

Second Circular
Invitation & Call for Posters
**Geospatial Technologies and
Geomorphological Mapping**
41st International Binghamton
Geomorphology Symposium (BGS)

Oct. 15-17, 2010, Columbia, SC

Organizers:

L. Allan James, Univ. So. Carolina, AJames@sc.edu

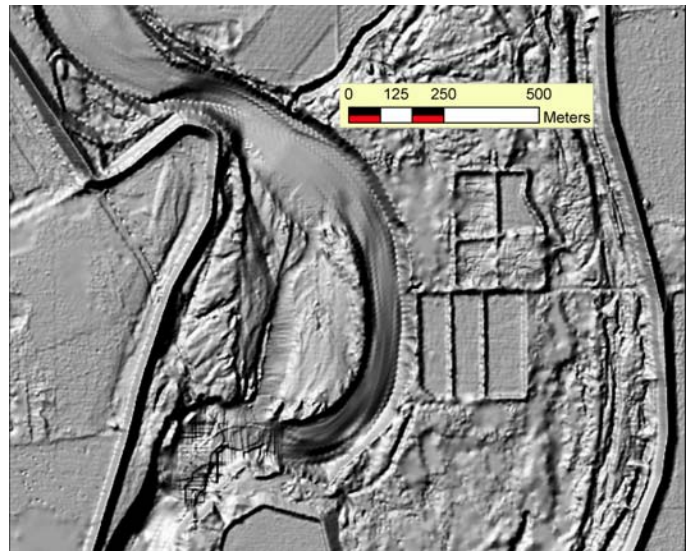
Michael P. Bishop, Univ. Nebraska, Omaha
mpbishop@mail.unomaha.edu

Stephen J. Walsh, Univ. No. Carolina, Chapel Hill
swalsh@email.unc.edu

Web Page: <http://people.cas.sc.edu/ajames/bing41>

Overview. The 2010 BGS will address theories and applications of modern mapping technology and geospatial analyses to geomorphic science. It will provide a scientific basis for understanding the immediate goals and potential of modern *digital geomorphic mapping* (DGM). DGM provides insights into geomorphic systems including recognition of causality, process mechanics, historical reconstructions through change detection, multi-scale analysis and modeling, and assessments of energy and matter fluxes. This BGS will review the theoretical basis of DGM, new data sources, optical and non-optical remote sensing systems, information-extraction technologies, image fusing for enhancement and classification, spatial modeling, and analytical approaches (e.g. tool boxes). It will review developments in landform genesis, external forcings, process dynamics, and feedback mechanisms. By taking a broad approach to modern geomorphic mapping, this BGS will seek to anticipate and facilitate a new generation of geomorphic mapping and geospatial analytical capabilities. This broad view of geomorphic 'mapping' will examine the potential for incorporating modern interactive database technologies.

Significance. This BGS will review modern mapping science in the field of geomorphology. No other geomorphology conference has addressed the



LiDAR-Sonar mosaic of Shanghai Bend, lower Feather River, Sacramento Valley, California. (Data from U.S. Army Corps and California Dept. Water Resources)

fields of geomorphic mapping and geospatial technology as an integrated theme. Technological advances in remote sensing, geographic information technology, and numerical modeling of surface processes have revolutionized the field of geomorphology and call for a symposium for the evaluation and dissemination of information. Geoscientists are not always aware of the capabilities and limitations of new technologies, data sets, and methodologies, so interpretations and reliabilities of new developments will be addressed. New methods also permit Earth scientists to go beyond traditional mapping and modeling of the Earth surface. Papers and posters will provide a broad new synthesis and integration of a rapidly growing field that spans subfields within and beyond geomorphology. Invited papers by leading scientists will be reviewed and published in a proceedings volume prior to the meeting and in a special issue of the journal, *Geomorphology*. A graduate seminar will be taught at USC during the fall to involve students in critical evaluations of the papers, and the organization and hosting of the meeting.

Invited Speakers. A diverse group of experts are contributing papers including several scholars from abroad. The authors represent a varied cross-section of viewpoints and areas of concern. The program includes a mix of geomorphologists and non-geomorphologists with technical expertise. A list of speakers is on the web site.

Call for Posters. We encourage the submission of abstracts for posters related to the Symposium theme. Details of poster formats and instructions will be listed on the BGS web site: TBA

Symposium Proceedings. Papers will be published both as a proceedings volume prior to the meeting and in a special issue of *Geomorphology*. Papers will be reviewed, revised, and published in time to be distributed at the conference in Oct., 2010. We are working to maintain the rigorous level of scholarship that has marked the BGS through the years.

Student Travel Grants. We have received a National Science Foundation grant that will allow us to award graduate student travel grants for students

presenting posters. Instructions and judging criteria will be listed this fall on the BGS web site (TBA).

Venue: Columbia, SC is well located for participants coming from North America and Europe. The fall in Columbia is temperate and there is abundant lodging and parking close to campus. Special arrangements for hotels will be announced in subsequent circulars and on the BGS 2010 web page. The banquet and keynote address will be on campus Saturday night.

Acknowledgments: We are thankful to the *Geography and Spatial Science* (GSS) and the *Geomorphology and Land Dynamics* (GLD) programs of the National Science Foundation for funding to help support the BGS.

We look forward to seeing you in Cola in 2010 !!!
- AJ, MB, and SW

Feb. 21, 2010