubber duck?”
Ms. Danielle Hance, Lake Murray Elementary School, Chapin, SC
Dr. Jerry T. Mitchell, University of South Carolina, Columbia, SC

SALVATORE J. NATOLI DISSERTATION AWARD
To encourage dissertation research in geography teaching and learning
Dr. Lynn Moorman, The University of British Columbia, Kelowna, BC, Canada
“Children’s use of Google Earth as a knowledge enabler”
1st Runner Up: Dr. Larianne Collins, University of South Carolina, Columbia, SC
“Tradition or technology?: The impact of paper versus digital map technology on students’ spatial thinking skill acquisition”

E. WILLARD AND RUBY S. MILLER GEOGRAPHY EDUCATION RESEARCH GRANTS
Provides financial assistance to advance the frontiers of geographic education by supporting and promoting innovative research in theory, practice, and application.
Dr. James B. Howell, University of Southern Mississippi, Hattiesburg, MS
Dr. Lamont E. Maddox, University of North Alabama, Florence, AL
“The Bridging Divides Project: Using geography to develop civic competence”
President’s Suite
President’s Reception
Wednesday, August 5, 6:00 pm

Grand Ballroom
100th Anniversary Gala Luncheon and Centennial Awards
Thursday, August 6, 12:00 pm–1:30 pm

Grand Ballroom
Opening Session
Thursday, August 6, 6:30 pm–7:30 pm

Capital Ballroom
Opening Reception and Exhibits
Thursday, August 6, 7:30 pm–9:00 pm

Garden Terrace
First Timers Breakfast
Friday, August 7, 7:00 am–8:00 am

Grand Ballroom
Five-Minute Plenary Talks
Friday, August 7, 11:00 am–12:30 pm
Please see presenters and abstracts on pages 26-27.

Grand Ballroom
NCGE Business Meeting
Friday, August 7, 4:00 pm–5:15 pm
All NCGE members are encouraged to attend the NCGE Business Meeting.
Garden Terrace
Women in Geographic Education Lunch
Saturday, August 8, 12:15 pm–1:00 pm

Dirksen
Distinguished Mentor Award: Sarah W. Bednarz
Saturday, August 8, 1:00 pm–2:15 pm

Dirksen
Distinguished Mentor Award: William Strong
Saturday, August 8, 2:30 pm–3:45 pm

Dirksen
Distinguished Mentor Award: Robert W. Morrill
Saturday, August 8, 4:00 pm–5:15 pm

Grand Ballroom
NCGE Awards Ceremony and Cocktail Hour
Saturday, August 8, 6:00 pm–7:00 pm
Join NCGE in celebrating our award recipients at a ceremony in their honor.

Grand Ballroom
Conference Dinner
Saturday, August 8, 7:00 pm–8:30 pm

Grand Ballroom
NCGE Thank You Breakfast
Sunday, August 9, 6:30 am–8:00 am
Pre-Conference Meetings

Senate
Administrative Committee Meeting
Monday, August 3, 1:00 pm–5:00 pm

Senate
Administrative Committee Meeting
Tuesday, August 4, 8:00 am–12:00 pm

Congressional
Executive Planning Board Meeting
Tuesday, August 4, 2:00 pm–4:00 pm

Pre-Conference Sessions

Cannon
NCGE Teaching and Learning Seminar for Early-Career Faculty and Graduate Students
Wednesday, August 5, 9:00 am–5:00 pm
Cost: $80 with regular conference registration (includes lunch and all materials)
Organizer: Eric J. Fournier, Samford University
Sarah W. Bednarz, Texas A&M University
Ken Foote, University of Connecticut
Erin Fouberg, Northern State University
Niem Tu Huynh, Association of American Geographers
Micheline van Riemsdijk, University of Tennessee
Michael Solem, Association of American Geographers

Research shows that new faculty who are competent and comfortable with their teaching are more likely to be successful in other aspects of their professional life. This workshop provides an opportunity to learn from award-winning educators and to help build a foundation for a successful career in higher education. Participants will learn about:

• Teaching Large Classes (Sarah W. Bednarz)
• Time Management and Career Planning (Ken Foote)
• Making Effective Use of Textbooks (Erin Fouberg)
• Seven Principles of Effective Teaching (Eric J. Fournier)
• Online Teaching Resources (Niem Tu Huynh)
• Integrating Teaching and Research (Micheline van Riemsdijk)
• Online Teaching Resources (Michael Solem)

Dirksen
East Sea/Sea of Japan Geographical Naming Issue for the Classroom
Part 1: Wednesday, August 5, 1:00 pm–5:00 pm
Part 2: Thursday, August 6, 8:00 am–12:00 pm
Organizers:
Jongnam Choi, Western Illinois University
Joseph P. Stoltman, Western Michigan University
Pennsylvania Avenue Entrance
Gettysburg, PA: Where Geography Made a Fishhook to Preserve the Union
Tuesday, August 4, 8:00 am–6:00 pm
Cost: $75 (includes lunch and tours)
Guides: Nicole Eshelman and Jan Smith, Pennsylvania Alliance for Geographic Education

As you walk through the battlefields of Gettysburg, experience how the geography of the town and its surrounding areas contributed to a Union victory that turned the tide of the American Civil War. Gettysburg is also full of geographic and topographic optical illusions that played into the decisions made by both the Blue and Gray in July 1863. Itinerary includes a morning bus tour with a Gettysburg National Military Park ranger, followed by a picnic lunch on the battlefield (included). In the afternoon, you will tour the battlefields with an Adams County Historical Guide and professor, Scott Mingus, Jr., who will focus on geography’s role in the battle, before returning back to Washington, DC.

Congratulations on 100 Years of Excellence!

Thank you for 100 years of excellent geographic education. At Esri, we believe the world is our classroom. That’s why every K–12 school in the United States has access to a free ArcGIS™ Online subscription. With powerful web maps, your students can explore how they connect to the people, resources, and behaviors shaping their world.

Learn more at esri.com/connected
Full-Day Field Trips  Wednesday, August 5

Pennsylvania Avenue Entrance

Exploring Tangier Island: A Geographic Approach to a Vanishing Community
Wednesday, August 5, 6:45 am–8:00 pm
Cost: $110 (includes ferry ride and admission fees)
Guide: Edward Kinman, Virginia Geographic Alliance

Tangier is the name given to a collection of small islands divided by marshes and tidal creeks located in the Chesapeake Bay. The islands are connected by wooden bridges and are inhabited by descendants of settlers from southwestern England. Due to the distance to the mainland and access only by water or air, this tiny island community has attracted the attention of linguists because its people speak a unique English Restoration-era dialect of American English. Tangier is a watermen community, with fishermen catching crabs and oysters. Including the surrounding marshes, Tangier Island totals less than 740 acres, but only 83 acres are high enough for habitation. The highest point of land is barely four feet above sea level. Local residents see their existence threatened from falling catches due to worsening water quality in the Chesapeake Bay, constant erosion, and increasingly frequent flooding due to sea level rise and subsidence. We will ferry to Tangier from Reedsville, VA. We will visit the Tangier Island Museum and Interpretive Cultural Center. Lunch will be on your own, so you can chose between the many seafood restaurants. We will use geo-literacy as a framework to explore and discuss Tangier.

Pennsylvania Avenue Entrance

Cultural Landscapes: Urban Settlement and Development in Richmond, VA
Wednesday, August 5, 8:00 am–7:00 pm
Cost: $75 (lunch is on your own in Richmond)
Guide: Mary L. Everhart, Virginia Geographic Alliance

Join us for a sweeping look at the local geography of Richmond. Locations included in the itinerary are taken from a previous AP Human Geography Academy specifically designed for teachers of APHuG but relevant for all interested in settlement, urbanization, revitalization, culture, history, and the unique urban features of Richmond, Virginia. We will begin with a walk through nationally renowned, Hollywood Cemetery, the 135-acre resting place of Civil War soldiers and generals, presidents and community members, where participants will explore demographics and culture of sacred spaces. We will also visit Jackson Ward, an economic and ethnic enclave that became the largest African American community in Richmond. At its height, Jackson Ward was one of the most important black business communities and the location of prominent banks, insurance companies and home to such distinguished African Americans as Maggie Lena Walker and Bill “Bojangles” Robinson (www.nps.gov/nr/travel/richmond/JacksonWardHD.html). Next we’ll visit Richmond’s Riverfront Canal Walk looking at early settlement, transportation, and the revitalization process. Lunch and shopping on your own in historic Carytown, location of Richmond’s first strip mall, built in the 1930s and home to hundreds of offbeat shops. We will then continue with a bus ride through Monument Avenue, looking at the symbolic landscapes of race and history, the Fan district, Jefferson Hotel, and other urban features. To round out your experience, we’ll make a stop for a little sun and fun at the James River Park System. Participants should bring a towel and bathing suit if interested. You will have time to cool down and experience the river culture in the local urban setting before heading back to Washington, DC.
Half-Day Field Trips

Thursday, August 6

Pennsylvania Avenue Entrance

Boundary Stones of Washington, DC
Thursday, August 6, 1:30 pm–6:00 pm
Cost: $45
Guide: Penny Anderson, Virginia Geographic Alliance
Circumnavigate the 40-mile square boundary of the original District of Columbia. View the cardinal stones and several circuit stones remaining from the original survey points. See, inspect, and even touch some of the 223-year-old relics of Washington, DC (depending on tides, order may be reversed).

Pennsylvania Avenue Entrance

Library of Congress, Tour of the Geography and Map Division
Thursday, August 6, 2:15 pm–3:30 pm
Cost: $30
Guide: Osa Brand, NCGE
Mike Buscher, Head of Reference and Reader Services, will provide an in-depth tour that includes the Secured Storage Facility – a vault which houses the ancient maps. Participants will meet with curators and view rare items such as the Ptolemy atlases from the 15th century, vellum nautical charts from the 1500s, and manuscript maps by Lewis and Clark and George Washington. Meet inside the main entrance to the Madison Building at 2:15 pm. Map tour will start at 2:30 pm.

Pennsylvania Avenue Entrance

Civil War to Civil Rights
Thursday, August 6, 1:30 pm–5:00 pm
Cost: $55
Guide: Gwen Faulkner, Washington, DC, Geographic Alliance
Join the African American Civil War Museum and DC in Black for a comprehensive tour of Washington DC’s historical Civil War and Civil Rights sites commemorating the 150th anniversary of the Civil War. Tour through the historic U Street area, once known as “The Black Broadway,” travel through Anacostia, Washington’s first suburb, and also visit Washington’s newest monument on the National Mall, the Martin Luther King Jr. Memorial.
Putting Geography into the Inquiry Arc of the C3 Framework

Jim Hauf, Berkeley Middle School
Robert W. Morrill, Virginia Tech University
Paul Nagel, North American University
Joseph P. Stoltman, Western Michigan University

Geographic Inquiry is an advantage that the subject brings to the C3 Framework. Experience using geography to complement the C3 Framework across the social studies content disciplines using the inquiry arc with your students. Examples will be provided, and a discussion will follow focused on the C3 and geography education.

Ebola, Malaria, and Other Infectious Diseases in the AP Classroom

Barbara Crain, Virginia

This workshop explores interactively how infectious diseases can serve as the basis to teaching such concepts as diffusion and transmission as well as global patterns and regional contrasts in health inequalities. Participants will receive complete worksheet sets for using the jigsaw cooperative learning technique on five prevalent infectious diseases.

Using Big Ideas to Teach Population in the World Region of China

Cynthia Bloom, Comstock Public Schools/Michigan Geographic Alliance
Marty Mater, Michigan Geographic Alliance

Examine population distribution in China from the CD “Using Big Ideas to Teach World Regions” (Dr. Phil Gersmehl and the Michigan Geographic Alliance). Compare Kashgar and Reno; find similarities between Shanghai and Savannah; explain population distribution and advantages and disadvantages of four times the people in an area the size of the U.S. Activities teach concepts in China and in the world.

Promoting Advanced Reasoning Skills Using GIS

May Jadallah, Illinois State University
Joel Studebaker, Illinois State University

Participants will be introduced to instructional strategies that promote advanced reasoning skills. The GIS team from Illinois State has implemented a GIS-focused curriculum in 4th- and 5th-grade classrooms to promote spatial reasoning, systems thinking, and multi-step reasoning. Researchers will share examples of instructional strategies and tools that foster these skills in a discovery learning setting. Researchers will also discuss relevant literature and data from 4th- and 5th-grade classrooms. Co-author not present: Alicia Hund, Illinois State University.

