

EVOLUTION OF HUMAN BIOLOGY A program that turns out gifted students for whom biological, behavioral and social sciences are inseparable. page 2



HAPING THE
HUMANITIES
The people at the
Stanford Humanities
Center didn't get
the memo about
humanists working
alone amid dusty
books.
page 6



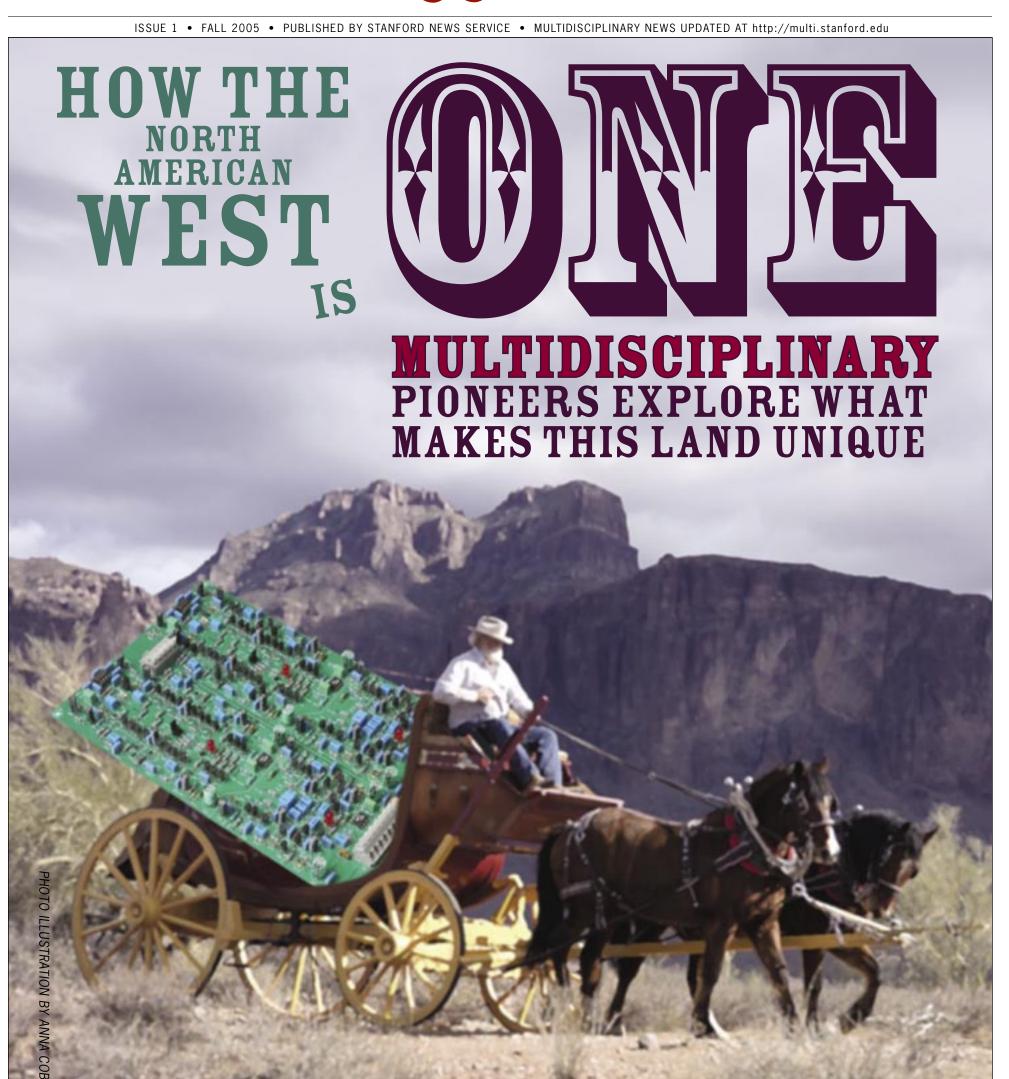
TEAM TEACHING
Professors across
campus, in virtually
all schools and fields,
appear unanimous
about
the rewards of
team-teaching.
page 4

MULTIDISCIPLINARY



OF THE NOVEL
The literary form
that bespeaks
modernity, the
study of the novel
is the study of our
modern world.
page 3

INTER SACTION



There's the Wild West and then there's the West before it was spun, the West as it has been created, imagined, transformed, revered and destroyed. That's the West that occupies the historians who in 2002 established the Center for the Study of the

N F O K D University



North American West. PAGE 8

The Evolution of Human Biology

easels early one Spring Quarter morning as sophomore human biology majors mingled with teachers and colleagues.

They were there to present the results of their final assignment, which was to read a scholarly article, illustrate its methodology and findings on posters, and then suggest ways to advance the work. One student looked at the correlation between violent video games and childhood aggressiveness, another looked at Transcendental Meditation and stress and intelligence levels, someone else studied autistic children's capacity for following gazes, and a future medical researcher reported on a study of breast-feeding vs. formula use among HIV-positive women in Uganda.

he west corridor of the Main Quad was jammed with presentation

Professors, course assistants and friends moved from easel to easel to ask questions, congratulate the proud students on their presentations and critiques and, at least in one case, tell them to lose the gum. Though some may have grumbled at first that it felt like a high school science fair, psychologist Anne Fernald said that's exactly how scientists share their work, so they'll have to get used to it.

Without fail, professors in the Program in Human Biology proclaim they've got the best students around, so indeed it's likely this won't be their last science fair.

For more than 30 years, the program has been turning out gifted students for whom biological, behavioral and social sciences are inseparable.

Human biology students in 2004-05 studied bioethics, death, cell development, vaccines, health care politics, the death penalty, race, sports medicine, organ transplants and donation, vertebrate biology and linguistics, to name just a few. They'll become doctors, lawyers, teachers, researchers and policymakers. And they probably could not have received similar training anywhere else. Harvard and Cornell to some degree modeled their programs after Stanford's, and Indiana University recently invited biologist Craig Heller to give a lecture in anticipation of a new venture there. But the sheer interdisciplinary scope of Stanford's program, not to mention its longevity and spirit, is utterly exceptional.

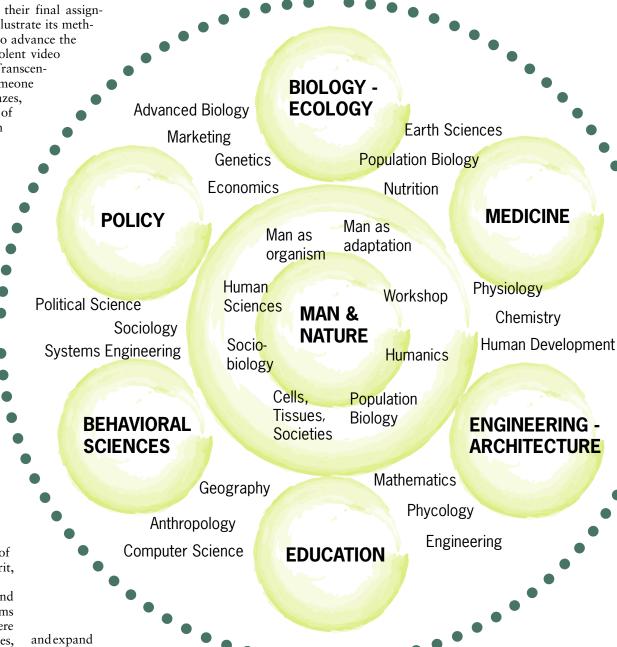
It was founded in the late 1960s, when social unrest and student demands led to the establishment of new programs and departments in universities across the country. Most were interdisciplinary: area studies, ethnic studies, women's studies, environmental studies. It was a frightening time, as scientists perfected the weapons of war and the dangers of industrial pollution were first being decried. At Stanford, there were faculty members and students who believed that physicians, scientists, humanists and social scientists needed to work together in this brave new world. Human biology was jump-started by a teach-in in 1968, the same year Paul Ehrlich, one of the program's founders, wrote Population Bomb. It was declared an undergraduate interdepartmental program by the Faculty Senate in 1969, and the Ford Foundation started it off with a five-year grant of nearly \$2 million.

