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With the semester coming to a close, the Class of 2016 is settling in to the rhythm of life at Williams. By all measures the 292 women and 259 men who arrived on campus in late August are an impressive bunch. Their SAT scores averaged 718 for verbal and 711 for math. They’re also diverse: 38 percent are U.S. students of color, and nearly 6 percent are international students, representing 24 countries. It’s hard to believe that, just a month from now, we’ll begin to get a picture of the Williams Class of 2017. (Early decision applicants are notified on Dec. 15!)
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Exciting Particles: Making Sense of the Higgs Boson

Colleges are, perhaps more than anything, places of intellectual excitement.

Since I last wrote in this column, my field of particle physics experienced one of its most riveting moments in the past half-century. That was when scientists at the CERN laboratory in Geneva found tangible evidence of the (until-then theoretical) Higgs boson, a discovery that addresses fundamental questions, including ones about the origin of the masses of the elementary particles.

Faculty members around the world, including our own David Tucker-Smith, are poring over those results, some of which occurred last spring when Alice Sady ’13 was present for an internship at CERN. (She was sworn to secrecy until the paper appeared!)

Physicists—including Peter Higgs—first proposed the Higgs mechanism in 1964. The idea is that there’s an invisible, pervasive and dense background whose presence gives particles their mass. The trouble is, while this theory made sense, no one had ever actually seen this background directly. Until now.

It’s like living deep in an ocean and never seeing the water around you—until one day you do.

Follow me on this—I promise it’s worth it. Massless particles always move at the speed of light, while slower-moving particles are said to have a mass. Albert Einstein explained this back in 1905.

To see what’s going on with the Higgs, let’s develop the water analogy. You, living in the ocean, see lots of light. A beam of light is just a stream of massless particles—photons—but if it’s traveling through some medium, like water, it moves more slowly, as photons bounce off the water molecules. (Physicists paying close attention will now be tempted to point out that this is technically true of motion through a plasma, not water. But most people aren’t familiar with plasmas, so let’s stick with the water analogy.)

Because they’re bouncing back and forth as they move past you, photons actually seem to have mass, and—because the interaction of light with water depends on the light’s color—varying masses, at that. You might conclude that the light is being affected by something invisible. You might decide to call it “water.”

You could learn quite a bit about this water by observing light in great detail, drawing some conclusions about its microscopic qualities by comparing the behavior of photons of different colors.

But for all this knowledge about water gained indirectly, you’d rather see it. The best way to do that would be to make waves in it and study the waves directly, thereby confirming (or refuting!) your theory about the nature of water.

Up here on dry land, the elementary particles we know of (electrons, muons, neutrinos, quarks, and so on) all are intrinsically massless, just like photons, and they should move at the speed of light. But we observe each of these particles moving at different speeds, and, in fact, the masses of these particles cover a huge range. So we conclude that the particles are moving through some as-yet unseen background.

This is what we call the “Higgs background,” and we know quite a bit about it indirectly from the masses and interactions of the elementary particles. We have many theories of what it might be. To find out which one is right, we have to study the background directly, by exciting it (splashing it!) and seeing what happens. That’s what the Large Hadron Collider at CERN does. With a big, energetic collision of protons, it stirs up the Higgs background and makes it do something.

In the simplest theory of the Higgs background, what comes out is just one kind of particle: the Higgs boson. In more complicated theories, there can be more than one Higgs, or other exotic particles with names like “squark,” “photino,” and “technipion.” (No, those are not names of characters in Shakespeare.) Until we’ve done the experiments, we won’t know.

While confirming the Higgs would easily stand as one of the most important scientific achievements of our lifetimes, many of us hope the collider exposes a lot more. While confirming the Higgs would easily stand as one of the most important scientific achievements of our lifetimes, many of us hope the collider exposes a lot more. We’re hungry for surprises, like clues to explain dark matter. This past summer’s discovery was a first step in this exploration, and I’m excited to watch with the rest of the department, the college, and the world as the journey continues.
Inspirng and Impressive

I loved the feature of the 10 graduating seniors (“10 in 2012,” July 2012). Each had such different paths, but all of them were inspiring and impressive. It brought to life everything we love about Williams. Also, I really enjoyed the president’s essay about the trip with the Williams Outing Club (“Learning: 2,500 Miles from Home”)—sounds like a fun and rewarding trip. The articles on Kevin White ’52 (“A World-Class Mayor”) and the interfaith trip (“Alabama Calling”) were also great. I always love reading about Williams, but the July issue was even better than usual.

—Yvonne Hao ’95, Cambridge, Mass.

The bios of the 10 graduates were outstanding. I can’t think of a better way to share the value of Williams today with its alumni than through the focus on these diverse and remarkable graduates. You mention that Niralee Shah ’12 is teaching math at King’s Academy in Manja, Jordan, “the New England-style prep school founded by Deerfield’s Eric Widmer ’61.” Eric was one class behind me at Williams and is an outstanding man. But you didn’t mention that the current head of King’s Academy (who hired Niralee) is John Austin ’87, who in 1983 graduated from St. Andrew’s School (Delaware), where the current head is Tad Roach ’79.


A Mayor’s Legacies

Mayor Kevin White ’52 didn’t lose interest in 1983 in healing Boston and making its neighborhoods—including South Boston—part of a world-class city (“A World-Class Mayor,” July 2012). In fact, there’s also a Williams twist!

Columbia Point, a former city dump, is now home to the Kennedy Library, UMass-Boston, Boston College High School, and the Harbor Point residential development. In 1983, the Harbor Point site was a 1,200-unit public housing project with only 300, mostly minority-occupied, substandard, and federally subsidized apartments.

At the time, I was assistant secretary for housing in the Reagan administration, with responsibility for public housing. As a Bostonian, I was aware of the living conditions of Columbia Point’s residents. I had worked since 1981 with the Boston Housing Authority’s (BHA) court-appointed receiver and with Mayor White’s Boston Redevelopment Authority (BRA) to redevelop the site into a privately developed, mixed-income neighborhood with guaranteed units for 300 low-income families.