Intro to ArcGIS Online

Charlie Fitzpatrick, Esri

Maps, apps, and more! Map world ecoregions, your community’s demographic, your region’s watershed, your field-collected data. Do all of this and more with ArcGIS online.
Thursday, August 6  8:00 am–9:15 am

Treasury

Paper Session: Research in Geography Education—APHG
8:00 am–9:15 am

Impact of the APHG Course on Interest in Geography, Choice of Major, and Career Development: Student Interviews
Michael Scholz, Winona State University
Results from an on-line survey at Texas State University demonstrated that students who took the AP Human Geography course in high school were more interested in geography, more likely to major in geography, and more likely to pursue a career in geography except when students completed the course in the ninth grade. Follow up interviews were conducted to determine the reasons behind the survey results.

Advanced Placement Human Geography Enrollment Trends at a Research I University, 2001-2014
Jodi Vender, Pennsylvania State University
This study examines institutional data on students who applied to Penn State and reported AP Human Geography scores between 2001 and 2014. The analysis demonstrates how geography programs and Geographic Alliances can examine institutional data to determine enrollment trends and patterns that can be used for recruitment and outreach activities for teacher professional development opportunities.

AP Human Geography Teacher Survey: Soliciting Feedback about the Online Illinois Classroom Atlas
Amy M. Bloom, Illinois Geographic Alliance
Michael D. Sublett, Illinois State University
We recruited Illinois AP Human Geography teachers to participate in a research survey about a preliminary version of the Online Illinois Classroom Atlas, an Esri Story Map application, then in final development by the Illinois Geographic Alliance and Illinois State University. Teacher feedback was integral in revisions before official release.

State

The Geography of Music
8:00 am–9:15 am
Kevin Poff, Utah Geographic Alliance
Music is a part of every culture, and it can help us understand those cultures and give us a more complete picture of what makes them unique. Come explore the relationship between cultures and the music that they create, with a focus on Latin America and Africa.

Commerce

Paper Session: Journal of Geography Awardees
8:00 am–9:15 am

Join NCGE in hearing from recipients of the Journal of Geography Awards

Technology Integration in K–12 Geography Education Using TPACK as a Conceptual Model
Aaron Doering, University of Minnesota
David Lanegran, Macalaster College
Award for Program Development. Co-authors not in attendance: Susan Koseoglu, University of Minnesota; Cassie Scharber, University of Minnesota; and Jeni Hendrickson, University of Minnesota.

Pupils’ Perceptions of Geography in Dutch Primary Schools: Goals, Outcomes, Classroom Environment and Teacher Knowledge and Performance
Anouke Bakx, Fontys University of Applied Sciences
Award for Best Elementary Article. Co-authors not in attendance: Gert Jan Bent, Reformed University of Applied Science and Perry den Brok, Eindhoven University of Technology.
Salon K
Jerusalem: Sacred Spaces, Disputed Territory, and Current Concerns
8:00 am–9:15 am
Liliana Monk, Walter Johnson High School, Bethesda, MD
Jerusalem is central to three monotheistic religions. Its sacred sites attract pilgrims and visitors from all over the world. But Jerusalem continues to be enveloped in controversy as Muslims, Jews, and Christians struggle over archaeological excavations, sovereignty, gender participation, and other issues. Using photographs and readings from different perspectives, participants will jointly develop an activity that touches upon several course units.

Salon J
Energy Resource Exploration Utilizing the Wyoming Floor Map and Student Atlas
8:00 am–9:15 am
Michelle Blake, Wyoming
The Wyoming Student Atlas is a primary source for natural resource study. Utilizing the Wyoming floor map, students identify locations of primary natural resources, mainly coal and natural gas. Both resources are vital to Wyoming’s economy. Pictures of student work completing this summer school project will be shared.

Hart
Doing Geography Using the Document-Based Questions
9:30 am–10:45 am
Beth Montgomery, The DBQ Project
Mollie Hackett, The DBQ Project
Aligning with the Common Core and the C3 Frameworks, the DBQ Project sharpens students’ geographic thinking and writing. Students analyze documents presented in multiple forms, including maps, charts, and text, and then use the knowledge gained to answer critical geographic questions in the form of an evidence-based essay.

Jamestown’s Unsolved Mystery
9:30 am–10:45 am
Teresa Potter, Oklahoma Alliance for Geography Education
Participants will “play in the dirt” as they look at the landscape and learn about careers in forensic anthropology and archaeology. They will participate in hands-on activities to solve a mystery at Jamestown and take back integrated lessons in geography, social studies, math, and science.

AP Human Geography: Technology and Trivia
9:30 am–10:45 am
Kenneth Keller, iScore5 LLC
Want to go to a session where you can prove your knowledge of AP Human Geography? Want to win some fun prizes and learn about the iScore5 app for AP Human Geography students. Come to a session by Ken Keller, Paul Gray, and Greg Sherwin. All three are veteran teachers who worked with 30 other expert teachers to create an app to help students prepare for the AP Human Geography exam.
Thursday, August 6

State

Explore the Past, Shape the Future: History and Current Issues – The Choices Program, Afghanistan
9:30 am–10:45 am
Germaine Wagner, Wyoming Geographic Alliance

Choices materials show how civic-minded thoughtful discussions on international issues are formed using history and current events. The WHY, HOW, and SO WHAT of events are perpetually open to reinterpretation. Participants will use role play to articulate opinions and reflect on public policy decisions. Materials align with common core.

Salon K

Paper Session: Teaching Geography for Multiple Intelligences
9:30 am–10:45 am

Movies and Geography
Jongnam Choi, Western Illinois University

Geography teachers acknowledge the need to use more visual materials in education. This study introduces several movie scenes which can help students understand basic atmospheric concepts.

Teaching Geography to English Learners: Examining the Evidence of What Works
Margarita Jimenez-Silva, Arizona State University

In this paper presentation, the author will report the results of a systematic literature review examining the evidence of what has been effective pedagogy and what are effective strategies for teaching geography to English learners in K–12 classroom settings.

Anchor-Point as the Basis for Global Scale Cognitive Map Development via Web Maps
Thomas J. Pingel, Northern Illinois University

Students in a college-level World Geography class used a custom-developed web mapping tool as a study aid. Interactions with the system were tracked, allowing us to explore the ways in which students dynamically construct global cognitive maps. These findings will be incorporated into the next round of AI-based tutoring software.

Salon H

Pre-K to 4 on the Table and the Floor: Spatial Thinking in Early Childhood
9:30 am–10:45 am
Phil Gersmehl, Michigan Geographic Alliance

Research shows that children process spatial information in multiple ways and at a much earlier age than many educators claim. Workshop participants see a review of recent research, model some spatial-thinking activities that can also help raise math and reading scores, and get a poster and CD.

Salon J

Germany: Using Visual Information to Engage Students
9:30 am–10:45 am
Lyndal Caddell, OKAGE
Denise Rhodes, OKAGE

Participants will learn techniques to engage students in analyzing photos, maps, cartoons, graphs, and illustrations to master the geography standards. While the samples will focus on Germany, the strategies may be easily applied to other regions.

Justice

Teaching Physical Geography with Live Web Maps
9:30 am–10:45 am
Roger Palmer, GISetc

Discover how to teach climate, oceans, landforms, energy, watersheds, and other physical geography content, skills, and perspectives effectively with live web maps and analysis.
**Commerce**

**English Lessons: The Changing Nature of Geography Teaching and Assessment in England**

9:30 am–10:45 am

*Alan Kinder, Geographical Association*

Recent reforms to the school geography curriculum and to geography qualifications in England have been far reaching. Through ‘knowledge-led’ reforms leading to the creation of a ‘core knowledge’ geography curriculum, policy makers have emphasised both greater rigour and increased curriculum freedom for teachers. As a consequence, contradictory trends are in evidence. The recent removal of a nationally agreed set of progression statements means that standards for 5-14 year olds have effectively become a local matter. At the same time, the marginalisation of teacher assessment in favour of external examinations for 14-19 year olds has increased central control over curriculum, standards and assessment. These changes have profound implications for geography teaching and are already impacting on the way teachers think about place knowledge and fieldwork. The English experience therefore presents us with an opportunity to trace the impact of broad and international ideas in education, such as the ‘knowledge turn’, on national policies and subsequently on the pedagogy and assessment enacted by geography teachers.

**7:00 am–8:00 am**

**Garden Terrace**

**NCGE First-timers Breakfast**

7:00 am–8:00 am

First-time NCGE attendees are invited to breakfast to meet other attendees, learn more about the organization, and hear tips on getting the most out of the conference experience.

**Senate**

**Journal of Geography Board Meeting**

7:00 am–8:00 am

**8:00 am–9:15 am**

**Justice**

**Intro to ArcGIS Online**

8:00 am–9:15 am

*Charlie Fitzpatrick, Esri*

Maps, apps, and more! Map world ecoregions, your community’s demographics, your region’s watersheds, your field-collected data. Do all of this and more with ArcGIS online.

**Salon H**

**Teaching Spatial Thinking Through the Big Idea: Elevation in South America**

8:00 am–9:15 am

*Susan Husiak, Michigan Geographic Alliance*

Participants will engage in hands-on activities that will demonstrate how to integrate elevation and spatial thinking into their unit on South America. Participants will receive all of the materials necessary to do this, and will also receive the “World Regions Instructional CD: Using Big Ideas,” to enhance their teaching of world regions.
Managing a Successful Geography Awareness Week
8:00 am–9:15 am
Thomas Larsen, Kansas Geographic Alliance and Kansas State University
Lisa K. Tabor, Kansas Geographic Alliance and Kansas State University
John Harrington, Jr., Kansas Geographic Alliance and Kansas State University

Geography Awareness Week (GAW) marks an important yearly event for geography educators. However, managing a successful GAW can be challenging. We share the Kansas Geographic Alliance GAW activities from 2014 and plans for 2015. Take-aways include fresh, unconventional ideas to engage the community with GAW-related media and events.

Four American Presidents and the Berlin Wall
8:00 am–9:15 am
Jennifer Windell, Transatlantic Outreach Program (TOP)

Presentation of TOP lesson “Four American Presidents and the Berlin Wall”, focusing on the physical and symbolic meaning of the Wall and how it has changed over time. Participants will learn about TOP’s all-expenses-paid summer study tours to Germany. Complimentary Common Core and NCSS standards-aligned teaching resources will be distributed.

The “G” Is for Geography—Ways to Infuse “Geography” into Every Social Studies Lesson
8:00 am–9:15 am
Ruth King, Utah Geographic Alliance

This session will provide ideas on how to weave geography throughout your curriculum. You will be introduced to materials and resources that will enhance your teaching, plus other interactive online activities and technology tools that will support the Common Core, and also engage your students in geography, history, and culture.

Geo Steps into the Past/Present
8:00 am–9:15 am
George Book, LaGEAg

Participants will be able to entwine geography with major events through America’s history. They will be able to incorporate geographic skills using the Five Themes as they observe slides through this time period. They will identify and discuss themes in the slides and use them in teaching the importance of the Five Themes in history.

GST Barrier, Benefits, and Motivations Then and Now
8:00 am–9:15 am
Mary Curtis, University of Texas at Arlington

In the late 1990s, Joseph Kerski was the first to measure the use of GIS at the high school level. Over a decade later, this investigation builds on the tenants of Kerski’s work to examine the nature of geospatial technology (GST) implementation in high school geography classrooms. This presentation explores the similarities and differences between the two studies and discusses implications for the future of GST.
Rayburn
Panel Discussion: Learning Progressions Research in Geography
8:00 am–9:15 am
Eui-kyung Shin, Northern Illinois University
Michael Solem, Association of American Geographers
Niem Tu Huynh, Association of American Geographers
Following the capacity-building workshop led by the GeoProgression project, four research plans were developed by groups composed of geography and science educators. Each aims to implement fundamental research activities to collectively build a broad-based foundation of learning progressions research in geography education. These research plans for GeoProgression are shared in this panel discussion.

State
Panel Discussion: How to Collaborate with the Library of Congress
8:00 am–9:15 am
Rebecca Theobald, University of Colorado Colorado Springs
Gale Olp Ekiss, Arizona Geographic Alliance
Herb Thompson, Geographic Alliance in Nevada
The Library of Congress’ Teaching with Primary Sources program and National Geographic’s Network of Alliances for Geographic Education developed and tested a workshop model for incorporating analysis of maps, documents, images, and other primary sources through a geographic lens. Learn how you can use this framework to structure a workshop, including an evaluation process.

Hart
Paper Session: Teaching Geography Content—Regional Topics
8:00 am–9:15 am
The [Nestorian] Church of the East: A Past Obscured
Dorothy Drummond, Indiana State University
The Christians who recently fled ISIS in the upper Tigris Valley of Iraq are a remnant of what during the Middle Ages was a Christian presence in Asia that rivaled in size that of Western Europe. Beginning in the late first century, and continuing through clashes of empires and the coming of Islam until halted by Tamerlane, traders and missionaries spread eastward, carrying the message of Christianity to Central Asia, to communities in Eastern Turkistan, to the Mongols, and to China. Although many scholars have chronicled the story of the Church of the East, few laymen are aware of it.

