

SAPROLITE

Newsletter of the Southeastern Section The Geological Society of America

Southeastern Section

No. 11, Fall 1999

Message from the Chair of the Southeastern Section of GSA BOTH/AND, NOT EITHER/OR: FIELD-BASED GEOLOGY AND TECHNOLOGY-BASED GEOSCIENCE

The geological community has become increasingly polarized as technology-based investigations become more important. Field-based regional investigations are relegated by some to secondary status. In the Southeastern Section of the Geological Society of America, the confluence of the approaching year 2000 and the upcoming 50th annual SEGSA meeting in 2001 presents an appropriate time to emphasize the critical importance and interdependence of both approaches.

The accomplishments of our section are many. The Cordilleran and SEGSA were the two earliest regional sections of GSA. The concept for GSA campus representatives originated in our section, providing a direct outreach to undergraduate and graduate students. The idea of providing grants to support student research and travel to meetings originated in our section and has provided both encouragement and direct financial support to promising students.

The most important contribution of the section has been to serve as a focus for studies of southeastern geology. It has provided an opportunity for geologists to present their results to an audience that is knowledgeable about their field area and interested in ongoing investigations. Interactions with these colleagues are invaluable in establishing the regional framework. Controversies provide a healthy challenge. Undergraduate and graduate students can make their first presentations in an environment that is supportive but, at the same time, emphasizes the requirement for critical thinking skills. On the practical side, regional meetings provide an opportunity especially important for small departments with limited budgets to bring groups of students to meetings where they can expand their knowledge and experience the excitement of geology. Field trips associated with meetings of SEGSA provide an especially important opportunity for both professional geologists and students.

Field-based regional studies, as exemplified by the field trips and most of the presentations at annual meetings of SEGSA, provide the foundation for the science of geology. High quality detailed geologic mapping is still critical in areas ranging from local environmental studies to broad syntheses of crustal development. The value of innovative geochemical or isotope techniques is ultimately in their application to field-based regional studies. One individual cannot master all the required specialties and not every person contributing to a field-based regional study will have ever mapped a quadrangle. But the team, including both field geologists and those who work primarily in the lab, together generates an integrated regional study that provides the supporting framework for studies utilizing advances in rapidly advancing technologies such as seismology or remote sensing.

We cannot afford the luxury at any level of focusing entirely on either traditional field-based geology or on technology-based geoscience. Whether our primary mission is teaching undergraduate and graduate students, working as professional geologists, or conducting basic research, we must emphasize both field-based geology and technology-based geoscience.

Students continue to need a strong foundation in the traditional areas of geology. It is shortsighted to replace this with courses designed for a specific career choice. We cannot predict at this point exactly where the jobs will be twenty years from now. Students need a background for lifelong learning in the geosciences as career opportunities in specialties undergo the inevitable cyclic peaks and valleys. Just as communication and math skills need to be integrated throughout courses in the geology major,

computer skills such as GIS and basic applications of specific geophysical techniques and remote sensing need to be integrated into the traditional courses. Students will develop an appreciation for their power and the imagination to see new applications, in addition to developing basic computer skills as a foundation for more specialized training in graduate school or on the job.

As a profession, we need to promote the continued development of geologic applications of advancing technologies. We need to promote meaningful "big science" applications in geology at the national and international level. At the same time, it must be emphasized that the greatest value will be realized only when large-scale technology-based investigations are completely integrated with regional field-based studies.

Gail Russell

Chair, Southeastern Section

Southeastern Section of GSA on the Web

The Section provides information about Section officers, meetings, and student support on the world wide web:

http://www.geo.ua.edu/segsa/segsa.html

48th Annual Meeting of the Southeastern Section

The annual Section meeting was held in Athens Georgia on March 29-31, 1999. Congratulations to Sam Swanson and the local committee for a very successful meeting!