In 1983 the redevelopment was at an impasse, with the BHA and BRA each insisting on its preferred developer. Mayor White called me at my office in Washington and began by referring to us as “fellow Ephmen” who should work together. I agreed, and we came up with the resolution to force a joint venture between the opposing developers.

Mayor White regarded the success of Harbor Point as his crown jewel for the waning days of his tenure as mayor.

—Phil Abrams ’61, Delray Beach, Fla.

Your article on Kevin White (“A World-Class Mayor”) talked glowingly about his role in the modernization of Boston. The comments on the mayor’s role in the school desegregation crisis, however, were a bit misleading. The late mayor himself, on numerous occasions and in settings including the documentary series Eyes On the Prize, regretted his failure to address the crisis as a “moral” issue. It wasn’t that he was powerless; he did have power because of the office he held. He just failed to use it.

Ruth Batson, whose career as a civil rights and education activist began with the NAACP Boston Branch, often remarked that no political leader stepped forward to say that having students of all races and classes learning together was a good thing and should be encouraged. Mayor White, for all of his achievements, was not out in front during that polarizing time. He later regretted his own failure to take action.


Editor’s Note

I’m pleased to share with you the fall issue of Williams Magazine. The new design and name reflect an approach to coverage that is complex and multilayered, offers readers something unexpected, showcases the best of the Williams community, and challenges us all to move beyond our comfort zones.

It’s an approach rooted in Williams’ enduring values and dedication to the advancement of humanity through great teaching and scholarship across the liberal arts. And it reflects more than a year’s worth of thoughtful conversation with alumni, students, faculty, and staff as we worked to re-envision the magazine. Special thanks to the Magazine Working Group and the executive committee of the Society of Alumni, who were integral to this process!

We’d love to know what you think. Send feedback to magazine@williams.edu. —Amy T. Lovett, editor

Williams Magazine welcomes letters about articles or items published in recent issues. Please send comments to magazine@williams.edu or Williams Magazine, P.O. Box 676, Williamstown, MA 01267-0676. Letters may be edited for clarity and space.

Serving Others

The story of Williams’ four chaplains serving others in a time of great need (“Alabama Calling,” July 2012) reminded me of four chaplains of WWII fame. Two Protestants, a Catholic, and a Jew were sailing to war as chaplains on the S.S. Dorchester in 1943 when their ship was hit by a German torpedo. They gave up their life jackets to soldiers, in doing so going down with the ship. We honor their memory in our chapel on our still-operating Baltimore Liberty ship, the S.S. John W. Brown.

I think the four chaplains of the Dorchester would have appreciated the four Williams chaplains—two Christians, a Muslim, and a Jew—doing good works in another kind of trouble.

—Ernie Ihmoff ’59, Baltimore, Md.
Rededicating the Davis Center

During a two-day conference in October, the college rededicated the Multicultural Center as the Davis Center in honor of two pioneering black alumni, the late W. Allison Davis ’24 and his brother John A. Davis ’33.

With its new name, the Davis Center has a new mission focused on three pillars—to educate, to support, and to lead, says its director Lili Rodriguez ’01. “To transform the college culture,” she says, “we need to be a resource for all students.”

The Davis Center’s mission reflects the legacies of its namesakes. W. Allison Davis worked to broaden low-income children’s access to education, influencing policy, teaching at the University of Chicago, and publishing several important works in the field. John A. Davis, meanwhile, a lead researcher in the Brown v. Board of Education case, worked to end discrimination and develop fair employment practices in the U.S. and Africa.

Nearly 30 members of the Davis family and 65 alumni joined students, faculty, and staff at the conference and rededication, which included lectures, panel discussions, musical performance, and a ribbon-cutting ceremony. Renowned scholar-activist and public intellectual Johnnetta B. Cole gave a closing keynote address before an audience of 250 at the ’62 Center for Theatre and Dance. “The Davis Center doesn’t just do the right work,” she told the group. “They do sacred work.”

Cole added that society is “still such a mighty long way from the day when no one is judged by the color of their skin, by the shape of their body, by who it is they couple with, by which supernatural force, if any, they worship, by how much money they have…” But the work of the Davis Center, she added, is how we get there.

To learn more about The Davis Center, visit daviscenter.williams.edu.

Weston Field to Undergo Transformation

The Board of Trustees voted in October to proceed with a $22 million project to renovate and re-invent Weston Field. The project was one of two put on hold in 2008 during the global financial crisis—the other one being construction of the new Sawyer Library, slated to open in fall 2014.

Delaying the Weston project gave the college time to take “a holistic look at how the complex could best support our approach to athletics, with its emphasis on broad participation and excellence within Division III,” wrote President Adam Falk in an Oct. 15 letter to the Williams community.

The renovation will provide much-needed new facilities for varsity field hockey, football, men’s and women’s lacrosse, men’s and women’s track, and recreational users. The new facilities also will allow increased junior varsity, club, intramural, and recreational use of Cole Field. Emphasis will be placed on green design and the environmental stewardship of the surrounding area.

Construction is expected to begin after the 2013 fall athletic season and be completed by fall 2014.
Convocation Features Erin Burnett ’98

According to Erin Burnett ’98, three characteristics “scream success”: conviction, courage, and civility.

“If you have those things, you’re going to be a superstar, no matter what you do,” she said, addressing the senior class at Convocation on Sept. 8.

Burnett, host of CNN’s Erin Burnett OutFront, was one of five alumni to receive a Bicentennial Medal from the college for “significant achievement in any field of endeavor.” The other recipients were Kathleen A. Merrigan ’82, deputy secretary of the U.S. Department of Agriculture; David S. Paresky ’60, a travel industry pioneer and philanthropist; Norman P. Spack ’65, an internationally recognized pediatric endocrinologist; and Charles N. Waigi ’72, founding director of Kenya’s Jeremy Academy (featured on p. 24.)

