Williams

AT WCMA NOW: Young Chicano artists claim power and place in the turbulent ’70s.
Claiming Power With Art
Art professor C. Ondine Chavoya shares his insights on the group Asco, whose work is now part of a major show at WCMA.

Room to Learn
When vast amounts of human scholarship are as close as the nearest smartphone, what’s the future for libraries at Williams?

Exposure
A student photo takes an unconventional look at a conventional subject.

Beyond the 1 Percent
Three economists at Williams are contributing to the national conversation on income inequality in insightful, relevant ways.

On the cover
On Our Devotion to Teaching

by President Adam Falk

Here’s a quiz.

If, walking down a corridor, you pass two Williams faculty members in conversation, they’re mostly likely to be discussing:

A. Their most recent grant proposals
B. The U.S. presidential race
C. The state of parking on campus
D. Teaching

Believe me, the answer at some places would be C. At many it’d be A. But at Williams, to my happy surprise, the answer has turned out to be D. The question that Williams faculty most ask on seeing each other is: “How are your courses going?” It’s a question I appreciate being asked myself, since even when my teaching isn’t going as well as I’d like, the chance to think about it out loud with a colleague is always welcome.

This almost totally absorbing focus on teaching in our faculty culture is one of the college’s greatest assets and helps explain why, when I visit alumni, they almost always ask after their favorite faculty member or two or half-dozen.

As Dean of the Faculty Peter Murphy puts it, “To join the Williams faculty is to enter a constant conversation about teaching,” and our faculty have developed a variety of structures to shape and inform that conversation.

Most visible are the Student Course Survey and open-ended student comments known as “blue sheets” that are filled in by virtually every student at the end of each course. The survey provides quantifiable feedback that every faculty member can compare with department, division and college-wide norms. And students typically write extensively on their blue sheets, offering general impressions about the course and responding to specific questions the faculty member has held up for scrutiny.

The most intense evaluation of teaching takes place as part of the tenure review process. To supplement the survey and blue sheets, Williams departments and programs each semester typically have senior faculty visit the classes of each junior colleague and interview students from those courses.

The ethos engendered by the tenure process affects all faculty, even those well past their own decision.

They and their junior colleagues also can take advantage of the Program in Effective Teaching, which the faculty developed to help feed its members’ desire to continually improve what they do. The program provides many avenues outside the formal review process for faculty to learn from each other and from outside sources.

You can get a sense of what the program has to offer by visiting http://pet.williams.edu/, where you can see, among other things, short videos of faculty sharing how they’ve learned to handle certain classroom challenges.

The most important element of the college’s culture of teaching, however, comes from our students, who are extremely smart and have very high expectations of faculty. Not only do students passionately fill in their course surveys and blue sheets, but they welcome being interviewed by senior faculty and will often walk into your office to share spontaneously how they think your class is going. This is why when we appoint faculty, students spend time with every candidate.

No matter how long you’ve been teaching, nothing is more satisfying than walking back from class feeling that things clicked for those remarkable students, and nothing is more deflating than knowing that they didn’t.

Those two faculty you passed in the corridor? It might surprise you to learn that how they’re feeling is directly related to how they thought their last class went.

Visit http://pet.williams.edu/ to view short videos of faculty sharing how they’ve learned to handle certain classroom challenges.
Those who knew Jack Sawyer ’39 are very glad to have the portrait of him given by Michael Beschloss ’77 and John Chandler (“A Defining Decade,” January 2012). I knew Jack at Harvard (1947-52), kept in touch with him when I taught abroad and had a very good view of his presidency from a neighboring vantage point when I taught at Amherst from 1968 onward.

Jack came from a New England business family, and that gave him a sense of the complexity of ordinariness—and perhaps, too, of the ordinariness of academic complexity. In his period at the Office of Strategic Services he met some of the more imposing European intellectuals it was our nation’s good fortune to inherit. When he was at the Society of Fellows he knew figures like McGeorge Bundy and Carl Kaysen and an entire group of rising stars, none conspicuous for excesses of modesty. In Cambridge I admired his amused and detached judgment of persons and events. When he was president, he visited Oxford, and I noted his graceful refusal to be overly impressed.

I’ve known a certain number of heads of institutions large and small, and Jack surely was outstanding for his understanding of academic (and human) foible, his clarity of analysis and his devotion to those he served.

—Norman Birnbaum ’46, Washington, D.C.

I entered Williams in fall 1960. Phinney Baxter was still president, and fraternities were an integral part of campus life. Later, when John Sawyer moved to eliminate the fraternity system, a ruckus erupted, especially in the house I had joined—Psi Upsilon, now Tyler House, where many of my “brothers in the bond” were strongly opposed to the change. When I, a lowly sophomore, suggested that we at Psi U work with the college to facilitate the change, a number of my senior fraternity brothers chose not to speak to me for the rest of the year. Sawyer was spot-on, however, and I, the college and the Psi U clan all survived.

—Terence T. Finn ’64, Chestertown, Md.

The robust diversity that now entirely permeates Williams was virtually non-existent in the late ’50s and early ’60s. Elsewhere in the country, the civil rights movement was in full swing, and the issues and sentiments at the heart of that historic undertaking found their way into the dialogue over fraternities at Williams.

Chaplain William Sloane Coffin Jr. was a vocal critic of the fraternity system, organizing a debate on its merits at one of the most popular fraternities. In a heated exchange he was asked what he’d do if his daughter wanted to marry a “Negro.” His unforgettable reply: “I wouldn’t trust any son of a bitch who wanted to marry my daughter.” A day or so later, Coffin and his wife left their young daughter and new son with a babysitter. A member of the fraternity where the debate took place drove by the Coffin home and fired a shotgun through the front picture window, splattering glass over the babysitter and children in the living room. Not intimidated, the next morning in the chapel, Coffin announced, “The fraternity boys are finally taking me seriously.”

—Alan Bogatay ’61, Fort Lauderdale, Fla.

I have been touting John Sawyer, “the quiet revolutionary,” for decades. Williams was rapidly sliding into mediocrity when he became president. A pathetic endowment, degenerate fraternities and a very unimaginative curriculum. It was an institution complacently cruising on a reputation. Sawyer turned all this around, and the momentum continues. I believe Sawyer saved Williams, and finally he’s been given a large, celebratory, public recognition.

—Jim Barns ’69, Charlottesville, Va.
I loved Professor Raab’s analysis of Robert Frost’s “Stopping by Woods on a Snowy Evening” (January 2012). I was able to get a quick dose of non-finance learning in for the day when reading my mail late at night. Please continue this educational format in the future.

—Tara Kazak ’86, Huntington, N.Y.

One of the most memorable experiences of my life was listening to Robert Frost read “Stopping by…” at Bennington College when I was at Williams in the ’50s. The sight and sound of this artist, with his snowy mane and memorable voice, was riveting—a very emotional moment. Thank you for bringing Professor Raab’s comments on this piece to us.