"People then disagreed with the paths the government was taking, and somehow this was a way to respond," said one-time program director Heller, who went on to suggest that things aren't that different these days. "In a way, the program was an alternative to violence."

Its popularity overwhelmed the founders, who quickly fashioned it into a rigorous course of study starting off with two parallel core sequences emphasizing either the natural or the social sciences. With just four endowed half-chairs, professors were recruited from departments across the campus to participate, and course assistants were recruited from among the seniors. Instructors all were evaluated by students and, in a practice continued today, at least four faculty members read each evaluation. The excitement was such that professors found themselves attending each other's lectures.

By 1973 there were 320 majors, making it Stanford's third-largest major, and president Richard Lyman backed a new infusion of funding. That same year, biologist Donald Kennedy took over as program director. Kennedy eventually became provost and university president and today is the Bing Professor of Environmental Science and a senior fellow at the Freeman Spogli Institute for International Studies.

Human biology in the mid-1980s was the second-largest major on campus after economics (rankings the two majors still enjoy) and was increasingly unable to handle the demand, having neither sufficient funding nor enough faculty. Heller took it upon himself in those years to develop new resources



and expand the fieldwork and honors programs. But inadequate funding and an absence of teaching positions is still a problem.

The second-largest major at Stanford has no faculty billets. Dollar for dollar to the university, there's no better deal, the program's biologists, physicians, psychologists and anthropologists point out.

The director from 1992 to 1995 was Bill Durham, to date the only professor actually hired (half time) by the program. He also is a member of the Department of Anthropological Sciences. On his watch, core courses were beefed up, course assistants' salaries were increased and new classes were developed to address sexuality, health, pollution, genetics and public policy. Field programs sent students to the Galápagos Islands and to Africa, to legal clinics, to inner-city neighborhoods and to elementary schools. Durham was followed by neuroscientist Russell Fernald. The current director is Jeffrey Wine, a former postdoc of Kennedy's, a member of the Psychology Department and a cystic fibrosis researcher.

Students today tend to arrive at Stanford more careeroriented than when the program started, Heller notes, which could make them less adventurous or creative. But they learn from each other and find role models among the more advanced students, who inevitably have loosened up, he says. Six junior and senior student advisers hold regular office hours; course assistants are still seniors. There is a student newsletter. Students and professors alike proclaim the camaraderie among the majors, and it was as visible in the Quad that spring morning as the brightly colored posters.

To celebrate its accomplishments, the program published a booklet in 2001 called "The First 30 Years" that includes tributes and some remarkable stories.

"At Stanford we sometimes take for granted all that Hum Bio offers," wrote 1999 graduate Laura Chyu, "but speaking with people from other schools has shown me how unique the program is."





Students display the results of their final assignment, which was to read a scholarly article, illustrate its methodology and findings on posters, and then suggest ways to advance the work.

EDITORS' NOTE:

This is the first issue of a quarterly supplement to *Stanford Report* that focuses on the people and news behind the university's myriad efforts in multidis-

ciplinary research and teaching.

The shape of academic disciplines is always evolving. The constant is the quest for new knowledge. As our scholars punch

through the masonry that once separated departments and schools, we want to document their efforts and achievements.

We hope the name, Interaction,

reflects the spirit of Stanford in the 21st century. The articles, as well as other resources and news, are available online at http://multi.stanford.edu.



he novel is the literary form that bespeaks modernity. One begat the other, which is a way of saying that the study of the novel is the study of our modern world. That nexus defines Stanford's Center for the Study of the Novel.

"I'm interested in realism," says Margaret Cohen, the center's director. Realism, she points out, is the genre most associated with the 19th-century novel, the literary creation whose culture, language, setting and ethos are inseparable from modern cities and nations. The world of cities and nations emerges through realism.

Cohen spent the 2004-05 academic year as a fellow at the Stanford Humanities Center working on her latest exploration of the conjoined realms of literature and modernity. "The Romance of the Sea" is the working title for her newest project, a study of literature, waterways, ocean travel and the maritime.

Like her predecessor, Center for the Study of the Novel founder Franco Moretti, Cohen, a professor in the Department of French and Italian, is deeply committed to the idea that the novel is grounded in material life. The maritime, she explained in her introductory comments at an April conference devoted to "The Maritime in Modernity," plays a role in many interdisciplinary paradigms: flows, circulation and exchange are at the heart of economic, cultural and social intercourse, and thus at the heart of modern literature.

"Strange as it seems, no other university in the world has a center for the study of the novel like ours," says Moretti, the Danily C. and Laura Louise Bell Professor and a professor of English. "At times the simplest things are the most complicated to imagine. There's no other place in the world that has a similar flow of international and national specialists on the novel. By and large, all the people who do great work, they've all been here."

The center was established by Moretti when he arrived at Stanford in 2000. Each year it holds two conferences, the Ian Watt Lecture on the History of the Novel (whose speaker is chosen by graduate students) and two "Book Conversations," at which a visiting author is at the center of a free-ranging and, according to Cohen, "quite unpredictable" group discussion.

The topics of the upcoming conferences make it clear that Cohen, who says she's interested in "the edges of the novel," is very serious about understanding the form in a wide context while not neglecting what she calls "the specificity of literary studies within the humanities." The core and the periphery of the discipline, in other words, are not mutually exclusive, but sometimes the core gets neglected amid enthusiasm for exploring the outlying areas.

In November, the conference on "Adventure" will draw visitors from English departments and film studies, along with chaos theory pioneer and physicist J. Doyne Farmer. Farmer (Stanford B.S. '73) currently teaches at the Santa Fe Institute, a private, nonprofit, independent and multidisciplinary research center. He and his co-panelists will discuss Oriental romance, the picaresque and science fiction, to name just a few excellent adventures.

That will be followed in January with a gathering devoted to "Illustration"; speakers will be scholars housed in literature, film and art departments.

Cohen has moved the center along a more interdisciplinary path than Moretti, who acknowledges he started cautiously in that respect, though even within the tidier confines of literature per se there were some standout meetings on his watch.

"Teaching Narratives," for example, featured papers by an elementary school teacher, a high school teacher, a community college instructor and a university professor.

One of the heavy hitters visiting this year will be Pascale Casanova, who drew international praise (and controversy) for The World Republic of Letters, first published in France in 1999. Like Cohen and Moretti, Casanova overlays literature and maps as a way of understanding inseparable cultural and power relations. "Nothing like this has been attempted before," philosopher and critic Perry Anderson wrote in the London Review of Books, noting "the geographical range of Casanova's materials, from Madagascar to Romania, Brazil to Switzerland, Croatia to Algeria." (Anderson will be one of the commentators at the February Book Conversation featuring Casanova.)