Visit http://bit.ly/S1d85d to watch video of Burnett’s talk and subscribe to the college’s YouTube channel.

How Students Learn Best...

“We’ve analyzed which educational inputs best predict progress in these deeper aspects of student learning. The answer is unambiguous: By far the factor that correlates most highly with gains in these skills is the amount of personal contact a student has with professors. Not virtual contact, but interaction with real, live human beings, whether in the classroom, or in faculty offices, or in the dining halls.”

—President Adam Falk, in an Aug. 29 Wall Street Journal essay about assessing the value of higher education and students’ ability to write effectively, argue persuasively, solve problems creatively, and adapt and learn independently.

Roseman Named President of Dickinson

Congratulations to Nancy Roseman, professor of biology, who last month was named the 28th president of Dickinson College.

At Williams Roseman has served as dean of the college and director of the Williams-Exeter Programme at Oxford. She was a member of several faculty committees, including the Faculty Steering Committee and Committee on Educational Policy. She also played a key role in developing and opening the college’s student center.

Roseman will begin her tenure as Dickinson president on July 1.
Hallem ’99 Named A MacArthur Fellow

UCLA neuroscientist Elissa Hallem ’99 has been named a MacArthur Fellow by the John D. and Catherine T. MacArthur Foundation. Hallem’s research involves the physiology and behavioral consequences of odor detection, work that may eventually lead to fewer parasitic infections in humans. She is one of 23 people from around the world selected to receive this year’s fellowship, which includes a five-year, $500,000 grant.

In Memoriam

The college notes the passing of two retired faculty members—music professor Irwin Shainman and sociology professor Robert Friedrichs.

Shainman, the Class of 1955 Professor of Music, Emeritus, came to Williams in 1948. In his 43 years here he inspired generations of students to develop a passion for music. He conducted the Berkshire Symphony, led the Moo Cow Marching Band, and was co-founder and president of the Williamstown Theatre Festival. A bugler as a child, he earned the Premier Prix in trumpet at the Paris Conservatory and played professionally in and around New York City. Read his obituary at http://bit.ly/Shainman.

Friedrichs, professor of sociology, emeritus, was the first to teach courses in that field at Williams. He spent more than 20 years at the college and served as chair of the department of sociology and anthropology. He was particularly interested in the sociology of religion and science and in the societies of Asia. His 1972 book A Sociology of Sociology won the American Sociological Association’s coveted Sorokin Award. Read his obituary at http://bit.ly/Friedrichs.
They gather at 6:03 a.m. on the steps of Chapin Hall. Thirty-one students and a recent graduate, many of whom are meeting each other for the first time. In the pre-dawn darkness they board two college vans that transport them to the Pine Cobble trailhead, a major ramp onto the Appalachian Trail.

As the vans empty, Outing Club Director Scott Lewis begins his signature pep talk: “Every Friday is Mountain Day! Who’s here? What year are you? Have you ever done this before?”

Not many have.

“Welcome, all!” Lewis continues. “Isn’t this a great day? You’re in for a great treat, ‘cause your endorphins will be rejoicing all day long. The trip up’s about a mile-and-a-half and a 100- to 200-foot change of elevation. It’s a great hike and my favorite thing to do every Friday morning.”

In fact, Lewis has led this hike with students nearly every Friday since he arrived at Williams in 1992. In the early years, the hike attracted four or five participants at a time. Then Rob Silversmith ’11 made a point of showing up every week, and word began to spread. Lately the numbers have crept into the 20s and 30s. Even President Adam Falk has joined in—more than once.

On this mid-September morning, the group sets out at a fast clip and fills the Berkshire woods with chatter. The path steepens, and the pace—and chatter—slow. Forty minutes and three long switchbacks later, they stop at a three-trunked locust whose base is a natural bowl filled with water. Lewis calls it the Elfin Fairy Tree, and he explains that if one’s reflection in the water is clear, he or she will be granted a wish. From there a five-minute scramble brings the students to the eastern summit, where they can look out across North Adams to Route 2’s hairpin turn.

The sun crests the far hills as the crew enjoys hot chocolate and mini-muffins that Lewis hauled up in his large backpack. Then comes a two-minute hike across the summit for the view.

At first, there’s silence as the students slowly realize they’re looking down on the place where they go to college.

“Look, is that… Chapin?”
“What about that over there? The ’62 Center?”
“I think it’s The Science Center…”

When the students have had their fill, it’s a shorter tramp back down to the vans that will get them back to campus in time for 9 a.m. classes.
A Time of Transition

By Martha Quillin
In this cradle of intellectual exploration, transgender people at Williams are on that most basic human quest—figuring out who they are.

College is a chrysalis into which 3 million hopeful young freshmen enter each fall. Four years later, most emerge smarter, surer, more worldly—ready to spread their wings.

For some students, the metamorphosis is far more significant, and more fundamental, than deciding whether to major in anthropology or astrophysics.

They start college as one gender. They leave as another.

No one knows exactly what portion of the population is born feeling out of sync with their assigned sex. By any measure, the number at Williams is small. But so is the college. And for students making decisions about how they will present themselves to peers and strangers alike, Williams’ close-knit community can be intimidating even as it is comforting. While most people yearn for acceptance, trans people are also coming to accept themselves. And for some the only way to do that is to switch to the gender they feel they were meant to be.

At the same time that they’re delving into social psychology and linear algebra, trans students are beginning to understand why they’ve felt so uncomfortable in their own bodies and finding that it may be possible to correct the dissonance between the way they look and the way they feel.

This self-discovery complicates every aspect of campus life, from the gender boxes prospective students must select on their college applications to the names printed on graduating seniors’ diplomas. In between, they worry about housing assignments, physical education classes, and which bathrooms to use. They wonder if they’ll be able to find friends who support them, if they’ll find doctors and therapists if they need them, and if they’ll be able to pay the doctors if insurance won’t.

