school, "Does your use of resources match your mission and your aspirations, and does it match the University's aspirations?"

Satisfying those aspirations will be challenging. New facilities have to be staffed, lit, heated, and maintained, and more are coming on line. Construction is now under way on the FAS Center for Government and International Studies (see page 57) and on a huge underground parking garage, atop which extensive new laboratories are envisioned in a North Precinct extension of the science facilities.

The medical school's new research building, the largest capital project in Harvard history, is nearing completion. The University's information technology staff recently moved into new quarters. Apart from those tangible investments and their associated operating costs, more conservative assumptions about future investment returns and likely inflation in medical costs imply higher continuing expenses for pension and healthcare benefits, according to finance and accounting director Johnson.

Nevertheless, President Summers

looked ahead with optimism in his opening letter, outlining priorities in undergraduate education; scientific research and teaching; graduate-student financial aid (the report mentions a recent study of financial challenges facing students and alumni, and promises a "pilot program to help incoming students in 2004 and beyond" through scholarships, debt relief, and a loan program); and developing Allston. Pursuing these opportunities, he acknowledged, will require both "the commitment of substantial new resources" and "prudent fiscal management."

College Studies

THE UNDERGRADUATE curriculum review now taking shape promises to range widely. Faculty of Arts and Sciences (FAS) dean William C. Kirby launched a broad rethinking of the Harvard College course of study in an October 7 letter. Benedict H. Gross, the new dean of undergraduate education (see "Curriculum Czar," November-December 2002, page 54), then formally began discussion in two symposiums that suggested the scope of the review and its potential stakes. The first focused on the Core curriculum—the principal fruit of Harvard's last comprehensive look at undergraduate academics. The second brought senior leaders from Brown, Columbia, and Yale to campus to explore their very different courses of study. At the faculty meeting held between the symposiums, many professors advocated a sweeping curricular review, and advanced specific ideas—early evidence of the faculty engagement that will be needed to effect change.

In his letter, sent out before the first faculty meeting of the academic year, Kirby wrote that Harvard undertakes this self-examination "from a position of strength"—that the College "remains a vibrant academic institution" (see www.fas.harvard.edu/home/administration/kirby/colleagues_100702.html). That said, he wrote: "we should not shy away from the simplest—and hardest—questions." He outlined a back-to-basics line of queries, including what it means to be educated in the early twenty-first century; what the enduring aims of liberal educa-

tion are; and how students can best acquire both a core of common knowledge and disciplinary depth. And he raised such cross-cutting issues as how students can choose elective studies; how to promote direct learning from faculty members; how to integrate study beyond campus; and how other Harvard faculties might share in undergraduate education.

Having thus begun "a year for thought, discussion, and reflection, not for legislation," Kirby invited faculty members, students, and alumni to comment on the questions that should be addressed in the curriculum review and on the best structure to prompt broad participation.

The two symposiums, held on the evenings of November 6 and 14 in Harvard Yard, provided the first forums for formal consultation. (Webcasts can be viewed at http://athome.harvard.edu/programs/curriculum/curriculum1.html.)

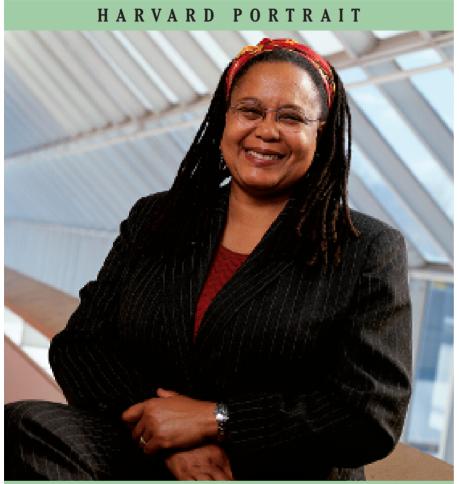
At the first session, Jorge I. Domínguez recalled the genesis of the Core during the 1970s, when he was a junior faculty member. (Now he is Dillon professor of international affairs and Harvard College Professor and directs the Weatherhead Center for International Affairs.) Rather than fruitlessly (they realized) pursue a prescribed program, professors decided to ask each other, "What about your field should my student know?" The answer—"How do you think in your field?"-became the Core's principle of introducing students to "the major approaches to knowledge in areas that the faculty considers indispensable to undergraduate education" (see www.courses.fas.harvard.edu/~core.)