I was very interested in “The Red Jacket” (January 2012) as it pertained to the family of Ephraim Williams, founder of our college. Within the last year or two, as a result of genealogical research in concert with my sister, who is writing a book on the history of the Porters, we discovered that one of our forebears, Moses Porter, was killed in the same battle with Col. Williams. In 1752 Capt. Porter built a homestead in Hadley, Mass., that is now the Porter-Pheps-Huntington Museum.


MUSEUM WELCOMES NEW DIRECTOR

Christina Olsen will become the Williams College Museum of Art’s (WCMA) new director on May 1. A Renaissance scholar, she is currently director of education and public programming at the Portland Art Museum and previously worked at the Getty Foundation and Getty Museum.

In announcing her appointment in February, Williams President Adam Falk said, “The Getty … is a place where the future of museums is being worked out, and Tina participated deeply in that process. The college will benefit from her energy, openness and passion both for art objects and for how people interact with them.”

Said Olsen, “College art museums have such a unique opportunity to explore new artistic, learning and teaching practices and to foster dialogue and exchange between disciplines, communities and points of view.”

LOEPP WINS NATIONAL TEACHING AWARD

In January professor Susan Loepp was awarded the 2012 Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. The award, given by the Mathematical Association of America, honors extraordinary professors whose teaching effectiveness has been shown to have influence beyond their own institutions.

Specializing in commutative algebra, Loepp has published papers in numerous journals, and she co-wrote the textbook Protecting Information: From Classical Error Correction to Quantum Cryptography with Williams physics professor Bill Wootters. In addition to teaching courses in abstract algebra, algebraic error-correcting codes, encryption and Galois theory and modules, she is heavily involved in the College’s SMALL Undergraduate Research Project. The intensive, nine-week summer program brings to campus roughly 30 undergraduates from around the world to work on unsolved problems and help math professors with their research.

Loepp is the fifth Williams math professor to receive the Haimo award. For more information, visit http://bit.ly/xZnZXs.
COMMUNITY CLAIMS WILLIAMS

It’s hard to convey the power and emotion of Claiming Williams Day. With the aim of building an inclusive community on campus, the day involves discussions and explorations ranging from frank and painful to uplifting and eye-opening. Among the events packed into the schedule Feb. 2 were (pictured above, clockwise from left) Coming Out Muslim: Radical Acts of Love, a presentation exploring the intersections of Islam and queerness; “Meet me at the Savoy,” in which participants re-created the multiethnic Savoy Ballroom of the 1930s and ’40s; and a performance by All Acoustic Alliance of Bob Dylan’s Hurricane during an opening concert by Williams a cappella and other musical groups. As President Adam Falk said at the start of the day, “We can love Williams and still feel uncertain of our place here and struggle with our sense of whether we belong. Today is about honoring the true lived complexity of all our lives.” This year participants were asked to share their impressions and their photographs via Twitter, using the hashtag #ClaimWilliams. You can follow along with and add to the conversation at http://bit.ly/claimwilliams2012.

FELLOWSHIP SEASON IS UPON US!

Congratulations to seniors Evelyn Denham and Erin McGonagle, recipients of a Gates Cambridge Scholarship and a Luce Fellowship, respectively. Denham, a history and German major, will pursue an M.Phil in European literature and culture, concentrating in early modern Germany, while at Cambridge. McGonagle, a chemistry and studio art major, plans to work in Asia with medical professionals who treat children, particularly those who have suffered from poor healthcare, disease, trauma or natural disaster. Check www.williams.edu for news of more fellowship winners as the spring semester progresses.
GREAT REVIEWS FOR PROF. JOHNSON’S RETURN

Return, a film by Williams art professor and American studies chair Liza Johnson ’92, tells the story of a servicewoman struggling to resume her life after a tour of duty in the Middle East. With openings in New York City and Los Angeles on Feb. 10, the film (whose credits include director of photography Anne Etheridge ’92 and producer Noah Harlan ’97) was released digitally on Feb. 28. Here’s what some reviewers had to say:

“It’s what indie filmmaking ought to be.”
—Time Out New York

“Johnson’s feel for the rhythms of reconnection are steady, and she and her fine actors make Return one of only a handful of films to honestly address what to many is heartbreaking reality.”
—New York Daily News

“Expertly and sensitively acted with a soul-baring lead performance by Linda Cardellini, Return is beautifully-written, artfully directed, and all too relevant today.”
—Sirius/XM Radio

“Anchored by a powerfully restrained performance by Ms. Cardellini … Return, Liza Johnson’s sober first feature, is impressive for what it leaves out.”
—The New York Times

For more reviews, and to watch the film trailer, visit return-film.com.

CHECK OUT THIS BOOK

Ever talk to a book? More than 240 members of the Williams community had that chance at the Human Library in the Paresky Center Feb. 10-11. A living library in which the “books” were students, faculty and community members that readers could “check out” for 30-minute conversations, the Human Library included titles like Fat Woman, Iraq War Veteran, Olympic Athlete and Orphanage Boy. The goal of the program, says organizer Magnus Bernhardsson, a history professor and Gaudino Scholar, was to “make us better readers of our community and the various challenges people face on a daily basis.”

The Human Library was founded in 2000 in Denmark to promote human rights and social cohesion. Williams’ was the first Human Library in Massachusetts.

REMEMBERING DAVID PARK

David Park, the college’s Webster Atwell-Class of 1921 Professor of Physics, emeritus, passed away Jan. 19 at the age of 92. In addition to teaching generations of students during his 40 years at Williams, he was the author of dozens of scientific papers as well as eight books, the last of which, The Grand Contraption, a history of cosmology, was published when he was 86 years old. In a message to the Williams community, President Adam Falk described Park as “a familiar and comfortable presence, whose sharp wit and warm heart enlivened every encounter, however brief.”

Among Park’s survivors are four children, including Paul Park, Williams lecturer in English, and Jessica Park, a mail clerk at the college. For a complete obituary, go to http://bit.ly/wz4FNv.
RACING TO VICTORY

The women’s alpine ski team finished an impressive regular season at Williams Winter Carnival in February. In celebration of their success, we asked three of the team’s top skiers to explain what it’s like to go down a mountain really fast…

At the starting gate: “I have done everything I can to prepare. My skis are fast, my boot buckles are done up, my goggles are down, and my pole straps are on. I go over the course in my head, listen to a course report, imagine the feeling of a great turn, and I am ready to go. My coach told me to ski the first few gates so well that it makes the girls starting after me think, ‘I can’t do that.’ So now when I hit that first gate, I really hope the girls behind me are paying attention.”