“Personal transitions are like wooden Russian dolls,” says Norman Spack ’65, an endocrinologist who has done pioneering work with transgender youth through Boston Children’s Hospital (work for which he received a Bicentennial Medal from the college in September). “Open the outermost,” he says, “and there’s another within. It’s equally shiny, often different, and hopefully pleasing to the eye.”

In this cradle of intellectual exploration, transgender people at Williams are on that most basic human quest. They’re figuring out who they are.

Growing up in Claremont, Calif., Aidyn Osgood ’15 “never felt right” about his sexuality, even after he came out as bisexual, then gay, around age 15.

Near the end of his senior year in high school, he heard the term “genderqueer,” used to describe people who identify as neither entirely male nor entirely female.

“I thought, ‘That sounds like me,’” Osgood recalls. “None of the old categories fit for me. That one just kind of clicked.”

Osgood had to learn the difference between sexual orientation and gender identity, a distinction that can even confuse people in the Lesbian Gay Bisexual Transgender (LGBT) community. People who work in the field put it...
this way: Your sexual orientation has to do with whom you want to be with. Your gender identity is whom you want to be.

Although Osgood’s awareness of his sexual orientation was evolving, he thought his gender identity—he was a 6-foot-2-inch-tall young man—was immutable. It was a revelation to find that some people born as women live as men, some born as men live as women, and others live somewhere in between.

If there ever were an opportunity to redefine himself, Osgood figured, it would be in moving across the country to a small, liberal arts college where not one of the 2,000 students was from his high school.

“For many students, college is the first time they leave home,” says Jess McDonald, spokesperson for Campus Pride, a Charlotte, N.C.-based nonprofit that works to create safe college environments for LGBT students. “You’re making new friends and starting over.”

Osgood, who arrived at Williams in fall 2011, says, “I really wanted to hit the reset button.” He immediately hung a rainbow flag in the common room of his dorm. By December, he’d come out to friends as transgender. In June, he asked people to start calling him Aidyn instead of his given name, Perry.

Now an 18-year-old sophomore, Osgood has taken courses in the women’s, gender, and sexuality studies program, which has helped him to understand his own feelings and sensitized him to others’. He works as a campus tour guide, he’s active in Williams’ Queer Student Union, and he participates in Allies, a campus group that advocates for people who may be vulnerable to discrimination.

Outwardly, Osgood has embraced his male body and his more feminine traits, his desire to find acceptance, and his urge to shock.

He sometimes spends 90 minutes pulling together clothes and accessories, which recently included jeans and an asymmetrical T-shirt that bared one muscled bicep; a beaded necklace; long, loopy earrings; eyeliner; and lip gloss. His hair is cut above the ears but long on top, with a broad streak of turquoise.

Personally, he’s come much farther than the 2,900 miles from Claremont to Williamstown, moving beyond his own angst and learning to be supportive of others.

“I still have a lot of body issues,” Osgood says. “But emotionally, I feel like I’ve figured out who I am.”

Once they make the upending decision to live as who they believe they are meant to be, many trans people solidify their new identities by choosing new names. Even before they begin the lengthy process of filing legal papers and getting new driver’s licenses and Social Security cards, they start by asking friends, relatives, professors, and co-workers to make the change and refer to them by what is now the correct pronoun.

Matt Kremer ’13 decided it would be easier to try out his new identity in a foreign country first. He came to Williams in 2009 from a high school in Boise, Idaho, where he says the line between male and female was clearly divided. “If you came out as anything other than straight,” he recalls, “you were ostracized.”

Known then as a girl, Kremer says he never felt—or even dressed—the part, shopping for clothing in the boys’ department from third grade on.

“I didn’t have a name to put to it,” he says, “but I knew I was inherently male. I never felt comfortable in social situations—ever.”

Kremer had male friends in high school but distanced himself from them if they showed any romantic interest. “I think it was because I didn’t like being treated like a girl,” he says.

Kremer began exploring the term “transgender” for the first time as a Williams sophomore. “As a science person,” says the biology major, “I tend to over-research things so I know what I’m getting myself into.”

By the end of that academic year, Kremer knew he had to live as a man.

Spack says the sense of urgency Kremer felt—to correct an error—is what sets transgender people apart from those who are experimenting with different sexual identities.
This wrenching but liberating change is a necessity, he says, not a desire.

Says Kremer, “I just needed to do it. There just wasn’t any way for me to continue living as a female.”

Kremer already planned to study in Japan for his junior year. His mother was born there, and he would spend part of the time with his grandmother and other extended family. But no one else there knew him. He cut his short hair a little shorter and moved abroad, living for the next year as Matt. It was relatively easy, he says, to pass for a young man in Japan.

Kremer was anxious about the prospects of coming out to his family while overseas and of coming back to Williams for his senior year.

For these and other issues, he had an invaluable resource on campus: Justin Adkins, a transgender man and assistant director of the Davis Center, formerly the Williams Multicultural Center. When Adkins (who doesn’t capitalize his name) was hired part time five years ago as queer life coordinator, he knew of only one other transgender person on campus.

There are a handful now, including some college employees, and many rely on Adkins as a sounding board and “trans encyclopedia.” They ask his advice about how and when to come out to their families and how much to tell potential employers in job interviews.

“I thought it would be difficult to reintroduce myself as Matt,” says Kremer. But as he began to tell classmates and professors in group study sessions or office meetings, “They all said, ‘Oh, OK.’ They totally accepted it.”

Kremer, who also has the support of his parents and two sisters, doesn’t say what his given name was. He feels as though he has always been this person—this guy—Matt.

Before graduation next spring, he plans to change his name legally, so it will be correct on his diploma and passport. By then, he may have begun to look and sound more masculine as well.

Kremer worked full time on a Massachusetts dairy farm last summer to save money to pay for the next step in his journey: regular testosterone injections, which can run from $50 to $150 per month.

