

ment and comparing it to the fingerprints from soil and river bank material.

- Reconstructing ancient ocean chemical composition based on analysis of deposited material (really old sedimentary rocks).
- Examining metal transport in the environment, particularly in wetlands but also in soils.

The ICP-MS will enable faculty and students to undertake a range of important water quality and geochemical research projects that

would not otherwise be possible, including 1) creating new and expanding current water quality and geochemistry interdisciplinary research opportunities for geology, chemistry, biology, and environmental studies students; 2) supporting the ongoing research of several recent faculty hires in geology and chemistry; 3) enhancing a range of external research-based partnerships; (4) further incorporating interdisciplinary research activities into the classroom; and (5) serving as a regional

resource as host to the only ICP-MS in the area.

The ICP-MS creates new research directions, expands existing research activities, and creates new interdisciplinary opportunities. Water chemistry and geochemistry are the primary research areas of Jeremiason, Bartley, and Triplett. Stoll is an analytical chemist with expertise in multidimensional HPLC separation techniques who would investigate coupling LC separations with direct analysis by ICP-MS. ■

NOTES
FROM THE
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CENTER

Reaping the harvest: Faculty travel subsidies as seed money for ideas

by **Barbara Fister**

Each year, dozens of Gustavus faculty travel to conferences to gather with other members of their disciplines, find out what's going on, and share the results of their research publicly. The Kendall Center administers funds from the provost's budget to partially subsidize faculty travel and conference registration costs. This funding is seed money in more than one sense: Faculty return from conferences with ideas they can incorporate into their research and teaching. They often test out ideas at these gatherings, incorporating the responses of their peers as they work on articles and books that grow out of their conference presentations. And finally, faculty presentations at these gatherings plant awareness of Gustavus as an institution where creativity and research thrive. It spreads the word. Below are just a few examples of conference presentations supported by the Faculty Travel Fund last year.

Eric Dugdale of the Department of Classics traveled to Italy for the "Meeting the Challenge" Conference, jointly sponsored by the University of Venice, University of Cambridge, and University of Copenhagen, which focused on strategies for bringing classical literature to life in the classroom. In his presentation, Dugdale enumerated ways that Gustavus students experience ancient



The Department of Classics has hosted a biennial Festival of Dionysus since 2002. At the 2006 festival, Laura Mardian '07, Stephanie Soiseth '08, and Thereasa Schollett '07 (from left) performed a scene from Menaechmi, which was written around 200 BC by the Roman comic playwright Plautus.

drama, replicating in a sense the ways that ancient audiences felt a strong emotional response to the plays.

Dugdale's presentation focused on ways to tap into the plays' inherent emotive content through in-class activities and out-of-class assignments. In his experience, inviting students to respond to the plays on an emotional level offers great benefits as they engage in writing assignments, discussion, and in performance. Students in his courses de-

velop personal responses to classical works and create their own performance pieces. Through these activities, "students appreciate Greek tragedy on its own terms and engage with it in a more direct manner," according to Dugdale. Every year, students perform scenes from the plays in the cross-campus outdoor "Festival of Dionysus."

Dugdale explains, "Through their performances, the students gain a greater under-

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standing of certain key elements of ancient drama. They learn through experience the effect that an outdoor setting has on performances, the competitive nature of ancient drama (performances are judged by a panel of judges), and the festive context in which these performances occurred, and they respond to the plays on a personal level.” He links the development of empathy in students through experiential learning with Aristotle’s concept of tragedy’s effect on the *psychagōgei*, which he relates to the engagement of both the cognitive and emotional dimensions of the viewer’s experience. By going beyond a study of the texts and their historical background, performance involves students in the emotional effect of the plays and exposes their moral dimensions.

Dugdale is currently working on a book that will further develop his ideas about empathy in Greek tragedy, the role the arts play in civic engagement, and methods for engaging students in a deeper understanding of themselves and the world through ancient drama.

At a conference in New Orleans, **Lisa Heldke ’82** of the Department of Philosophy reported on the work she did with two student researchers to uncover the ways Gustavus faculty address food in the classroom—not whether it is all right to bring your lunch to class, but how food is used throughout the curriculum as a topic for understanding the liberal arts in the experiential, practical way that philosopher John Dewey understood them.

Heldke and her student researchers interviewed 21 faculty members about ways food is incorporated into their courses (or into extracurricular activities such as a wine-and-cheese event for seniors in physics and chemistry, a social but educational event focused on cultivating scientific curiosity about subjects typically thought of as “outside” the sciences). Courses with a food angle ranged from obvious connections, such as “Applied Human Nutrition” and First Term Seminars on “The Citizen as Consumer” and “Fast Food Nation,” to surprising applications in courses on the politics of developing nations, cultural anthropology, conservation biology, and Roman history.

Heldke reports that there are at least three ways that this basic topic enters the classroom: “Food and food-related topics appear as a substantive element of the content of courses in, for example, anthropology, biology, and health/exercise science; as a tool for teaching and learning particular concepts in courses in communication studies, political science, Russian studies, and classics; and as a class cohesion builder in mathematics, art history, and many other departments.”