Using the world-systems theory developed by sociologist Immanuel Wallerstein (upon which Moretti also bases his most recent work), Casanova essentially looks at literature as a problem of globalization, in the current sense of the word. Inequality, capital accumulation and struggle between core and periphery are all invoked to explain and analyze literary production, which exists in a constant tension between universalization and fragmentation. In the words of a critic in The Nation, "She has created a map of global literary power relations where none had existed."

Like Casanova and Cohen, Moretti has a global perspective, which, almost by definition, is interdisciplinary. To the economic relations of world-systems theory he adds the theory of evolution, the idea being that the world's multiple literary forms are the result of historical divergence along different trunks. Geography, too, plays an important role in his analysis; he maps novels to allow patterns and ideas to emerge that otherwise would remain hidden.

Though Moretti and Cohen may gaze over the horizon, they are both cognizant that the center is, as Moretti put it, an institution and "not a book that Margaret and I are writing together." It is a place, above all, where Stanford graduate students can get exposure to a wide range of scholars and establish bonds with their fellows at nearby universities. Susan Schuyler, one of Cohen's two assistants at the center, says there are few of her colleagues who do not cross boundaries in their work. How does that manifest itself? Sources, she answers quickly. Look at what evidence a scholar examines to make a literary argument, and you'll see how he or she understands the world.

Schuyler and her colleagues have picked Bill Brown to be the next Ian Watt Lecturer. (Watt was an early leader of both the Stanford Humanities Center and the Modern Thought and Literature Program.) Brown (Stanford Ph.D. '89) is a professor of English at the University of Chicago and a member of its Committee on the History of Culture. He has described his research as taking place at the intersection of literary, visual and material cultures; he has written about, among other things, baseball, dime Westerns and consumption.

Add all that in with world-systems theory and the maritime, and you've got some very, very interdisciplinary things going on.

"We've made this center, which nobody else has, with a director with no salary and two graduate students and some staff assistance from the English Department," Moretti says.

"We have been an inspiration to many universities. We have received so many e-mails over the years from around the world from people wanting to come here to work, not realizing that the center is a small room with no windows."

But what a view.

Margaret Cohen, director of the Center for the Study of the Novel and a professor in the Department of French and Italian, is deeply committed to the idea that the novel is grounded in material life. Professor Franco Moretti, below, founded the center and served as its previous director.



'There's no other place in the world that has a similar flow of international and national specialists on the novel,' Moretti says.



Odd

THE CHALLENGES AND REWARDS OF TEAM-TEACHING

rofessors across the Stanford campus, in virtually all schools and fields, appear unanimous about the rewards of team-teaching.

"What was beautiful was that I suddenly realized this is a great learning experience for me," recalled Andrea Nightingale of the Classics Department. She taught an Introduction to the Humanities (IHUM) course with environmental historian Richard White last year, and the duo is repeating the class, Representing Nature: The Boundaries of the Human, this quarter.

"I'm learning environmental history. He's learning about philosophy," Nightingale said. "I'm sounding more like a historian and he's sounding like a philosopher. He's talking about Descartes, and I'm saying, 'Wait a minute, that's supposed to be me!"

David Holloway, professor of history and political science and former director of the Stanford Institute for International Studies, said one of the many people with whom he has taught Peace Studies was American historian Bart Bernstein. "We used to joke that we had a lot of common interests, but we only talked about administration," Holloway said. "Teaching together allowed us to talk about the substance of our interests. Team-teaching allows you to actually be present with a colleague. It's intellectually interesting. It's fun."

While almost all faculty involved in team-teaching say the experience was a good one, most also agree that the institutional culture common to most universities can present obstacles.

"This is an area where Stanford could be doing a better job," said Stefanos Zenios, a health care expert at the Graduate School of Business who in spring 2005 taught a three-way class cross-listed in the Engineering, Medical and Business schools. He said he believes a better, more supportive infrastructure would draw more faculty in.

"You have to create the relationships on your own, and in that respect it's the same as setting up relationships with people at other universities. For me, Stanford's Medical School is the same as UCSF or the University of Chicago. I managed to set up a great collaboration, but it felt like it was more difficult with people across the street than across the world."

Zenios did cross the street—in fact, he crossed the campus. But despite the unique physical proximity of Stanford's seven schools, the physical impediments to collaboration can rival the administrative ones. Many describe their intellectual cross-pollination as the result of serendipity. They met at a conference. They both jogged. They had a common friend, or a common student. Or perhaps, if the Clark Center's strategy bears fruit, they met at one of those long lunch tables in the cafeteria.

Overcoming the obstacles to team-teaching is an exercise well worth the effort, many professors say.

"There may be an issue that faculty disagree on, and that's a wonderful thing, because students see two intellects at work addressing a problem to which the answer is uncertain, and that's utterly healthy," said Elliot Eisner, the Lee L. Jacks Professor of Education, an authority on arts education. "If the university is interested in team-teaching, it ought to make it clear that it has to be encouraged, not penalized, and that people who engage in team-taught courses should not have to compensate their department or school with additional work on the basis that they're teaching with someone else."

Eisner himself was compensated for his ground-breaking Education 200, The Work of Art and the Creation of Mind, but the host of arts faculty members who worked with him did not receive teaching credit. Holloway said he could teamteach only because he had a lighter load as director of the Institute for International Studies. Otherwise, he said, it would have been difficult. "I think there ought to be more flexibility than there is," he said.

At the Philosophy Department, formerly chaired by Provost John Etchemendy, instructors receive full credit for one team-taught class per year. That allows Lanier Anderson, a specialist in Nietzsche and late-modern philosophy, to work with Josh Landy of the Department of French and Italian, whose most recent work is titled Philosophy as Fiction: Self, Deception and Knowledge in Proust.

The pair appear to be two of the university's biggest fans of teamteaching, and they certainly have worked the concept to admirable limits. Their class, Philosophy and Literature Gateway, is a required course for the new Philosophical and Literary Thought track. The track itself is their invention, the result of several years of friendship and collaboration in

Credit where credit is due

One administrative hurdle frequently remarked upon by instructors was that they don't get full credit for a team-taught course. The rules vary from department to department and from school to school. Depending upon one's discipline, one gets full credit, half credit, or no credit at all.

School of Education instructors receive full credit for teaching together if they both attend all sessions, or if it is the first time the course is taught, or if the course has at least 20 students enrolled.

At Humanities and Sciences, decisions on teaching credit are made by individual departments.

In the School of Engineering, teaching load decisions also are handled by the individual departments and, at least according to Dean Jim Plummer, teamteaching requests are generally resolved amicably. The jointly appointed members of the faculty, of whom there are quite a few, work out their teaching loads with their two home departments, but that too generally runs smoothly, he said.

School of Earth Sciences Dean Pamela Matson said instructors there receive full credit for team-teaching.

reading groups and in a workshop sponsored by the Humanities Center.

Like their counterparts across campus, they said learning to think in someone else's terms is part of the process. But in their case, the intellectual dialogue worked so well that they began thinking in the same terms. Multidisciplinarity, in other words, became interdisciplinarity. That could have undermined the IHUM class he and Landy were teaching by reducing the intellectual friction, Anderson said, but they managed to solve the problem: "I learned things, and I integrated this new knowledge into philosophy, but then we couldn't argue anymore! So we had to pretend!"

Is teaching a class with a colleague from another department half the work? Not according to School of Earth Sciences Dean Pamela Matson, whose instructors also receive full credit for team-teaching. In fact, she said, teaching together can be so much work that some professors find themselves unable to find the time. Matson herself has often team-taught, most recently a freshman seminar with Suki Hoagland, executive director of the Interdisciplinary Program in Environment and Resources (IPER), called A Transition to Sustainability: Development and Environment in the 21st Century.