While the 21-year-old now feels comfortable at Williams, the school’s location makes the clinical aspect of transitioning more challenging than it would be if the school were in a big city. While he can get basic medical care on campus, he needs a therapist to sign off on his plans to take hormones, an endocrinologist familiar with transgender issues to administer them, and a way to get to their offices at least 30 minutes away, if he chooses a doctor in Pittsfield.

Kremer is currently working with his therapist to find a suitable endocrinologist and hopes to start taking the shots in a few months.

Emery Shriver knew how out of sorts he was with the female body he’d been living in for 34 years when, last fall, one of his dogs unintentionally bit him on the breast.

While many women would have been worried about the disfigurement of this most obsessed-over measure of femininity, Shriver had the opposite reaction: “I wished both breasts were gone.”

One of the ways Spack and other doctors at the Gender Management Service Clinic at Boston Children’s Hospital diagnose transgender youth is by measuring the degree of revulsion with the body parts that identify their assigned sex. Experts say transgender children are more likely than other kids to feel depressed, anxious, and isolated. For girls, menstrual cycles are a monthly reminder of the misalignment they feel. Some children are so horrified by their body parts that they cut themselves.

According to a report last year by the National Gay and Lesbian Task Force and the National Center for Transgender Equality, 41 percent of 6,450 gender nonconforming study participants say they’ve tried to commit suicide.

Transgenderism is currently listed as a mental illness—“gender identity disorder”—in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Spack doesn’t believe trans people are mentally ill. “Rather,” he says, “their anxieties are caused by their sexual dysphoria.”
In fact, the term “gender dysphoria,” which comes from the Greek word for emotional distress, will replace “gender identity disorder” in the revised DSM-V, due out next year.

At the clinic, Spack gives transgender children hormone blockers to halt puberty and the development of secondary sexual characteristics—breasts, vocal pitch, facial hair, etc.—giving pre-adolescents time to decide if they want those changes to happen at all. It’s easier and less costly to prevent the changes in a child than try to override them in an adult.

Shriver came out as lesbian around age 31, “Pretty late, compared to most people,” he says. With that declaration came shorter hairstyles and more masculine, dark suits.

“I felt a lot more natural, more attractive,” Shriver says. “But I kept wishing I could grow sideburns or something, and I didn’t realize not everybody felt that way.”

Two years ago, Shriver took a dream job as a reference librarian at Williams, where he met adkins.

“Here is this person who is trans and happy and successful,” Shriver says. “I didn’t know this was possible.”

Last January, Shriver began asking people to use the pronoun “he” to refer to him. With the approval of a therapist, he began testosterone shots in May. The drugs can take up to four years to reach their full effect, but as Spack often sees with his patients, Shriver felt an instant sense of relief.

“It was this very relaxing, ‘Ah,’ moment,” Shriver says, exhaling as though letting go of a weight. “So far it feels really good.”

Eventually, Shriver’s voice will drop, and he’ll be able to grow sideburns. Those changes will be irreversible. Already, he’s noticed changes in emotional traits that, when he was a woman, he assumed were stereotypes. Among other things, he no longer feels the urge to cry.

Further changes would require surgical procedures, which can cost from $10,000 to $100,000 and are not regularly paid for by insurance. “Top surgery” includes breast removal for trans men and breast augmentation for trans women. “Bottom surgery” can include hysterectomy for trans men. And either sex can have existing organs modified to resemble those of the other gender.

Transitioning can be difficult on relationships. Parents sometimes lament losing a son or daughter when a child comes out as transgender. Romantic affiliations can be turned upside down. In gay or lesbian couples, the partner of the trans person suddenly appears to be in a relationship with the opposite sex. In a straight relationship, the partner now appears to the world to be homosexual.

“It complicates things,” Shriver says, in large part because the partner taking the hormones is going through another puberty.

In other words, for a while, Shriver will be a bit like a teenage boy.

For some transgender people, the past is painful. It can be tinged with memories of bullying or being shut out. At best, it’s colored by always feeling awkward. Transitioning feels to some transgender people like starting a new life.

But Justin Adkins says he doesn’t want to forget his old life. Growing up in Southern California as a girl named Jennifer, he was drawn from a young age to missionary work.

“I was no good at proselytizing, but I wanted to help people,” he recalls.

After high school, adkins worked in a series of youth-mission type jobs that were fun and exciting. “I turned 18 in India,” he says. “By then, I had already met Mother Teresa.”

At the time, adkins identified as a lesbian but was living the abstinent life of a religious worker. Yet he fell in love with a man and followed him to Eugene, Ore. The relationship dissolved, but adkins stayed in Oregon for a time, working at a feminist bookstore. In a back corner of the shop was a small section on transgender issues.

“At 23, adkins finally understood what it meant to be transgender. But he didn’t yet identify himself that way.

adkins began a relationship with a woman and in 2004 moved to Massachusetts, which had
just legalized same-sex marriage. They tied the knot, but the marriage didn’t survive adkins’ eventual decision to transition to a man. The turning point came, he says, when he realized he could not visualize aging “into a little old lady. But I could see myself as a fabulous little old man. I thought, ‘I should just do this.’”

For a few years he identified as genderqueer, using male pronouns but seeing himself as neither completely male nor female. Then, at 29, adkins started taking testosterone. Now 34, he has a mid-range voice, a goatee, and no regrets.

adkins, who studied at Marlboro College, now speaks out on behalf of trans people at Williams, working to review policies and practices to ensure that they feel safe and supported at a pivotal time of their lives.

Though Williams isn’t there yet, he says, neither is the college pretending that all its students fit into simple types or boxes on a form. Trans people are different from one another, and they are different over time.

They have that in common with everyone else on campus. Says adkins: “All our students’ identities are shifting.”

Martha Quillin is a writer based in North Carolina.

