

THE GREENING OF EXETER CONTINUES . . .

WITH A COLLOQUIUM ON ENVIRONMENTAL EDUCATION,
AND TWO NEW ENVIRONMENTAL SCIENCE COURSES



Environmental education was the topic of a four-day, on-campus colloquium attended by 14 PEA faculty members this past June: (front row, from left) Chris Matlack, Rich Aaronian, Amy Schwartz, Tara Misenheimer, Pat Leslie '97, Kathy Brownback, Alison Hobbie (with tortoise), Peter Greer; (back row) Mark Trafton, Professor Tom Wessels of Antioch New England Graduate School, David Weber, Brad Robinson, Tom Hassan, Betsy Stevens, Rick Parris, Hannah Hinchman, Marcia Wessels.

illustrator of illuminated field journals; and Kevin Mattingly, dean of faculty at the Lawrenceville School and holder of the Aldo Leopold Distinguished Teaching Chair in Environmental Science.

On our final afternoon, joined by the new Bates-Russell Professor, Rick Schubart, we reflected on the experiences of the four days and considered collectively what might come next. Among the suggestions that emerged: finding ways to keep our interdisciplinary connections alive; creating greater opportunities for environmental field work; designing an interdisciplinary course focused primarily on environmental concerns; and recognizing that an environmental education is in no way limited to the classroom.

A member of the Exeter English department since 1968, Peter Greer teaches a course called Literature and the Land.

BETSY STEVENS: ENVIRONMENTAL SCIENCE AND SOCIETY

This winter, I will be teaching a new course entitled Environmental Science and Society, which can be taken independently or as part of a three-term sequence that includes Ecology, a long-standing course taught during the fall term by biology instructor Chris Matlack, and Chemistry of the Environment, a new spring-term course taught by chemistry instructor Alison Hobbie. While they do not teach towards the exam *per se*, together the three courses serve as preparation for the AP Environmental Science examination.

Environmental Science and Society will examine such topics as human population, food resources, and urban land use and management. We will take an interdisciplinary approach to such issues as world demographics, genetic engineering, meat production, agribusiness, erosion, desertification, pesticide use, overfishing and urban planning for sustainable cities. Our readings will be drawn from current articles and books by leaders in the environmental movement, supplemented by an AP Environmental Science

PETER GREER '58 : A COLLOQUIUM ON ENVIRONMENTAL EDUCATION

From June 14 to 17, 14 PEA faculty members—five from the science department and nine from other departments and administrative positions—gathered to consider what might generally be called environmental education and its implications for Exeter's academic and residential curricula.

During our morning sessions, 11 of the participants took turns teaching classes drawn from their individual disciplines, each of which connected in some way with environmental education. In English instructor David Weber's class, for example, we discussed selections from the writings of Mary Oliver, Robert Frost, Annie Dillard and Henry David Thoreau. Biology instructor Chris Matlack taught us how to manipulate and interpret a computer simulation of the predator-prey relationship between wolves and moose on Isle Royale. Art instructor Tara Misenheimer introduced us to the "earthworks" of artist Andy Goldsworthy, then guided us in the creation of our own earthworks.

Three of our afternoon sessions were devoted to conversations with experienced environmental educators: Tom Wessels, professor of ecology and founding director of the master's degree program in conservation biology in the department of environmental studies at Antioch New England Graduate School; Hannah Hinchman, a natural historian and the author-



Our Back Pages: WWII Woodchoppers

During World War II, when many members of the PEA grounds crew were in the service, the task of forest management fell to the "Woodchopping Gang," a group of axe-wielding students who, under the watchful eye of English instructor Chilson Leonard (back row, left), helped cut trees and clear brush in the Academy Woods.



textbook. Labs and activities will include identifying genetically modified food through PCR analysis; performing soil analysis; visiting a local farm; running a simulated fishing business; conducting a debate; and gathering and presenting data from a U.N. database. For the first time at Exeter, students will be required to participate in a service-learning component, in which classwork will be linked with some sort of community action.

I am thrilled to have the opportunity to design and teach a course dealing with issues that have always been of special interest to me and that are extremely important to the future of the planet. I also think students are looking for more opportunities to explore current events that directly impact them. While Exeter has made significant progress towards becoming a more sustainable campus, the current curriculum offers few opportunities to explore the theoretical basis of our desired practices, something that I think most students and faculty would welcome.

