

Final Announcement & Call for Papers SOUTHEASTERN

57th Annual Meeting Charlotte, North Carolina, USA

10-11 April 2008



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Trolley in downtown Charlotte. Photo courtesy of Visit Charlotte.

WELCOME

The Department of Geography and Earth Sciences of the University of North Carolina at Charlotte (UNC-Charlotte) will host the Southeastern Section Meeting of the Geological Society of America on 10–11 April 2008. This is the premiere appearance of a Society meeting in Charlotte, and we cheerfully invite you to participate by attending and contributing an abstract. In addition to all of the information provided on the GSA Web site, www.geosociety.org/sectdiv/ southe/08mtg/, we are maintaining a local Web site that contains additional meeting resources: http://segsa2008.uncc.edu.

Charlotte has a population of about 700,000, but the surrounding region—commonly known as Metrolina—includes parts of North Carolina and South Carolina, with a population of over two million. Geologically, North Carolina has an international reputation for minerals and a mining history going back to colonial times. The first major ore-mining period in the United States was stimulated by the discovery of gold in Cabarrus County in 1799. North Carolina was the nation's only gold mining state until 1828, and U.S. gold coins were minted in Charlotte from 1838 until 1861. You can learn about this history at the nearby Reed Gold Mine State Historic Park.

Charlotte has served as a launching point (or rest stop) for many geological excursions into the nearby Kings Mountain belt (known for lithium-bearing pegmatites) and, in older terminology, the Carolina slate belt, one of several non-Laurentian terranes in the Piedmont. In 1955, GSA published *Guides to Southeastern Geology*; Richard J. Russell edited this massive volume. It was intended to be a driver's geological road guide for geologists heading to New Orleans, where that year's national meeting was to be held. Sam D. Broadhurst wrote the North Carolina chapter for the guidebook. The only stop he noted in the immediate vicinity of Charlotte was the "Concord syenite ring dike" on Hwy. 29 just southeast of University City. (The Concord pluton is known in local urban mythology as the "speedway volcano.")

We hope that you will not consider Charlotte just a convenience on the route to greater geological pleasures, but as a destination where the history of geology in the southeastern section continues to grow.

REGISTRATION

Early Registration Deadline: 10 March 2008

Cancellation Deadline: 17 March 2008

Online registration will begin in January 2008, and on-site registration will be available at the Hilton Charlotte University Place during the meeting. For further information, or if you have special requirements, please contact the local committee chair, Andy R. Bobyarchick, +1-704-687-5998, AndyBobyarchick@uncc.edu, Department of Geography and Earth Sciences, UNC Charlotte, Charlotte, NC 28223, USA; or the technical program chair, John Diemer, +1-704-687-5994, jadiemer@uncc.edu.

Cover: The Carolina coast in sun glint in this true-color MODIS image from 9 June 2002. Credit: Jacques Descloitres, MODIS Land Rapid Response Team, NASA/GSFC, http://visibleearth.nasa.gov/view_rec.php?id=3164 (Accessed 6 Aug. 2007).

	Early	Standard	One-day
Professional Member	\$160	\$190	\$80
Professional Nonmember	\$190	\$210	\$100
Student Member	\$60	\$80	\$40
Student Nonmember	\$75	\$90	\$45
Professional Member 70+	\$75	\$90	\$45
K–12 Professional	\$50	\$50	\$25
Guest or Spouse	\$50	\$60	N/A
Field Trip or Workshop only	\$50	\$60	N/A

REGISTRATION FEES (all fees are in U.S. dollars)

On-Site Registration and Registration Packet Pickup Schedule

Wed., 9 April	5–9 p.m.
Thurs., 10 April	7 a.m.–5 p.m.
Fri., 11 April	7 a.m.–noon

Cancellations, Changes, and Refunds

Cancellation Deadline: 17 March 2008

Requests for additions, changes, and cancellations must be received at GSA Headquarters by 17 March 2008. No refunds will be made on cancellation notices received after this date. Refunds will be mailed from GSA after the meeting; refunds for fees paid by credit card will be credited to the card identified on the registration form. GSA cannot provide refunds for on-site registration, *Abstracts with Programs*, or event ticket sales.