Teaching the Geography of Yap: The Modern (and True) Tragicomedy of a Small Island (Parts I and II)
Reed Perkins, Queens University of Charlotte
This is the simple, but complex, story of sea-level rise as it displaces islanders from their coral atolls and forces migration to the island of Yap, Micronesia — itself facing dramatic salt water intrusion into agricultural areas. Meanwhile, a Chinese firm plans to build a 400-room hotel complex on the beach.

Using SWOT Analysis to Explore Topics in Economic and Urban Geography
Ron Kalafsky, University of Tennessee
One way in which geography students can explore issues in economic and urban geography is via the use of SWOT (strengths, weaknesses, opportunities, and threats) analysis. While this method has its limitations, it can be an effective tool for examining key topics such as regional economic development and industrial agglomeration.
Salon K

**Geospatial Intelligence for the High School Classroom**
8:00 am–10:45 am
*Max Baber, USGIF*

Geospatial Intelligence (GEOINT) integrates remote sensing with geographic information science to address real-world challenges, offering valuable insights for students interested in STEM career options. This workshop will introduce GEOINT concepts, describe alignment with national standards, walk participants through classroom-ready exercises, and provide more resources for GEOINT in the classroom.

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**Friday, August 7**
9:30 am–10:45 am

Cannon

**Engaging Geographies: Learning Through Inquiry in Primary Education**
9:30 am–10:45 am
*Susan Pike, St Patrick’s College, Dublin City University, Ireland*

This workshop will explore the value, theory and practice of teaching and learning geography through inquiry. To critically examine the pedagogy of inquiry, participants will take part in an inquiry, using the locality. They will then complete a plan for the implementation of learning through inquiry in their own setting.

Salon J

**Big Ideas for U.S. Regions: Where and Why?**
9:30 am–10:45 am
*Marty Mater, Michigan Geographic Alliance*
*Phil Gersmehl, Michigan Geographic Alliance and Central Michigan University*

A BIG IDEA: regionalize the U.S. with four lines! Participants will use clickable PDF map layers and tabletop maps to actively define regions: outlining each region on a map, using spatial thinking questions to describe regions, and recognizing causal relationships among map themes. Take home resources!

State

**Ways to Use Social Media Photography in the Geography Classroom**
9:30 am–10:45 am
*Stacey Kerr, The University of Georgia*

Interested in using art, social media, and technology in your classroom, but don’t know how? Come learn how you can use social media-based photography to help your students better understand the world. This interactive workshop will walk you through steps for classroom use and also provide sample lesson plans.

Commerce

**Gain a Global Perspective Through a Multi-cultural Exploration of Dances Using Fans**
9:30 am–10:45 am
*Robin Goettel, Associate Director for Education, IL-IN Sea Grant (retired)*

Learn how to make geographic-based contrasts among cultures by viewing folk dances which incorporate fans. Help your students gain new perceptions of regions by “journeying” to Bali, Spain, Korea, Canada, and Japan to examine unique features of their culture and natural resources, including influences on dance style and type of fan used.
Promoting ESD in Japan Working Toward the Realization of a Sustainable Society
*Toshimitsu Tabe, Japan Women’s University*
To examine possible directions for ESD in Japanese education, we conducted lessons in classes of 5th and 6th graders at an elementary school. The five lessons were entitled “Thinking about global warming by observing changes in Arctic ice”.

The Fall and Rise of the “Sport of Kings” on the Western Reserve / Seven Ranges Border of Northeast Ohio
*Craig S. Campbell, Youngstown State University*
Horse racing was prevalent near the Mahoning Valley around 1900. Early and current track locations and conditions are discussed. Some remain horse farms while others have evolved into multi-purpose county fairs and newer gaming casinos. Thus, a return of the sport seems ongoing. The geography straddling the Western Reserve border is counter-intuitive.

Palestinian Solution Activity
*Robert McClure, St. Olaf College*
Participants will leave with a 2-3 class period activity designed to elicit student critical thinking on the Israeli-Palestinian situation. This activity was developed during a recent 6-week intensive study in East Jerusalem in collaboration with experts on the issue. My teaching assistant, Kathryn Brunstein, assisted with the development.

How K-3 Can Do Geography in NYC
*Jenny Ingber, Bank Street College*
*Margaret McNamara, Bank Street College*
*Bryan Andes, K/1 Teacher NYCDOE*
In order for students to learn geographical knowledge and skills in a meaningful way, they need to “do geography” by exploring the landscapes of local or faraway environments through real and virtual field trips. Participants will examine teaching strategies, like mapping and interviewing local business owners, used with K-3 students.

Earthducation: Capturing Global Intersections Between Education and Sustainability
*Aaron Doering, University of Minnesota*
The Earthducation project is examining intersections between education and sustainability in climate hotspots on all the continents, with six field expeditions completed to date. While in the field, the team is documenting local culture, environmental issues, and educational practices, and collecting video narratives while sharing their findings online.

Measuring Geospatial Reasoning Skills: How Do We Know What We Do Improves Students’ Skills?
*Audrey Kremer, National Geographic Society*
*Ardice Hartry, Lawrence Hall of Science/UC Berkeley*
Every day, people make far-reaching decisions about our interconnected world that require geographic literacy and geospatial reasoning skills to effectively work across environmental, cultural, and geographic boundaries. We are developing the Geospatial Reasoning Instrument (GRI) to determine the extent to which kids and adults are learning these critical skills in formal and informal settings. This session will explore the differences between the GRI and other spatial thinking and reasoning instruments, and provide participants with a hands-on opportunity to test-drive the GRI.
Rayburn
National Center for Research in Geography Education
9:30 am–10:45 am
Michael Solem, Association of American Geographers
Richard Boehm, Texas State University
The National Center for Research in Geography Education was established to coordinate, support and build capacity for research in geography education through broad-based partnerships with researchers, universities and organizations in the U.S. and abroad. This panel will offer an update on NCRGE initiatives and provide information about joining the NCRGE research coordination network.

Treasury
Building Mental Maps and Practicing Higher-level Thinking Skills Through Geography Card Games
9:30 am–10:45 am
Gary Miller, Virginia Geographic Alliance
Susan Miller, Virginia Geographic Alliance
Addressing components of Standards 1 and 2, workshop participants will explore how geography card games can provide students with hands-on, face-to-face opportunities to build mental maps while integrating higher-level thinking skills and having fun. Participants will receive a free copy of the Geographic Brain Food: USA game.

Justice
Analyze Your Community with Community Analyst
9:30 am–10:45 am
Charlie Fitzpatrick, Esri
Explore oodles of demographic and behavior variables at your fingertips, from national to local level, with Community Analyst. Share content with other apps across the ArcGIS platform.

Dirksen
Map It Out
9:30 am–10:45 am
Greg Sherwin, Stevenson High School
Parisa Watson, Westosha Central High School
Explore political geography using National Geographic's "mega map" of the U.S. The presentation will be an interactive use of the map with multiple topics being discussed. The big map engenders student curiosity, tactile learning—and connects C3 framework into your lessons.
Justice

Teaching U.S. History and Geography with Live Web Maps
11:00 am–12:15 pm
Anita Palmer, GISetc

Discover how to teach Common Core History and Geography for Life standards along with 21st Century skills using web mapping tools in this hands-on, fun, interactive workshop.

Grand Ballroom

Five-Minute Plenary Talks
11:00 am–12:30 pm
Session Chair: Howard Johnson

Five-Minute Survival Guide for the Novice APHG Teacher
Alicia Lewis, Alabama Geographic Alliance/Mountain Brook Junior High School
Teaching APHG for the first time can be overwhelming. This guide provides tips for surviving the teacher workload and resources and advice for the novice teacher from the trenches.

The Geographical Scenario: An Innovative Methodological Resource in Landscape Teaching
A. Garcia de la Vega, Universidad Autónoma de Madrid
The geographical scenario is defined as a minimum framework unit in landscape teaching. Landscape as curricular content shows transdisciplinary features for didactic strategies implementation: Problem-based learning is the methodology applied. The scenario provides a real landscape setting for its geographical analysis and interpretation, and requires a constructivist learning environment.

Community-Building Techniques for Large Geography Classes
Caitlin Finlayson, University of Mary Washington
Many undergraduate geography courses have a large number of students, which presents a unique set of challenges and opportunities. This presentation explores how building a sense of community in the geography classroom can enhance the learning experience, and offers practical ideas and techniques on creating an engaging class atmosphere.

The ConnectEd GeoMentor Program: A Nationwide Network to Improve K–12 Geography and GIS Education
Michael Solem, Association of American Geographers
Esri and the Association of American Geographers are developing a nationwide GeoMentor network of knowledgeable GIS users and educators to support Esri’s ConnectEd donation of ArcGIS online software to all U.S. K–12 schools. Learn more about this exciting initiative to provide teachers with GIS and geography education support for their classrooms.

United Nations Day: A Middle School Geography Project
Colleen Breen, Oley Valley School District
United Nations Day Project is completed by 7th-grade students. Students are grouped and assigned a country. They research various economic, political and social aspects of their country. Projects are on display for visitors on “United Nations Day”. Students write research essays on a problem found in their country.

Based on Google Earth: A Study of Progressive Training on Geospatial Thinking Ability
Fang Chen, School of Geography, Beijing Normal University, Beijing, China
Fangyuan Zhao, School of Geography, Beijing Normal University, Beijing, China
Jing’ai Wang, School of Geography, Beijing Normal University, Beijing, China
This paper proposes a progressive training model for undergraduates on geospatial thinking ability that is based on Google Earth. It consists of two parts: basic training of converting text information, videos, and remote sensing images into maps; enhancing training of analysis on regional differences, factors relationship, and regional patterns by GIS.
Friday, August 7

Grand Ballroom

Five-Minute Plenary Talks, Continued
11:00 am–12:30 pm

- **Do It Your Way: Earning a Master’s Degree in Geographic Education**
  Lynn Songer, University of Oregon and Lane Community College
  Susan Hardwick, University of Oregon
  This presentation provides information about the University of Oregon’s newly revised and expanded EDGE Master’s degree program in geographic education. The innovative EDGE program attracts American and international teachers in all disciplines to enroll in graduate level coursework online, on site in the summer, and in the field.

- **Developing Geographic Strategies for Inclusion Classrooms**
  Michael Libbee, Central Michigan University
  The Michigan Geographic Alliance has been working with academics and teachers to combine visual power of geography with findings from contemporary brain research. This presentation will report on the development of practical strategies for geography teachers of inclusion classes.

- **International Comparative Study on the Difficulty of Junior Middle School Geography Textbooks**
  Yushan Duan, Geography Teaching Society of China/School of Geographic Sciences, East China Normal University
  Lianfei Jiang, Geography Teaching Society of China/School of Geographic Sciences, East China Normal University
  The paper makes a comparison study among 10 countries. Research objects are divided into 8 subjects, 27 points under the research method which is explored by East China Normal University. We present our conclusion that China is centered among the 10 countries.

Friday, August 7

1:00 pm–2:15 pm

Hart

The Relationship Between Population and Resources
1:00 pm–2:15 pm
Kevin Poff, Utah Geographic Alliance
Come experience an activity that will highlight the relationship between global population and resources, and the dynamics that arise between those who have much, and those who have little. Students come away from this activity with a clearer understanding of the forces that are behind many of today’s global issues.

Dirksen

Changing the Educational Landscape: Blended Learning in Your Geography Class
1:00 pm–2:15 pm
Katelyn Brown, Gunning Bedford Middle School, New Castle, DE
Nicholas Baker, Colonial School District, New Castle, DE
Given all of the new technology available to students, how does it impact geography instruction? How do teachers become facilitators of learning? This workshop focuses on implementation of a blended learning approach in a middle school world geography course.
1:00 pm–2:15 pm  
Friday, August 7

**Cannon**

Embark on an Interactive Journey with Nearpod to Apply Geographic Concepts and become Great Lakes Literate!
1:00 pm–2:15 pm  
Allison Neubauer, Illinois-Indiana Sea Grant

The Great Lakes provide significant examples of human and physical geography within their watersheds and beyond. Learn essential Great Lakes Literacy Principles and explore standards-aligned lessons to prepare your students to be conscientious future decision-makers. BYOD(vice) to participate in this interactive Nearpod presentation and download the free Nearpod app!

**Salon H**

When We Were British: Interdisciplinary Approaches to Visualize Early America (Part 1)
1:00 pm–2:15 pm  
Edward Kinman, Virginia Geographic Alliance/Longwood University  
Robert W. Morrill, Virginia Geographic Alliance/Virginia Tech  
Jim Young, North Carolina Alliance/Appalachian State University  
Sedley Abercrombie, South Davidson Middle and High School, Davidson County, NC

This presentation concerns a collaboration of Virginia and North Carolina geography, history, and language arts educators to develop primary source artifacts from the British National Archives, digitize, and then illustrate them through a series of powerful geospatial resources for inquiry-based teaching. These resources are available to develop cross-curricular connections for the K-16 classroom.