49th Annual Meeting of the Southeastern Section

Charleston South Carolina, March 22-24, 2000

The 49th annual meeting of the Southeastern Section, hosted by the College of Charleston, will be held in Charleston, South Carolina March 22-24, 2000. Information concerning registration, accommodations, and activities is available on the web

http://www.geosociety.org/profdev/sectdiv/southe/00semtg.htmand in GSA Today.

Abstract Deadline: December 8, 1999

Abstracts for all sessions must be submitted camera-ready on official 2000 GSA section meeting abstract forms or electronically (http://www.geosociety.org/index.html). These forms are available from the Abstracts Coordinator, GSA, PO Box 9140, Boulder, CO 80301-9140, (303) 447-2020, ext. 161, or the Technical Committee Co-Chair, June Mirecki, Dept. of Geology, College of Charleston.

An original and five copies of all abstracts (volunteered and invited) should be sent to June Mirecki, Dept. of Geology, College of Charleston, Charleston, SC 29424. Late abstract submissions will be returned. Abstracts sent by e-mail or fax will not be accepted. Participants are encouraged to send a copy of the abstract to the session convener. Abstracts will be reviewed for information content, format, and originality. GSA rules prohibit individuals from presenting more than one volunteered abstract. Abstracts for symposia are not affected by this limitation.

Field Trips:

Field trips will focus on coastal and coastal-plain localities of interest, and the record of the 1886 Charleston earthquake; however, field trips to Piedmont and Appalachian localities will also be included. Please contact the field trip leaders listed below for details about particular excursions. For general questions concerning field trip logistics, or if you are willing to propose an additional field trip, please contact Christopher Abate, field trip coordinator, (843) 953-1802.

Field Trips — Tentative

1. Paleoliquefaction Effects of the 1886 Charleston Earthquake. Pradeep Talwani, Department of Geological Sciences, University of South Carolina, Columbia, SC 29208, (803) 777-6449.

2. Charleston Earthquake Damage Walking Tour. Sponsored by the Southeastern Section NAGT. William A. Smith, Dept. of Physical Sciences, Earthquake Education Center, Charleston Southern University, Charleston, SC 29423, (843) 863-8085.

3. Neotectonic Features of the Lower Coastal Plain of Georgia and South Carolina. Jerry Bartholomew, ESRI, University of South Carolina, Columbia, SC 29208, (803) 777-7693; and Fredrick Rich, Dept. of Geology and Geography, PO Box 8149, Georgia Southern University, Statesboro, GA 30460-8149, (912) 681-0849.

4. Newberry, SC, Eclogite: Structural Setting and Style of Occurrence. Allen J. Dennis, University of South Carolina, Aiken, with John Shervais and Don Secor, University of South Carolina, Columbia. Trip coordinator is Allen J. Dennis, Dept. of Biology and Geology, University of South Carolina Aiken, 471 University Parkway, Aiken, SC 29801, (803) 641-3396.

5. Folly Beach, SC: Tomorrow's Coastal Problems, Today. Gered Lennon, Dept. of Geology, College of Charleston, Charleston, SC 29424, (843) 953-3193.

6. U.S. Geological Survey Aquifer Storage Recovery Project, Charleston, SC. Bruce Campbell, US Geological Survey—Water Resources Division, 720 Gracern Rd., Suite 129, Columbia, SC 29210-7651, (803) 750-6100.

7. Depositional History and Coastal Processes at Cape Romain, SC. Walter J. (Jerry) Sexton, Athena Technologies, Inc., 3700 Rosewood Dr., Columbia, SC 29205, (803) 790-4483; and Tim Kana, CSE/Baird, PO Box 8056, Columbia, SC 29202, (803) 799-8949.

8. Paleontology and Biostratigraphy of the Coastal Plain. David Campbell, Dept. of Geological Sciences, CB 3315 Mitchell Hall, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599-3315, (919) 966-4516.

9. Sapelo Island Coastal Geology and Paleontology. Susan J. Goldstein (706) 542-2397; and John Garbisch, Dept. of Geology, University of Georgia, Athens, GA 30602.