ACCOMMODATIONS

Hotel Registration Deadline: 14 March 2008

A block of rooms has been reserved at the Hilton Charlotte University Place, 8629 J.M. Keynes Drive, Charlotte, NC 28262, USA, at US\$129 + tax per night for one to two occupants and US\$139 + tax for four occupants. For reservations, please call the Hilton Charlotte University Place at +1-704-547-7444 and request a reservation under "SE GSA 2008." You may also make reservations by visiting the Hilton Charlotte University Place Web link: www1.hilton.com.

CALL FOR PAPERS

Abstract Deadline: 15 January 2008

Submission Form: http://gsa.confex.com/gsa/2008SE/index.epl

Submission Fee: US\$10

Technical program chair: John Diemer, +1-704-687-5994, jadiemer@uncc.edu

Papers are invited from students and professionals for oral and poster sessions in the technical program.

Technical Session descriptions are at **www.geosociety.org**/ **sectdiv/southe/08mtg/techprog.htm**. Contact Nancy Wright, +1-303-357-1061, nwright@geosociety.org, if you have any problems with the electronic submission of your abstract.

Symposia

- 1. Marine Geology from Paleoshorelines to the Deep Sea: A Tribute to A. Conrad Neumann. Antonio B. Rodriguez, Institute of Marine Sciences, UNC–Chapel Hill, abrodrig@ email.unc.edu; Brent A. McKee, Department of Marine Sciences, UNC–Chapel Hill, bamckee@email.unc.edu; Jesse E. McNinch, Virginia Institute of Marine Science. mcninch@ vms.edu.
- Symposium in Honor of Stephen G. Conrad, State Geologist of North Carolina 1964–1990. Kenneth Taylor, North Carolina Geological Survey, kenneth.b.taylor@ncmail.net; Jeffrey C. Reid, North Carolina Geological Survey, jeff. reid@ncmail.net.
- 3. Cenozoic and Echinoderm Paleontology of the Southeastern United States: Symposium in Honor of Craig Oyen. Cosponsored by the Paleontological Society. Michael McKinney, University of Tennessee–Knoxville, mmckinne@utk.edu; Douglas Jones, Florida Museum of Natural History, dsjones@ flmnh.ufl.edu.
- 4. **Practical Applications of Geology in the Southeast.** Cosponsored by the Carolinas Section of the Association of Environmental & Engineering Geologists. Jennifer Bauer, North Carolina Geological Survey, jennifer.bauer@ncmail.net.
- Geomorphology and Soils. Tom Vanwalleghem, University of Cordoba, ag2vavat@uco.es; Missy Eppes, UNC-Charlotte, meppes@uncc.edu.
- 6. Surficial Geology and Geomorphology of the Southeastern Lower and Middle Atlantic Coastal Plain and Continental Shelf. M. Scott Harris, College of Charleston, HarrisS@ cofc.edu.
- 7. Tectonics of the Blue Ridge and Adjacent Areas—A Session Honoring Professor Loren Raymond. Kevin Stewart, UNC–Chapel Hill, kgstewar@email.unc.edu; Arthur Merschat, University of Tennessee–Knoxville, amerscha@utk.edu.