**Justice**

Spatial Analysis with Live Web Maps
1:00 pm–2:15 pm  
Joseph Kerski, Esri

Join us as we dig deeper into the capabilities of live web mapping with spatial analysis, including map overlay, spatial statistics, tabular and spatial investigations, and more.

**Salon K**

National Geographic Educator Certification Workshop: Teaching Kids About the World
1:00 pm–2:15 pm  
Kim Hulse, National Geographic Society  
Alison Szopinski, National Geographic Society

Educators will learn about National Geographic’s approach to teaching kids about the world, the learning framework that supports it, and the new NG Educator Certification program launching by year’s end. At this workshop, participants will complete Phase 1 of the three-phase certification program, and receive instructions for full program completion.

**State**

Panel Discussion: Earth Science Education in Iceland—Study Groups on the Mid-Atlantic Ridge
1:00 pm–2:15 pm  
Arnbjorn Olafsson, Director of International Cooperation at Keilir Institute of Technology  
Olafur Jon Arnbjornsson, Director of GeoCamp Iceland

The focus of the presentation is to show how we are able to enhance understanding of our environment by strengthening the natural sciences in education and to create a culture of awareness by connecting international teacher and student groups with the local population in Iceland, through practical training and applied educational activities.
Rayburn

Paper Session: Professional Development in Geography
1:00 pm–2:15 pm

The Learning Cluster Method: A Hybrid Approach to Professional Development
Carmen Brysch, San Marcos, TX
This paper reports on teacher receptivity to three types of professional development delivery systems. Results indicate that teachers still value face-to-face workshops but accept new methods. In particular, the Learning Cluster Method (LCM) hybrid approach was developed to broaden dissemination capabilities, encourage the formation of an online learning community, and further the development and enhancement of teacher leadership skills.

Effective Professional Development: Lessons Learned from the STEMSS Summer Institute
Margarita Jimenez-Silva, Arizona State University
The Arizona Geographic Alliance working with Mesa Community College designed and conducted the STEMSS Summer Institute to provide K–12 teachers with various professional development opportunities focused on integrating STEM with geography concepts for English language learners.

Quest-Based K–12 GIS Professional Development
Michael N. DeMers, New Mexico State University
This presentation outlines the use of a quest-based LMS called 3D GameLab for professional development of 9-12 GIS educators. It describes the motivation, mechanics and expected outcomes of a forthcoming high-school GIS program and how quest-based learning will develop a cohort of online course instructors and provide on-going professional development.

Korea and Your Classroom!
1:00 pm–2:15 pm
Kelly W. Swanson, Johnson Senior High School, St. Paul, MN
Doug Andersen, Utah Geographic Alliance
Kenneth Keller, George Walton Comprehensive High School, Marietta, GA
Participants will receive materials and lessons relating to Advanced Placement themes centering around South Korea. Using the new National Atlas of Korea, participants will get hands-on lessons focusing on economic, cultural, social aspects and more pertaining to the Korean peninsula.

What’s in Your Backyard?: Visualizing Opportunities and Consequences in Everyday Landscapes
1:00 pm–2:15 pm
Jeffrey M. Widener, The University of Oklahoma
Gary Gress, The University of Oklahoma
Cultural landscapes are shaped by complex processes that may not be readily detected or understood at first glance. In this hands-on session, we'll model lessons, which we'll provide to participants via Dropbox, for interpreting everyday landscapes via the use of geospatial technologies, primary sources, field time, and critical thinking.

The Magic Eraser
1:00 pm–2:15 pm
Sharon Miller, Time To Teach
In this session, participants will learn practical strategies that will make classroom disruptions vanish! In just one hour you’ll walk away with strategies you can use on Monday! Learn how to recover 7–9 hours of instruction time per week, eliminate repeated warnings, and dramatically decrease office referrals.
Cannon

Introducing ArcGIS Online to Improve Spatial Thinking Skills of Future Teachers
2:30 pm–3:45 pm
Phil Klein, University of Northern Colorado

For beginning users of ArcGIS Online (AGO): Demonstration of activities introducing AGO, developed for a college course to improve pre-service teachers’ skills in acquiring and analyzing spatial data. Participants create a simple story map and thematic map. Activities can be used to introduce GIS either to students or to in-service teachers during professional development. Participants are encouraged to bring a laptop.

Salon H

When We Were British: Interdisciplinary Approaches to Visualize Early America (Part 2)
2:30 pm–3:45 pm
Edward Kinman, Virginia Geographic Alliance/Longwood University
Robert W. Morrill, Virginia Geographic Alliance/Virginia Tech
Jim Young, North Carolina Alliance/Appalachian State University
Sedley Abercrombie, South Davidson Middle and High School, Davidson County, NC

This presentation concerns a collaboration of Virginia and North Carolina geography, history, and language arts educators to develop primary source artifacts from the British National Archives, digitize, and then illustrate them through a series of powerful geospatial resources for inquiry-based teaching. These resources are available to develop cross-curricular connections for the K-16 classroom.

Hart

Geography and Disciplinary Literacy in Elementary Classrooms
2:30 pm–3:45 pm
Judy Britt, Winthrop University

Elementary teachers are deeply engaged in developing literacy skills throughout the school day. When skills are anchored in geography, disciplinary literacy combines reading and writing within the context of learning about the world. In this interactive workshop, participants discuss the alignment of geography standards and disciplinary literacy in elementary classrooms.

State

GeoCamp Iceland: Exploring Iceland’s Diverse Environments and Changing Landscapes
2:30 pm–3:45 pm
Robert W. Morrill, Virginia Geographic Alliance
Jacqueline Waite, NCGE

In July 2015, 20 teachers participated in GeoCamp Iceland with NCGE. Come hear from the teachers about their experiences and how they are applying lessons learned in their classrooms.
**Friday, August 7  2:30 pm–3:45 pm**

**Justice**

**Story Mapping**  
2:30 pm–3:45 pm  
*Joseph Kerski, Esri*

Telling stories with maps has long been popular, and now with Esri Story Maps, you can easily create and share multimedia map-based stories.

**Treasury**

**Differentiation? There’s an App for That!**  
2:30 pm–3:45 pm  
*Penny Anderson, Virginia Geographic Alliance*

This workshop will showcase a variety of online links and activities used for differentiation in the Social Studies classroom. Participants will be shown several applications using technology in the classroom and will take away lesson templates for use in the K–12 classroom. Co-presenter not in attendance: Theresa Tempesta, Virginia Geographic Alliance

**Salon K**

**Paper Session: Interpreting Thematic Maps from the National Atlas of Korea**  
2:30 pm–3:45 pm  
*Organizer: Gregory Chu, University of Wisconsin-La Crosse*

- The National Atlas of Korea—Broad Resources for Content  
  *Gregory Chu, University of Wisconsin-La Crosse*  
  *Doug Andersen, Utah Geographic Alliance*  
  *Kelly W. Swanson, Johnson Senior High School, St. Paul, MN*

  The new National Atlas of Korea is a well-designed atlas with abundance of maps depicting physical, socioeconomic, and political patterns, government organizations, and major infrastructures. It is an enormous and valuable set of resources for geographic content for teachers and researchers alike. The Atlas is available in print and digital versions.

- The National Atlas of Korea—Spatial Distribution of Key Components  
  *Gregory Chu, University of Wisconsin-La Crosse*  
  *Chulsue Hwang, Department of Geography, Kyunghee University, Seoul, Korea*

  The development of Korea from fraternal war to present economic powerhouse is remarkable. Its success can be documented through some of the key maps presented in the Atlas. This presentation summarizes the spatial aspects of some of these key economic components.

- The National Atlas of Korea—Opportunities for Spatial Thinking Lesson Plans  
  *Gregory Chu, University of Wisconsin-La Crosse*  
  *Michael Robinson*

  Maps, tables, photographs and drawings of this Atlas provide innovatively designed graphics to stimulate spatial thinking visually and statistically. Teachers can take advantage of thematic maps such as population change, infrastructure development of transportation corridors, or urban fringe housing developments and create their own spatial thinking lesson plans.
You're Not From Around Here, Are You? How Humans Have Altered World Environments Through the Movement of Species

2:30 pm–3:45 pm
Scott Noet, Minnesota Council for the Social Studies/Transatlantic Outreach Program
Kimberly Gilman, Kansas Geographic Alliance

Take away an international, interdisciplinary unit on invasive species incorporating simulations, multimedia, and decision making, encouraging students to use geography to analyze human modifications of the physical environment and identify the characteristics of ecosystems as they craft a proposal to address an issue involving invasive species in their home region.

Geospatial Resources, Materials, and Tools for STEM Teacher Preparation

2:30 pm–3:45 pm
Richard Boehm, Texas State University
Michael Solem, Association of American Geographers
Niem Tu Huynh, Association of American Geographers

This project will develop and test the efficacy of a geospatial RMT with pre-service STEM teachers. The RMT, which will be built using ArcGIS Online, will illustrate for teachers the pedagogical value of spatial concepts and GIS analytical methods. The RMT will complement the broader objectives of the ESRI- ConnectED initiative.

Geospatial Enrichment for STEM Education and Research

2:30 pm–3:45 pm
Richard Boehm, Texas State University
Michael Solem, Association of American Geographers
Joanna Zadrozny, Texas State University

As an extension of the “Geospatial Resources, Materials and Tools for STEM Teacher Preparation”, this project involves in-service teachers in math, science and social studies. A comparative analysis will be done of teachers’ spatial thinking knowledge after the intervention with the geospatial enrichment module.

Educating for the Future: Workshops for Teachers in Using GIS in the Classroom

2:30 pm–3:45 pm
Lisa K. Tabor, Kansas Geographic Alliance/Kansas State University
John Harrington, Jr., Kansas Geographic Alliance/Kansas State University

Pre-service and in-service teacher training is augmented by the inclusion of hands-on experience with GIS in the classroom. We share information about our workshops and provide results from an assessment of teacher mindsets about GIS, comparing teacher responses from those introduced to GIS with those who participated in an applied training.

Teaching Human Geography with Cartograms

2:30 pm–3:45 pm
Pam Wasserman, Population Connection

A picture may be worth a thousand words, but a cartogram can be worth over 7 billion people! Learn how to use a new World Population Map and lesson plan to help students understand population distribution, land use, global demographics, and quality of life indicators in this hands-on workshop.
Friday, August 7 2:30 pm–3:45 pm

**Commerce**

**Paper Session: Spatial Thinking**
2:30 pm–3:45 pm

**The Impact of Geographic Information Systems on Elementary Grade Students’ Spatial Reasoning**
*May Jadallah, Illinois State University*
*Alycia Hund, Illinois State University*
*Jonathan Thayn, Illinois State University*
*Joel Studebaker, Illinois State University*

This study examined the impact of using GIS to improve elementary students’ spatial reasoning. An experimental group explored GIS projects and answered questions in collaboration with peers. The control group used the standard curriculum. In a transfer test, the experimental group referenced spatial locations significantly more than the control group.

**Geography Learning**

*Alice Forsythe, Reach the World*

In 2005, Dr. Susan Lowes of Columbia University Teacher’s College led a research project with Reach the World to investigate the cognitive process of geographic learning. A rubric was developed on which student freehand maps of the “world as they see it” could be assessed and evaluated. This rubric was used to evaluate 107 student pre- and post-program maps for student participants in Reach the World’s geographic and global enrichment program. This paper presentation demonstrates the data-based geographic gains that students made in a 6-week summer experience.

**Mapping as Inquiry**

*Stacey Kerr, University of Georgia*

What does map drawing have to do with posing and answering questions? In this paper session, we describe how asking students to draw maps fosters critical inquiry into problems they face in schools and society. Co-author not in attendance: Erin Adams, University of Georgia.

**Enhancing Spatial Thinking Ability Through World Regional Geography Courses**

*Injeong Jo, Texas State University*
*Jung Eun Hong, University of West Georgia*
*Kanika Verma, Texas State University*

This study compares the effect of different pedagogical approaches to world geography on enhancing students’ spatial thinking skills. The Spatial Thinking Ability Test (STAT) was administered at the beginning and end of 2013 fall semester to 239 undergraduate students from world geography courses taught by five different instructors.

Friday, August 7 4:00 pm–5:15 pm

**Justice**

**ArcGIS Online for Organizations**
4:00 pm–5:15 pm
*Charlie Fitzpatrick, Esri*

Mapping with ArcGIS Online means “any device, anytime, anywhere connected.” Organization accounts offer more capacity, and are FREE TO ANY U.S. SCHOOL. Learn how to acquire, use, and manage for best impact.