Nor does particle physicist Patricia Burchat, winner of a 2005 Guggenheim Fellowship, think a team-taught class is an easy ticket. Burchat began meeting with colleagues from biology and engineering a full year before their Science, Math and Engineering Core class had its first session. Together they developed a pedagogy that worked for all four of them, and throughout the course they continued meeting every week with a diverse group of teaching assistants.

Giving faculty half-credit for a team-taught course is "not a good way to travel," Eisner said, "because in fact there's more work involved, not less." Referring to Education 200, he noted that this was not a case in which a guest lecturer made a cameo appearance and then walked off stage. Just about every instructor-representing drama, music, visual arts and education—was present at just about every session, he said. "For most instructors, this was an additional responsibility for which they got no compensation and, perhaps, no adulation either from their colleagues."

Nightingale also recalled that at first the workload exceeded what she was accustomed to. She and White read each other's lectures in advance every week and often found themselves altering and rewriting their presentations in reaction to each other's work. "The amount of work outside the class is huge," she said. "There's a lot of work at home to keep the coherence of the course. Our lectures answered each other; they were a dialogue." Such a dialogue often has to

overcome mutual unintelligibility. Biologist Dafna Elrad, who co-teaches a course with chemist Richard Zare, the Marguerite Blake Wilbur Professor in Natural Sciences, noted that chemists tend to think more quantitatively than biologists, who are more interpretive. Burchat, the physicist, recalled that she and her colleagues would often

COUDIES: ACROSS DISCIPLINES

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interrupt each other during class to ask, "When you say that, is that the same as when I say this?" Philosophers think literary scholars are wishywashy, and the lit people think philosophers are dry, Landy said, "and they're both right."

Geologist Stephen Graham, who co-teaches a unique course on reservoir char-

acterization with a statistician and an engineer, noted there are engineers "who have never seen rocks" and geologists who don't

know how to develop computational models. They not only have to learn how their colleagues do things; they have to learn how they think and speak. Composer Mark Applebaum, who has co-taught with a philosopher and also participated in Education 200, remarked of the collaboration: "All the teachers became students of their colleagues."

Maybe that doesn't sound like work. Some departments, said Zare, who is the winner of the 2005 Wolf Prize in chemistry, can be "very parochial" and regard classes such as the one he co-taught with Elrad more or less like a hobby. He can afford a hobby, he conceded; junior faculty usually cannot.

Some people think that "if it's not in the department, it can't be serious," he noted during a brief break in his and Elrad's freshman lab last spring. "Departments have names. Scientific problems don't have names on them."

That line of thinking, adjusted for the discipline, was the inspiration for all the team-taught classes whose instructors were consulted for this article. "There are good institutional reasons for disciplinary boundaries, but creativity takes place at the interstices," Applebaum said, remembering Education 200. "I leaped at the opportunity" to work with Eisner.

Nightingale also recalled the thrill of working with someone whose work she greatly admires, in this case White, the Margaret Byrne Professor of American History and a MacArthur Foundation fellow who is considered one of the world's leading environmental historians. Her research of late had veered away from Plato and Aristotle to examine the philosophy of ecology. White heard about her work and invited her to join him in teaching IHUM 53, Thinking with Nature.

What does an expert on the American West have to say to a classicist who loves Walden? Endless amounts, it turned out. "There were times when we disagreed with each other, and of course that's the purpose of IHUM, understanding that there's a scholarly debate with radically differing perspectives. But this didn't create friction; it created pleasure."

Graham, who has been associate dean for academic affairs at the School of Earth Sciences since 1999, has team-taught several courses. His current offering, which has existed for nine years, is a "poster child for interdisciplinary team-teaching," he said proudly, a poster child "born of necessity." It is a graduate survey course with no prerequisites that offers geology, geophysics and petroleum engineering students (all within the School of Earth Sciences) an integrated overview of petroleum reservoirs and their management. Resources, he said, are very complicated: "It's not enough to just drill. Very diverse technologies are involved, far too many for a single person to absorb." So the course cross-trains students, showing them all the difficulties and capabilities of neighboring disciplines.

Graham and his colleagues—geostatistician Andre Journel and engineer Khalid Aziz—wanted the course to mimic the graduate students' future careers. The world, after all, rarely conforms to departmental boundaries. So the petroleum engineers and geologists head off to a corner of Los Padres National Forest in Monterey

County to work in a geologic system that Graham said is a good analogue for a petroleum-rich area. At the end of the quarter, they present oral and written reports, just like they would if

they were working for a company. They make friends, they appreciate each other's efforts and challenges, they learn how to collaborate and, not coincidentally, they become vastly more marketable.

"Petroleum companies love this course," Graham said, so much so that they fund it with no strings attached. Companies used to be silo-based, he noted, using the term often applied to universities and their departments. But extraction requires teamwork; companies were quicker than

universities to respond by replicating that team spirit.

Anecdotal evidence points to greater problems pairing faculty from disparate disciplines and schools than collaborating with close colleagues. Graham, Journel and Aziz are all at the same school and thus avoided potential institutional obstacles to team-teaching. The three professors also all receive full compensation and, according to Graham, are heaped with praise.

They also, presumably, had a relatively easy time discovering their commonality. At a university as decentralized as Stanford, how do people find intellectual soul mates in departments other than their own? The proliferation of interdisciplinary institutes, centers, programs, websites and newsletters are allowing more and more of those encounters to take place. Faculty from all seven schools are affiliated with the graduate IPER, for example, and with the Freeman Spogli Institute for International Studies (formerly the Stanford Institute for International Studies). Scholars might hear of each other's work and be intrigued enough to propose a partnership, as in the case of White and Nightingale.

A course on eco-tourism, taught by Bill Durham of the Department of Anthropological Sciences and Bill Barnett of the Business School, is in many ways typical of how a new collaboration comes into being, a story featuring a succession of seized opportunities. Durham met Barnett when they were fellows at the Center for Advanced Study in the Behavioral Sciences. They were running partners, they exchanged information and later ended up organizing a conference on eco-tourism at the Business School. The dean took an interest, sat Durham down for lunch and said, "You know, this would be an awfully good thing to have a class on. Ever thought about teaching it?" Durham said he had no business

expertise, the dean said leave it to me, and the next thing Durham knew he received an e-mail from Barnett saying we've got a package.

Sometimes there is a match-maker involved. In the case of Applebaum's seminar, Etchemendy, a philosopher of language, was the dissertation adviser for Brian Epstein, and he suggested to his student that he speak to Applebaum about natural language and music. Etchemendy "had an intuition I could help him," Applebaum remembered. "But he never could have predicted that a year later our conversations would be so

robust and would engender a team-teaching opportunity," a seminar on indeterminacy in music. (Epstein now teaches at Virginia Tech.)

It was a former statistics student of Zenios, who teaches at the Business School, who alerted his former professor to the research of the people at the Medical School with whom Zenios ended up collaborating.

IHUM, which requires that its fall quarter classes be team-taught, also acts as a matchmaker, in part to ensure that the program has enough faculty. Basically, they set people up; a professor of something is put into contact with a professor of something else, when those two would be unlikely to run into each other or know of each other's work any other way.

Another matchmaker was biologist Sharon Long, dean of the School of Humanities and Sciences,

whom Zare credits with promoting his and Elrad's freshman seminar on Light, Pigments and Organisms, which was cross-listed in chemistry and biological sciences and which they have taught twice. If it were not for Long, Zare said, the class would not exist.