Theme Sessions

- 1. Natural Contaminants in the Southeastern United States. Avner Vengosh, Duke University, vengosh@duke.edu; David Vinson, Duke University, dsv2@duke.edu; Rich Bolich, North Carolina Division of Water Quality; Andrew Pitner, North Carolina Division of Water Quality.
- 2. Isotopic and Chemical Geochronology of Metamorphic Terranes in the Southern Appalachian Blue Ridge and Piedmont Environs: Implications for Tectonic Mapping and Modeling. Clayton W. Loehn, Virginia Tech, cloehn@ vt.edu; Robert J. Tracy, Virginia Tech, rtracy@vt.edu.
- 3. Undergraduate Research (Posters). Cosponsored by the Council on Undergraduate Research. Brannon Andersen, Furman University, brannon.andersen@furman.edu; Jeff Ryan, University of South Florida–Tampa, ryan@chuma. cas.usf.edu.
- Geologic Maps, Digital Geologic Maps, and Derivatives from Geologic Maps (Posters). Cosponsored by the Geologic Mapping Institute. Ralph F. Crawford, crawford@

sprintmail.com; Michael W. Higgins, mhiggins@mindspring. com; Scott Southworth, U.S. Geological Survey, ssouthwo@ usgs.gov.

- Current Research in the Triassic-Jurassic Newark Supergroup Basins. Patricia G. Weaver, North Carolina Museum of Natural Sciences, trish.weaver@ncmail.net; Robert E. Weems, rweems@usgs.gov, U.S. Geological Survey.
- 7. **Classical Geology in Hydrogeology.** Rick Klingel, Zapata Engineering and UNC-Charlotte, eklingel@zapeng.com.
- 8. **Drought in the Southeastern United States.** Anne Jefferson, UNC-Charlotte, ajefferson@uncc.edu.
- The Art and Science of Field Notes (Posters). Andy R. Bobyarchick, UNC-Charlotte, AndyBobyarchick@uncc.edu; John A. Diemer, UNC-Charlotte, jadiemer@uncc.edu. Potential contributors should read guidelines for their presentations at http://segsa2008.uncc.edu/fieldnotes.
- 10. Using Technology in Earth Sciences Education. Cosponsored by the National Association of Geoscience Teachers. Nan Huebner, Fernbank Science Center, n.huebner@fernbank. edu; Pamela J.W. Gore, Georgia Perimeter College, pgore@ gpc.edu.
- 11. Fluvial Geomorphology and Watershed Studies in the Eastern United States. Suresh Muthukrishnan, Furman University, suresh.muthukrishan@furman.edu; Odhiambo Kisila Ben, University of Mary Washington, bkisila@umw.edu.

FIELD TRIPS

Premeeting

1. Emerald Crystal Pockets of the Hiddenite District, Alexander County, North Carolina, USA. 9 April: one day. Cost: US\$99; transportation, continental breakfast, lunch, and refreshments included. Max.: 40. Ed Speer, ed@ SpeerHammocks.com.

Join us for a unique opportunity to visit the only operating emerald mine in the United States and North Carolina's premiere gem locality: the world-famous Hiddenite District. The type locality for hiddenite (discovered 1879), this district has also produced North America's 20 largest emeralds-we'll be visiting the site of 15 of those emeralds, including the largest: a 1,869-carat crystal found in 2003. A new five-acre, 50-ft-deep pit on the North American Emerald Mines property offers exposures never before seen in the district. Emeralds occur in open pockets in lateto post-metamorphic Alpine-type quartz veins. Pockets range from <1 to >200 ft³ and are often two-thirds filled with breakdown crystal breccia. Migmatitic(?) biotite gneiss host rocks are derived from Cambrian(?) meta-siltstones that have undergone multiple continental-collision deformations. Geology, mineralogy, tectonics, and mining history will be covered. No emeralds will be on display. Collecting in the pit is allowed. Participants must provide their own hardhat and sturdy boots.

2. Inner Piedmont Geo-Traverse from the Brushy Mountains to Lincolnton, North Carolina: Architecture of the Cat Square and Tugaloo Terranes. 7–9 April: two days, two nights. Cost: US\$185; transportation, two nights lodging, two lunches, and two breakfasts included. Max.: 35. Robert D. Hatcher, Jr., University of Tennessee–Knoxville, bobmap@utk.edu; Arthur J. Merschat; William G. Gilliam; Heather E. Byars.