Easing the Transition

As the assistant director for gender, sexuality, and activism at the Davis Center (formerly the Multicultural Center), justin adkins has been a tireless advocate on behalf of trans people at Williams. In the five years he’s been here, he says, “The climate has changed dramatically.”

In 2004, Williams began to include gender identity and gender expression in its non-discrimination policy—something Campus Pride, a national nonprofit working to create safe college environments for LGBT students, says only one in 10 colleges has done.

In 2011 adkins launched a trans discussion group called “Fabulous!” that meets on campus about once per month. He and one student attended the first meeting; now, five or six people show up regularly. In addition to discussing trans issues and sharing personal stories, the group is considering adding social activities to its ongoing efforts to create a sense of community.

At adkins’ urging, the college this year added an option for students to indicate their gender identity on housing forms, an important issue for students concerned about safety and privacy. About half the student housing at Williams consists of single rooms, making it easier for trans students to opt out of having a roommate.

Also this year, adkins is making sure each member of the faculty and staff gets copies of “Trans 101,” a short primer he crafted on what it means to be transgender.

Still, adkins says, there’s much to be done. On the Common Application for undergraduate college admission, used by Williams and nearly 500 colleges and universities across the country, prospective students must choose between “male” and “female” to indicate their gender, something adkins wants to see change.

He’s working on getting the locations of existing gender-neutral bathrooms added to the campus map; meanwhile, the administration has agreed that at least one such bathroom will be included in any new building project (including the new Sawyer Library, scheduled to open in 2014).

adkins also wants Williams to add insurance coverage for gender-confirming procedures and hormones for staff and faculty. The request was voted down by the benefits committee in 2010.

And, adkins says with a smile, “No one knows what to do about locker rooms.” Which points to a larger issue—even the schools that tend to get the highest ratings from organizations like Campus Pride (which this year gave Williams a score of four out of five stars on its LGBT-Friendly Campus Climate Index) still don’t have it all figured out.

“A lot of our peer institutions are in the same place we are,” says adkins, who works as a consultant on trans issues and travels the country as a speaker. “We’re all chipping away, all progressing together.

“Maybe not all the policies are in place,” he says of Williams. “But in practice, we’re welcoming.”

—Martha Quillin
In 1985, armed with a résumé that included a handful of coaching assignments—only two of which actually involved monetary compensation—Lisa Melendy arrived at Williams to coach the women’s varsity soccer team. Or so she thought.

For what she now remembers as a princely sum—$21,000—she soon discovered she was also expected to help coach the junior varsity and varsity women’s lacrosse teams and the junior varsity and varsity women’s squash teams. The squash assignment was especially challenging, given that Melendy’s only experience with the sport had been during a freshman physical education class at Smith College.

“I had no business coaching squash,” she says. “But that’s what colleges did back then. They would have never, ever done that for a men’s team.”

Melendy looks back on those years with equal parts wistfulness, consternation, and amusement—and she does so now from her vantage point as the school’s athletic director, the first woman in Williams history to hold the position. She oversees a department of 32 varsity sports for men and women and a staff of nearly 90 individuals, many of them part time. And, yes, that staff now includes separate coaches for women’s lacrosse, soccer, and squash.

Melendy’s ascension to the athletic director’s position came four decades after the passing of a landmark law to combat sex discrimination in colleges and universities across the country. Now known simply as Title IX, the law, signed by President Richard Nixon on June 23, 1972, is composed of only 37 words. There is no mention of athletics in the law, but it has become synonymous with opportunity and advancement for women’s collegiate sports, even in the face of ongoing resistance and court challenges.
Melendi herself is a beneficiary of the legislation—“I’m a Title IX baby,” she says. And her career path and trajectory mirror that of the legislation and its implementation. She played on the first girls’ soccer team at her high school in Hawaii (the same school attended by President Barack Obama; “He was a year behind me,” she says). Organizers had anticipated one team of 18 players, Melendy recalls. But when more than 60 girls showed up for tryouts, the school decided to field two varsity teams.

As an undergraduate at Smith, Melendy played soccer and lacrosse. She then coached both sports there as an uncompensated assistant her first year after graduation. That was a rarity back then, she says—not the lack of pay, but that “I actually had played soccer. That was sort of new. The other ones who coached soccer either hadn’t played the sport or were men.”

By the time Melendy arrived in Williamstown for her first full-time coaching job at the age of 25, Title IX had been in effect for more than a decade. But many athletic administrators didn’t seem to grasp its importance or implications. Equity disputes persisted across the country, and Williams was no exception. Melendy particularly remembers fighting for women’s locker facilities at Cole Field House and for separate uniforms for women’s field hockey and lacrosse. She was successful on both fronts.

Back then, the women’s soccer team practiced and played on one field, and there was no junior varsity squad. Meanwhile, the men had separate fields for practices and games as well as a third field for their junior varsity team. The women could use the men’s game field when the men didn’t need it. The school built a second field for the women in 1992.

“That’s one of the benefits of Williams,” Melendy says. “We’ve had the resources to do those kinds of things. That’s not true everywhere. We’ve been able to add facilities, programs, and coaches.”

Williams began to implement Title IX shortly after its first full entering class of women arrived in the fall of 1971. Back then Williams offered 15 varsity sports for men. Women could swim with the men’s junior varsity team, and there were informal teams for women’s basketball and field hockey.

All that began to change under the leadership of then-athletic director Bob Peck. From 1972 through 1979, Williams added 10 varsity sports for women. Five more have since been added (the most recent being golf during the 2004-05 academic year, not long after Peck retired).

“It was a process of adding a few sports at a time,” Peck recalls. “It wasn’t too bumpy, because I got the funding and support I needed from the college. Most of the staff was supportive, though there was some opposition. It was a progression.”

In the big picture, Williams “did adjust over the years and did as good or better of a job than most of its peer institutions,” says Ellen (Josephson) Vargyas ’71, a transfer student from Mount Holyoke and one of the first women to graduate from Williams. As a lawyer in the 1980s and 1990s,
Vargyas worked on precedent-setting Title IX litigation including requiring schools to report on compliance and enforcing the Equal Pay Act.