"I'm a bit surprised at how specialized everything is," said one of Zare's students, Jason Regalado, now a sophomore and apparently a quick convert to interdisciplinarity. "People don't see the whole picture. It's almost like political science, like the Middle East. You don't just want to focus on the Middle East, you need to think about the whole world. The world of science is like that, with different regions. You have to have your biology, your chemistry, your computer science. If you just zone in on the region, creativity gets very limited."

The structure of the university registrar's database makes it impossible to quantify how many classes are team-taught every year (apart from the mandatory IHUM classes), but an unscientific investigation reveals that team-teaching at Stanford is still the exception, always highly valued by participants and, with a few exceptions (Peace Studies and Graham's course among them), unlikely to last for long.

In some cases, departments or schools specify that instructors will receive credit for a course only the first time it is taught.

Burchat's course, Light in the Physical and Biological Worlds, a co-production that involved biology, physics, math, psychology and engineering, was part of the defunct Science, Math and Engineering Core, an experiment aimed at making non-science students science-literate. Enrollments were low and the program was discontinued.

Education 200 also has disappeared. Eisner attributes its demise to the extra burden it represented for

faculty. "It's still on the books, but it's not taught. I'm retiring after [this] year, and I'm not sure anybody has the appetite to take it on," he said.

But, despite individual setbacks, collaborative teaching appears to be slowly on the rise. Durham last winter quarter launched a new teamtaught course on Environmental Change and Emerging Infectious Disease. The senior scholar said he and his junior colleague Jamie Jones had been talking and realized they had complementary interests:

"He comes from demography

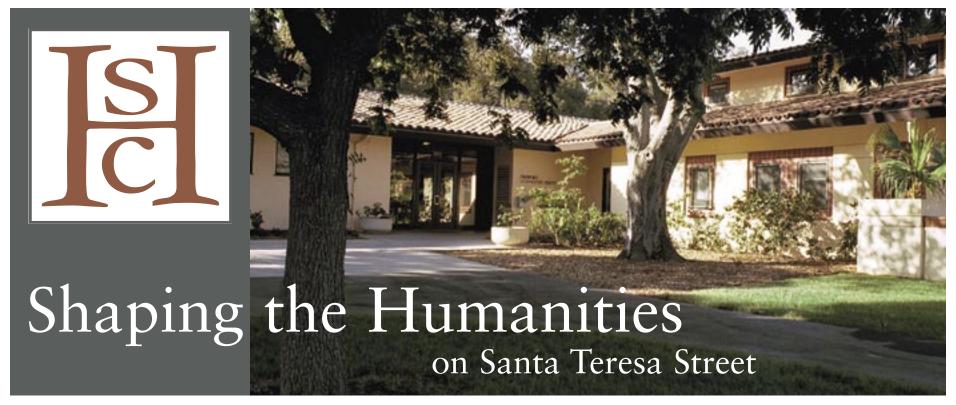
and population biology, and I come from conservation and ecology," Durham said. "Jamie's brand-new and I've been teaching a bunch of years. I said, 'Hey, why don't we teach together? Why not put our interests together?' It bubbled up from that conversation. Neither of us knew enough to put a class together on this subject on our own. It seemed a great way to share the benefits of years of experience with a brand-new teacher. And it has worked smashingly."

'There's a lot of work at home to keep the coherence of the course.

Our lectures answered each other; they were a dialogue,'

Nightingale said.





Participants in a new Humanities Center workshop called "Global Justice," from left: Ina Shen (right), Jon Dolle, Amita Chudgar and Joan Berry; David Katzenstein, professor (research) of medicine (infectious diseases and geographic medicine) and graduate student Adam Rosenblatt; Debra Satz, faculty coordinator of the workshop and director of the Ethics in Society Program; Helen Stacy, a senior lecturer in law.

Workshop photos by L.A. CICERO

he people at the Stanford Humanities Center apparently didn't get the memo about humanists working alone amid dusty books, devoting years of their lives to writing tomes no one reads. But then again, few humanists have gotten that memo, though belief in its existence persists. The problemsolving crowd and some humanists themselves may have prescribed a definitional overhaul for the field, but at least on this campus, the excitement is palpable and the boundaries eminently flexible. The humanities—ask anyone—are fun.

They're also profoundly interdisciplinary. Back in 1999, historian Keith Baker—at the time director of the Humanities Center and later the associate dean for humanities—organized a broad-ranging series of conferences devoted to "The Shape of the Humanities." It was clear that much of the work in the humanities defied disciplinary description, though it's also true that the disciplines themselves were beginning to defy description. So the all-star lineup of scholars and critics participating in the conferences debated the meaning of such terms as "history," "literature," "culture" and "interdisciplinarity" (http://shc.stanford.edu/shc/1998-1999/events/soh3.html).

The very fact that there was such a meeting, however, points to a kind of uncertainty, whose origin may lie elsewhere than in the humanities themselves. When Ralph Hexter, dean of the College of Letters and Science and dean of arts and humanities at the University of California-Berkeley, announced last year that he was leaving to become president of Hampshire College, he made it clear that though the positive reasons for taking such a job were obvious, he was also concerned about the humanities' increasingly marginal place at large research universities such as Cal (http://insidehighered.com/careers/2005/04/18/hexter).

When schools reconsider liberal education, their core curriculum or breadth requirements, they often are debating what to do with the humanities. It is not unusual to hear that applied research often trumps basic research or, as Humanities Center Director John Bender puts it, problemsolving trumps curiosity. And, getting back to the piles of dusty books, the humanities has never had very good press. Scientific breakthroughs make headlines; new ways of thinking usually do not.

Further, area studies, in the minds of many scholars, may supplant the traditional humanities disciplines—a good thing or a bad thing, depending on whom you ask. Judith Halberstam, a professor of English and director of

the Center for Feminist Research at the University of Southern California, last spring announced the death of "English" and expressed hope that the death of the Modern Language Association would soon follow (http://insidehighered.com/views/2005/05/09/halberstam). The degree to which fields such as cultural studies are new or simply are places in which disciplinary scholars gather to contribute their particular perspective—the degree in other words to which a field is

degree, in other words, to which a field is interdisciplinary or multidisciplinary—is still under discus-

considering the funding at stake.

At Stanford, funding for multidisciplinary research and education is squarely on the agenda. Though some members of the humanities faculty suggest they did not feel entirely welcome in the process leading up to the announcement of the multidisciplinary initiatives in international relations, the environment, bioscience and the arts—which will constitute the axes of the upcoming capital campaign—those same people affirm their enthusiasm for collaborating.

sion, and the discussion is more than a semantic quibble,

For example, there are two Humanities and International Studies Fellows at the Humanities Center this year, the result of collaboration between Bender, a professor in the English Department, and Coit Blacker, director of the Freeman Spogli Institute for International Studies, the axis of the international initiative launched in May by President John Hennessy. Bender has pointed to the wealth of scholarship in the

humanities in and about foreign languages as another obvious point of collaboration, particularly given the frequent laments that few U.S. government officials speak anything other than English. The Stanford Institute for the Environment, the anchor of the multidisciplinary environmental initiative, and the Humanities Center are planning a conference on humanities and the environment for 2006. Links with the incipient arts initiative, which will concentrate on creativity, are even easier to devise. As Bender points out frequently, the humanities are "key to the multidisciplinary campaign." It's not just a matter of the humanities folks crossing the street; there are plenty of reasons why the rest of the university should make its way to the center on Santa Teresa Street.