She points out clear links between food and Gustavus’s mission and values. “How might we use food as a tool to advance our commitments to justice, community, service, faith, and excellence—the five ‘core values’ of the College?” she asks. “Because food plays multiple roles in our daily lives, and because it connects us to others (animate and inanimate) in myriad ways, it is ideally suited to be a vehicle by means of which to make the mission a robust, visible, and meaningful aspect of the life of the College as a whole.” In an aside she notes that the core values are very visibly present on campus — “on banners hung, appropriately enough, in the dining hall.”

Jeffrey Owen ’92 of the Department of Economics and Management specializes in the economics of sports. He presented his research into quantifying the nature of “home advantage” at the Western Economics Association annual meeting. The home advantage for teams is frequently acknowledged but little studied. By comparing outcomes of men’s college basketball games, Owen found that the home advantage was greater in higher profile leagues and in leagues where teams are evenly matched.

He also looked at home advantage in the results of games played by teams in the National Basketball Association, the National Football League, and Major League Baseball. After compiling and analyzing team home and overall win totals, he discovered that the advantage is strongest in the NBA, a somewhat surprising outcome given that local weather conditions don’t play a role in favoring the home team. In the case of baseball, the home advantage was less significant, partly because starting pitcher rotations make team performance highly variable day to day.



At the 2009 Celebration of Creative Inquiry, philosophy major Rhea Muchalla ’09 discussed her student research with psychology professor Mark Krueger.

Before coming to teach at Gustavus, **Brandy Russell** of the Department of Chemistry developed a course with her postdoctoral adviser, Yi Lu, at the University of Illinois at Urbana-Champaign designed to bridge a gap between chemistry courses and students’ interests outside the classroom. They wanted to increase student involvement in career exploration, undergraduate research, and build connections among science majors and with alumni. “The Chemistry and Biology of Everyday Life” is a course that students can take for credit each year, giving them an opportunity to pursue their own interests and serve as peer mentors for other students. Assessments based on a survey instrument developed at Grinnell College showed that students who took the course gained measurable learning outcomes in areas such as understanding the research process, interpreting data, and integrating theory.

Though this course was designed to address student needs at a large research university, Russell, who remained involved in assessment of the project, presented ways that the process has applications at smaller colleges, too. “The things I learned in teaching that course have definitely influenced me as a teacher and can be seen in what I’m doing now at Gustavus,” Russell said. These include initiating a faculty/student journal club, incorporating research skills into the general chemistry course, and increasing student interest in being involved in science activities outside the classroom.

Russell, who is also the Kendall Center faculty associate for undergraduate research, plans to use this experience in future as she designs a related scholarship of teaching and learning project based at Gustavus.

Don Scheese of the Department of English presented a paper that has since been published as an essay in *ISLE*, an interdisciplinary journal on literature and the environment. This essay is part of a larger book project that is under review for publication. In this presentation he recounted his experience hiking miles into the Manti-La Sal National Forest to locate a remote Anasazi cliff dwelling marked on a map.

"It's hard to describe my feelings," he writes, "as I stepped on the ledge that gave me an eye-level view of the ruins only twenty feet away. Awe—over what fine shape they appeared to be in. Respect—for the effort that it obviously took to climb up to, not to mention build and live in, the structures. And a tinge of fear too, for I had entered the realm of ghosts. Ruins are haunting for this very reason. The silence of the site, the absence of a human presence in a place where

The Three Fingers Ruin in Hammond Canyon, Manti-La Sal National Forest (Utah), was built between AD 900 and 1200 by Native Americans affiliated with the Mesa Verde branch of the Ancestral Pueblo people.



humans had once lived and thrived, was eerie."

After his fieldwork, Scheese discovered in the work of a historian of religion the language to convey his response to the once-inhabited cliff dwelling, sensing in the "interrupted space" a spiritual sense of the sacred. "Ruins fascinate us with their enigmatic si-

lence," he writes. "Ruins haunt us with their lonely and poignant beauty. Ruins remind us of the inevitability of our own mortality. Ruins mesmerize us with their unsolvable questions and mysteries. Ruins are the bones of the past, to which we return again and again, seeking answers to the most profound inquiries about human existence." ■

CICE UPDATE NEWS FROM THE CENTER FOR INTERNATIONAL AND CULTURAL EDUCATION

Economic challenges and study away

by Carolyn O'Grady, director

As I write these words, 50 students are studying away on either a fall semester or yearlong program. Fifty-three applications for Spring 2010 study away have been approved. These numbers are among the lowest in recent memory. Why are fewer students choosing semester or yearlong off-campus study?

Certainly the economy is a big factor. Many families have been reduced to one income, and increasingly students themselves bear more of the cost of their tuition. Recently the Forum on Education Abroad conducted a survey of its institutional members (nearly 165 out of 373 institutions responded). The results are predictable. Almost one-third of private colleges and 84 percent of public universities report that the global economic crisis has had a negative effect on study-away programs. Further, two-thirds of the institutions report that their study-away budgets have decreased in the last year.¹

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Catherine Keith '12

Catherine Keith '12 posted thoughts and photos from India on her blog page on the CICE website.