Symposia:

In addition to the general discipline sessions, nine symposia are planned for the meeting. Anyone interested in these should contact the conveners for information. If you have a suggestion for an additional symposium, please contact June Mirecki, Dept. of Geology, College of Charleston, Charleston, SC 29424, (843) 953-8278.

1. Role of Geology in Coastal Restoration. Richard A. (Skip) Davis, Jr., Dept. of Geology, University of South Florida, Tampa, FL 33620, (813) 974-2773; and Orrin H. Pilkey, Nicholas School of the Environment, Duke University, Box 90227, Durham, NC 27708-0227, (919) 684-5847. ORAL AND POSTER.

2. The Bald Head Island Conferences on Coastal Plain Geology Revisited; A Memorial to Victor A. Zullo. W. Burleigh (Bill) Harris, (910) 962-3492; Tricia Kelley, (910) 962-3490; and Richard A. Laws, (910) 962-3490, all at Dept. of Earth Sciences, University of North Carolina at Wilmington, Wilmington, NC 28403-3297. ORAL AND POSTER.

3. New Strategies for Interpreting the Coastal Plain of South Carolina; A Memorial to Donald J. Colquhoun. David C. Prowell, US Geological Survey, 3039 Amwiler Rd., Atlanta, GA 30360-2824, (770) 903-9100; and Karen E. Waters, (803) 737-0800, and Joseph A. Gellici, both at South Carolina Dept. of Natural Resources, 1201 Main St., Suite 110, Columbia, SC 29201. ORAL AND POSTER.

4. A Century of Progress in Southern Appalachian Tectonics. William A. (Bill) Thomas, Dept. of Geological Sciences, University of Kentucky, Lexington, KY 40506-0053, (606) 257-6222. ORAL.

5. Planetary Geology in the Southeastern Section. Harry A. (Hap) McSween, Dept. of Geological Sciences, University of Tennessee, Knoxville, TN 37996-1410, (423) 974-9805. ORAL.

6. Geoarchaeology-Blackbeard's Flagship "The Queen Anne's Revenge" Returns to Charleston. John E. Callahan, Geology Dept., Appalachian State University, PO Box 32067, Boone, NC 28608, (828) 262-2746; and Mark Wilde-Ramsing, North Carolina Dept. of Natural Resources, Wilmington, (901) 458-9042. ORAL. 7. Structure and Tectonics Symposium in Honor of Donald T. Secor, Jr. Allen J. Dennis, Dept. of Geology and Biology, University of South Carolina, Aiken, SC 29801-6309, (803) 641-3396; and John W. Shervais, Dept. of Geological Sciences, University of South Carolina, Columbia, SC 29208, (803) 777-2669. ORAL.

8. Structural Geology, Metamorphism, and Geochronology Along the Eastern-Western Blue Ridge Contact. Charles H. Trupe, Dept. of Geology and Geography, Georgia Southern University, Statesboro, GA 30460, (912) 681-0337; and Kevin G. Stewart, Dept. of Geology, CB3315, University of North Carolina, Chapel Hill, NC 27599-3315, (919) 966-4519. ORAL.

9. Shoreline and Shoreface Geology of the Carolinas: Recent Advances. William J. Cleary, University of North Carolina at Wilmington, Center for Marine Science Research, 7205 Wrightsville Ave., Wilmington, NC 28403, (910) 256-3721, ext. 251; and Stanley R. Riggs, Dept. of Geology, East Carolina University, Greenville, NC 27858, (252) 328-6379. ORAL.

Theme Sessions

Several theme sessions consisting of volunteered abstracts are planned. If you have a suggestion for an additional theme session, please contact June Mirecki, Dept. of Geology, College of Charleston, Charleston, SC 29424, (843) 953-8278.

1. Hydrology at the Land's Edge: Sea Water Intrusion, Submarine Discharges, and Groundwater Geochemical Fluxes. W. Berry Lyons, Dept. of Geology, University of Alabama, Box 870338, Tuscaloosa, AL 35487-0338, (205) 348-0583; and Anne E. Carey, Environmental Institute, University of Alabama, Tuscaloosa, AL 35487-0338, (205) 348-4008. ORAL.