Williams also received high marks from a campus committee established to review the college’s compliance with Title IX on the law’s 20th anniversary. In its report, the committee, chaired by Nancy McIntire (at the time Williams’ head of affirmative action and government relations), noted that Williams “provides rich and diverse opportunities for women as well as men, remarkable facilities, and an experienced, well-trained, competent, and committed staff.” The report added that ongoing monitoring was essential, with one unnamed committee member writing: “Williams should sweat the little stuff.”

One major issue, however, was parity between female and male coaches’ salaries. As a member of the Faculty Compensation Committee in the mid-1990s (coaches are considered assistant professors), Melendy worked with committee chair and biology professor Heather Williams to uncover “systematic and marked gender inequities in the salaries within the athletic department,” according to their report. (Neither Melendy nor Williams will discuss dollar amounts, but in 1997 the Women’s Sports Foundation Gender Equity Report Card cited the average salary of female head coaches at Division III schools as $12,577, compared with $15,040 for men.) The committee’s report found no differences in training, experience, or performance that could account for the imbalance.

Then-President Harry Payne, in his first year at Williams, brought in two consultants (statistician and attorney Mary Gray of American University and attorney Deval Patrick, now the governor of Massachusetts) to review the findings. Williams, now the college’s William Dwight Whitney Professor of Biology, says the consultants “confirmed the substance and specifics of the report Lisa and I had generated, called for prompt action to correct the situation, and strongly suggested that the academic faculty salaries should be reviewed as well.

“Adjustments were made, going forward, to the athletic department salaries,” Williams adds.

Around the same time as the salary dispute, a sophomore named Gretchen Engster ’95 (now Gretchen Howard) was taking a Winter Study course called “Inside College Athletics,” at which Vargyas was a guest speaker. Howard had played ice hockey during prep school, and several other colleges in the New England Small College Athletic Conference (NESCAC) had women’s varsity ice hockey programs. But at Williams, she says, “It was a club sport.”

“The skill level of the girls was low,” Howard says. “The school gave us equipment, but it was pretty bad. They let us use the school vans, but we had to drive. We didn’t have a trainer. We didn’t get to rotate ice time with the guys. The only time we could practice was late at night, and, with no trainer, it was scary. One night we had to rush a girl to the hospital.”
Howard told Vargyas of the situation, and the lawyer’s response was simple and to the point: You have a case.

“Come at them hard,” Howard recalls Vargyas saying. “This can’t be a funding issue. It’s very un-Williams-like.”

Howard and a few others did just that. The next fall, Peck met the players in their locker room—“It was a storage area,” Howard says—and announced that the women’s program was being upgraded to varsity status. In one of her final games for Williams’ varsity team, Howard estimates that she made more than 70 saves before losing a 1-0 heartbreaker to Middlebury in the final minutes.

“No one would have ever thought that we could have stayed with a program like Middlebury in just our second year,” Howard says. “It felt like a huge win.”

Women’s crew, which started as a club sport in 1972, experienced similar growing pains as ice hockey’s. When Donna Lisker ’88 went out for the team as a first-year student, she says, “We were treated like second-class citizens within our own program.” The women’s coach was part time. Equipment consisted of hand-me-downs from the men.

Lisker and her teammates wanted women’s crew to be recognized as a varsity sport. They had a letter-writing campaign ready to go, petitions ready to be served, and plenty of supporting documentation for Peck. But before Lisker could even meet with the athletic director, he moved to upgrade the program.

“The college saw the big picture pretty well,” Lisker says. “The little picture, things like equipment and uniforms, not so well.”

Lisker, who got her first varsity letter as a senior, is now the associate vice provost for undergraduate education at Duke University and teaches a freshman seminar on sports, devoting an entire section to Title IX. She recalls that on the law’s 25th anniversary, the National Women’s Law Center filed suit against 25 schools, including Duke, charging that they weren’t in compliance. “All of them settled,” she says. “Duke added rowing and women’s lacrosse.

“Schools found they had to balance football with sports that have large numbers of women participating,” Lisker adds. “Rowing is a big sport for women. It’s turned 180 degrees since I was at Williams.”

These days, the women’s crew team at Williams is setting Division III records, last spring winning its seventh consecutive NCAA title. Women’s tennis also set a Division III record last spring, with five consecutive titles. Overall, women’s teams have accounted for 20 of the school’s last 27 titles.

Head tennis coach Alison Swain ’01 recognizes that both she and her players have been beneficiaries of Title IX. As a four-year varsity player with her own NCAA title at Williams, she had all the benefits and opportunities afforded to male players, from transportation to court time. So have her players, who, in Swain’s five years as coach, have amassed an overall record of 111-13 and an NCAA tournament record of 25-0.

Swain says her tennis career would not have been possible 40 years ago. And while her players are “blissfully unaware” of the law, she says, “In some
Melendy is now easily the best candidate to fill this particular, critical vacancy. From the minute she came to Williams, who during her tenure had raised thorny issues of equity and fought hard for change—and got promoted in the process—was the woman who claimed she had no business coaching the squash team didn’t have the proper astrological sign for the position. But, like many programs, Williams’ is “maxed out in terms of the number of teams, the number of athletes we have to fill those teams, and the capacity to fund them,” Melendy says. Williams’ competitors by and large don’t field women’s varsity fencing, gymnastics, wrestling, or water polo teams. Five of the 11 NESCAC schools don’t have golf, and two don’t have ice hockey.

The college also continues to “sweat the little stuff,” as it was advised to do in McIntire’s report. Williams has not only worked to attract female coaches but also to retain them over the years. Ten of its women’s varsity teams are coached by women, many of them veterans like lacrosse’s Chris Mason and softball’s Kris Herman. For sports like cross-country, swimming and diving, and track and field, in which men compete alongside but not necessarily against women at meets, the same male head coach coaches both sexes, with female assistant coaches.