**Grand Ballroom**

**NCGE Business Meeting**
4:00 pm–5:15 pm
All NCGE Members are encouraged to attend the NCGE Business Meeting.
Salon D
APHG Workshop: The Past, Present, and Future of APHG

Part 1: The Human Geography of People and Politics
8:00 am–9:15 am
Session Chair: Jonathan Leib, Old Dominion University

Placing Human Geography: Introduction
Sarah W. Bednarz, Texas A&M University
An attempt to situate, or place, the AP Human Geography course, now one of the 10 most popular AP courses, in the context of geographic education, collegiate human geography and the future of the discipline.

Population and Migration
Max Lu, Kansas State University, Manhattan, KS
Kenneth Keller, George Walton Comprehensive High School, Walton, GA
Covers trends in population geography, and best practices for teaching about population and migration in the introductory human geography class; emphasis is on new research and difficult-to-understand concepts and topics.

Mapping as Inquiry
Jonathan Leib, Old Dominion University, Norfolk, VA
Jody Smothers-Marcello, Sitka School District, AK
Covers trends in political geography, and best practices for teaching about the political organization of space in the introductory human geography class; emphasis is on new research and difficult-to-understand concepts and topics.

Part 2: The Human Geography of Cities and Culture
9:30 am–10:45 am
Session Chair: Barbara Hildebrant, Educational Testing Service, NJ

AP Human Geography: A Fifteen Year Retrospective
David Lanegran, Macalester College, St. Paul, MN
Donald Zeigler, Old Dominion University, Virginia Beach, VA
Traces the history of AP Human Geography from the 1990s through its 15th anniversary in 2015; includes coverage of growth trends, maps showing popularity and performance, and references to problems, the exam itself and the annual Readings.

Cities and Urban Land Use
Lisa Benton-Short, George Washington University, Washington, DC
Liliana Monk, Montgomery County Public Schools, MD
Covers trends in urban geography, and best practices for teaching about cities and urban land use in the introductory human geography class; emphasis is on new research and difficult-to-understand concepts and topics.

Cultural Patterns and Processes
Ibipo Johnston-Anumonwo, SUNY Cortland, NY
Covers trends in cultural geography, and best practices for teaching about cultural patterns and processes in the introductory human geography class; emphasis is on new research and difficult-to-understand concepts and topics.
Salon D
APHG Workshop: The Past, Present, and Future of APHG, Continued
Part 3: The Human Geography of Economic Activities
11:00 am–12:15 pm
Session Chair: Jerry Mitchell, University of South Carolina

Geography: Its Nature and Perspectives
Alexander Murphy, University of Oregon, Eugene, OR
Phillip Hare, A.C. Flora High School, Columbia, SC
Covers the forces reshaping the discipline of human geography with an emphasis on the importance of skills, geospatial technologies, new research, critical thinking, and problem-solving.

Industrial and Economic Development
Jonathan Moore, Educational Testing Service, Princeton, NJ
Allison M. Hunt, DuPont Manual High School, Louisville, KY
Covers trends in economic geography, and best practices for teaching about industrial and economic development in the introductory human geography class; emphasis is on new research and difficult-to-understand concepts and topics.

Agriculture, Food Production, and Rural Land Use
Nancy Watson, Lawton Chiles High School, Tallahassee, FL
Covers trends in agricultural geography, and best practices for teaching about agriculture, food production, and rural land use in the introductory human geography class; emphasis is on new research and difficult-to-understand concepts and topics.

Placing Human Geography: Conclusions
Barbara Hildebrant, Educational Testing Service, Princeton, NJ
An attempt to situate the AP Human Geography course in space and time, with reflections on how the course has made a difference to the status and future of geographic education.

Congressional
Gamma Theta Upsilon Board Meeting
8:00 am–12:15 pm

Saturday, August 8
8:00 am–9:15 am

Cannon
Giddy Up Cowboy – Explore the World
8:00 am–9:15 am
Paul Nagel, North American University
Woo Sliver, what is over there? Children’s literature provides a way to teach geographic concepts that form the foundation of learning. Learn exciting, hands-on, active lessons to explore the world. In this interactive session for elementary students learn how to explore the world with literature.

Justice
Mapping Your Own Data in ArcGIS Online
8:00 am–9:15 am
Joseph Kerski, Esri
Learn quick and powerful ways of mapping your own data, from spreadsheets, photographs, GIS files, GPS receivers, smartphones, and more.
8:00 am–9:15 am  Saturday, August 8

**Hart**

**The Kids Are Alright: Migration of Youth Movements, Culture, and Activism**

8:00 am–9:15 am

*Kimberly Gilman, Hocker Grove School*

*Scott Noet, Owatonna Junior High School*

Walk away with a classroom-ready, interdisciplinary unit on youth movements, counterculture and activism around the globe combining technology and geographic literacy strategies. Investigate the movement of ideas, trends and protest methods of youth culture, past and present. Inspire students to create a modern, global campaign to reach today’s youth.

**State**

**Using State Atlases to Teach Geographic Skills**

8:00 am–9:15 am

*Timothy McDonnell, New York Geographic Alliance*

Last year the NYGA launched its new Atlas of New York: Legacies of the Erie Canal. Many other states have atlases created by their Alliances. We want them to be used as teaching tools, to build geographic concepts, especially spatial thinking skills. Lessons will be presented at this workshop using the NY Atlas. Participants will be invited to share their lessons and experiences.

**Treasury**

**Lighten Your Load—Google Classroom**

8:00 am–9:15 am

*Alicia Lewis, Alabama Geographic Alliance/Mountain Brook Junior High School*

Google Classroom is an exciting way to facilitate and manage your classroom in an online setting. Learn how to set up your geography classroom, create assignments, grade and return work to students, all in a paperless environment. Participants should bring a device with Internet connectivity for hands-on learning.

**Salon J**

**Organized Session: Teaching Geography Content: China and the U.S. in the Global Economy**

8:00 am–9:15 am

*Session Chair: Rudi Hartmann, University of Colorado, Denver*

**Paper: A Comparative Geography of China and the U.S.**

*Rudi Hartmann, University of Colorado, Denver*

*Jing’ai Wang, School of Geography, Beijing Normal University, Beijing, China*

*Fang Lian, School of Geography, Beijing Normal University, Beijing, China*

This paper focuses on geographic education in China and the U.S. The author presents the results of two teams of geographers, from China and the U.S., working jointly on a comparative geography of the two countries. China and the U.S. have seen similar phases of rapid industrialization and urbanization.

**Panel Discussion: Facing Globalization: General Education Curriculum Construction Image for a Comparative Geography of China and the U.S.—Teachers, Teaching Materials and Courses**

*Jing’ai Wang, School of Geography, Beijing Normal University, Beijing, China*

*Fang Lian, School of Geography, Beijing Normal University, Beijing, China*

*Rudi Hartmann, University of Colorado, Denver*

China and the U.S. are two comparative outstanding countries. To establish the curriculum, firstly build a group of teachers who can teach both in Chinese and English; then compile teaching materials from which students can get inspired; finally offer the course by MOOC or National Quality Course for international students.
Salon H
Using Maps for Learning with GeoBadges
8:00 am–9:15 am
Jonathan Marino, MapStory
In January 2015 the MapStory Foundation received funding from the Longview Foundation to kickstart GeoBadges.org—a platform built on the Mozilla Open Badges infrastructure designed to support professional learning amongst teachers from all disciplines interested in incorporating mapping activities into their classrooms. Since January more partners have joined the effort, including the American Geographical Society and the OpenStreetMap community. This workshop will show off the GeoBadges prototype and enable participating educators to provide feedback, suggestions, and critiques.

Rayburn
Paper Session: Pedagogical Applications of Technology in Geography
8:00 am–9:15 am
Exploring Texas with Digital Story Maps
Maggie Hutchins, Texas Alliance for Geographic Education
James F. Petersen, Texas Alliance for Geographic Education
TAGE, in cooperation with GISetc, has developed digital Story Maps where students employ mobile devices to enrich their geographic learning while navigating the Giant Traveling Map of Texas. The students use digital technologies on a self-guided tour to learn about areas, events, cultures, and people that are important to those locations.

Using Smartphones and Location Services to Teach Geographic Theory
Ryan Kirk, Elon University
Location services on smartphones and tablet computers provide new pedagogical opportunities for student learning in geography. This paper details three applied case studies for using location services to teach concepts of regionalization, urban planning, place identification, and consumer behavior analysis. Quantitative and qualitative assessments are included.

Virginia’s K–12 Teachers and Students See Their World from a New Perspective
Tammy E. Parece, Virginia Tech
John McGee, Virginia Tech
James B. Campbell, Virginia Tech
In today’s technologically oriented society, teaching geography requires more than just teaching geographic concepts, such as spatial patterns and covariance. It means teaching use of geospatial technologies to understand and reinforce geographic concepts. We will discuss our geospatial outreach programs at Virginia Tech for K–12 teachers and students.
Hart
Sounds Around the World: The Geography Game for the Global Era
9:30 am–10:45 am
Jason Armstrong Baker, Sounds Around the World

Sounds Around the World (SAW) is a music-integrated geography game designed with 21st century thinking. Addressing national standards, SAW brings world music together with specialty maps in exciting team-based play. In this session, you will experience a kinesthetic, collaborative learning environment based on curiosity and proven educational outcomes.

Cannon
Geography Integration
9:30 am–10:45 am
Michele Ballinger, Ohio Geographic Alliance

This session will focus on integrating teaching strategies, lessons, and activities that build geography connections as well as depth and complexity across content areas. Participants will be engaged in activities that explore how human and natural systems can be used to help students develop thinking strategies, ideas, and connections.

Salon K
Paper Session: Applying Technology in the Classroom
9:30 am–10:45 am

- Teach Remote Sensing with Online Videos and Exercises from NCGE’s iGETT Project
  Osa Brand, NCGE
  Ann Johnson, GeoTech Center
  iGETT project participants from high schools, two-year colleges, and universities have created new resources during the past year: short videos that teach remote sensing concepts and basic to advanced lab exercises that integrate satellite data and imagery with GIS. The presentation will showcase these resources and provide access information.

- Fostering Creativity Through Inquiry and Adventure in Informal Learning Environment Design
  Aaron Doering, University of Minnesota
  Self-directed, inquiry-based learning opportunities focused on real-world problem solving have been shown to foster creativity in learners. This study examines an online informal learning environment, WeExplore, and the role the learning environment design and teacher pedagogy and practice played in influencing creativity in the classroom.

- Not Just a Voyage: Norway’s Hurtigruten as Virtual Classroom
  Ann Marie Legreid, Shepherd University
  Coastal steamers have been a staple in Norway since 1893, delivering mail, goods, and people. Students collect and analyze data at virtual ports of call using space and land imagery, GPS, digital databases, and “steamer facebook.” Virtual case studies engage students in the analysis of physical and cultural landscapes.

Justice
Story Mapping
9:30 am–10:45 am
Joseph Kerski, Esri

Telling stories with maps has long been popular, and now with Esri Story Maps, you can easily create and share multimedia map-based stories.
State

**Tools To Integrate Geography Into Teaching With Primary Sources**

9:30 am–10:45 am

*Steve Jennings, University of Colorado, Colorado Springs*

*Herb Thompson, Geographic Alliance in Nevada*

*Gale Olp Ekiss, Arizona Geographic Alliance*

A collaboration between the Arizona, Colorado, Nevada and Oregon alliances and TPS has produced a set of tools that can be used in conjunction with Library of Congress resources. Attendees will be involved in interactive demonstrations of these tools which are available to be used in the classroom.

Commerce

**Organized Session: Technology Applications in the Classroom**

9:30 am–10:45 am


*Vera Fuchsgruber, University of Education, Heidelberg*

*Nils Wolf, University of Education, Heidelberg*

*Kathrin Viehrig, University of Education, Heidelberg*

*Alexander Siegmund, University of Education, Heidelberg*

The adaptive learning environment “Space4Geography” seeks to increase the integration of satellite images in secondary school practice. The development is based on “Educational Design Research”. Results of a questionnaire regarding criteria for learning platforms from the user’s and experts’ points of view as well as a first prototype are presented.

**Workshop: Space4Geography: A Learning Environment for the Application of Remote Sensing in Schools**

*Vera Fuchsgruber, University of Education, Heidelberg*

*Nils Wolf, University of Education, Heidelberg*

*Kathrin Viehrig, University of Education, Heidelberg*

*Alexander Siegmund, University of Education, Heidelberg*

Get to know an innovative way to teach remote sensing in secondary schools with a module of the adaptive learning environment “Space4Geography”. The users are guided through the platform on individual learning paths, depending on their success rate in different tasks, and answers to geographic questions using original satellite imagery.

Salon H

**Interdisciplinary Geography Learning: Map Your Curriculum to a Global Lens**

9:30 am–10:45 am

*Christine Maloney, Reach the World*

*Alice Forsythe, Reach the World*

In this interactive workshop, K–12 educators will gain tools and strategies for incorporating geography into their curriculum. This session is designed to support geography learning in English language arts, social studies, science, and foreign language classrooms. Prime your students’ awareness of interconnection; map your curriculum to web-based resources and give your lessons a global lens.

