

STUDENT LIFE

Opportunities Knock

Undergraduates take the chance to pursue research projects of their own design

By Debra Bradley Ruder
Gazette Staff

Ernest Minelli '95 was in diapers when U.S. troops pulled out of Vietnam. Although he did not witness the marches, sit-ins, and national turmoil surrounding the war, Minelli has thrown himself into them by examining the Vietnam Veterans Against the War, a group that rallied to turn public sentiment against the Southeast Asian conflict.

The research took him to Madison, Wis., Washington, D.C., and Berkeley, Calif., over the summer, and lately it has tied him to his Eliot House room, where he has a second desk devoted exclusively to his thesis project.

"This is an interesting topic because you don't hear very much about Vietnam War protesters who were veterans," said the history concentrator from Hull, Mass. "The most rewarding thing has been speaking with these veterans and getting their side of the story. Many of their actions don't show up in history books."

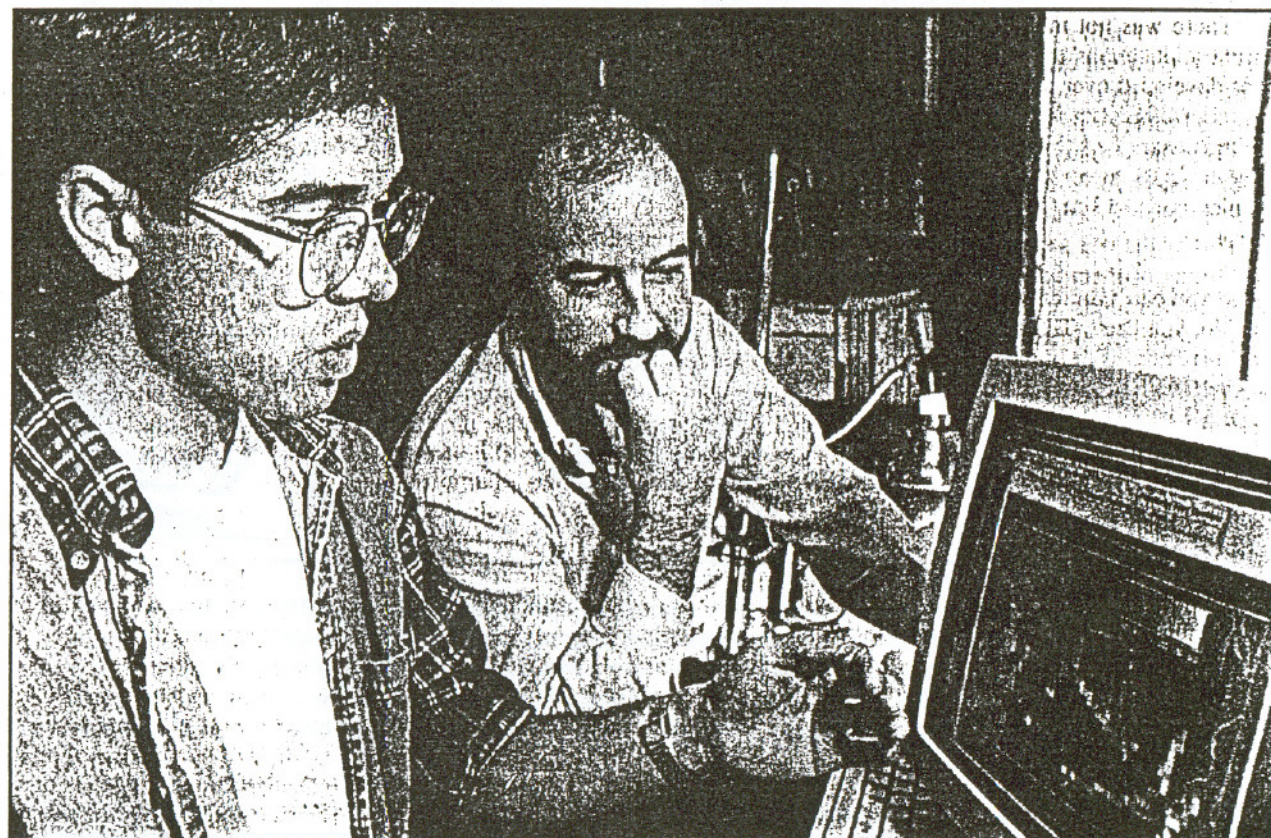
Minelli is one of some 700 undergraduates this year conducting research with and for faculty members on topics ranging from the weekend lifestyles of young black men in New York City to the effects of a high-fat diet on birds.