Among the Core's virtues, Domínguez

said, is the fact that it is shaped by students and professors *outside* departments, on behalf of non-concentrators—an otherwise neglected constituency. He also noted the imperative of "rescuing" senior faculty members from "ignoring undergraduates" by involving professors in a Core program or its successor. But today, he worried, the Core underemphasizes natural science; offers too few courses; lags in covering burgeoning fields such as biology and economics; may be hemmed in by no longer relevant subdivisions; and depends too much on large classes.

James Engell, Gurney professor of English literature and professor of comparative literature, lamented that the Core's focus on methods of knowing shortchanged content. In particular, he highlighted holes in humanities education: because the Core prescribes no common intellectual experience, undergraduates can satisfy its requirements without ever studying a major author from modern literature, nor any of the classics of Eastern or Western civilization, nor the principal religious or philosophical traditions. Students can equally elude exposure to the significant periods of history, and reading competency in any non-English language. Echoing Domínguez's concern for non-concentrators, Engell noted that there is no incentive for students to take departmental courses outside their concentrations. (In 1997 he lobbied successfully to have some departmental courses count for Core credit.)

Substantive concerns aside, Ford professor of the social sciences David Pilbeam, himself a former dean of undergraduate education, described a sharp decline



Evelynn M. Hammonds

SHE GREW UP IN ATLANTA, got dual undergraduate degrees from Spelman College in physics and Georgia Tech in electrical engineering, earned a master's degree in physics from MIT, and then in 1980 began a five-year sojourn as a software engineer in the corporate world. She didn't like it. Evelynn Hammonds was setting up computer systems in offices and explaining to secretaries and executives that they had to give up their old ways, and she wanted to think large thoughts about what the effect of this new technology on their lives would be. But no one was paying her to think such thoughts. She decided to return to the academic world. A friend advised her to study the history of science, and she entered the doctoral program at Harvard. "After one semester, I knew this was for me," says Hammonds, who got her Ph.D. in 1993 and went back to MIT to teach. Last May she accepted Harvard's offer of a joint appointment as professor of the history of science and of Afro-American studies, becoming the fourth black woman tenured within the Faculty of Arts and Sciences. Her field—and the topic of a course she hopes to offer this spring—is the history of the ways in which science has examined questions about human variation through the concept of race in the United States, from the seventeenth century to the present. She believes that few other Afro-Am scholars are studying the impact of science on the experience of blacks. She is at work on a book in which she quotes the late economist and sociologist Gunnar Myrdal, who declared as long ago as 1944 that "the concept of the American Negro is a social concept, not a biological one." Yet in medicine, public health, anatomy, physical anthropology, and biology, she finds, "the end of 'race' is not as close as some observers might have us believe."

in the quality of the Core classroom experience. When he taught in the 1980s, Pilbeam said, class attendance was high and participation in section discussions vigorous. More recently, he found attendance haphazard (perhaps because students use prepared lecture notes and videotaping to take in classes "virtually"), discussion perfunctory, and concern about grades pervasive. From their earliest days in the College, he noted, students seemed reflexively hostile toward requirements.

A more positive pedagogical perspective came from Maria M. Tatar, Loeb professor of Germanic languages and literatures and Harvard College Professor. Given the demands of Core courses (developing a special rationale; assembling a more detailed syllabus than for a departmental course; meeting weekly with the teaching fellows who run sections) and the need to engage non-concentrators, she said the work was the most intellectually challenging teaching she had ever done. She expressed regret that most Core courses are taught by "stars," excluding younger faculty members, and that class size makes it hard to get to know the students.

As the subsequent discussion made clear, the Core does involve senior professors and elicits from them perhaps better teaching than departmental courses for concentrators. But large Core classes clearly create distance between teacher and student. Participants felt a need to evaluate the concentrations, too—a priority shared by Dean Gross. Neither he nor Dean Kirby, Gross said, had undertaken the curricular review intending "to abolish the Core."