—Shannon Campbell ’14, ranked 19th in the giant slalom in the East

Through the course: “Push with all my strength. Push, skate, hit a gate, push, skate, hit. No more sounds—just the wind, the snow and the gates. Drop onto the steeps, feel the snow beneath my skis, feel the snap propelling me one turn to the next. Feel the compression at the bottom of the pitch. Breathe. Onto the flats, feel the speed, carry the speed. No! Not like that, get back on it. Let my body take over and stop thinking. Speed. Instinctively I do the right thing. Breathe. Keep up intensity. Ignore the fatigue in legs, in lungs. I will not feel pain. See the finish ahead; it is not over until I cross that line. Just keep it going. Bend over and reach across the finish line.”

—Laurel Carter ’12, first in the East in the slalom

Across the finish line: “I can hear the crowd cheering. I’m breathing hard, and all I think is, Did I ski fast? Was that good enough? I don’t remember much of the course. I had a couple of mistakes, but it felt OK. It’s not until I see the times that I know how I measured up against the competition. … I strive to put my heart and soul into each and every run in the hopes of gaining just a few extra tenths and hundredths of a second. The runs in which I lay it all on the line and push myself to my limits are the good ones, the unforgettable ones, and the ones that I win.”

—Geordie Lonza ’13, second in the East in the slalom

For the latest sports news and standings visit http://athletics.williams.edu.

GET A JUMP ON YOUR SUMMER READING

Following the success of this year’s Williams Reads, in which faculty, staff and students spent Winter Study exploring Alison Bechdel’s graphic novel Fun Home together, the program will be expanded next year.

Prior to the start of the fall semester, the college plans to send students e-book copies of Barbara Ehrenreich’s Nickel and Dimed: On (Not) Getting by in America. During First Days, first-year entries will take part in discussions of the book, which chronicles the author’s yearlong investigation of minimum-wage employment and its implications for the U.S. economy. Community forums, panel discussions, films and lectures will continue the discussion throughout the rest of the academic year.

MARK YOUR CALENDERS

The spring semester is incredibly full at Williams, with dozens and dozens of events planned over the next three months. Stay on top of it all with the campus calendar, where you can sign up for an RSS feed of the various exhibitions, performances, sporting events and other activities open to the public. Visit https://calendar.williams.edu for more information and to see the latest happenings.
“Chicanos make graffiti, not art.”

That’s essentially the answer a curator at the Los Angeles County Museum of Art (LACMA) gave Harry Gamboa Jr. in 1972, when Gamboa asked why there wasn’t a single example of Chicano art on the walls. Gamboa returned to the museum that same night with fellow artists Gronk and Willie F. Herrón III to sign their names outside the entrance. They photographed Patssi Valdez, another artist, at the site the next morning. It was “a response that was collaborative and aesthetic and ‘agitational,’” says Williams art professor C. Ondine Chavoya, who has spent two decades studying Asco, the performance and conceptual art group started by the four youngsters, who met in and around Garfield High School in East L.A. in the late ’60s. “They responded by signing the museum as their own work of art and in the process made it the largest work of Chicano art ever exhibited anywhere.” Forty years later, the photograph Spray Paint LACMA is part of the Williams College Museum of Art’s “Asco: Elite of the Obscure, A Retrospective, 1972-1987.” The show, which opened in February after three months at LACMA, is co-curated by Chavoya and Rita Gonzalez, LACMA’s associate curator of contemporary art. The exhibition has attracted a flurry of attention from Williams professors looking to use the artworks to explore with their classes the aesthetic, social, cultural, historical and political contexts of Asco’s work—as well as the group’s experimental and collaborative processes. It’s also struck a chord with students, who are around the same age as Asco’s members when they formed the group. As Record executive editor Megan Bantle ‘14 wrote in a review of the show: “Asco saw a gap in its society and claimed responsibility for filling it. … [They] introduced an entirely new mode of expression to comprehend and change the problems in the world around them.” Though Asco, which means “nausea” or “disgust” in Spanish, worked outside the mainstream, Chavoya says, “They were well aware of the institutional powers at play” in the art world, museums, education, law enforcement, mass media, the military and government structures. “They were trying to shock people out of their normal patterns of behavior and perception.” Featuring nearly 150 works and an award-winning catalog overseen by Kathryn Price MA ’02, the college museum’s curator of special projects, the exhibition runs through July 29. Last month the Alumni Review sat down with Chavoya, whose expertise includes Chicano art, to talk about some of Asco’s more salient images.
**Instant Mural:** What does it mean to be young and poor and Chicano in East L.A., given the social and historical context of the early '70s? *Instant Mural* is a metaphor for thinking about how people can be confined in conditions of oppression or discrimination, poverty and other social—and psychological—issues. Gronk (left) is experimenting with making a temporary, live diorama using the most economical and available means—masking tape and a body (that of Patssi Valdez). Patssi looks frozen and confined, but we know that it’s not literal, that she could break free at any time. So there’s play between movement and stasis, and inaction and agency. There was no one on site explaining to the public what was going on, no “Come and see a performance by…” It’s meant to provoke the passers-by who saw it, to get them to think about what was happening and what it might mean. With the photograph, taken by Harry Gamboa Jr., Asco could circulate the power of their message and ideas to an even broader audience.

Stations of the Cross: On Christmas Eve 1971, Asco took over Whittier Boulevard, the main commercial artery through East L.A. and the site of various political demonstrations and activities. Willie Herron, Harry Gamboa Jr. and Gronk (not pictured) mounted a silent, mile-long procession evoking traditional religious iconography, some of which, like Day of the Dead, was closely associated with Mexico. But the artists infused the procession with anti-war protest, carrying the 15-foot cardboard cross to a nearby Marine Corps recruiting center and using it to blockade the door. It was a way to bring attention to the violence, death and sacrifice of young Chicano men and other people of color in the Vietnam War. Chicanos at that time accounted for the highest casualty rates of all ethnic groups during the conflict in Southeast Asia. That day, photographer Seymour Rosen was in East L.A., looking to document how Mexican-Americans celebrate Christmas. He happened upon the unscheduled protest—Asco’s earliest known public performance—and took this picture. It implanted in the artists, particularly Harry, the idea of using photography to document their work and share their ideas with a wider public.

Seymour Rosen, Asco’s Stations of the Cross, 1971, gelatin silver print. © SPACES—Saving and Preserving Arts and Cultural Environments

First Supper (After a Major Riot): This is a spontaneous urban theater piece and intervention. The artists are literally occupying a traffic island at the site where there had been mass demonstrations and violent collisions with police a few years earlier. It’s 1974, not long after the islands off the coast of California were actually being “occupied” by different social groups to bring attention to colonialism and the occupation of Mexican and Native American territories. The painting in the background is an early work by Gronk called Terror in Chile, a reference to political turmoil, violence and repression in South America, which the artists are connecting to East L.A. So Asco is creating a conceptual alliance that extends between Chicanos in East L.A. and those across the Americas.