Another aspect of Environmental Science and Society that I find particularly exciting is the service-learning component. Because there is little hope for sustainable communities without citizen action, I hope to instill in my students an appreciation for the phrase “Think globally, act locally”—and then give them opportunities to practice it. Not only will they participate in environmental service in the Exeter community, they will also, as a final project, turn their attention to their own hometowns, designing a plan to address a particular environmental problem there or a master plan for achieving sustainability. Perhaps students could take these ideas home with them and institute improvements in their own communities.

Biology instructor Betsy Stevens joined the Exeter science department in 2000.

**ALISON HOBBIE:
CHEMISTRY OF THE ENVIRONMENT**

Chemistry of the Environment is a new elective that will be offered in spring 2006. Open to uppers and seniors who have had a year of introductory chemistry, this 11-week course will present the chemical principles that underlie current environmental issues. Topics will include the Arctic ozone hole, photochemical smog, the greenhouse effect, fossil and alternative fuels, pesticides, and water treatment. Class time will be split between Harkness table discussion, sample collection in the field, and laboratory analysis, an approach that will allow students not only to learn the chemistry behind each issue, but also give them exposure to the methods scientists use to evaluate the chemical “health” of a natural environment.

This course was created as a complement to other environmental science offerings and in response to student demand. Many of our students are interested in environmental issues but want to learn more about the science involved in specific issues, be they chemical, ecological or technology related. Other students have a more general interest in the environmental sciences and hope to demonstrate an introductory proficiency in this discipline by sitting for the Environmental Science AP exam.

I am very excited at the prospect of teaching this course to interested students who have already completed a rigorous introductory course in chemistry. My background is in environmental chemistry, having received my master’s in environmental science at the University of Virginia. Before coming to Exeter, I taught an environmental science course based on the suggested curriculum for the AP exam. I was discouraged by how little rigorous chemistry was necessary to complete the course; a student could do well with no more than a middle-school understanding of chemistry. In the new Chemistry of the Environment elective I will be able to challenge the students not only to understand the often complex chemical interactions involved in the creation of environmental problems, but also to evaluate the work of today’s scientists before forming opinions on environmental issues.

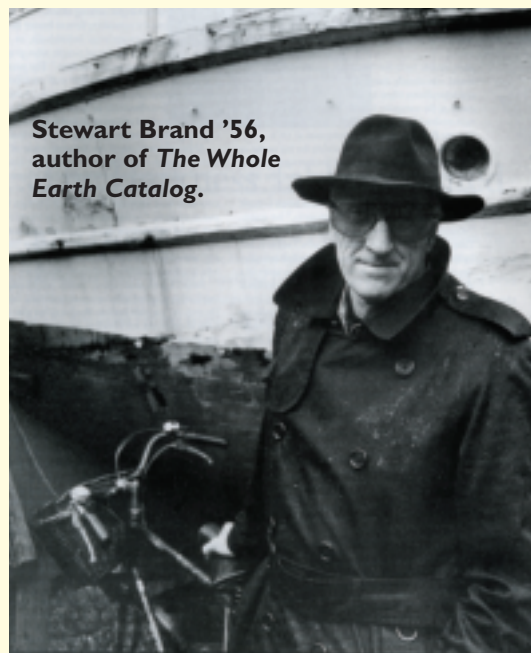
Chemistry instructor Alison Hobbie was appointed to the science department in 2001.



Our Back Pages:

The ‘Whole Earth’ in His Hands

The spring 1995 *Bulletin* featured an interview with Stewart Brand ’56, “counterculture guru, author and futurist.” In 1968, Brand—a Stanford-trained biologist whose formative influences also included the Berkeley Free Speech Movement and friendship with the writer Ken Kesey—published



**Stewart Brand ’56,
author of *The Whole
Earth Catalog*.**

the first edition of *The Whole Earth Catalog*, a compendium of tools, resources and books that became a bible of the ecology and back-to-the-land movements. When the 1972 edition won a National Book Award, jurors described it as a “space-age Walden.”