The Humanities Center has three basic missions: fellowships, public events and interdisciplinary workshops. All three reflect the elastic nature of the humanities, the excitement of working in areas whose boundaries are up for grabs. Fellows are both internal and external (http://shc.stanford.edu/fellowships/index.htm). Public events include conferences, the university's Presidential Lectures series and endowed lectures, many of which are available on audio and video streams. Most of the public lectures are aimed at a broad, interdisciplinary audience: "The purpose is to show the public what scholarship produces," says the center's outgoing associate director, Elizabeth Wahl.

But the workshops are where the heavy lifting takes place, the site where definitions and concepts get tested, where cross-disciplinary friendships are forged, where fellows, faculty, graduate students and visitors teach each other how to think in interdisciplinary ways.

"The point of the workshops is to bring people together," says Wahl. "With the right incentives and the means and the time, the kind of scholarship that workshops can develop is quite phenomenal. We're giving people tools."

The range of subject matter covered by the workshops is indicative of the reconfiguration of the humanities in recent years, what anthropologist Clifford Geertz-who is a frequent point of reference for historians and literary critics—called "blurred genres." The topics are, quite literally, all over the map. They embrace history, policy, creativity, language, science and identity. They also come and go, reflecting, Baker says, the ebb and flow of intellectual trends, people and energy. Wahl says, for instance that she was trying to line up a workshop in a couple of years taking art history as its starting point; a particular fellow slated to be at the center, matched with a particular faculty member, with maybe the right number of ripe graduate students thrown in, might just result in the right mix for a successful few years of intellectual exploration. As opportunities appear and disappear, a particular workshop may continue, but the content shifts slightly each time.



"Sometimes we don't have the right fit," Wahl says. "The workshops point out where the crust is thin."

For the past decade, the workshops have been funded by two five-year grants from the Mellon Foundation. The second of the two grants is now entering its last year. (The rest of the Humanities Center's activities are funded by the university and by its own endowment, the latter covering 80 percent.) To take the place of the Mellon grants, the center has obtained a one-time 1:1 Mellon matching grant of \$1 million and a \$600,000 National Endowment for the Humanities Challenge Grant with a 4:1 match (http://

'The kind of scholarship that workshops can develop is quite phenomenal,'

Wahl said.



news-service.stanford.edu/news/2005/february9/neh-020905.html). The center's staff has raised almost \$1 million and is confident the workshops will be around for quite some time.

Each year the center sees 15 workshops; organizers must reapply for renewal at the end of the year. Among those held during 2004-05 were newcomers, old favorites and one that morphed into another. Some led to spinoffs, some had participants from outside the university and one was formally linked to similar efforts at other universities.

Probably the oldest of the bunch is Hans Ulrich Gumbrecht's Philosophical Reading Group (PRG). Its origins speak to the Humanities Center's role as a catalyst for experimentation. Gumbrecht, the Albert Guérard Professor of Literature in three literature departments, launched a reading group soon after he arrived at Stanford in 1989.

"Everyone told me it would never fly, so I said, 'OK, that's my problem,'" Gumbrecht recalls.

It flew. The group eventually grew into one of the Mellon workshops at the Humanities Center where, as it happens, renowned philosopher Richard Rorty was a fellow several years back. Rorty, in turn, brought in more philosophers (to balance out the literary critics), and the resulting mix helped launch the Philosophy and Literature program, whose founders, Josh Landy (French and Italian) and Lanier Anderson (Philosophy), met in Gumbrecht's group.

Every year, Gumbrecht chooses a modern philosopher whose works the group will discuss. This year it will be Schopenhauer. Last fall the subject was Hans Jonas, an Israeli philosopher especially concerned with technology, and in winter they moved to Erwin Schrödinger, a theoretical physicist. The members—faculty, graduate students, undergraduates and outsiders—meet weekly during fall and winter quarters, and in spring they hold a two-day colloquium at which members and guests make presentations about the year's readings.

"PRG is completely open," Gumbrecht said recently. "We have freshmen, outsiders, academics, a guy from Silicon Valley. It's crazy, but very productive. Yet our approach is very conservative." It's not for weaklings, he warns: "There's no protection for youngsters."

One of those youngsters is Kenny Gundle, a senior in human biology whom Gumbrecht met at Stanford's center in Kyoto, Japan. "We fell in love, intellectually," Gumbrecht explains. Gundle, who plans to be a physician, seems genuinely exhilarated at the intellectual challenge of the group. He was one of the speakers at the spring 2005 colloquium.

The text-driven discussions are intense and often very long, but members swear by them. Gumbrecht calls them a "lifeline."

"The text becomes the medium for different interpretations," he says. "The text takes care of ensuring it is interdisciplinary. Jonas, for example, was brand-new to everyone in different ways. Some concepts are new to some people but not to others, and we all have to use the language of the text. So people from human biology and doctors and software designers and philosophers all come together around this text. By all referring to



the text, we make this explosion possible. I have to think via the Silicon Valley guy."

The Silicon Valley guy is Niklas Damiris, a one-time Stanford postdoc and physicist who turned into an ecological economist.

"The real reason for the multidisciplinary character of the group has to do with its history and sedimentation," Damiris said in an e-mail. "Year after year, a core group of interested people with different backgrounds have become mutually inspired to return for more intense intellectual interaction. This is not due solely to the members' diverse backgrounds but to their commitment to study texts rich enough to sustain divergent and often polemical readings."

And, he added, he and his partner, also a scientist, take pleasure in thinking that their presence may have inspired humanists to tackle more scientific texts.

Thus the PRG model of concentrating on a text, while in some ways conservative, forces participants to be more interdisciplinary.

"How Do Identities Matter?" led by Paula Moya, director of the undergraduate program at the Center for Comparative Studies in Race and Ethnicity, also mixes text readings with presentations.

In fact, when a speaker had to cancel in May, Moya and her workshop colleague Monica McDermott, a

sociologist, decided on the spot to turn the session into a book group: "I know—let's read the Mary Waters book!" Moya said, referring to a recent study of West Indian immigrants in New York City.

Like the PRG, the Identities workshop started off as something else. Moya is a member of the Future of Minority Studies National Research Project, which itself grew out of discussions among friends at several Midwestern and New York universities about identity and pedagogy. Conversations led to conferences, which led to more conferences, which led Moya to think she wanted to create something at Stanford "that would be an interdisciplinary space for people to get together to talk about how identities matter." At the same time, it would hook Stanford into this debate on a national level.

The obviously gifted teacher got her obviously efficient graduate students involved (there is a graduate student coordinator stipend of \$1,800 a year per workshop), and the effort was launched in fall 2003. Presentation and discussion topics have included "Disability as Masquerade" (by Tobin Siebers of the University of Michigan), a presentation on "Mark Twain's Lynching Narratives" by Lisa Arellano (a graduate student in modern thought and literature) and a talk by Ramón Saldívar, Moya's colleague in the English Department, called "Between Texas and Japan: Idioms of Race, Nation and Identity."

Moya, whose "postpositivist realist" work on racial and gender identity has won national attention, was intent upon making the workshop a place where the humanities meet the social sciences. And indeed they have met, often to puzzlement and hilarity. For example, there was the time the literary critics matter-of-factly talked about something called "the political effects of poetic form" and the sociologists practically headed for the door. The critics, in turn, were stunned to learn about the nitty-gritty of data collection.