MIGHT OTHER MODELS suit Harvard undergraduate education? Perspectives in presentations at the November 14 symposium ranged, figuratively, from the anarchic to the highly structured.

Gross's classmate Paul B. Armstrong 71, an English scholar and dean of Brown College, made the case for that school's "open curriculum." Although there are concentration requirements (majors are chosen after four semesters, a year later than at Harvard), students are otherwise free to arrange their own course of study, making for active learners who collaborate closely with faculty members. The process demands much of professors, he said, and may fail to interest nonscientists adequately in science courses.

Columbia, by contrast, has for nearly a century built the undergraduate years around a "core curriculum" encompassing the basic ideas of Western civilization. Michael F. Stanislawski '73, Ph.D. '79, Miller professor of Jewish history, has taught "Contemporary Civilization" there for 23 years. The writing and science requirements are being overhauled, he said, but the curriculum itself pushes students to think about big questions. By his calculation, Columbia offers its smaller undergraduate body nearly four times as many Core courses as does Harvard, and so has many more small classes with senior professors. He urged Harvard to "save Sanders Theatre for musical performances

and visiting dignitaries"—not large Core lectures.

One panelist came uninfluenced by prior study at Harvard: Richard H. Brodhead, dean of Yale College and Giamatti professor of English, who is leading a curricular review at his in-

stitution. Citing the large number of research universities doing the same, he said the problem of delivering general education appears ubiquitous and noted a basic gap between creating knowledge (the primary goal of senior faculty) and assuring that undergraduates acquire needed educational breadth—not

just width, but exploratory space for the intellect. When universities subject themselves to "spasms of rigor" and impose broadening requirements, students perversely do less exploring on their own. Yale's answer is to have distribution requirements but no specified classes, and to attempt to redress students' shortcomings in language and in science courses for nonscientists. But in the end, he suggested, regulations matter less than students who care about learning and faculty

members who care about making knowledge exciting for them.

Harvard professors queued up to display their commitment to that task at the faculty meeting on November 12. Dean Kirby expressed delight at the written and other comments he had received about the curriculum review, and invited further communication.

Dean Gross proposed organizing the review by curricular forms, not fields of study, employing four committees, each with faculty cochairs and faculty, stu-

Handbook

dent, and graduate-student members. One would address concentrations (their purpose thesis. The fourth would consider students' academic experience: how the teaching is received in freshman year and through concentrations and study abroad; the number of courses; and extracurriculars. Kirby, Gross, and the cochairs would coordinate issues and move the process along as a steering group.

Faculty members were in a sharply reformist mood. Must learning take place in semester-length hunks? asked Thomas professor of sociology and of government Theda Skocpol. Diana L. Eck, professor of comparative religion and Indian studies

and master of Lowell House, suggested "gutting every teaching space in FAS" and replacing them with the interactive theaters found at the business and government schools.

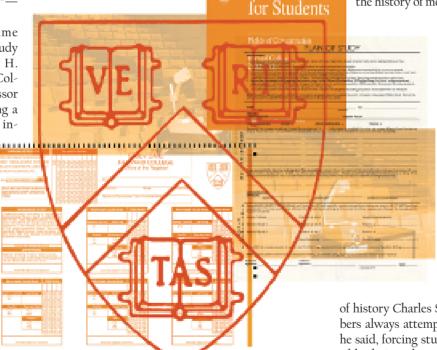
Allan M. Brandt, Kass professor of the history of medicine and professor of

> the history of science, called the review "exciting" and "perhaps unsettling" and urged significant student involvement in evaluating curricular tradeoffs. As someone who straddles schools, he also wanted to know "how to place the College in relationship to the other faculties"study abroad could include study across the Charles River.

> Beware academic logrolling, cautioned Saltonstall professor

of history Charles S. Maier. Faculty members always attempt too much education, he said, forcing students to make "impossible choices about what to renounce." Although the Core re-energized faculty teaching, he worried that it was too focused on showing undergraduates how professors cut up their disciplines, compared to the simpler aims of the preceding General Education. The challenge today, he argued, was education, in effect, for global participation.