Decoy Gang War Victim: This is public performance and urban intervention, with Gronk posed as the apparent victim of some type of gang violence. The artists have blocked the street with his “dead” body to bring attention to the cycle of violence in their neighborhoods. Asco’s thinking was: If they could substitute fake murders in areas where they thought new violence would happen, then perhaps they could intervene into the cycle of violence and end it. They were also concerned that the news media’s sensational coverage of violence in East L.A. was causing even more violence. At the time, Asco didn’t have access to the media or to the political system; the artists felt they, and Chicanos in general, weren’t being properly represented by either. They were interested in poking holes in the power of the media and so tried to pass this photograph off as a legitimate image of violence. (One local TV station actually ran it.) Asco was playing with the idea that if they could dupe the media, maybe they could get people to think critically about how the media might be duping them.

Patssi Valdez receiving No Movie Award for Best Actress: Taking the “No Movies” a step further, this is a performance play or parody of the Oscars and other glamorous ceremonies. Asco spray-painted a dime-store cobra gold and presented this “award” in a number of different categories celebrating artists’ contributions to “No Movies.” Patssi is wearing a top she created by folding fabric to look like a gown. The artists are manipulating the imagery and available materials to give an impression of radiant glamour. They were actively recreating themselves and asserting their desires to be artists and filmmakers and part of the Hollywood media culture, realigning themselves around their community in a radical and rebellious way, and in a playful and thoroughly imaginative way.

Asco, Patssi Valdez receiving No Movie Award for Best Actress, c. 1976, color photograph by Gronk. Courtesy of the artist. © Asco; photograph by Gronk
Room to Learn

Reported by Louisa Kasdon. Renderings courtesy of Bohlin Cywinski Jackson.
A great college needs a great library. But the definition of a great library is constantly evolving. Gone are the days of monuments to books. Today libraries are designed around the learning experience: increasingly collaborative, interdisciplinary and fueled by connections to both ancient materials and modern technology. That’s the vision behind Williams’ $80 million Sawyer Library, now under construction and slated to open in fall 2014.

The conversations that have taken place around the project have mirrored those happening on campuses across the country: What’s the right balance of stacks and study rooms? How much space should be given to carrels and the coffee bar? And what can be done to ensure that the new library will meet not just today’s needs but also those of the future?

At Williams, the answer to these questions, in the broadest possible terms, is flexibility. The new library “will support both individual and group study, offer a wide range of seating and provide access to resources from rare books to digital collections,” says College Librarian David Pilachowski. “Having all of this under one roof is what makes this project so compelling.”

“We know that for decades to come, a hybrid model of books and digital resources will prevail,” says Williams President Adam Falk. “But in reality we don’t know what libraries are going to be in 50 or 100 years.”

A Community of Scholars

Pilachowski likens the evolution of the library to what’s taken place in classrooms all over campus. There’s been the growth in the number of disciplines, the rise of interdisciplinary programs, the increase in cross-listed courses. And then there’s what Pilachowski calls “a trend away from individual study to group-centered learning.”

Michelle McRae ’12 is a double major in chemistry and history whose coursework alternates between writing papers and teaming up with classmates to solve problem sets. “We try to meet in classrooms, but there’s just not enough space for all the groups to meet,” she says. “Sometimes we feel like we’re wandering around just trying to find a place to do our homework.”

When vast amounts of human scholarship are as close as the nearest smartphone, what’s the future for libraries at Williams?
Room to Learn

One of Falk’s mantras since his arrival at Williams in 2010 has been: “Education is fundamentally a social activity.” The new library, which will retain the name Sawyer in honor of the college’s transformative 11th president, is meant to foster the kinds of interactions that fuel learning in ways the current library isn’t configured to do.

Back in the 1970s, when the first Sawyer Library opened its doors, libraries were designed around collections, with individual study in mind. Within two decades, Sawyer had outgrown its 489,500-volume capacity. The college added a lower-level mezzanine, but the expanding book stacks eliminated 200 of the 825 individual seats as well as the student lounge and the handful of spaces meant for group work.

Today, “Group spaces are the most desperately needed spaces in a college library,” says Winston Tabb, a longtime Library of Congress administrator and member of the National Museum and Library Services Board. “Paradoxically, the more students can do online by themselves in their rooms, the more they want to be together.”

Though he emphasizes there’s no single model for the library of the future, Tabb, dean of libraries and museums at the Johns Hopkins University, says the next evolution supports the notion that “people learn from each other. There’s something about learning that’s communal.”

At Williams the new library takes its cue from Schow Science Library across campus, which opened a decade ago and is humming with activity. It’s a progression from the idea of library as quiet research destination to busy knowledge portal—“a locus of intellectual engagement,” says Darra Goldstein, the Francis Christopher Oakley Third Century Professor of Russian. “It extends the whole Williams ethos that we are a community of scholars.”

Books and Beyond

Classics professor Edan Dekel was 9 years old, perusing the young-adult fiction section of his local library, when his elbow knocked a book off the shelf behind him. It was a biography of Julius Caesar, and its rough, purple cover captivated him.

“At that point, I didn’t know who Julius Caesar was,” Dekel says in an interview for a video project by English professor Shawn Rosenheim about the role of the library in the liberal arts college. Dekel read the book, which sparked his interest in the ancient world. There’s great value in this kind of serendipity, Dekel and others note, and also in the ways that books and other materials serve as meaningful connections to the past.

“Students need to touch the pages of a book, to feel the historical continuity and understand that a book is an artifact of scholarship,” Goldstein says. “Books aren’t just vehicles for information. They are living things.”

And yet for Rosenheim, “the era of the book is over,” sharpening “the need for shared spaces in which students and faculty can wrestle with the intrinsically social task of teasing meaningful patterns from the ferocious noise of all that has been or is now being said.”

Do libraries still need books? At Williams, where circulation has gone up in eight of the past 10 years, and at colleges and universities across the country, the answer is a resounding yes. But the question of where to house the books, and how much to mix old and new materials, is more difficult to answer.

Recognizing the value of having books on hand, the University of Chicago loaded a million volumes into a warehouse 50 feet below its new library’s main reading room. Drexel University, meanwhile, just built a “bookless learning center” near one of its residence halls. Stanford’s new 6,000-square-foot engineering library has only 10,000 books on the shelves—a decrease of nearly 85 percent from the old library’s holdings. There librarians no longer staff the reference or check-out desks; they are available via email, live chat and Facebook. Patrons can borrow e-readers just as they would books.

Williams, following a path similar to those chosen by Harvard, Yale and Brown, opted for a fully staffed library with a mix of conventional and compact shelving that can hold Sawyer’s entire book collection and then some. Meanwhile, bound journals, microform, videocassettes and certain government documents will be housed in a 10,000-square-foot high-density storage facility a mile and a half north of campus. There they’ll be grouped by size on 30-foot high shelves in a climate-controlled environment that can hold up to 900,000 volumes. (Including books, Sawyer now has 700,000 volumes. The college’s entire collection—Sawyer, Schow Science Library, archives and rare books—totals just over 1 million.)