Their subjects span the centuries, from a multi-level examination of Virgil's *The Aeneid* to a look at the effectiveness of an alternative therapy, known as the relaxation response, for HIV-positive and AIDS patients.

Most of the students work in labs and libraries in the Cambridge-Boston area, but

some travel afar to seek answers to their questions. Economics and women's studies concentrator Nothando Ndebele '96, for example, conducted field research last summer on the lives of street children in Zimbabwe.

More than half the undergraduates serve as research assistants to Harvard faculty members through Harvard's Faculty Aide Program or the Federal Work-Study Program. The others are probing their own topics with grants from the



Jeffrey Yin '95 discusses atmospheric research with Professor Daniel Jacob.

Photo by Jon Chase

Ford Program for Undergraduate Research, the Mellon Minority Undergraduate Fellowships Program, Radcliffe Research Partnerships, and other sources. The money helps cover their educational and living expenses. (See related story.)

The research experience enables students to explore areas of interest, cultivate relationships with faculty, discover the rewards and challenges of being a professor, make more informed decisions about graduate school, and access resources they might not otherwise have.

As one student testified, "I have learned both the process of research and the importance of learning from someone who has 'been through' what I may have to 'go through' myself someday. And I have developed an interaction and camaraderie that will last after the partnership."

Delving Into Topics

Biology concentrator Amy Herman discovered her interest in visual mental imagery when she attended a lecture last year sponsored by the Undergraduate Society for Neuroscience.

The speaker, Professor of Psychology Stephen Kosslyn, discussed his work in that field, "and I said, 'Wow, that's so cool,'" recalled Herman, an advanced standing junior from Lowell House and Savannah, Ga.

So last summer, with support from the Ford Program, Herman conducted her own research on visual mental imagery in color-blind people. She administered computer tasks to 24 color-blind and non-color blind people to see if the former had particular deficits or enhancements.

"I found that the color-blind subjects had significant enhancement in texture imagery," she said. Herman is now writing up her findings, with help from Kosslyn and a postdoctoral student in his lab, and hopes to have her paper published.

"Professor Kosslyn really encourages undergraduates to get involved in research," said Herman, who communicated with him daily by electronic mail. "It was a very good experience."

Monica Coleman '95, meanwhile, is studying narratives written by escaped or freed African-American women slaves, exploring "the way they articulated a unique theology, what I call a womanist theology," she said. It is a topic that emerged from some earlier research she did on Puritan narratives.

Coleman, an Afro-American Studies concentrator from Ann Arbor, Mich., is pursuing her work with a Carol K. Pforzheimer Fellowship at the Schlesinger Library, and grants from the Center for the Study of World Religions and the Mellon program.

The project has involved examining published slave stories housed at Harvard, Radcliffe, and the Library of Congress, and studying relevant history, theology, and literary criticism.

"I'm looking at the uses of religion and Scripture in the slave narratives," explained Coleman, who lives in the Jordan Cooperative. "Women's definition of freedom was

different from that of men." Whereas men generally viewed freedom as a release from brutality and the opportunity to read, "for women, it could mean freedom for their children and parents, and literacy was less important. So how they saw God was different."

Ernest Minelli's analysis of Vietnam Veterans Against the War grew out of a term paper he did two years ago for a course taught by Hue-Tam Ho Tai, the Kenneth T. Young Professor of Sino-Vietnamese History.



Photo by Mary Lee

Monica Coleman '95 is studying narratives written by escaped or freed African-American women slaves, a topic that emerged from some earlier research she did on Puritan narratives. She is pursuing her work with a Carol K. Pforzheimer Fellowship at the Schlesinger Library, and grants from the Center for the Study of World Religions and the Mellon Minority Undergraduate Fellowship Program.

Over the summer, he interviewed a number of veterans and tracked down archival information about the still-active organization, whose membership had swelled to 30,000 by the war's end, he said.

"Many of them came from working class and middle-class backgrounds and were the most likely to be for the war" before enlisting, Minelli said. "I want to show how ironic it was that they turned so radically against the war. . . . They wanted to convince ordinary working men and women that the war was wrong. They felt it was more patriotic to bring the troops home and to start peace negotiations."

Traveling around the country helped Minelli gather critical material for the project and helped "with academics in general," he reflected. "It was the first time I'd

done research outside Harvard, and it was challenging to get exactly what I wanted in a short period of time. I had to be very disciplined."

Developing Partnerships

One of the greatest rewards of student research is the chance to interact with faculty mentors, according to John Marchetti, coordinator for undergraduate research programs in the Faculty of Arts and Sciences (FAS).