Plummer professor of Christian morals Peter J. Gomes lamented the state of academic advising and stressed the need for intellectual reinvigoration of the Houses.



quence, and interdisciplinary study and minors). The second would cover general education (what students should know, how much of their overall study would be involved, and whether to allow freedom of choice or to devise a central content). The third, on forms of teaching, would consider lectures and sections, freshman and junior semi-

nars, tutorials, and writing, foreign lan-

guages, and "capstone" experiences like a

and scope, course se-

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Clearly, Kirby and Gross had unleashed their colleagues' energies. President Lawrence H. Summers, who presides at faculty meetings, said he was struck by the professors' interest in defining their objectives in terms of what education means in the contemporary era. The test, he observed, would come in the hard work of

creating incentives for change and anticipating the consequences, so the curriculum could be reformed without compromising the faculty's vision.



Reconfiguring Radcliffe

THE INSTITUTIONAL transformation of Radcliffe into an center for advanced study will be followed by physical changes, as the institute reclaims long-leased buildings for its own use during the next few years. A planning study undertaken by architects Venturi, Scott Brown and Associates (VSBA) calls for the reclamation and renovation of the major buildings that define the historic Radcliffe Yard in order to bring the fellows—who come from all academic fields and the creative arts—physically into the Radcliffe fold.

The institute is "a fellowship program at its core," says Dean Drew Gilpin Faust. "That is why it is so important to have everybody together." Some fellowship programs simply send checks to individuals so they can work where they are. "But the essence of an institute for advanced study," says Faust, "is that fellows don't come only to work on their own projects—they come to interact with one another. The planned and serendipitous encounters among them provide the logic for having a residential fellowship program." The fellows' living and working spaces are currently divided between a Radcliffe property on Concord Avenue, northwest of Radcliffe Yard, and

the Cronkhite graduate dormitory to the west, while most administrative offices and the Schlesinger Library are in the Yard.

Administrators originally hoped to find a way to bring the fellows together in the Yard right away. But the VSBA study showed there was no good way to achieve that in any of the three iconic buildings that stand there: Agassiz House, the library, and the former Radcliffe gym.

"The patent need was to move the fellows into the Yard," says architect Denise Scott Brown. "But the nature of those buildings and the capacities that they have didn't lend themselves well to that. We had this disconnect," she says, "between what they wanted to do and what they had. We suggested that the institute 'give up the idea of moving quickly in order to do the right move." After meeting with the fellows, it became clear to all that Byerly Hall, in the eastern half of the Yard (home for years to the undergraduate and graduate school admissions and financial-aid offices), would be best for fellows' offices if Radcliffe could wait until Harvard's lease ends in 2006. Meanwhile, the more public needs of the institute could better be accommodated in the three older buildings.

Radcliffe is working with the Office for the Arts to figure out how to continue to allow undergraduate use of the theater space in Agassiz House in the future. And

The buildings of Radcliffe Yard—a jewel of the Cambridge campus—await renovations.

even though plans to reclaim Radcliffe's buildings were first articulated in the October 1999 merger agreement, a new home for the undergraduate admissions office has not been selected; undergraduate dancers, faced with the loss of a dual-use practice and performance space in Rieman Gym in 2005, are also looking for new quarters. To that end, "We have given them a long lead time," says Radcliffe executive dean Louise Richardson, "so they can find alternate space before the lease expires."

Rieman will become "our central meeting space," continues Richardson, "a place for lectures, performances, and colloquia." Fellows currently meet in the Cronkhite graduate dormitory living room and in a room at 34 Concord Avenue. The Lyman Common Room in Agassiz House, now divided into offices, will be restored and become a dining room (lunch will be brought in) where the fellows will eat together four times a week. "We believe in the potential for transformation of intellectual work," says Richardson, "when it is exposed to the different perspectives of people working in disparate fields."

One of the interesting conclusions of the campus study was that Radcliffe has adequate space—but not all of it is contiguous, nor useful, for its new mission.