Rayburn

**Indonesia: Today’s Changes and Challenges**

9:30 am–10:45 am

*Chris Drake, Old Dominion University*

It is enormously important that current geographical content accompany the most effective pedagogical approaches in our teaching. What is of greatest significance about Indonesia, the world’s fourth largest country? This workshop considers recent changes in and challenges confronting Indonesia—political, demographic, economic, and environmental.
Treasury

Paper Session: Making Connections to Geography
9:30 am–10:45 am

Organizer: Joe Manzo, Concord University

Environmental Processes, Novels, and the Benedum Foundation
Joe Manzo, Concord University

The WV Geographic Alliance was awarded $166,000 from the Benedum Foundation to pilot a project wherein English teachers and geography teachers shared the same students. One goal of the project was to have these teachers extract environmental processes from novels. An overall goal was to help create a better-educated electorate.

Assessing the Grant “Merging Science and the Humanities in the Classroom”
Joshua Hagen, Marshall University

This presentation reviews the results of a recent K–12 teacher education program titled “Physical Geography and Literature: Merging Science and the Humanities in the Classroom” funded by the Benedum Foundation and the National Geographic Society with the support of Concord University and the West Virginia Department of Education.

A West Virginia Staycation—Project-Based Learning Towards a Transitioning Economy
Robert Miller, West Virginia Geographic Alliance

West Virginia’s coal-based economy is now in transition. A unique staycation project can open students’ eyes to the different types of public lands. The potential for jobs in conservation management and the exploding tourism industry may possibly prevent the exodus of our most important natural resource, our youth.

Salon J

Paper Session: Sustainability Education in Geography
9:30 am–10:45 am

Geographic Education for Sustainability: Developing a Binational Curriculum
Alex Oberle, University of Northern Iowa
Fabian Araya, Universidad de La Serena

This project represents international collaboration among researchers in geographic education and pre-service teachers in a Chilean and American university. The partnership focuses on the development of standards-based curricular materials that address sustainability. Co-authors include Ximena Cortés Quezada (Universidad de La Serena) and Mollie Ullestad (University of Northern Iowa).

Geospatial Solutions to Sustainable Toilets in Senegal: An Active Learning Approach
Laura Rodriguez Amaya, Texas State University
Kanika Verma, Texas State University

This paper introduces the active learning approach as a viable tool for geography educators. A project-service learning activity is presented for a geospatial solution to sustainable toilets in Senegal. Students interacted with teachers and pupils of a local school in Senegal to propose a solution for their sanitation problems.

Service Learning in a Community Garden for Sustainability Education at all Grade Levels
Andy Jolly-Ballantine, University of Connecticut

The Grow Windham community garden acts as a laboratory for developing sense of place and providing service learning opportunities for students from K–16 to be a part of a sustainable food system. Students’ attitudes changed over their time with the program, showing the hands-on approach leads to an appreciation for sustainability. Co-authors not in attendance: Sally Milus, Grow Windham; Kate Callahan, Grow Windham.
Saturday, August 8  11:00 am–12:15 pm

Cannon
Using the GeoHistoGram to Teach Geography and World History
11:00 am–12:15 pm
Michael Libbee, Central Michigan University
Cynthia Bloom, Michigan Geographic Alliance

The World GeoHistoGram uses brain research findings to help students make connections between events in different regions that occurred at the same time. Teachers will know how to use the World GeoHistoGram to integrate geography and world history and how to use resources on the GeoHistoGram DVD. Participants will receive a set of GeoHistoGrams and a DVD with lesson plans.

Commerce
Podcasts for Teaching and Learning Geographic Concepts
11:00 am–12:15 pm
Sharon Shelerud, Minnesota Alliance for Geographic Education
Lisa Sanders, Minnesota Alliance for Geographic Education

Podcasts! A great tool for you to learn more about geographic concepts for your students to learn geography. Experienced teachers from Minnesota Alliance for Geographic Education (MAGE) created 100 podcasts that cover a wide range of geographic topics and concepts. Guaranteed to enhance your teaching.

Justice
ArcGIS Online for Organizations
11:00 am–12:15 pm
Charlie Fitzpatrick, Esri

Mapping with ArcGIS Online means “any device, anytime, anywhere connected.” Organization accounts offer more capacity, and are FREE TO ANY U.S. SCHOOL. Learn how to acquire, use, and manage for best impact.

Hart
Troubled Water
11:00 am–12:15 pm
Michael Jabot, State University of New York at Fredonia
Paul Nagel, North American University

Though the water cycle is a closed system, the water we drink and use is in greater demand than ever. Countries are going to great lengths to secure water or clean water for the increasing demand. Through an inquiry approach for elementary and middle school, students will learn how to preserve and protect the world’s most precious resource.

Salon J
The Dam Project
11:00 am–12:15 pm
Robin Manning, Jack C. Hays High School, Buda, TX

Patagonia is a wild, sparsely populated region of South America. Chile has proposed a series of dams here to supply its cities with electricity. We will look at the region, the proposed dams, and human-environment interaction to examine the impact of large dams on people and the environment. Lesson handouts provided. Presentation sponsored by ABC-CLIO.
**Salon K**

**Paper Session: Spatial Thinking**

11:00 am–12:15 pm

**Understanding Space or Just Spaced Out: The Development of a Spatial Thinking Course Module for GIS Students**

*Lisa Mavar Stanich, Lakeland Community College*

This presentation discusses the development of a spatial thinking course module at Lakeland Community College in Kirtland, Ohio being piloted this summer. The module tries to bring students up to speed on the spatial thinking skills many desperately need as they begin the GIS program.

**Paving a Pathway to Understanding Complex Systems**

*Margaret A. Holzer, Rutgers University, Graduate School of Education*

Spatial literacy and systems thinking are geography skills necessary to truly understand our changing climate. But how do we foster these skills in our students? This research employed a modeling scaffold designed to assist learners in developing spatial and systems thinking skills while considering the complexities of our climate system.

**Education on Organization, Access, and Use of Geographic Information**

*Wade Bishop, University of Tennessee*

The paper presents findings from a curricular research collaboration funded by the Institute of Museum and Library Services to create graduate programs in information science about geographic information, its special properties, and how it is accessed, processed, and used in roles related to data curation, preservation, and metadata creation. Co-author not in attendance: Tony Grubesic

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**Rayburn**

**Morocco’s Arab Spring Break**

11:00 am–12:15 pm

*Greg Hill, Horn High School*

Morocco, with its richness and complexities, as well as centuries-old traditions avoided much of the problems of the Arab Spring. A group of teachers traveled to Morocco with the Dallas World Affairs Council and American-Morocco Alliance last summer. The geography, history, and culture of Morocco will be the topic of the session. Teachers will learn content and receive lessons to use in their classrooms.

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**State**

**Pakistan, South Sudan, and St. George, Louisiana: Geographic Challenges of Creating New Nations, States, and Communities**

11:00 am–12:15 pm

*Sheila Sundar, The Southern History Project*

Participants will develop the knowledge and tools to teach the above Southern History Project curriculum, examining domestic and global debates over border demarcation. Participants will identify locally relevant challenges related to community borders and resources, placing these in the context of 20th century debates over the creation of new nation states.
Treasury
BioBlitz-ing and Mapping: Evaluating Biodiversity Locally to Globally
11:00 am–12:15 pm
Anne Haywood, Mountain to Sea Education
During one week in May, 2015, roughly 2000 K–12 students from nine schools in Okaloose County, Florida, participated in schoolyard bioblitzes to assess biodiversity in their region and to contribute to the Global Snapshot of Biodiversity as part of National Geographic’s Great Nature Project. This session features how schools (1) organized their schoolyard bioblitz events, (2) collected information about organisms using iNaturalist.org, (3) evaluated the taxa and species data, and (4) used biodiversity mapping resources to explore biodiversity from local to global scales. School bioblitzes are part of the Okaloose Science initiative, funded through a Department of Defense Education Activity grant.

Salon H
Paper Session: Geography in Elementary Schools
11:00 am–12:15 pm
Geography in Elementary Schools
Eui-Kyung Shin, Northern Illinois University
This paper session provides a critical reflection on the situation for geography education at the elementary level. The discussion will include the curriculum content of geography for elementary students, what is known about the quality of elementary geography teaching and learning, and the concerns and issues facing elementary geography.

Teacher Beliefs about Geography in Today’s Schools
Elizabeth Hinde, Metropolitan State University of Denver
Findings from a survey of 173 preK–12 teachers reveal that teachers are unhappy with the state of geography in today’s schools. They feel a strong sense of need, even urgency, for students to learn geography. Results of the survey will be presented, and hope for reviving geography in the schools will be discussed.

A Multiple Case Study of Elementary Teacher Recipients of the NCGE Distinguished Teacher Award
Patrick Womac, Clemson University
Some elementary teachers practice effective geography instruction, but they may be rare given the lack of institutional incentive. This study examines a sample of these exemplary teachers to learn what past experiences and perspectives might have influenced both their ability and motivation to take geography curriculum seriously.

Korean Pre-service Geography Teachers’ Dispositions Toward Teaching and Spatial Thinking Through Geography
Jinhee Lee, Texas State University
This paper presents Korean pre-service geography teachers’ dispositions toward teaching spatial thinking through geography. It was measured using the “Teaching Spatial Thinking Through Geography Disposition Inventory”. Results show that the pre-service teachers consider that teaching spatial thinking is important in teaching geography, but there are many constraints that hinder teaching spatial thinking skills.
The Center for Great Lakes Literacy: Professional Development, Place-Based Education, and Stewardship

Allison Neubauer, Illinois-Indiana Sea Grant

The Center for Great Lakes Literacy (CGLL) is a collaborative effort led by Sea Grant educators throughout the Great Lakes. Learn how to incorporate geography-based lessons about critical environmental issues through an introduction to CGLL’s educator workshops, effective community-school partnerships, and action-oriented stewardship projects!

An Update on Pre-service Geography Teacher Education in Texas

Richard A. Earl, Texas State University
Jo Beth Oestreich, Texas State University

The 2013 Texas legislature eliminated high school world geography as a required subject. Simultaneously there has been an increase in GIS applications and an increase in AP Human Geography. To counter these conflicting demands, teacher education programs have had to adapt. At Texas State, introductory GIS is now required for the geography-social studies composite major, and students are allowed to take additional techniques and systematic courses rather than regional courses.

Retrospect on Two Cycles of a GTA Mentoring Program

Brad Bays, Oklahoma State University

This poster illustrates evidence of graduate teaching associate (GTA) performance since 2008, or two complete GTA funding cycles. The GTA mentoring program designates a tenured faculty member to oversee and steward the performance of Ph.D. students responsible for large undergraduate course sections over four years of funding.

NCGE Women in Geography Education Calendar Project, 2005-2006

Jodi Vender, Penn State University

With support from the Geography Education National Implementation Project (GENIP), the NCGE’s Women in GeoEd Special Interest Network published calendars in 2005 and 2006 to celebrate women geography educators whose contributions to the discipline have been significant. This poster reprises the calendars’ content for the NCGE Centennial’s audience.

Social Media as a Platform for Authentic Learning and Geographic Literacy

Kenneth Carano, Center for Geography Education in Oregon

Focusing on a United States and Gaza classroom Skype collaboration and United States and Malaysian student blogging activity, participants learn how social media can provide students authentic learning opportunities that teach essential geography concepts and skills. Handouts of example activities will be provided.
Commerce

Paper Session: Diversity and Global Awareness
1:00 pm–2:15 pm

The Promotion of 21st Century Geographic Education Through the Globalization of Teaching Methods Courses
Cyndi Mottola Poole, University of Pittsburgh

Twenty-first century geographic education requires not only thorough knowledge of the world in which we live, but also a truly global perspective. Students more readily achieve these goals when their teachers receive the proper support in their pre-service education programs. In this presentation, two social studies education professors will describe the steps they took to globalize their methods courses and the impact these changes had on the global perspectives of future teachers. Co-author not in attendance: Anthony Pellegrino, George Mason University.

Bringing Global Awareness to a Rural West Virginia Classroom
Shimantini Shome, Concord University

As an international faculty, developing a global perspective on various issues is an integral part of both my teaching and research philosophies. Teaching underprepared, underexposed, and often extremely resistant students about places other than their own country, can be both highly challenging, as well as exciting. This paper is about the challenges I face and the rewards I reap, while teaching geography in rural West Virginia.

Introducing Teaching Ethnic Geography in the 21st Century
Lawrence Estaville, Texas State University
Edris Montalvo, Cameron University

In this session we introduce the e-book Teaching Ethnic Geography in the 21st Century that was published in 2014 by the National Council for Geographic Education. New, young voices in geography education have written many of the 14 papers in the online anthology regarding pedagogical techniques and strategies in teaching ethnic geography to college and high school students. We highlight some engaging and enduring ways to teach about ethnic and racial groups and their geospatial imprints. Co-author not in attendance: Fenda Akiwumi, University of South Florida.