The objective of the trip is to examine the key elements boundaries, plutonism, metamorphism, and deformation—of the Cat Square terrane in a NW-to-SE traverse across the North Carolina Inner Piedmont. We will compare the lithostratigraphy of the Tugaloo and Cat Square terranes, examine rocks of the Brindle Creek fault zone and evidence of the close temporal relationship of Devonian plutonism and metamorphism in the Inner Piedmont, and discuss the significance of the Newton window in the eastern Inner Piedmont. Day 1 will begin near Lenoir in the western Inner Piedmont to examine Tugaloo terrane rocks, followed by a traverse of the Brindle Creek fault zone into the Cat Square terrane. We will then move southeast into the Cat Square terrane to examine several internal components. Day 2 will focus on Cat Square



A sample of the art on display at the Mint Museum of Craft + Design in Charlotte. Photo courtesy of Visit Charlotte.

and Tugaloo terrane rocks, and the Brindle Creek fault framing the Newton window. Exposures will include the Brindle Creek fault, the Vale charnockite xenolith in Walker Top Granite, and Tugaloo terrane rocks inside the Newton window.

3. The Heart of Carolinia: Stratigraphic and Tectonic Studies in the Carolina Terrane of Central North Carolina. 7–9 April: two days, two nights. Cost: US\$197; transportation, two nights lodging (Mon. and Tues., 7–8 April), two continental breakfasts, two lunches, morning and afternoon snacks, and a wine tasting included. Max.: 20. James Hibbard, North Carolina State University, jim_hibbard@ncsu. edu; Jeff Pollock; Matt Brennan; John Allen.

Participants will visit the Carolina terrane in central North Carolina—the heart of Carolinia, an amalgamation of peri-Gondwanan terranes along the east flank of the southern Appalachians. The trip will address two timely concerns: the stratigraphy and the tectonics of the Carolina terrane. Day 1 stops will focus on recent stratigraphic and structural controversies within the Albemarle Group; it will include stops (1) at a new Ediacaran fauna locale, (2) along northerly segments of the Gold Hill fault zone, and (3) at igneous rocks related to the rifting of Carolinia from Gondwana. Day 2 stops will concentrate on central and southerly segments of the Gold Hill fault zone and the nature of rocks to the west of the fault zone.

4. Floodplain Geomorphology and Depositional Environments of Congaree National Park. 9 April; one day. Cost: US\$49; participants will be responsible for their own food (sack lunch) and water. Max.: 14. David C. Shelley, Congaree National Park, david_shelley@nps.gov; Art Cohen; Bradley Johnson.

Congaree National Park (www.nps.gov/cong) encompasses a spectacularly preserved mosaic of late Quaternary floodplain deposits that are home to the largest, last, and best-preserved example of old-growth bottomland forest in the southeastern United States. This field trip will focus on features and environments in the northern Congaree River Floodplain, with an emphasis on interrelationships between geology, hydrology, and forest ecology. The morning will involve a canoe tour of Cedar Creek, a major floodplain tributary and South Carolina's only stretch of Outstanding National Resource Waters. The afternoon will start as a hiking and hand auger tour of Holocene peat and muck deposits of a groundwater rimswamp, with detailed pollen, stratigraphic, and petrographic data available for discussion. Participants will then hike ~1.5 miles to examine a subtle but stratigraphically and ecologically distinct (Holocene?) alluvial fan. Participants should bring insect repellent, a change of clothes, wear shoes that attach to your feet (i.e., no flip-flops), and be prepared for wet, muddy conditions while hiking in the rimswamp.