Materials requested from storage can be delivered to campus twice daily during the week. That availability, coupled with borrowing networks like NExpress and the Boston Library Consortium—which offer access to 32 million volumes that can be delivered to Williams in a matter of days—reflect what librarians call a shift from a “just in case” to a “just in time” collection that brings the world of scholarship right to the college’s doorstep.

Economics professor Anand Swamy, who studies South Asian economies, says Williams’ library staff—in using powerful borrowing consortia and generally “scouring the earth for materials for me”—is a lifeline for his research. “It’s as if they’ve transformed a very good, small-college library into the kind of library one would expect to see at a larger university,” he says.
Bridging Past and Future

There’s something romantic about libraries of old, with scholars tucked into quiet, secluded study spaces and surrounded by towers of books. Think Stetson Hall (Williams’ iconic library, constructed after World War I to house the college’s then overflowing collection of 80,000 volumes), with its marble floors, dark wood furniture and ornate fireplaces.

A completely refurbished Stetson, with its magnificent, evocative reading room, will become the grand entrance to the new Sawyer Library, the 140,000-square-foot home to the arts, humanities and social sciences collections, Archives and Special Collections, Chapin Library of Rare Books and the Center for Media Initiatives (CMI). The structure rising now where Stetson’s old additions were torn down will carry a familiar name, but what goes on inside the new library will bear little resemblance to its predecessor.

With design plans calling for fewer than 200 individual study carrels (down from the current 396), a dramatic increase in large tables and study/project rooms and lots of moveable furniture, there will be plenty of room for improvisation and group work. Library-goers might be treated to an impromptu poetry reading in a space called “The Forum” or catch a student showing her latest documentary to classmates in a space called “The Forum.” Or in nearby Hollander or Schapiro halls—out into the stacks and, later, to the first-floor coffee bar.

Chapin Library, with its original paintings of the nation’s founding documents and John Milton’s Paradise Lost, will be set in both historic Stetson and the new space, a bridge from past to future.

Nearby, information technologists in the CMI will support the creative work and research of faculty and students in a suite of project rooms, video-editing studios, a high-definition video conferencing room, recording studio and more.

Given its proximity to faculty offices in Schapiro and Hollander, the CMI “will be more accessible to professors from the social sciences and humanities, many of whom have not used technology as extensively as have faculty in the sciences,” says Dinny Taylor, the college’s chief technology officer.

Students, too, will be able to take advantage of the CMI, whose staff “can encourage them to try new ways to express themselves,” Taylor says. “Text and writing will always be vital to scholarship. But in today’s world, images, audio and video are also central to how we communicate, and they play an increasingly important role in scholarship.”

As users’ needs change over time, the design of the building will allow it to be reconfigured and adapted in ways the current Sawyer can’t. There will be moveable partitions in some areas; shelving can be added or removed; and wiring, electrical cables and other utilities will run under raised floors throughout the entire building. This flexibility can accommodate future shifts between book space and people space without any major renovations.

When students enter the new Sawyer Library in 2014, they’ll pass through the stately Georgian Revival façade of Stetson and into four stories of slate block and glass that house a blend of spaces: historical and modern, quiet and noisy, solitary and bustling—all open to the sunlight and stunning views of surrounding mountains.

Most of these students will never have seen the rabbit warren of faculty offices once attached to the back of Stetson. The old Sawyer Library, with its crowded mazes of stacks and odd spaces, will be shuttered, ready for demolition. And when that building comes down, a new quadrangle of LEED-certified buildings—Hollander Hall to the north, Schapiro Hall to the south and the library to the east—will be home to the humanities and social sciences at Williams.

Piłachowski expects traffic in the new library to increase by 40 percent to 50 percent over the current 250,000 users per year. Faculty and students will come for quiet, individual research and study as well as the buzz of collaborative work. They’ll find staff ready to share their research and technological expertise, offering access to some of the earliest extant books, the newest digital collections and everything in between. In short, he says, “People are going to want to be in this building.”

Sure, people will still be able to access huge resources sitting alone, staring at a screen. “But the social dimension of studying is at the heart of why we create colleges,” President Falk says. “If that weren’t important, we would just mail students the books. Now we can say; Be a part of the community. Go to the library.”

Louisa Kasdon is a freelance journalist based in Boston.
EXPOSURE

At 4 o’clock on a January morning, Chris M. Chandler embraced the cold weather (along with the hand warmers in the pockets of his coat) and walked from his room in Currier Quad to the track, carrying his digital camera and a tripod. “I’ve always loved to take star pictures,” says Chandler, a sophomore from Longmeadow, Mass. On this particular morning he planned to combine this love with an assignment for his Winter Study class, “Landscape Photography.”

Knowing that the effects of sunrise or sunset would ruin the photograph he had in mind, Chandler wasn’t deterred by the unthinkable time (and temperature) of the shoot. The result? As his instructor Nicholas Whitman says of the photograph, pictured here: “It’s a beauty! … This is an example of photography expanding our vision.”

Chandler’s photo is a time exposure—154 seconds, to be exact—of the track, Peck Grandstand and Weston Field looking toward campus. The steam of the power plant is illuminated by the lights of town, and you can see the movement of the stars as they rotate around the North Star.

The resulting image, Whitman says, is an “unconventional look at a conventional subject.”

Whitman, a Williamstown-based photographer, has taught “Landscape Photography” each January since 2004. His 15 or so students vary in ability and

Check out more student work from “Landscape Photography” at http://drm.williams.edu/projects. And for a list of Winter Study courses offered this year, visit http://bit.ly/winterstudy.
experience and spend their time in the photo lab, local museums and locations around the Purple Valley.

For one assignment Whitman sends students to take a photo in the same location at the same time over a number of days, encouraging them to “increase their awareness of the world.”

While learning how to take beautiful photographs is the likely goal of many of his students, Whitman’s own intention goes beyond building skills. He aims to “sensitize them to light, time, the land, sky and weather. And to the emotional response they bring to the scene.”

Chandler, who plans to major in both mathematics and studio art, says the class offered him the understanding that landscape photography “is about thinking through the photo.” Especially if it means enduring a cold, solitary morning gazing at the stars.

—Jennifer Grow
BEYOND THE ONE PERCENT

Three economics professors at Williams are contributing to the national conversation on income inequality in insightful, relevant ways.

By Savita Iyer-Ahrestani
Photography by Kris Qua

“We are the 99 percent.”

The rallying cry of the Occupy Movement—which began in Zuccotti Park in New York’s financial district in the fall and spread quickly across the country—captured the nation’s attention by trying to draw a clear line between the haves and the have-nots. The protestors’ argument: that wealth among the top 1 percent of Americans has been growing more rapidly than that of the other 99 percent.