"People often say, 'I have no idea what you're talking about,' McDermott says. "Your most basic methodological assumptions are called into question."

Saying she had recently been asked to fill in for a speaker at a conference on public opinion surveys, she notes that her approach to research has been altered as a result of two years of listening to literary critics.

"I pay closer attention to symbols and particular interpretations I give to social interactions and dialogue," she says. "It has made me a better field researcher."



McDermott gave a presentation to the workshop in May on her field research, which was set to began this fall. She planned to lead a basically undercover existence in a Southern town as she held down a day job and investigated the impact on black/white relations of the skyrocketing numbers of Mexican and Mexican American immigrants.

Her audience at the workshop, a mix of literature faculty and graduate students from both literature and sociology, questioned her carefully about the racial makeup of the area, her methodology and her sources. With whom should she speak? How much should local newspapers be taken into account? How should she interpret the terms used by the locals to refer to Mexicans?

The workshops, as Wahl says, show where the crust is thin. At least two last year—"The Ecology of Globalization" and "Ethics in the Professions," both in their first year—did not apply for renewal, but their themes will reappear in new guises and under new rubrics.

"Ethics in the Professions" was coordinated by Lawrence Quill, associate director of the Center on Ethics. The center organizes a multitude of events on and off campus concerning ethics and society. Topics addressed in his workshop included pedagogy, business ethics, leadership, electronic voting, bioethics and ecology. The session on ecology, in spring quarter, featured Mary Evelyn Tucker and John Grim, professors of religion at Bucknell University and founders of the Forum on Religion and Ecology at Harvard (http://environment.harvard.edu/religion).

Tucker began by noting the critical juncture at which we and our planet have arrived, which has driven the sciences to say, "The human matters."

Many of the two dozen faculty members and graduate students at the noontime meeting—from religious studies, education, medicine, the university administration, earth sciences, anthropology and the Aurora Forum—were indeed concerned about how to establish

viable links between religion and ecology, between academics and religious leaders, between an ethical vocabulary and a scientific one. Because, as Tucker said, "science is finally saying, the facts alone are not changing the situation," there is a remarkable opportunity for an interdisciplinary dialogue. Religious leaders who never before entered a public arena other than their own temples are finding themselves personally moved by the spectacle of an endangered planet and are being spurred into action, she said. "You bring them into the interdisciplinary dialogue, and the questions get reframed," she said.

This year Quill has organized a new Humanities Center workshop called "Global Justice." The faculty coordinator will be Debra Satz, chair of the Philosophy Department and director of the Ethics in Society Program. Participating faculty will come from philosophy, law, political science, education, history and economics.

Another workshop, "American Cultures," is on a one-year hiatus this year while faculty coordinator Gavin Jones runs the English Department's graduate program. "I hope people will miss it," he says.

In its fourth year, American Cultures is another example of ebb and flow. In the early 1980s, just as the Humanities Center was getting off the ground, there was an Americanist reading group whose members were drawn from several Bay Area universities. Art historian Wanda Corn remembers it as being a lively gathering; they had a little bit of money to buy books, and historians and literary and art critics would meet regularly over refreshments to debate, taking turns leading the discussions. The money ran out and the group dissolved, but American Studies revived it, add-



ing in graduate (and some undergraduate) students. But that, too, declined, and then Jones and the Humanities Center came to the rescue.

Jones was an internal fellow at the Humanities Center, and he decided to revive the group with a new name that reflected his broad interests. According to the workshop's webpage, "'American Cultures' challenges isolationist intellectual boundaries at various levels—departmental, institutional, methodological, generational, cultural, and national. ... The American Cultures workshop is not investigating a particular topic so much as it confronts the question of 'interdisciplinarity' itself, as it relates to the exploration of a national culture." The group generally combines panels, book discussions, presentations by graduate students and lectures by visitors. The fields include history, English, American studies, modern thought and literature, art history, music and anthropology.

In another example of the center's synergy, external fellow Jonathan Holloway of Yale University took American Cultures as a vehicle for spinning off a project, a conference called "The Routes of Black Studies" (http://shc.stanford.edu/events/TheRoutesofBlackStudies.htm).

There had been some problems in the past when Humanities Center fellows organized conferences, Wahl says, so at first she and Bender were skeptical. But Wahl says she thought there were real possibilities with the American Cultures workshop. "I said, let's do it—it's a perfect fit!" The conference was held at the center on May 13.

Moya's workshop also hooked up with a spring quarter conference, in this case "Realism in the World," a project of the Future of Minority Studies National Research Project (described by Moya as "interinstitutional, interdisciplinary, multigenerational and international") co-sponsored by the Humanities Center and the Research Institute for Comparative Studies in Race and Ethnicity. Young scholars from seven universities spent the day engaging with and critiquing prevailing theories of racial and sexual identity, often using Moya's own work as their point of reference to criticize postmodernist essentialist visions of identity.

If the workshops work, it's because they bring people together, as Wahl says, and because they set off a chain reaction of intellectual events or are themselves spinoffs from prior cross-disciplinary encounters. Conferences (such as the Construction of Meaning workshop's annual "Semantics Fest"), one-day colloquia, spinoff programs and meetings, and the newly redesigned workshops that succeed their progenitors are all signs that something healthy is bubbling in the Humanities Center. The title of the 25th-reunion conference last week—"Knowledge and Belief"—says it all (http://shc.stanford.edu/events/KnowledgeandBelief-Statement.htm). And so do the humanities.

COMMON GROUND

Initiatives and Think Tanks

BY ARTHUR BIENENSTOCK



In three of its four interdisciplinary initiatives (devoted to the environment, human health and international issues), Stanford is addressing fundamental world problems with an intellectual coherence normally associated with think tanks or national laboratories. It is anticipated that significant groups of faculty covering a

broad range of disciplines will work together on these initiatives. These coherent, collaborative modes of investigation differ significantly from normal academic endeavors, which usually involve one or a few faculty and several graduate students. It is important to ask, therefore, what Stanford brings to the table compared to think tanks and national laboratories.

First and foremost, Stanford has an array of major intellectual capabilities in its Graduate School of Business and the schools of earth sciences, education, engineering, humanities and science, law and medicine that are unmatched by any think tank or national laboratory in the world. In no other place are these capabilities linked so closely, both geographically and

Coit Blacker made this point clearly in the May 4, 2005 issue of Stanford Report, stating, "We know that something is terribly wrong with the system because 90 percent of sub-Saharan Africa is in a developmental tailspin. Here, the key piece is how to build effective institutions. This unites political scientists, sociologists and people from the Business School, the Law School and Engineering. Basically, it's a systems approach—it's trying to understand the conditions under which institutions work. We know good institutions when we see them, but we don't know how to build them."

Most think tanks tend to be strong in the policy, economic and legal aspects of the problems they address. They do not generally have comparable strength in the sciences, technology and education. Yet, science, technology and education must necessarily have a major role in addressing environmental, health and international problems. Likewise, in contrast to most think tanks, the national labs tend to be strong in science, technology and, to a more limited degree, policy, but do not have business, education, social sciences and law scholars. Again, one cannot imagine addressing these major problems without such scholars.

Stanford has them all, and there is an uncommon and well-established tradition of collaboration that transcends departmental and school boundaries. It has, in addition, extremely talented graduate students who can both contribute to and benefit from participation in multidisciplinary team endeavors.