Postmeeting

 Depositional Environments from the Newport River to Cape Lookout, North Carolina. 12–13 April; two nights, three days. Cost: US\$325; transportation, lodging, and food included. Max.: 15. Antonio B. Rodriguez, Institute of Marine Sciences, UNC-Chapel Hill, abrodrig@email.unc. edu; Brent A. McKee; C. Robin Mattheus. On this trip, participants will visit the fluvial, deltaic, estuarine, barrier-island, and tidal-delta depositional environments around Carteret County, North Carolina. Stops are arranged along depositional dip. Day 1 begins with a float down the Newport River where the participants will tour a typical coastal-plain fluvial system and view morphologic and sedimentologic changes in the floodplain, bay-head delta, and estuary. On day 2, participants will travel to Core Banks to explore a transgressive barrier, Cape Lookout to observe and discuss a shoal that extends across the continental shelf, and Shackleford Banks to hike across a high-elevation dune field. If inclement weather strikes, participants will explore Bogue Banks on day 2, including Bogue inlet and tidal-delta complex, prominent ridge and swale topography at Pine Knoll Shores and Emerald Isle, and the narrow parts of the barrier at Indian Beach and Salter Path.

6. Wine Country North Carolina: Vineyards, Soils, and Climate. 12 April; one day. Cost: US\$107; bag lunch and vineyard restaurant dinners included. Max.: 20. John Chadwick, UNC-Charlotte, djchadwi@uncc.edu; Missy Eppes, UNC-Charlotte.

On this trip, participants will visit the Yadkin Valley of North Carolina, an important wine-producing area of the region. Participants will tour and sample the wines of several vineyards and wineries and hear short lectures from wine growers and geoscientists about the soils and climate that create the perfect grapes. This field trip is available to both GSA meeting participants and accompanying guests.

WORKSHOP

1. **Teaching Evolution Using State Standards.** Cosponsored by the Paleontological Society–Southeastern Section and the National Association of Geoscience Teachers–Southeastern Section. 12 April; one day. Cost: US\$50. Max.: 25. Michael A. Gibson, University of Tennessee at Martin (UT-Martin), mgibson@utm.edu; Lionel Crews, UT-Martin; Ann Holmes, UT-Chattanooga.

Evolution is generally taught as a biology topic in K–12 programs, and most college level pre-service teachers only get the genetic "microevolution" side of evolution, but evolution is one of the most fundamental concepts that span all sciences! Evolution is change and change occurs on all scales of space and time; thus, all sciences are fundamentally about change. Why is evolution only taught as a biological phenomenon when it cuts across sciences and is also a major part of history, sociology, psychology, etc.? This workshop treats evolution from the broader science perspective by providing interdisciplinary scientific breadth on content basics and newest trends in geological, cosmic, and organic evolution. The format consists of a combination of lectures, hands-on resources, tested activities, and useful classroom teaching tips.

GUEST PROGRAM

If you are planning to spend time in the area before the meeting, it is a short drive to the Blue Ridge foothills and a few hours' drive to the Carolina coast. The postmeeting field trip, Wine Country North Carolina: Vineyards, Soils, and Climate, is designated for both meeting participants and their guests. It is

nontechnical and features a tour through Piedmont North Carolina during a pleasant time of the year. Register for this trip early!

- Reed Gold Mine State Historic Park: www.ah.dcr.state. nc.us/sections/hs/reed/reed.htm. From the Web site: "Reed Gold Mine is the site of the first documented gold find in the United States. From this discovery, gold mining spread gradually to nearby counties and eventually into other southern states. During its peak years gold mining was second only to farming in the number of North Carolinians it employed."
- 2. U.S. National Whitewater Center: www.usnwc.org/. From the Web site: "Only 15 minutes from uptown Charlotte you can raft the world's largest manmade whitewater river; whitewater kayak the only class III–IV rapids in a metropolitan area; flatwater kayak along the banks of the scenic Catawba River; mountain bike 11 miles of single track trails along the Catawba River; and climb on one of the largest outdoor climbing structures in the U.S."
- 3. **Discovery Place:** www.discoveryplace.org/. Discovery Place is an educational science and nature museum in downtown Charlotte. It also houses an IMAX dome theatre that shows both documentary and theatrical films.
- 4. The Schiele Museum of Natural History: https://www. schielemuseum.org/. The Schiele Museum is in Gastonia, North Carolina, about a 30-minute-drive west of Charlotte down I-85. It specializes in Native American culture and history and North American flora and fauna, as well as archaeology and paleontology. In April 2008, the museum will be hosting an exhibit called "Tusks: Ice Age Mammoths & Mastodons."
- 5. **Daniel Stowe Botanical Garden:** www.dsbg.org/. From the Web site: "In 1989, Daniel J. Stowe, a retired textile executive from Belmont, North Carolina, reserved 450 acres of prime rolling meadows, woodlands and lakefront property and established a foundation to develop a world-class botanical garden." The garden is west on I-85 from Charlotte.
- 6. University of North Carolina at Charlotte Botanical Gardens: http://gardens.uncc.edu/. From the Web site: "The UNC Charlotte Botanical Gardens consists of a notable combination of outdoor and indoor garden facilities on campus. Our three main garden areas are the Van Landingham Glen, the Susie Harwood Garden, and the McMillan Greenhouse."