Treasury

Getting There with Google Maps
1:00 pm–2:15 pm
Erika Lowery, Lewisville ISD
Kelly Glos, Lewisville ISD

Engage your brain in your passion for maps and the stories they tell us using Google Maps. There will be a brief ‘how to’ at the beginning of the session, with most of the time dedicated to thinking and creating a Google Map to use in your classroom. Please come with a charged device and Google Maps loaded.
1:00 pm–2:15 pm Saturday, August 8

**Cannon**

The Math of Mapping
1:00 pm–2:15 pm

*Lara Bryant, Keene State College*

Geography’s origins are in Greece: geo “earth” and grafien “to draw”. Besides the geometry of drawing a map, there are other ways to use geography to provide context for math content. In this data-rich world, participants will learn ways to use math to support the understanding of geographic concepts.

**Salon H**

Researching Global Challenges to the U.S.
1:00 pm–2:15 pm

*Christopher Jones, Middletown High School, Middletown, DE*

With the aid of Google applications, student groups conduct and present in-depth political, economic, and cultural research on the regions of the world in order to understand and appreciate the diversity of the world, to apply and appreciate content knowledge from the course, and to predict global challenges.

**Hart**

Paper Session: Teaching Geography with Geospatial Technology
1:00 pm–2:15 pm

*Investigating Land Use Change with a Century of Historical USGS Maps*

*Joseph Kerski, Esri/University of Denver*

Discover easy and powerful methods of investigating changes in your community and elsewhere by using 100 years of USGS topographic maps in a dynamic online mapping environment.

*Teaching ArcGIS Online and Story Maps*

*George W. White, South Dakota State University*

*Emily A. White, South Dakota Geographic Alliance*

ArcGIS Online and Story Maps potentially provide easier access to GIS than desktop GIS, providing greater opportunity to introduce spatial analysis to a broader audience. This paper focuses on an experimental, two-credit course for non-geography majors taught at South Dakota State University using ArcGIS Online and Story Maps.

*Our Changing Climate: A Brand New Way to Study Climate Science*

*James Brey, American Meteorological Society*

*Our Changing Climate* is AMS’ new eBook used to increase K–12 teachers’ (DataStreme Earth’s Climate System) and students’ (AMS Climate Studies) climate literacy. It incorporates information from IPCC AR5 and the 3rd National Climate Assessment. Optional advanced sections, Topics in Depth, and pertinent scientific literature are included within each chapter.
Saturday, August 8

1:00 pm–2:15 pm

State

Paper Session: Research on Geographical Naming and Territorial Issues in East Asia
1:00 pm–2:15 pm
Organizer: Joseph P. Stoltman, Western Michigan University

Research on Geographical Naming: Issues in Northeast Asia
Jino Kwak, Northeast Asian History Foundation
Joseph P. Stoltman, Western Michigan University

Research on geographical naming and territorial claims is within the realm of scholarly geography. This paper presents examples of naming and territorial issues in Northeast Asia. A principal focus will be the role of archival materials, especially old maps, in rendering evidence of past activities that influenced original names, conditions leading to name changes, and the efforts to reintroduce original names on modern maps and educational materials.

Student Engagement with Geographical Naming and Territorial Issues
Joseph P. Stoltman, Western Michigan University
Jino Kwak, Northeast Asian History Foundation

Geographical naming and territorial issues are often unfamiliar concepts for U.S. teachers, and thus remain so for their students. This paper addresses the influence of direct experiences with geographical naming and territorial issues on instructional inclusion of those topics. The influences of field study in South Korea by geography and social studies teachers are presented.

Through Old Maps: The East Sea Activity and Literature
Jino Kwak, Northeast Asian History Foundation

Maps contain geographical names, and names hold a wealth of information regarding the origins and changes in places. There is evidence that the name East Sea was used for the body of water between the Korean peninsula and Japan for many centuries.

Salon K

The Biggest Humanitarian Crisis in our Era: Three Lessons on Refugees for the AP Human Geography Classroom
1:00 pm–2:15 pm
Liliana Monk, Walter Johnson High School, Bethesda, MD
Amy Stalker, Fleming Island High School and Florida Geographic Alliance

The experiences of refugees continue to dominate migration studies in the AP Human Geography classroom. Teachers will learn innovative ways to teach about world refugees, including writing free-response questions (FRQs) and implementing guided reading strategies with photographs to better engage students. Curriculum involving experiential learning, refugee interviews, meeting with refugees, and videoconferencing with international students will be shared.

Justice

Teaching AP Human Geography with Live Web Maps
1:00 pm–2:15 pm
Lyn Malone, WorldViews GIS
Seth Dixon, Rhode Island College

Join us as we explore how to teach AP Human Geography effectively with live web maps, including investigations in population dynamics and characteristics, urban forms, land use, transportation networks, and more.
Salon J

Panel Discussion: Celebrating Geography Education
1:00 pm–3:45 pm
As NCGE celebrates 100 years, join us to hear from recipients of the George J Miller Award, NCGE’s highest honor, for a discussion of important topics in geography education in recent history and a look toward the future.

Part 1:
1:00 pm–2:15 pm
Session Chair: Richard Boehm, Texas State University
Panelists:
David Lanegran, 2008
Christopher Salter, 1992
Martha Sharma, 1999
Douglas MacLeod, 2002
Gary Elbow, 2009
Robert Harper, 1986

Part 2:
2:30 pm–3:45 pm
Session Chair: David Rutherford, University of Mississippi
Panelists:
Richard Boehm, 1991
Robert W. Morrill, 2007
Charles F. Gritzner, 1997
Osa Brand, 2004
Joseph P. Stoltman, 1989

Rayburn
Paper Session: Making Connections Across the Curriculum
1:00 pm–2:15 pm

Teaching Geography Using Write-to-Learn Strategies: Making Connections to the C3 Framework
Benjamin J. VanVleet, Geographic Alliance of Iowa/University of Iowa
K–12 geography teachers may face new responsibilities as a result of the Common Core State Standards for English Language Arts (ELA) and the C3 Framework. How can write-to-learn strategies help students learn geography content? Additionally, we will explore the ELA standards embedded in the C3 Framework.

Supporting Geographic Literacy: Maps in Social Studies Textbooks
Todd W. Kenreich, Towson University
Montana K. McCormick, Towson University
This session highlights a study of maps in social studies textbooks. Drawing on the fields of cartography and literacy education, the study explores what types of maps are included and describes the nature of map-to-text relationships. Recommendations are offered for more effective use of textbook maps to support geographic learning. Co-author not in attendance: Michael Rink, Esri
Hart
From the Dust Bowl to Sunny California
2:30 pm–3:45 pm
Gale Olp Ekiss, Arizona Geographic Alliance

The Arizona Geographic Alliance has over 300 FREE lessons on its website. From the Dust Bowl to Sunny California uses primary sources (documents, images, and recordings) to teach push-pull factors of human migration during the Great Depression. Participate in this exemplary lesson. View the website. Teach the lesson tomorrow.

Salon H
Terra Populus and CODAP: Integrated Population and Environmental Data in an Online Analysis Platform
2:30 pm–3:45 pm
Tracy Kugler, Minnesota Population Center, University of Minnesota

TerraPop provides free access to spatially integrated population and environmental data. The Common Online Data Analysis Platform (CODAP) provides easy-to-use tools for exploring and visualizing the data and preparing lesson plans. Workshop participants will learn how to obtain data from TerraPop and incorporate it into lesson plans with CODAP.

Cannon
Aksum—No Questions!
2:30 pm–3:45 pm
Kimberly L. Adams, Comstock Public Schools/Michigan Geographic Alliance
Christopher J. Adams, Michigan Geographic Alliance

No civilization is static! Come discover what factors affected the rise and fall of Ancient Aksum. Participants will utilize time lines, maps and the Geohistogram to analyze the rise and fall of the Ancient African kingdom of Aksum. Finally, integrate geography and history into your classroom!

Commerce
A STAR Community Within the Community
2:30 pm–3:45 pm
Cynthia Sterling, New Hampshire Geographic Alliance, KSC

A school trained in waste volume analysis strengthens their standing as a “community within a community”. The ultimate goal of the STAR program is to provide every school with the data necessary to compile an accurate waste profile. This outstanding cooperation between town and gown teaches geo-literacy and reduces costs.

Salon K
Agriculture and Energy
2:30 pm–3:45 pm
Lonnie Moore, Geographic Educators of Nebraska
Tom Allen, Geographic Educators of Nebraska

Interactive lessons will be presented by AP teachers, Tom Allen and Lonnie Moore. Learn ways to teach about biofuels including hog lard jet fuel and the controversies of using land to produce fuel. Appropriate for AP agriculture unit but adaptable for other 5-12 classes. Targets standards 15 and 18.
Justice

Tech-Enabled Field Studies
2:30 pm–3:45 pm
Tom Baker, Esri

Want to get your students outside? Use the new ArcGIS Online GeoForm web application and your students’ smartphones to create and conduct custom field studies for your class!

Treasury

Landmark Game
2:30 pm–3:45 pm
Terry Smith, Radford University

Landmark Game provides authentic practice for developing skills and competencies in social studies, history, literacy, math, and science. Students are also developing their competencies with academic content: collaboration, organization, critical thinking, problem solving, creativity, technology skills, and global awareness. Because this learning experience is situated in project form, all levels of students can participate toward individual and group goals, while the teacher facilitates, monitors, and assesses the learning.

Rayburn

Quick, Cheap, and Easy: One-Period Activities for the AP Classroom
2:30 pm–3:45 pm
Liz Bash, Geographic Alliance in Nevada

I will demonstrate a variety of hands-on classroom activities which require little in the way of computer technology, use only low-cost materials and which can be implemented in a single class period but which provide much in the way of student engagement and learning opportunity.

4:00 pm–5:15 pm

Commerce

Zombie-Based Learning: Using Geography Skills to Survive a Zombie Apocalypse
4:00 pm–5:15 pm
David Hunter, Zombie-Based Learning

David Hunter, founder of Zombie-Based Learning, will share strategies of building inquiry into geography using a zombie apocalypse. Learn to improve student engagement while activating higher-order thinking. This workshop will demonstrate how to use this narrative to meet rigorous 2012 National Geography standards and give students real-life geography skills.

Hart

Tortoises, Penguins, and Sea Lions, Oh My! A Journey to the Galapagos
4:00 pm–5:15 pm
Dennis Rees, Arizona Geographic Alliance

Come and learn about a unit of study created by a 2007 Grosvenor Teacher Fellow. Participants will view the unit and learn how to access it online.

Justice

Mapping Practice
4:00 pm–5:15 pm
Charlie Fitzpatrick, Esri

Come in and work on your desired maps and processes, with Esri staff around to help! Explore the tools and content from previous sessions, or work on enhancing one of your current lessons.
Salon H

Paper Session: Promoting Geography in the Curriculum

4:00 pm–5:15 pm

An Effective STEM+C Model of Teaching and Learning: What Is the Role of Geography in this Model?
Julia Parra, New Mexico State University, New Mexico Geographic Alliance
Julie Thomas-Brown, University of Michigan-Dearborn/Michigan Geographic Alliance
Dr. Parra and Dr. Thomas-Brown are identifying teaching and learning concepts for the development of an Effective STEM+C Model of Teaching and Learning, currently being referred to as Discover STEM+C. For this paper and presentation, Dr. Parra and Dr. Thomas-Brown will share this model under development along with the grant submissions under development and the Discover STEM curriculum that will be taught in spring 2016 by Dr. Parra. Dr. Parra and Dr. Thomas-Brown hope to engage the participants in a conversation that will improve the model, the course, and any other projects under development.

Promoting Geography Education with a Dual-Credit Geography Class
Lynn Songer, Lane Community College
Learn how high school teachers are revising curriculum to teach Digital Earth, a 100-level college course, to provide college credit and a pipeline to college for their students. Dual credit programs can advance and promote geography education and support national education goals for retention and completion.

Changing K–12 Curriculum Through the Back Door
Jeff Allender, University of Central Arkansas
Karen Davis, Co-Coordinator, Arkansas Geographic Alliance
Arkansas' curriculum just went from no geography taught or tested to infusing geographic threads K-6 and a required stand-alone geography course in 7th grade. This presentation will describe how our Alliance helped achieve this and why the course we’re developing is better than the traditional world regional course often taught at this level.

Treasury

The National Historical Geographic Information System (NHGIS): A Free Tool to Support Geographic Education

4:00 pm–5:15 pm
Jason Borah, Minnesota Population Center
NHGIS (www.nhgis.org) provides free access to 27,000 census tables and nearly 1000 GIS files describing contemporary and historical census units. Workshop participants will learn how to use the website, view sample classroom exercises, and leave with ideas on incorporating historical and modern census data and GIS into the curriculum.