2. From the Mountains to the Sea: The Biogeochemistry of Surface Waters in the Southeast. C. Brannon Andersen, Dept. of Earth and Environmental Sciences, Furman University, Greenville, SC 29613, (864) 294-3366; and William B. (Brian) Hughes, US Geological Survey—Water Resources Division, 720 Gracern Rd., Suite 129, Columbia, SC 29210-7651, (803) 750-6106. ORAL.

3. Innovative Applications of GIS Technology to Geological Research. Sponsored by Sigma Gamma Epsilon. Douglas W. Haywick, (334) 460-6381, and David T. Allison, both at Dept. of Geology and Geography, University of South Alabama, LSCB 136, Mobile, AL 36688-0002. POSTER AND ORAL.

4. The Geologist as Informant: Assessing Geohazard Risks and Raising Public Awareness. Sponsored by the GSA Committee for Geology and Public Policy. Peter J. Lemiszki, Tennessee Division of Geology, 2700 Middlebrook Pike, Suite 230, Knoxville, TN 37921-5602, (423) 594-5598; and Earl A. Shapiro, Georgia Department of Natural Resources, 19 M.L. King Jr. Dr., Atlanta, GA 30334, (404) 656-2833. ORAL.

5. Geology and Military History. Sponsored by the Southeastern Sections of the GSA Education Committee and NAGT. Robert C. Whisonant, Dept. of Geology, Radford University, Radford, VA 24142, (540) 831-5224; and Roger J. Cuffey, Dept. of Geosciences, Penn State University, Deike Building, University Park, PA 16802, (814) 865-1293. ORAL.

6. Petrographic and Chemical Methods in the Analysis and Interpretation of Historic Artifacts. Michael S. Smith, Dept. of Earth Sciences, University of North Carolina, Wilmington, NC 28403-3297, (910) 962-3496. POSTER AND ORAL.

7. A Century of Progress in Southern Appalachian Tectonics. William A. (Bill) Thomas, Dept. of Geological Sciences, University of Kentucky, Lexington, KY 40506-0053, (606) 257-6222; and Robert D. (Bob) Hatcher, Jr., Dept. of Geological Sciences, University of Tennessee, Knoxville, TN 37996-1410, (423) 974-6565. ORAL.

8. Undergraduate Research. Sponsored by the Council for Undergraduate Research. C. Brannon Andersen, Dept. of Earth and Environmental Sciences, Furman University, Greenville, SC 29613, (864) 294-3366; and Joel B.Thompson, Dept. of Marine Sciences, Eckerd College, 4200 54th Ave., St. Petersburg, FL 33711, (813) 864-8991. POSTER.

Future Section Meetings

- 2001: Raleigh, NC, Skip Stoddard will be the Chair
- 2002: Joint SE-NC Lexington, KY, John Kiefer and Jim Cobb will be the SE Section Co-Chairs

Student Travel Grants

The following students received travel support last year:

Toronto

Andrus, Fred, Univ. of Georgia

Block, Susan, Univ. of Alabama Colberg, Mark, Univ. of Georgia Fletcher, Charles, Univ, of South Carolina Gardiner, Lisa, Univ. of Georgia Grace, Mary Lee, Univ. of S. Alabama Haynes, Elizaabeth, Univ. of Kentucky Hunter, Dan, Univ. of Georgia Ingle-Jenkins, Stephanie, Univ. of Florida Ivester, Andrew, Univ. of Georgia Kulp, Mark, Univ. of Kentucky Lizee, Ted, Western Carolina Univ. Mehta, Sunil, Univ. of Kentucky Melear, Nathan, Univ. of Georgia O'Donnell, Thomas, Univ. of Virginia Parcell, William, Univ. of Alabama Rosdeutscher, Julia, Univ. of Georgia Rosenmeier, Michael, Univ. of Florida Smith, Jennifer, Univ. of Georgia Strong, Nikki, Florida State Univ. Thomas, Robert, Univ. of Georgia Turner, Aleta, Univ. of Georgia Wunsch, Dena, Univ. of Kentucky Zarikian, Carlos, Univ. of Miami

