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# Oceanography

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# Doing More With Less

BY TOM GARRISON

At his inauguration as founding president of The Johns Hopkins University, Daniel Coit Gilman outlined the central role of a new type of American university. “The academy should make for less misery among the poor, less ignorance in the schools, less suffering in the hospital, less fraud in business... and less folly in politics.” Gilman had resigned his post as second president of the University of California to accept the Hopkins presidency in 1876. The aim of the modern research university, said Gilman, was to “extend, even by minute accretions, the realm of knowledge.” His work at the University of California was hamstrung by a recalcitrant state legislature—funding and control issues took precedence over the need to build a great institution combining undergraduate and graduate colleges, the German model adopted at Hopkins.

Sound familiar?

Bickering at the state level and shrinking budgets are not new, but the accelerating decline in funding and confusion over the place of higher education in American democracy should sound alarms. Jefferson’s ideal of an educated populace voting for governance “in the common good” seems to be falling away. We can wring our hands in despair, or we can do something to maintain the quality of our programs.

Marine science departments are typically expensive to operate—specialized equipment and boat rental cost money. The program at my institution has found some ways to economize that might be useful to others in this time of growing austerity:

- Assemble your own lab manual, and print it through a specialized publishing house.<sup>1</sup> The profits from sales can go to your institution’s foundation to be dispersed for department needs. Our boat trips are funded in this way, along with some of the department’s teaching assistants and scholarships.
- Let your fiefdoms go. Equipment sharing is mandatory in this financial climate. No, the biology department’s microscopes might not be ideal for plankton work, but they are better than nothing. (Make sure they are clean before handing them back!) Your busy technician could collect urchins for the biologists’ embryological work in return for the loan. Share an ice machine.
- Use volunteers. Our department operates a modest public aquarium facility. Students enrolled in an aquarium management class do most of the work, but volunteers fill out the ranks of fish feeders, tank muckers, water getters, and floor moppers.

- Encourage interns to join the staff. Our nearby University of California campus is a handy source of promising doctoral students or postdocs who wish to enter the ranks of college professors. They can assist in teaching lab sections or lecture on their areas of expertise.
- Host a “Science Night” for the community. Not only does this activity introduce the locals to what the institution is doing (and therefore helps to pass bond issues), but it opens the door to silent auctions of items donated by faculty members, local corporations, and our volunteers. More grist for the foundation.
- Have students print their own handouts. We post these documents on our faculty websites and depend on students to make their own copies. We have saved a surprisingly large amount in copy costs.
- Keep administrators apprised of department activities. They should receive copies of scholarly papers published by faculty members. The gift of an occasional tasty fish may result in additional funding—who knows!

Things *not* to do:

- Don’t spread yourselves too thin. Lean toward your strengths. Do what you can with the equipment you have,


<sup>1</sup> We employ Blue Door LLC, a Minnesota-based specialty press that excels in lab manuals.

repair and recycle, multitask. A field trip to an estuary in a distant location might not be a good investment. A new boat? Don't ask.

- Avoid the stampede to online courses. Students and faculty *need* to be together. One of our sister institutions offers an online general marine laboratory class to support the online lecture. How, I wonder?

We old dinosaurs treasure thoughtful student-professor interaction, and I have yet to see that spark transmitted across a laptop screen.

No matter what your funding situation is, never lose sight of the goal. Near the end of that inaugural address, Gilman asked: "What are we aiming at?" The answer, he said, was "the

advancement of individual scholars, who by their excellence will advance the sciences they pursue, and the society where they dwell." Even in times of austerity, quality can be maintained. 

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## *Breaking Waves* CALL FOR MANUSCRIPTS

*Breaking Waves* provides an outlet for short papers describing novel approaches to multidisciplinary problems in oceanography. These provocative papers will present findings that are synthetic by design, and have the potential to move the field of oceanography forward or in new directions.

Papers should be written in a style that is both concise and accessible to a broad readership. While these papers should be thought-provoking for the professional oceanographer, they should also be written in a manner that is engaging for the educated non-professional. As in other sections of *Oceanography*, we encourage the use of color photographs and figures to help illustrate a paper's main points and add to its aesthetic appeal. Consistent with our effort to publish papers on rapidly advancing topics in oceanography, all submissions to the *Breaking Waves* section will be given a special fast-track in the peer-review and publishing

process. Our goal will be to publish papers no more than two issues (i.e., six months) after their submission.

The Associate Editor overseeing *Breaking Waves* manuscripts is Charles H. Greene ([chg2@cornell.edu](mailto:chg2@cornell.edu)), Department of Earth and Atmospheric Sciences, Cornell University. Authors should submit a brief email message to the Associate Editor outlining their ideas for papers prior to actual manuscript preparation. This step will ensure that authors receive appropriate feedback prior to investing their time and energy in preparing manuscripts that may be unsuitable for publication in this forum. Correspondence with the Associate Editor and submission of manuscripts should be done electronically whenever possible. File formats for text, figures, and photographs must be consistent with existing style guidelines for *Oceanography*.

### Call for Papers

December 2012 *Oceanography*  
Special Issue on  
Upper Ocean Processes:  
Peter Niiler's Contributions and Inspirations

If you are interested in contributing a paper to this special issue, please contact Luca Centurioni ([lcenturioni@ucsd.edu](mailto:lcenturioni@ucsd.edu)) and Terri Paluszkiwicz ([terri.paluszkiwicz@navy.mil](mailto:terri.paluszkiwicz@navy.mil)).

### Upcoming Events

**2012 Ocean Optics Conference**  
October 8–12, 2012, Glasgow, Scotland  
<http://www.oceanopticsconference.org>

**Eco-DAS: Ecological Dissertations in the Aquatic Sciences**  
October 8-13, 2012, Honolulu, Hawaii  
<http://cmore.soest.hawaii.edu/eco-das/eco-das2012.htm>

**DISCCRS VII: Interdisciplinary Climate Change Research Symposium**  
October 13–20, 2012, Colorado Springs, Colorado, USA  
<http://discrs.org/discrsposter.pdf>