"A student who does research with a faculty member gets to know that professor in a different way from sitting down during office hours," he said. "Seeing the professor doing what he or she loves may encourage some of our top undergraduates to go on to careers in academia."

Over the summer, junior Lilja Gretarsdottir worked for

Stanley Lieberson, the Abbott Lawrence Lowell Professor of Sociology, collecting data on naming practices in several European countries and assisting with the computer analysis. She dug up information in books, records, and "obscure old lists of names," she recalled. "I had to use my imagination a lot."

The research assistantship was funded through Harvard's Faculty Aide Program, which encourages professors to hire undergraduates by providing half the student's wage.

Gretarsdottr, of Quincy House and Reykjavik, Iceland, said the material she gathered helped shed light on how names change over time and raised broad questions about tastes and fashion.

"We'd talk about patterns we saw and come up with ideas on how to work the data further," she recalled. "It was very interesting, and I learned a lot. I got to talk with Professor Lieberson a great deal."

Ernest Minelli, meanwhile, receives guidance from John McGreevy, assistant professor of history, and history and literature.

"He provides constructive criticism, but he has also taken an interest in the project," Minelli said. "He always asks, 'So what?' It's his way of playing a devil's advocate. He tells me each sentence has to advance the argument."

Collaborating with Professor Evelyn Brooks Higginbotham, who holds joint appointments in the FAS and the Divinity School, has been a remarkable experience for Monica Coleman.

"I do feel blessed," she said.

Coleman approached Higginbotham about serving as her thesis adviser even before the professor came to Harvard this past fall. The senior figured that this African-American woman scholar would make a terrific role model, given Coleman's own plans to go into academia after becoming an ordained minister.

Higginbotham has helped with her bibliography and methodology, and she has lent a compassionate ear more than once when her advisee has gotten stuck or frustrated.

"She's been a mentor and another mother to me," said Coleman. "We don't meet that often, but when we do, we meet for hours and hours. She's been a great person to work with. She reads and critiques, reads and critiques. She's very encouraging."

For senior Jeffrey Yin, working with atmospheric scientist Daniel Jacob for the past year-and-a-half has helped confirm his future academic plans.

Yin, an applied mathematics concentrator from Honolulu, Hawaii, and North House, has been analyzing data from a scientific expedition that measured concentrations of chemicals in the atmosphere over South America, the north Atlantic, and the south Atlantic—chemicals pro-

duced by deforestation and agricultural burning—and their effect on global atmospheric chemistry and climate.

Yin worked closely with graduate student Denise Mauzerall and associate professor Jacob, recently recommended for tenure as the Gordon McKay Professor of Atmospheric Chemistry and Environmental Engineering.

"Professor Jacob had interesting things for me to do," said Yin. "He gave me room to figure out how to tackle problems on my own. I thought I wanted to go to graduate school in atmospheric science, and this—along with my summer research in Hawaii—really showed me that was something I wanted to do."

A Two-Way Street

Partnerships with students also benefit faculty members, who enjoy helping advisees develop analytical skills and career plans, and in many cases giving back the kind of mentorship they received as younger scholars.

"There have been certain people in my life who have opened a door of understanding, and through their guidance and simple telling of facts and information, I have learned about their world," wrote one faculty member. "As a senior research partner, I hope to return that favor to other people."

Offered another, "This project has reached that marvelous stage where the student knows more than the professor. . . . He is now making real discoveries—it is fascinating!"

To help him investigate naming practices, sociologist Stanley Lieberson employs several students to help find, organize, and translate information into English. His research grant from the National Science Foundation includes some funds dedicated specifically to hiring undergraduates.

Not only do they provide legwork, "I find it useful to talk with students about my work," he said. "If I'm thinking out loud, I'm happy to bounce ideas off them."

Higginbotham values her ties with students and has stayed in touch with many of her former mentees from the University of Pennsylvania and elsewhere.

"I really enjoy working with students and making them think more critically," she said. "I like them to question me, and to read and to expand their bases of knowledge—to become more interdisciplinary. I've always had a wonderful relationship with my students. I really take my role as a teacher and mentor seriously."



Photo by Jon Chase

Ernest Minelli '95 is studying Vietnam Veterans Against the War, thanks to funds from the F. Stanton Deland Jr. Endowment for Undergraduate Research.

Programs aimed at encouraging students of color like Monica Coleman to continue their studies are essential, according to Higginbotham. Coleman is an energetic, inquisitive student who is excited about her research, and "it's important that she not be discouraged along the way."