Athens

Brame, Robert, Virginia Polytechnic Institute Bream, Brendan, Univ. of Tennessee, Knoxville Calkins, Craig, Western Kentucky Univ. Campbell, Matthew, Indiana University Cochrane, Deborah, Univ. of South Florida Coffey, Brian, Virginia Polytechnic Institute Coiner, Lorrie, College of William and Mary Garry, Brent, College of William and Mary Harris, Analee, East Carolina Univ. Harvey, Samuel, Concord College Hirsch, Emily, Western Kentucky Univ. Huntoon, Amber, Univ. of North Carolina, Wilmington Jerden, James, Virginia Polytechnic Institute Kaplan, Peter, Univ. of Michigan Kates, Kerry, Univ. of Florida Lindenberg, Mary, Univ. of Florida Marden, Tara, Univ. of North Carolina, Wilmington Matyiko, Sara, Eastern Carolina Univ. McCarter, Renee, Appalachian State Univ. McCoy, Kurt, College of Charleston McDonald, Brannon, Auburn Univ. Morman, Suzette, Univ. of South Florida Orndorff, Zenah, Virginia Polytechnic Institute Pauley, Tim, Univ. of North Carolina, Wilmington Penfield, Clinton, Univ. of Tennessee, Knoxville Rupe, Christopher, Radford Univ. Shelton, Jason, Radford Univ. Street, Todd, Western Kentucky Univ. Thomas . Christopher, Juniata College Wang, Hongshan, Univ. of Florida Wang, Xin, Univ. of Florida Warner, Mathew, Florida Atlantic Univ. Williams, Scott, Univ. of Tennessee, Knoxville Williams, Travis, Western Kentucky Univ. Wise, Victoria, Univ. of North Carolina, Wilmington Xedos, Richard, Univ. of Kentucky Zayac, Tracy, Georgia Southern Univ.

Student Research Grants

The Section awarded \$4,415 to the following students [3 Ph.D. and 7 M.S.] in 1999.

Adesida, Adebola, Univ. of Georgia Borella, Josh, Univ. of North Carolina at Chapel Hill Coates, Brandon, Auburn Univ. Davis, Eric, West Virginia Univ LaSage, Danita, Univ. of Kentucky Miller, Dana, Univ. of Tennessee Robinson, Amelia, Univ. of Tennessee

Stevanovic, Ivana, Auburn Univ. Stiles, Cynthia, Univ. of Tennessee Ware, William, Auburn Univ.

Southeastern Section Officers: 1999-2000

Chair:	Gail Russell	
Chair-elect	Larry Woodfork	
Vice-Chair:	Michael Katuna	
Secretary-Treasurer:	Harold Stowell	

Nominations for Section Officers: 2000-2001

Woodfork

The Nominating Committee submitted the following nominees:

Chair:	Larry Woodfork		
Chair-elect:	Harold Stowell		
Vice-Chair:	Skip Stoddard		
Secretary-Treasurer:	Don Neal		

Financial Status of the Section

The Section had \$51,330 in its accounts at the end of December 1998. Expenditures exceeded income by \$302 in 1998. The Athens meeting in March of 1999 was very profitable; therefore, the section will realize a net profit in 1999 of ca. \$2,000. The Management Board voted to increase level spending on student research to \$5,000 and maintain student travel spending at \$8,000 in 2000.

Report from the Education Committee

The Education Committee awarded two \$500 mini-grants for programs to be carried out during 1999:

Dr. Heather Macdonald, Water is Action.

Dr. Stephen Greb, Web-based County Geology of Kentucky.