CALL FOR SPONSORS

We welcome and appreciate individual or corporate sponsors to help defray the costs of this meeting. In particular, we seek support for the welcoming party on Wednesday, 9 April, 6–9 p.m., and for refreshments during morning and afternoon coffee breaks. GSA wishes to encourage meeting participation of in-service schoolteachers and students by reducing registration fees for those individuals; we will accept general donations that can be applied toward fee reductions for these teachers and students. Major corporate donors may request public acknowledgement of meeting support. For more information, please contact Andy Bobyarchick, AndyBobyarchick@uncc.edu.

EXHIBITOR INFORMATION

Exhibitor Registration Deadline: 15 February 2008

This meeting will involve participants from a large cross section of professional, academic, and government agencies throughout the greater southeastern United States. The Southeastern Section of GSA is also typically attended by a large number of students. Exhibit areas at the 2008 meeting are spacious and feature easy access from technical session rooms and from covered patios at the Hilton Charlotte University Place. Representatives of large and small corporations, government agencies, and graduate schools are invited to reserve exhibit space. A 6-ft draped table and two chairs will be provided for each exhibitor. Electrical service, phone lines, and/or Internet access involve additional fees that must be negotiated after initial registration. The corporate fee for a single exhibition space is US\$275; the fee for academic and nonprofit organizations and associations is US\$100. For additional information, contact John Bender, jfbender@uncc.edu.

OPPORTUNITIES FOR STUDENTS

Travel Grants

Travel Grant Request Deadline: 15 February 2008

Students may apply for a travel grant using the online application form (*available during the registration period*). Eligibility requirements: (1) the student must be enrolled in an institution within the Southeastern Section and must be a student member of the Geological Society of America; (2) the student must personally present the paper (or poster) even though the paper may have co-authors; and (3) the student must be registered for the meeting before applying for a grant.

Each eligible applicant will be informed before the meeting by e-mail regarding the level of support. The reimbursement check must be picked up in person at the meeting. Additional information may be obtained from Donald Neal, Southeastern Section secretary-treasurer, neald@ecu.edu, +1-252-328-4392.

Volunteering

Deadline to volunteer: 15 January 2008

The local committee and section officers of GSA's Southeastern Section would like to extend the opportunity for free registration to a limited number of students. We rely on student volunteers to help meetings run smoothly, and we are pleased to offer student volunteers free registration for the meeting in return for ~6 hours of volunteer work. Contact student volunteer coordinator Bill Garcia, wjgarcia@uncc.edu, for more information.

Mentoring Programs

These mentor programs are sponsored by the GSA Foundation. Questions? Please go to www.geosociety.org/mentors/ or contact Jennifer Nocerino, jnocerino@geosociety.org.

Roy J. Shlemon Mentor Program in Applied Geoscience. Thurs.–Fri., 10–11 April, 11:30 a.m.–1 p.m. *Free meal included*.

This interactive and informative program for undergraduate and graduate students, led by professional geoscientists, will cover real-life issues, including professional opportunities and challenges that await students after graduation. Plan to attend both free luncheons to hear different presenters each day.