The protests changed public and political discourse, with debate over economic justice shaping even the 2012 presidential race. But amid the rhetoric, the calls for reform and the seemingly constant media coverage (Time magazine named Occupy Wall Street the number-one news story of 2011), researchers have been trying to understand why, exactly, the income gap is widening and what effect this is having on American society.

At Williams, three economics professors in particular have been delving into different facets of income inequality, bringing empirical research to bear on what is arguably one of the most pressing issues of these times.

Jon Bakija is working to understand who, exactly, constitutes the 1 percent. David Zimmerman is developing a model to compare the effectiveness of anti-poverty programs by determining their impact on children’s future earning potential. And Tara Watson is studying the effects of residential segregation by income as well as how wealth influences who gets married. Here’s what they’ve learned so far...
For some time statistics have shown that the share of the nation’s income going to the top earners has increased dramatically over the last three decades. But nobody seemed to have a clear idea of who was making all that money.

Until recently.

In November 2010 economics professor Jon Bakija released a working paper examining who, exactly, the 1 percenters are. Along with economists Adam Cole of the U.S. Treasury and Bradley T. Heim of Indiana University, Bakija combed through nearly a quarter-century’s worth of tax returns, pulling out information on individuals’ occupations. Using employers’ tax I.D. numbers, the three were able to determine the industries in which these individuals were employed.

What has emerged in this landmark study is a much different picture of the 1 percent—as well as the top 0.1 percent—than has been popularized by protesters and politicians alike. According to the tax data, in 1979, the wealthiest 1 percent of Americans accounted for 9.18 percent of the national income. By 2005, Bakija says, that number had grown to 7.34 percent (with individuals earning on average $3.9 million per year, according to Saez and Piketty). During that period, the share of nonfinancial professionals in that group dropped from 48.1 percent to 42.5 percent, while that of financiers rose from 11 percent to 18 percent.

Bakija, Cole and Heim are now further refining their research, “getting more precise information on the ‘executives, managers and supervisors’ group, since they account for such a large share of top income earners,” Bakija says. They’re also comparing earnings in various professions in the U.S. to those in other countries as well as looking at what factors really are contributing to rising top income shares and determining to what extent they are doing so. Among many plausible contributing factors are the globalization of the economy, the stock market boom, changing social norms regarding executive compensation and tax changes that favor the rich.

“Distinguishing how much of the rise in top income shares is due to each of these different explanations has important implications for tax policy,” Bakija says. “By no means do we have the final answer to this question nailed down yet, but knowing the occupations of top earners is an important prerequisite to making progress on it.”

Occupations of taxpayers in the top 1 percent of income

In their landmark study of income tax data, researchers Jon Bakija, Adam Cole and Bradley T. Heim determined a much different picture of the wealthiest 1 percent of Americans than has been popularized by the Occupy Movement. The largest group (31 percent) includes executives, managers and supervisors in nonfinancial fields of all types. Financiers constitute 13.9 percent. At the bottom of the scale are pilots (at 0.2 percent).
David Zimmerman proposes: Closing the Income Gap from the Bottom

The Occupy Movement and the rhetoric surrounding it have focused on redirecting income from the top 1 percent of earners to the 99 percent. But economics professor David Zimmerman thinks the likelihood of closing the income gap from the top is remote, particularly given the volatility of the current social and political context.

Instead, he argues that certain targeted, community based programs aimed at the poor, particularly poor children, can help improve the long-run economic prospects for this vulnerable population. In his 2010 book Targeting Investments in Children: Fighting Poverty When Resources are Limited, co-edited with Wellesley economics professor Phillip Levine, Zimmerman proposes a way to compare a diverse array of programs based on their impact on children’s future earnings.

“If our ignorance leads us to spend large amounts of money on interventions that don’t work, that is a huge loss,” says Zimmerman, who worked with Levine assisting New York City’s Robin Hood Foundation, which helps fund more than 200 programs aimed at low-income children. “If we are careless in how we allocate resources, the losses are felt by those poor children we might otherwise have helped.”

So while mentoring programs, just one type of intervention, have been proven to generate significant improvements in students’ grades, another important goal to consider is reducing children’s poverty later in life—something that Zimmerman and Levine set out to measure. Using data from the National Longitudinal Survey of Youth, the researchers showed that each .08 increase in grade point average achieved through Big Brothers/Big Sisters increases an individual's lifetime earnings by $7,000.

“Since the mentoring program costs only $1,480 per participant, the earnings impact of this intervention is over $4,700 for each $1,000 spent, a cost-benefit ratio of 4.7:1,” Zimmerman says.

Other investments, such as early childhood education or vocational training programs, have more dramatic impacts on lifetime earnings, with the benefits still significantly exceeding the programs’ costs. High quality preschool programs, for example, cost about $15,000 per child and yet are estimated to raise the net present value of lifetime earnings for participants by about $60,000. “This is a significant gain for the low-income participants the programs target,” Zimmerman says.

Targeting Investments in Children, aimed at policymakers and nonprofit leaders, explores the impact on lifetime earning potential for a variety of initiatives funded by the Robin Hood Foundation. Among those showing the most promise to reduce poverty later in life: early childhood education, reductions in K-12 class sizes, increased teacher pay, increased college aid and intensive vocational training. Meanwhile, housing vouchers and child care, child health and teen pregnancy prevention programs might “make a great deal of sense as a matter of social policy,” Zimmerman says, “but have little impact on the human capital characteristics likely to raise a child’s economic outcomes.”

Zimmerman acknowledges the book’s findings should be interpreted with caution. Indeed, one early reader called the researchers’ goal “outlandishly ambitious.” Yet “ambition seems essential,” Zimmerman says, “when 13 million children are living below the official poverty line.”

Can programs prevent poverty?

David Zimmerman and Phillip Levine developed a way to compare a diverse array of poverty-reduction programs based on their impact on children’s future earnings.

Among the programs that proved effective:
- Early childhood education, mentoring, class-size reduction, curriculum reforms, teacher training, increased teacher pay, college aid, intensive vocational training
- Parenting programs, vouchers/school choice, after-school programs, dropout prevention, substance-abuse programs, general jobs programs, employment/training subsidies
- Child care, child health programs, teen pregnancy prevention, housing voucher/mobility programs

Programs that didn’t seem to be effective:
- Parenting programs, vouchers/school choice, after-school programs, dropout prevention, substance-abuse programs, general jobs programs, employment/training subsidies
- Child care, child health programs, teen pregnancy prevention, housing voucher/mobility programs

Tara Watson explores: Why Neighbors Matter

So what are the longterm effects of the widening income gap on American society? One major change is where people live and who their neighbors are, the focus of a study by economics professor Tara Watson.

“Poverty in the U.S. is about more than inadequate food and shelter,” Watson says. “It’s about lack of access to mainstream society and isolation from opportunity. Lack of access is compounded by geographic segregation of the rich and poor.”