Deadlines for Student Support Applications

The Section provides research and travel grants to deserving students. Research awards are available to support undergraduate, M.S., and Ph.D. research for GSA members enrolled in universities in the Section. Research grant applications must be on current GSA forms and comply with all GSA rules. Travel assistance is available for GSA members presenting papers or posters at GSA meetings. Applications for travel grants must include an official form, certification of GSA membership (e.g., copy of membership card), documentation of student enrollment, and documentation that the student is presenting a paper (e.g., abstract acceptance). The Section Web Page (http://www.geo.ua.edu/segsa/segsa.html) provides travel grant application forms and information.

Dr. Harold H. Stowell Secretary, SEGSA Department of Geological Sciences University of Alabama Tuscaloosa, AL 35487-0338 hstowell@wgs.geo.ua.edu or (205) 348 5098

The application deadlines are: Research Grants February 1, 2000 Travel Grants to Charleston: March 1, 2000 Travel Grants to Reno: October 2, 2000

Election of Officers, 2000-2001

Southeastern Section, GSA

The slate of officers for the Southeastern Section election is presented below with biographic data. Please vote by checking the appropriate box or by writing in the name of a nominee.

Your ballot must be returned to Ms. Pat Chenworth, no later than January 31, 2000. Please fold your ballot on the line and **tape** (do not staple) it, making certain the address is showing, and affix a first class postage stamp.

		BALLOT		
Chair	Chair-elect	Vice-Chair	Secretary-Treasurer	
Larry Woodfork()	Harold Stowell ()	Edward (Skip) Stoddard () Donald Neal ()	
() (write-in)	() (write-in)	() (write-in)	() (write-in)	

LARRY WOODFORK, PETROLEUM GEOLOGY. *Educ*: Indiana Univ BS; Indiana Univ MS 65. *Prof Exp*: Director and State Geologist, WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY 89-Present; Adjunct Prof WEST VIRGINIA UNIVERSITY 89-present. *Mem*: GSA (fellow), AIPG (dist serv), AGI, AAPG, Sigma Xi, Sigma Gamma Epsilon. *Res*: Stratigraphy, Energy Resources, and Petroleum Geology. *Mailing Add*: West Virginia Geological and Economic Survey, P.O. Box 879, Morgantown, WV 26507-0879; email: woodfork@geosrv.wvnet.edu

HAROLD H. STOWELL, METAMORPHIC PETROLOGY. *Educ*: Florida State Univ BS 79; Univ South Carolina, MS 82; Princeton Univ, Ph.D. 87. *Prof Exp*: assist to Assoc Prof UNIV OF ALABAMA 86-present. *Mem*: GSA, MSA, AGU. *Res*: Metamorphic petrology and tectonics of southern Appalachians and Alaska. *Mailing Add*: Dept of Geological Sci., Univ of Alabama, Tuscaloosa, AL 35487-0338; email: <u>hstowell@wgs.geo.ua.edu</u>

EDWARD F. (SKIP) STODDARD, PETROLOGY/MINERALOGY. Educ: Amherst College, AB 71; Univ of California, Los Angeles, Ph.D. 76. Prof Exp: assist to Assoc Prof NORTH CAROLINA STATE UNIV 76-present. *Mem:* GSA, MSA, NAGT. *Res:* Piedmont geology; metamorphism. *Mailing Add:* Dept of MEAS, N. C. State Univ., Raleigh, NC 27695-8208; email: skip_stoddard@ncsu.edu

DONALD W. NEAL, STRATIGRAPHY. *Educ*: College of William and Mary BS 73; Eastern Kentucky Univ, MS 75; West Virginia Univ, Ph.D. 79. *Prof Exp*: Loggiing Geol, Exploration Logging of USA, Inc, 75-76, Research Assoc West Virginia Geol and Econ Survey, 77-79, Ass to Assoc Prof EAST CAROLINA UNIV, 79-present. *Mem*: GSA, SEPM, IAS, SGE. *Res*: Appalachian Basin stratigraphy, petrology, petroleum geology. *Mailing Add*: Dept of Geology, East Carolina Univ, Greenville, NC 27858-4353; email: email: neald@mail.ecu.edu

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> Ms. PAT CHENWORTH Geological Society of America 3300 Penrose Place P.O. Box 9140 Boulder, CO 80301