The John Mann Mentors in Applied Hydrogeology Program. Thurs., 10 April, 5–6:30 p.m. *Free meal included*.

This early evening event presents mentoring opportunities to undergraduate and graduate students, as well as recent graduates, who have an interest in applied hydrogeology or hydrology as a career to interact and network with practicing hydrogeologic professionals. This program is a focused, small-scale event that features free pizza for participants.

SPECIAL EVENTS

Please contact the indicated representative for more information. If you or your organization is interested in scheduling a business meeting, please contact Andy Bobyarchick, AndyBobyarchick@uncc.edu. Please check at the GSA registration desk for room confirmation.

SE GSA Management Board Meeting. 4–6 p.m., Wed., 9 April, Walden Room, Hilton Charlotte University Place. Contact Don Neal, neald@ecu.edu.

Welcoming Party. 6–9 p.m., Wed., 9 April, Glenwaters Room, Hilton Charlotte University Place. Refreshments will be served. Contact Andy Bobyarchick, AndyBobyarchick@uncc.edu.

Session Chairs Orientation and Breakfast. 6:30–8 a.m., Thurs.–Fri., 10–11 April, Walden Room, Hilton Charlotte University Place. Contact Andy Bobyarchick, AndyBobyarchick@uncc.edu. **SE GSA Campus Liaison Breakfast.** 6:30–8 a.m., Thurs., 10 April, Salon IV, Hilton Charlotte University Place. Contact Gary Lewis, glewis@geosociety.org.

TRANSPORTATION AND DIRECTIONS

Charlotte is easily accessed by air or land. Charlotte Douglas airport (CLT) is only a few miles west of University City along I-85. This airport is a hub for USAir, and several other airlines have gates at the facility. Parking is abundantly available around the hotel.

The Hilton Charlotte University Place is located ~0.5 mi. southeast of the intersection of I-85 and W.T. Harris Blvd. From north of Charlotte, take I-85 S to Exit 45B (Harris Blvd. S.) and proceed south on Harris Blvd. to the Hilton. From south of Charlotte, follow I-85 N to Exit 45A (Harris Blvd. S.) and proceed south to the Hilton. Travelers from north of Charlotte on I-77 S are advised to take I-85 N to Exit 45A and then head south on Harris Blvd. to the hotel. Travelers from south of Charlotte on I-77 N may wish to take the outer loop of I-485 (heading east then north), then Hwy. 29 S at Exit 32. Follow Hwy. 29 S for ~3 mi. to the Hilton on the north.

ACCESSIBILITY

GSA is committed to ensuring full participation for conference attendees with disabilities at all events. You may indicate special requirements on your registration form; please inform the local organizing committee of these requirements at least one month prior to the meeting.



Downtown Charlotte, North Carolina, USA. Photo courtesy of Visit Charlotte.



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Special Paper 433



Whence the Mountains? Inquiries into the Evolution of Orogenic Systems: A Volume in Honor of Raymond A. Price

edited by James W. Sears, Tekla A. Harms, and Carol A. Evenchick



This volume collects 19 original and provocative papers on the tectonic evolution of mountain systems to honor the great Canadian structural geologist Raymond A. Price on the occasion of the fiftieth anniversary of his first publications on the geological structure of the Canadian Cordillera. The papers address the question, "Whence the mountains?" that Ray first posed in a college essay. Demonstrating the scope of Ray's influence, topics range from plate to outcrop scale, from geometry based on mapping and cross-section construction to theoretical processes based on finite-element models, from metamorphic processes to syntectonic depositioning system, deep seismic reflection and other geophysical methods, as well as strain measurement, kinematic analysis, and classical regional mapping and stratigraphy. Study regions range from the North American Cordillera and Appalachians to Siberia, New Zealand, Australia, and China, from Paleozoic to active systems.

SPE433, 410 p. plus index, plate, ISBN 9780813724331 \$90.00, member price \$63.00



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