Salon J

Change Over Time and Space: Using GIS to Enhance the Social Studies Classroom

4:00 pm–5:15 pm
Chris Bunin, Virginia Geographic Alliance
No high tech software? No problem! Using a variety of online geospatial tools we will quickly model how you and your students can use GIS to interactively question, analyze, and visualize geography’s connections with episodes in American history. Lesson plans, replication tips, tricks, and challenges will be shared.
4:00 pm–5:15 pm

State
Integrating Choices Case Studies into the AP Human Geography Curriculum
4:00 pm–5:15 pm
Phillip Hare, A.C. Flora High School
Allison M. Hunt, duPont Manual High School
Learn about the Choices curriculum program and how to effectively integrate it into multiple AP Human Geography units. The Choices program engages students through primary and secondary source analysis, and deliberation of current and historical international issues. Participants will receive access to one free Choices unit.

Rayburn
Mapping Your Historic Downtown Using ArcGIS Online Story Map Tours
4:00 pm–5:15 pm
Margaret Chernosky, Maine Geographic Alliance
Susan Lahti, Maine Geographic Alliance
Time travel to explore past landscapes with ArcGIS Online! Using historic maps and photographs, attendees will recreate their historic downtown by constructing a place-based, geohistorical inquiry project using local data. Attendees will learn how to create a public account, and create, save, and share ArcGIS Online maps. Please bring your laptop or tablet.

Salon K
Think Inside/Outside of the Box
4:00 pm–5:15 pm
Karen Stockton Wallace, Mississippi Geographic Alliance
Mary Jane Jackson, Mississippi Geographic Alliance
Barbara Boone, Mississippi Geographic Alliance
The presentation is based upon the children’s book: The Inside Outside Book of Washington DC. The participants will read the book which shows the outside and inside perspective of prominent buildings in Washington. They will compare and contrast this book with The Inside Outside Book of Texas and then construct two pages that show the Inside/Outside perspective of a prominent building from their home town(s).

Cannon
Paper Session: 2015 Natoli Dissertation Award Recipients
4:00 pm–5:15 pm
Reciprocity of Representation and Geospatial Literacy
Lynn Moorman, Mount Royal University
This research contributes an educational research perspective to the definition of geospatial literacy within the context of learning with geospatial technology. A new text is considered—tiled satellite imagery that is accessible to children everyday and is commonly found in mapping, navigation, and GIS Applications. 2015 Natoli Dissertation Award Recipient.

The Impact of Paper Versus Digital Map Technology on Students’ Spatial Thinking Skill Acquisition
Larianne Collins, University of South Carolina
This research investigates whether spatial learning outcomes differ with respect to instructional delivery. Specifically, it examines traditional, paper aerial imagery as compared to digital imagery visualized with 3-D globes. Spatial thinking skill development was measured as students were tested pre- and post-lesson implementation via the Spatial Thinking Ability Test. 2015 Natoli Dissertation Award 1st Runner Up.
**Cannon**

**Ten Engaging Ways to Link Technology to K–12 Social Studies Instruction**
8:00 am–9:15 am
_Tama Nunnelley, Alabama Geographic Alliance_

Navigating through the maze of today’s available technology for K–12 education can be exhausting. This hands-on workshop will demonstrate 10 basic technology tools to engage students, enhance student literacy, and propel social studies education to the front of the classroom, all while meeting your content standards.

**Rayburn**

**Paper Session: Place-Based Education and Service Learning in Geography**
8:00 am–9:15 am

- **Course Projects That Engage Student Learning in GIS Science and Remote Sensing**
  _Doug R. Oetter, Georgia College_
  GIS and remote sensing students have demonstrated a preference for applying concepts and skills to a course project that involves problem design, data acquisition, analysis, and product generation. Problem-based learning gives students a real-world application of GISc. This paper shares experiences with course projects, including student presentations at research conferences.

- **Implementing Service Learning in Geospatial Technology Courses**
  _Sven Fuhrmann, George Mason University_
  _Matthias Moeller, Beuth University of Applied Sciences, Berlin, Germany_
  Geospatial technology courses offer many service learning opportunities at the undergraduate level. Service learning combines classroom instruction with community service. A novel teaching approach educates undergraduate students about geospatial information principles and facilitates updating a global geodatabase for crisis managers and first responders through volunteered geographic information.

- **Deeply Focusing on “Place” in Place-Based Education**
  _Michael Jabot, State University of New York at Fredonia_
  This presentation will share strategies for developing “hyper” place-based curriculum interventions for use by participants in their own “places”. Examples of how this strategy has been used for developing customized regional curricula will be shared along with initial results of the research conducted during the implementation which show promising impacts on student conceptual understanding.

- **Place-Based Environmental Education Program for Pre-service Teachers**
  _Okkyong Yoon, Cheongju National University of Education_
  This study shows how place-based environmental education program can help pre-service teachers learn a sense of place and the concept of education for sustainable development (ESD) by providing diverse and dynamic experiences in the context of place.
Salon H
Paper Session: Pedagogical Considerations of Geospatial Technology
8:00 am–9:15 am

Growing the Use of GIS as a Pedagogical Tool
Jerry Mitchell, University of South Carolina
Carmen Brysch, San Marcos, Texas
Kurt Butefish, University of Tennessee
Roni Jones, National Geographic Society
Lisa Keys-Mathews, University of North Alabama
Jan Smith, Shippensburg University
William Strong, University of North Alabama

Authentic explorations using geospatial technologies are too rare in U.S. K–12 classrooms today. As geography professionals and users of GIS and other geospatial technologies, we maintain that students and teachers can increase their geoliteracy by engaging in real-world problem solving (at scales from local to global) using these technologies. This paper reports on the results of surveys of teachers, geographic alliance coordinators, and GIS trainers toward designing a Professional Development Framework for Geospatial Technologies, along with recommendations from a geospatial technology expert summit.

Digital Earth in the Elementary Classroom
Lynn Moorman, Mount Royal University

The free Digital Earth application, WorldView™ Studio, was informed by geospatial education research incorporating student and teacher perspectives. Pedagogical considerations for young learners drove the design. Spatial queries, data, and projects, and customized assessments starting at the elementary level will be explored while addressing the key research underpinning this work.

Promoting Active, Problem-Based Learning Using Geographic Information Systems
David Padgett, Tennessee State University

A Geographic Information Systems (GIS) teaching circle is organized including faculty from multiple disciplines. The objective is to develop hands-on GIS-based teaching modules to enhance students’ understanding of selected course content. One of the goals is to significantly increase the number of lower-division students exposed to geospatial technology.

Salon J
Using Linguistic Geography to Teach African History
8:00 am–9:15 am
Jim Hauf, Berkeley Middle School

Engage students in authentic geographic/historical inquiries about Africa by mapping linguistic data to examine the Bantu migrations, spread of Islam, and Swahili coast/Indian Ocean trade. Lessons incorporate non-fiction reading/writing compatible with the C3 Framework and Common Core. Materials are classroom ready and adaptable for middle school through APHG levels.

Salon K
Connecting the Dots on World Population
8:00 am–9:15 am
Carol Bliese, Population Connection

An understanding of population issues is central to the AP Human Geography course. Discover a new interactive, online tool and hands-on activities to help secondary students grasp world population history, future projections and how human population trends correlate to environmental and land use trends.
Dirksen
AP Human Geography in an On-line Environment
8:00 am–9:15 am
*Thomas Anderson, Consultant*

According to the College Board, AP Geography is one of the fastest growing Advanced Placement offerings but not every school can support this subject in their high school courses of this study. In this presentation, Dr. Anderson will demonstrate one on-line program he has used to help students achieve success on the APHUG exam. At the conclusion of this presentation, participants will know how students learn human geography in a totally on-line environment.

Hart
The Nation’s Report Card for Geography: A Deeper Look
8:00 am–9:15 am
*Ebony Walton, National Center for Education Statistics*
*Linda Hamilton, National Center for Education Statistics*

Join us to learn more about the recently released results from the National Assessment of Educational Progress (NAEP) in geography. During the session, we will examine what students know and can do in geography with sample questions from the assessment. We will also provide a brief overview of NAEP, take participants on a tour of the geography report card online, and share our new approach to reporting the relationship between contextual variables and achievement.

Treasury
iSTEM—A Model GIS Curriculum for Middle Schools
8:00 am–9:15 am
*Annie Evans, Virginia Geographic Alliance*
*Julie Stavitski, Virginia Geographic Alliance*

Geospatial technologies provide unique opportunities to integrate geography and STEM across disciplines. Participants will learn about a free middle school iSTEM GIS curriculum that is teaching students and teachers workforce and spatial thinking skills. Lesson plans and tips and tricks will be provided.

State
The Changing Geography of Immigrant Settlement and What That Means for the Classroom
8:00 am–9:15 am
*Claire Tesh, American Immigration Council*
*Sara Burnett, American Immigration Council*

In this workshop, researchers will first discuss recent immigration trends on state and local levels and how these developments affect schools and communities. Audience members will then be guided on how best to engage students in learning about this changing landscape and what resources are available to them.
Salon H

Paper Session: Geospatial Technology
9:30 am–10:45 am

**Geospatial Technologies and High School Geography—What’s the Problem?**
*Mary Curtis, University of Texas at Arlington*

Building on Joseph Kerski’s seminal study, this investigation examines the nature of geospatial technology (GST) implementation at the high school level. This presentation explores similarities and differences between the two studies.

**The Geography in GIS**
*Richard Lisichenko, Fort Hays State University*

There is a considerable amount of information available for geographic educators regarding GIS technical operations and analysis techniques. However, often missing are the descriptions of the geographic principles that accompany them. The integration of these can both enhance geographic literacy and GIS spatial analysis understanding.

Salon K

**Interactive AP Human Geography Lessons**
9:30 am–10:45 am
*Debra Coram Troxell, North Carolina Geographic Alliance*

A variety of interactive lessons for AP Human Geography will be presented for each unit. Lessons will include strategies for reviewing vocabulary, GIS mapping assignments, simulations, choropleth mapping, and web-based homework.

**Landforms: Using Technology to Integrate the Learning of Geography and Earth Science in the Elementary Classroom**
9:30 am–10:45 am
*Charlene Bustos, Angelo State University*
*Christine Purkiss, Angelo State University*

Providing strategies to pre-service elementary school teachers in using technology to integrate the topic of landforms to teach both geography and earth science. Survey results from spring 2015 classes will be included.

**Hands-on Strategies for Physical Geography and Professional Development**
9:30 am–10:45 am
*Cheryl Frazier, Texas State University*

Learn pedagogical strategies for teaching physical geography to take home and share with your team. Participants will engage in hands-on activities and learn about the hybrid online professional development program “Geography: Teaching with the Stars”.

Sunday, August 9  
9:30 am–10:45 am

**State**

**Beyond Mountain, River, Valley**
9:30 am–10:45 am
Raegan Conlin, National Cathedral School
Lydia Lewis, National Cathedral School
Looking for fresh fun geography activities that go beyond simple memorization? This presentation provides a variety of hands-on activities, discussion topics and reading strategies to engage learners in geography skill building and critical thinking.

**Treasury**

**Stack the Stats: Global Human Development**
9:30 am–10:45 am
Heather Braucher, Oklahoma Alliance for Geographic Education
Hands-on lesson for students to analyze data using manipulatives, collaborate with classmates and draw conclusions, then make predictions. Lesson includes Common Core concepts in math and language arts. Bonus lesson included. Digitals materials provided.

**Rayburn**

**After the APHG Exam: Doing Real-World Geography**
9:30 am–10:45 am
Richard Katz, Roosevelt High School and Geo-Literacy Alliance
Following the APHG examination, students have more freedom to do real-world geography projects outside the classroom. This workshop presents options, a conversation of opportunities to complete projects, and the sharing of results. Teachers should be able to understand how to complete a neighborhood inquiry project in their communities along with other ideas.

**Commerce**

**Igniting Curiosity and Wonderment**
9:30 am–10:45 am
Paul Nagel, North American University
See, think, wonder! Three small steps to helping students develop questions about their world. Thinking Geographically, Geography for Life and the C3 all call for inquiry in some way. How though do we get students to inquire about their world? How do we change the culture of the classroom? In this interactive session for elementary and middle school, students and teachers will develop the thinking process for a curious classroom.

**Cannon**

**Paper Session: The Geography Teacher Award Winners**
9:30 am–10:45 am

Recipients of the *The Geography Teacher* Award present their award winning article and lesson plan.

**Navigating Maps to Support Comprehension: When Textbooks Don’t Have GPS**
Kathryn L. Roberts, Wayne State University
Kristy A. Brugar, University of Oklahoma Norman

**Map Skills, Ocean Currents, Pollution, and...A Rubber Duck?**
Jerry T. Mitchell, University of South Carolina
Danielle Hance, Lake Murray Elementary School
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