In 2009, Watson published an article studying that very issue in the Review of Income and Wealth. Using neighborhood-level census data for 216 cities, she developed a Centile Gap Index that measures residential segregation by income.

“If we look out over the past 40 years, there’s been a dramatic shift toward a much more unequal residential landscape,” Watson says. “When there are periods of rapidly increasing income inequality, residential segregation also increases.”

As her research shows, between 1970 and 2000—and particularly in 1980, the result of urban flight—the richest and the poorest income groups became increasingly isolated from each other. “And as income inequality rises,” she says, “the rich will be more likely to outbid the poor for high-quality neighborhoods, and the rich and the poor will be less likely to live in close proximity.”

What does this all mean? Watson cites several sociological and economic studies of how so-called “residential sorting” affects everything from urban joblessness to school performance to the allocation of public goods. It may even affect whether...
Marriage rates by year for income quartiles for men ages 25-34, 1950-2000

Tara Watson and Sara McLanahan found that relative income concerns account for more than half the marriage gap between high- and low-income men. The data in this chart, for white, non-hispanic men, is illustrative of the general trend across all races.

Note: Author’s calculations from U.S. Census. Excludes men living in group quarters and in the top and bottom 5 percent of the income distribution.
With his professional vocal ensemble Roomful of Teeth, Brad Wells has re-imagined the very nature of singing in the 21st century. The group brings renowned artists and composers from all over the world to the Berkshires to create brand new sounds together.

While the voice itself—humanity’s oldest instrument—has not changed in eons, different cultures have manipulated it over time to create an astonishing array of sounds. Consider traditional Tuvan throat singing (with its deep undertones and powerful overtones), the dizzying high-low cycles of yodeling, the polyphonic harmonies of Sardinian chanting or the robust voices of Mbuti pygmies.

Until recently these techniques were isolated within specific subcultures, often in remote corners of the world. Now, as humans move fluidly across continents, says Wells, “anything that can be done with the human voice can be learned by anyone else. Everything is possible.”

Wells, the college’s director of choral activities and the Lyell B. Clay Artist in Residence in Vocal Studies, created Roomful of Teeth three years ago specifically to explore these possibilities. The ensemble brings together eight classically trained singers who work with masters of nontraditional vocal techniques for intensive residencies at Williams and MASS MoCA in North Adams.

The singers, who have appeared in venues such as Carnegie Hall, Lincoln Center and Tanglewood (and with performers ranging from the Boston Pops to Bobby McFerrin) become novices again, learning techniques unlike any they’ve ever attempted.

Roomful of Teeth then commissions the world’s leading contemporary composers to create a “repertoire without borders” for the ensemble, Wells says. The composers are a who’s who of contemporary music: Judd Greenstein ’01, Rinde Eckert, Caleb Burhans, Merrill Garbus of tUnE-yArDs, William Brittelle and Sarah Kirkland Snider.

Greenstein, a former student of Wells’ and one of the ensemble’s original composers, says, “It’s hard to express just how different Roomful of Teeth is. It starts from square one in terms of the possibilities of the human voice. It’s more than a group of classical singers who know how to do other things. It’s more than a collection of new sounds; these vocalists actually mold their voices into an entirely new product. As a composer, that’s an exciting thing to work with.”

Throughout his career Wells has tried to break down barriers between Western and non-Western traditions, work that earned him an Aidan Kavanagh Achievement Prize from the Yale Institute of Sacred Music. He came to Williams in 1999, having held positions at Yale, Trinity College, University of California at Berkeley and California State. He’s lectured and published articles on the physiology and acoustics of non-classical vocal styles and has led students on trips to explore vocal traditions in Bolivia, Argentina, Italy, Scandinavia, the Baltics and—during this past Winter Study—South Africa. Roomful of Teeth, however, takes this exploration to a new level.
“I wanted the ensemble to be more than people who sing beautifully, singing notes arranged differently,” Wells says. “I was captivated by the promise of making something entirely new.”

Greenstein, who is a director of the NOW Ensemble, co-director of New Amsterdam Records and a composer for violist Nadia Sirota, opera singer Anne-Carolyn Bird and the group Bang on a Can, says this newness demands a different approach to composing. “You can’t just write a score, hand it to the singers and have it sound like you expect,” he says. “It’s a tremendously open and dynamic process. That first year especially, the singers were learning what their voices could sound like, what they were capable of, literally as I was writing music for these new sounds they were creating.

“It was a real democracy of strangeness,” Greenstein adds. “We were all entering new territory together.”

The results, by all accounts, aren’t just interesting; they’re beautiful—and fun. The ensemble won the 2010 American Prize in Choral Performance, a national competition led by maestro David Katz. They’ve twice been a Time Out New York Critic’s Pick, were profiled in The American Scholar and were a featured ensemble at the Ecstatic Music Festival in New York City in 2011 and 2012.

“I wanted the ensemble to be more than people who sing beautifully, singing notes arranged differently. I was captivated by the promise of making something entirely new.” —Brad Wells, Williams’ Lyell B. Clay Artist in Residence in Vocal Studies
ARRESTING SPORTS FICTION

By Janice Arenofsky

As a journalist with Sports Illustrated and ABC Sports in the 1990s, Beth (Schmidt) Choat ’86 had an epiphany. Interviewing Olympians like figure skater Michelle Kwan and gymnast Shannon Miller, Choat says, “It struck me that there was this 12-year-old girl inside who wanted to read great stories about the best young female athletes in the world.”

Now an officer with the Las Vegas Metropolitan Police Department, Choat satisfied her inner “tween” in 2010 with the publication of Soccerland—her debut young adult novel and the first title in her International Sports Academy series. The book, which has garnered praise from soccer icon Brandi Chastain, among others, revolves around Flora Dupre, a Maine teenager and gifted soccer player who yearns to play for the U.S. in the Olympics and World Cup.

The book was hardly a stretch for Choat, who from a young age had immersed herself in a wide variety of sports—first at Phillips Exeter Academy, where she participated in cross country, track and tennis, and then at Williams, where as cross-country ski team captain she twice competed in the NCAA Div. I Championships. As a sports journalist, she spent time at Olympic training centers in Lake Placid, N.Y., near where she grew up in the Adirondacks, and in Colorado Springs, Colo. “A part of me wanted to pursue cross-country skiing after Williams, but I didn’t have the money,” she says. “I also came to the sport relatively late, at age 19, when I had too many intellectual interests to focus on a sport I was good at but didn’t love.”

Choat encountered that kind of single-minded focus again and again in her two decades as a sports writer. In particular, she found that serious female athletes don’t mature emotionally the way average teenage girls do. “To be the best you must live a very unique life,” she says. “You give up a lot—proms, sleepovers and a normal education. You can’t be distracted by your hormones.”