One partial "proof of principle" is the Stanford Synchrotron Radiation Laboratory. SSRL garnered the cooperation of faculty from Applied Physics, Chemical Engineering, Chemistry, Electrical Engineering, Geological & Environmental Science, Materials Science & Engineering, Medicine, Microbiology & Immunology, Neurology, Structural Biology and the Stanford Linear Accelerator Center, as well as outside users. The leadership constantly presented a "grand scheme" for the laboratory's development, which evolved as new ideas emerged from the leadership and from all users. Implementation of this "grand scheme" involved splitting the work into components that required the attention of a subset of the participants with specific expertise. A similar division of labor among the broad array of disciplines associated with the initiatives is likely to be important for their success.

The SSRL experience also indicates that there are likely to be times when an initiative needs faculty with specific capabilities for whom there is no welcoming department. Such situations will challenge the university's leadership. Indeed, the Executive Cabinet has discussed this potential problem several times and has reaffirmed its commitment to having all faculty reside in departments. We are committed to working with the departments and the initiatives when such circumstances arise. Though we recognize this potentially difficult problem, we anticipate that we will find general solutions as we gain experience with individual problems.

Finally, the SSRL succeeded because it promised and

West

continued from page 1

Note the name: This is a hefty and transnational West, one that includes Canada west of Ontario, northern Mexico and all of the United States west of the Mississippi.

Stanford's history, notes deputy director Margaret O'Mara, is inextricably bound up with that of the West. At the same time, Stanford's approach to social and policy problems is one that recognizes few borders. Pollution, fish and sprawl, to name three pertinent issues, do not stop at state boundaries. Fish don't even stop at national boundaries.

Nor, obviously, are these problems specific to one discipline. The center has a "deliberate policy bent," says O'Mara, whose own research focuses on Silicon Valley, not a far cry from cowboys. But she and the two founders and co-directors of the center, David Kennedy and Richard White, are interested in having the center be a bridge between academics and professionals of very different sorts.

'The thing about interdisciplinary work is that it's hard," O'Mara says. "There are several different languages being spoken, which adds several layers of preparation to a conference. If you don't do that preparation, everyone's hovering five feet off the ground and no one relates."

"Interdisciplinarity on steroids" is how Kennedy puts it.

So conferences are deliberately small and by invitation only. If things work out as they should, they're launching pads for further research. "We're trying to unite academics, legislators, policymakers and activists," White says, adding that the center's core will always be academic.

"We hope these conferences will become our trademark," Kennedy says. "Stanford ought to be the premier place for the study of this region." Given Stanford's own history, "we can do this differently and better" than other universities. "It's incumbent upon us to draw on our strength. Anyone with any sort of interest in the region should know that this is the go-to place."

As an example, the center sponsored a conference in February 2005 on how the press reports on the West, as a result of which the staff is hoping to establish shortterm fellowships for journalists (http://west. stanford.edu/events/starting_west/conference_report.html).

Though it began operations three years ago, a secure future was not in place until last year, when L. W. "Bill" Lane, the former publisher of Sunset magazine, donated \$5 million to endow the center, which was matched by \$4 million from the William and Flora Hewlett Foundation.

"That grant launched the center into new possibilities," O'Mara says. Perhaps it's because historians typically are underfunded, and therefore naturally frugal, but the fact is that they get a lot of bang for their buck, she says. "We're good stewards of our money."

With it, the center has organized conferences, paid for course development and funded undergraduate interns and postdoctoral fellows. Four interns spent last summer in Yellowstone National Park working on anthropological, ethnographic and archival projects, and Kennedy says he hopes the program will be expanded to embrace more students and more national parks.

The first courses funded by the center were a political science class and a photography course. Offerings in 2005-06 include a graduate seminar co-taught by White, Buzz Thompson and Karen Seto about San Francisco Bay. Thompson is director of the Stanford Institute for the Environment and a professor at the Law School, and Seto is an assistant professor in the Department of Geological and Environmental Sciences and a fellow at the Freeman Spogli Institute for International Studies. Students will undertake projects as part of research teams that must represent various disciplines, White explains. "These projects won't be interdisciplinary because students come from different fields, but rather because the problems themselves are interdisciplinary," he says.

The center also invites outside speakers. One such guest last spring was Christopher Morris from the University of Texas-Arlington. A fellow at the Stanford Humanities Center last year, Morris was writing a book called A Big Muddy River Runs Through It, a study of flood control projects on the lower Mississippi River. The shape of the book, one assumes, underwent changes this fall. But what does that have to do with the West? one might ask. Look at a map. Advocates of the so-called hydrological solution essentially argued that the rocks of Montana end up in New Orleans, making flood control a vast regional issue. (They did not prevail; the Army Corps of Engineers fought for

the construction of levees and won.)

Looking ahead, this year's conference will be on "Forestry and the West," a subject both international and interdisciplinary. Industry, the environment, native peoples, economics and demography are among the matters sure to be on the agenda.

And further ahead, the center will collaborate with the Cantor Center for Visual Arts when the museum hosts a traveling reprise of photographer Richard Avedon's historic 1979 exhibit, In the American West, organized by the original host museum, the Amon Carter Museum in Fort Worth, Texas. Cantor curator Hilarie Faberman, who was at the 1979 show and still remembers it as a "real eyeopener," says she looks forward to working with Kennedy and his colleagues to get students involved with the exhibit through classes, special projects or perhaps even in the show's installation. The show will be at the Cantor Center in 2007.

Considering the vast range of themes that can comfortably find a home at the center, it is logical to ask how the West is one. The only U.S. region with an arguably clear identity, forged in military defeat, is the South, Kennedy says. The West is a harder one to pin down, which does not mean that the distinctiveness does not exist. When the center first opened, he out-

lined what he called six "drivers" that lend the region identity: technological ingenuity, economic cupidity, political timidity, jurisdictional complexity, demographic fluidity and climatological aridity. All those things are surely present elsewhere, but not simultaneously. A good definition of the West "is up for argument," he says, but no one doubts there is indeed something distinctive about this part of the world.

The center today is housed in the History Department simply because it was established by historians. Though

happy where they are, O'Mara says, at some point they'd like to move to a place that is more obviously a crossroads for different disciplines-perhaps in the environment and energy building at the future Science and Engineering Quad. Thompson says he'd be happy to have them at the Institute for the Environment.

"It seems like half the campus has interests in common

with the center," curator Faberman observes in discussing the Avedon collaboration. Wherever the center ends up, the building manager better have a lot of space reserved.



Top: Margaret O'Mara, deputy director of the center. Bottom: David Kennedy, co-director of the center.

'Anyone with any sort of

interest in the region should

know that this is the go-to

place,' Kennedy said.

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provided faculty and students with scientific capabilities far beyond what was available in any other campus laboratory. As a consequence, faculty and students obtained results that could not be achieved in any other way and pushed the frontiers of their individual

The close proximity of scientists from different disciplines for long hours and many days has led to many interdisciplinary endeavors at the SSRL, and students have learned to work in teams, rather than as individuals. They come to understand their peers' thesis research. Interactions with outside scientists broaden their perspectives and introduce them to research performed in industry and national laboratories. Students participating in the initiatives are likely to gain related benefits as a result of working with faculty and students from other disciplines.

To ensure that these Stanford initiatives are successful, the leadership and participants will have to see that faculty and students can produce results that go far beyond what they could achieve individually or working in the more usual small groups. We believe that the potential outcomes of the initiatives justify the effort and resources that are needed to face this challenge.

Arthur Bienenstock is vice provost and dean of research and graduate policy.

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GRAPHIC DESIGN & LAYOUT BY Anna Cobb

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