In writing Soccerland, she worked to strike a balance between authenticity and marketability. An early draft of the book omitted any male love interest for the 14-year-old protagonist, Flora. At her publisher’s suggestion, though, Choat added a character, Logan, “as a crush.” Flora also struggles throughout the book with the death of her mother from cancer—something Choat based on the experiences of a few close female friends. She also used the childhood home of a Williams roommate, who grew up in Maine potato country, as a model for Flora’s hometown. “You write what you almost know,” Choat says.

Despite never having written fiction, Choat completed her first draft of Soccerland within six weeks, escaping her Upper East Side Manhattan apartment to spend hours working in a nearby public library. Increasingly frustrated by mainstream journalism, and eager to get back to an active outdoor lifestyle, she and her husband moved to Las Vegas in 2008, while she was putting the finishing touches on the book.

As she pondered her next career move, a job posting for an editor with the Las Vegas police department caught her eye. It turned out the department wasn’t hiring for the position anymore, but a recruiter encouraged Choat, then 44, to become a police officer.

After 11 months of police academy and field training, Choat became a full-time member of the force the same month Soccerland debuted. “It’s a challenging career on so many levels,” she says. “There are real similarities between journalism and police work. When you’re a journalist, you get a version of the truth.”

To keep up with the physical demands of being a police officer, Choat competes in triathlons, open water swimming
races and mountain biking events, and she hopes to represent Las Vegas at the 2013 World Police and Fire Games in Belfast, Northern Ireland. “I’m training harder now than ever,” she says. “You always have to be prepared for jumping over walls or restraining people who fight when being taken into custody.”

Thanks to the commercial and critical success of Soccerland—it ranks as a Junior Library Guild selection and is a final nominee for a 2012-13 Truman Readers Award—Choat is busy crafting her next two books in the International Sports Academy series. These two will focus on gymnastics and figure skating and the issues surrounding both, such as pressure from parents, coaches, agents and the media; weight and body image; liking versus loving a sport; and fear of failure.

Choat hopes that the series will fill a void in the young adult literary market, in which books aimed at girls typically focus on boys, gossip and materialism. “When I was 12, I wanted to read a smart sports book with role models,” she says. “It’s ironic that I wrote the novel I wanted to read.”

“The goal was to write an accurate book about elite athletes and give an empowering message to girls.”

—Beth (Schmidt) Choat ’86, author of Soccerland

Find out more about Soccerland and Beth Choat ’86 at theinternationalssportsacademy.com.
Geosciences professor Rónadh Cox has spent her life deciphering rocks in faraway places—from gullies in Madagascar to reef sediments in the Caribbean and even as far away as Jupiter’s moon, Europa. Working with student co-authors, she recently made a breakthrough in understanding boulder movements atop the cliffs of Ireland’s Aran Islands. By painstakingly comparing current ridge lines with British ordnance survey maps of 1839, Cox and her students proved unequivocally that storm waves (not tsunamis, as some experts thought) are shifting rocks as heavy as 78 tons several tens of meters above high water, permanently changing the landscape. Though Cox’s research involves paying attention to even the tiniest of details, she explored some really big ideas—deep time, the origins of life and the stunningly young field of geology—with writer Ali Benjamin in February.
Earth is unbelievably old, while human history is extraordinarily new.

It’s nearly impossible to really comprehend the age of Earth—4.6 billion years. Geologists often use metaphors to give a sense of scale. Imagine, for example, Earth’s entire history compressed into a single calendar year. If Earth formed at 12 a.m. on Jan. 1, our ancestors (the first *Homo sapiens*) wouldn’t appear until 11:40 p.m. on Dec. 31. The most recent 2,000 years of human history would take place in the final 14 seconds of the year.

Deep time can also be understood in a more visual way.

If you fit Earth’s history onto a standard roll of toilet paper with 1,000 sheets, each sheet would represent 4.6 million years. Nearly 90 percent of the roll (883 sheets) would be taken up by the Precambrian era—before complex and diverse life forms evolved. The dinosaurs would become extinct only about 14 squares from the end of the roll. Meanwhile, the entire 5,000 years of recorded human history would fit in just 1/1000th of the final sheet—less than the depth of the perforation line.

Early Earth was Hell…

During the earliest period on the planet, the Hadean era (so named because conditions were probably pretty Hellish), our solar system was still forming. Space debris routinely slammed into the Earth’s surface. There may have been “magma oceans,” which were large areas of molten rock. It was just a very violent period. By 3.8 billion years ago, the beginning of the Archean (“ancient”) era, things began to stabilize.

…maybe even a living Hell.

The oldest rocks that preserve their original features are 3.2 billion to 3.5 billion years old; in them we find microfossils, signals of tiny bacterial life forms. Rocks from the Hadean era aren’t well preserved, yet some researchers still believe that life could date to these early, violent years. Where did life come from? Possibly outer space; organic molecules are found in comets, and studies have shown that these molecules could withstand the impact of a comet hitting the Earth. Others think life could have formed at hydrothermal vents—mineral-rich underwater geysers so hot they can melt lead. Today, abundant life forms exist around these “black smokers,” with chemical energy from the vents, not sunlight, driving biological processes. The huge differences between these two ideas show how few answers we have to some of the most fundamental questions about life.

Geologists have learned a lot in a very short time.

Geology may study ancient forms and processes, but it is a stunningly young field; about 90 percent of geologists who ever lived are alive today. It wasn’t until the mid-19th century that people began to understand that Earth was more than a few thousand years old. When scientists began to propose that Earth’s age was in the tens of millions, still a vast underestimation, the public was shocked; most had never considered numbers that large. The idea of plate tectonics—continents shifting—began to be accepted only in the late 1960s, and deep-sea hydrothermal vents weren’t discovered until 1977.

And Earth is shifting before our eyes.

Geoscientists are accustomed to measuring change in millions of years, but an explosion of data and images in recent decades have revealed how fragile and interconnected our Earth systems really are—and how quickly they can change. Climate change is a perfect example of this. We don’t yet understand all the details—not of climate change, not of the origins of life, not of the moons of Jupiter and not even of the mysterious boulder movements on the Aran Islands. But each new field season and each student thesis provides another piece of the puzzle as we marvel at the beautiful complexity of our home planet.

Rónadh Cox is a professor of geosciences and chair of the maritime studies program at Williams. Since 1996 she’s taught courses as varied as “The Test-Tube Earth,” “Oceanography” and “Climates through Time” and has helped launch many budding geologists’ careers, leading scores of Williams students in research expeditions across the U.S. and around the globe. Ali Benjamin is a writer based in Williamstown.
No limits. Sleepless nights. Love. Shoes!
Smoothies. Girl power. Limes.
Shared tears and joy.
In control, but in God's hands. Amor de
diversidad y cultura. Wandering,
but not lost. We know
we want greatness.
We're learning how to get there.

To see more of the "I Am Williams" project,
visit www.bit.ly/iamwilliams