With more and more women coaching, and more and more dual-career families, Melendy says childcare and other quality-of-life issues are becoming increasingly important. So is access for low-income athletes, since the number of physical education and city-run recreation programs has declined while the costs of participating in youth clubs has risen. Going up against recruited athletes who have more experience, Melendy adds, “You can’t get good enough fast enough as a walk-on. Something is lost.”

Ultimately, though, what was true two decades ago still holds true today. At Williams, women are on a level playing field with men when it comes to athletics. And nowhere is that clearer than in the proverbial corner office itself. When Athletic Director Harry Sheehy ’75 left for Dartmouth in 2010, Melendy was an obvious choice to replace him, having served as the acting athletic director in 2006-07 and the interim director in 2010-11. She is one in three athletic directors. The others are at Amherst and Colby. Across Division III, one in three athletic directors is female.

And Melendy expects more women to enter the administrative ranks. “There is a wave of women administrators coming to the fore,” she says. “We’re of the age where we’re now prepared to be athletic directors. The ability to accept leadership from women has changed. My younger, male colleagues are used to having women as leaders and respecting their activity level and skill.”

It’s certainly a far cry from the early days of her career, when Melendy was paid $500 as assistant coach of women’s soccer at Keene State and $500 as head of women’s club lacrosse at Massachusetts Institute of Technology. She remembers applying for one coaching job only to be told by her prospective boss that she didn’t have the proper astrological sign for the position.

“There’s a difference now,” she says. “It’s evolved over time.” Then, after a pause, she adds, “But I don’t think I could have been hired for this job 10 years ago without there being some kind of revolt.”

—Peter May

Peter May ’73 covered the Boston Celtics and the NBA for 25 years for the Hartford Courant and Boston Globe. He’s now a frequent contributor to The New York Times and ESPN.com.
In September, Charles N. Waigi ’72 received a Williams Bicentennial Medal for distinguished achievement. It was only his second visit to campus since his graduation 40 years ago. He’d been on the college’s list of “lost” alumni since 1979, around the time he left the U.S. for his native Kenya. But his classmates tracked him down in 2007, hoping to convince him to attend their 35th reunion. Retired after a 24-year career with a Kenyan development financial institution, Waigi had already begun a new chapter in his life—running the Jeremy Academy with his wife, Teresia. Initially using Waigi’s pension funds and operating out of their living room with just one student, the Jeremy Academy has since grown to serve nearly 500 children in nursery school through eighth grade. When Waigi returned to Williams for his 35th, he joked with classmates, “I didn’t know I was lost.” In this excerpt from his talk during Bicentennial Medals weekend, he shares where he’s been.
I was born and raised in the Rironi area of Limuru, 30 or so kilometers north of Kenya’s capital city. I grew up surrounded by many uncles and aunts who took responsibility for raising, mentoring, and counseling my cousins, my siblings, and me. It was a warm, secure environment.

Nursery schools as we know them today didn’t exist in our area. Boys accompanied older relatives out to graze livestock, engaging in play and mischief. It was a life marked by small adventures, misadventures, and lots of exploration.

My father, Jeremiah Njogu Waigi, never went to school. But he taught himself to read and write in his mother tongue and Kiswahili. He was always keen on educating his children. So when the time came, he enrolled me at the newly established Rironi Primary School, a public school. Instruction was in my native language for three years before we were introduced to English. Homework was done under the pale light of a kerosene lamp. Tight school discipline was enforced under pain of the cane.

By today’s standards, my primary school experience was a strict regime, with moments of joy and moments of tears. But these formative years were a critical period in my life, giving me the ethic of discipline.

I sat my final exam in 1963 and performed well enough to gain entry into Mang’u High School, a Catholic national public school run by the Marianist Brothers from the U.S. As a sophomore I won a national essay competition on “Why I Should Know My Country,” which had a decisive effect on my life. In December 1965, I took my maiden flight to America as Kenya’s delegate to the World Youth Forum, sponsored by the New York Herald Tribune.

Over three months I interacted with hundreds of American high school students, some of whom had never heard of Kenya, and addressed groups in and around New York. With delegates from 30 countries, I participated in panel discussions on CBS TV and gave interviews to local media. I gained insights into American communities, spending time with wonderful families. I reflected back on my family and country and gained deep understandings about them, too.

This experience fired my interest in the world beyond Kenya. When an opportunity arose for me to return to America as an exchange student during my senior year, I seized it, arriving in Boston in August of 1967. A year later, I received my high school diploma and a faculty award for excellence in history from the Lincoln-Sudbury Regional High School in Sudbury, Mass.

By the time I arrived at Williams in fall 1968, I’d largely overcome the cultural shock that life in America can present to first-time visitors. Against the backdrop of a relaxed rural setting much like that of my childhood, I mixed and made friends easily in the cafeteria, dorms, gym, and library. I was assistant editor of a college newspaper, The Williams Advocate. I joined the radio station. In the cafeteria, I worked several hours a week drying and stacking plates to earn pin money.

My political science major entailed extensive reading, research, and writing. I took courses in music, geology, anthropology, Russian literature, English, and American literature. I studied African area studies as my minor. The analytical skills, the discipline of setting priorities, and the broad-based knowledge I acquired at Williams were valuable assets once I returned to Kenya and began my career in public service.

Had it not been for the financial support I received from the college through the Haystack and Garfield scholarships, I would never have had a Williams education. This realization motivated me to pay it forward.

The Jeremy Academy is named for my father. He participated in the initiation of a number of schools at all levels in Kenya and served on school committees and boards of management until his final days. He was a great inspiration to my wife Teresia and me when we started Jeremy, and he gave us moral and material support until the day he died in October 2003.

Teresia, who holds a teaching degree, and I made the decision to start with nursery school. We didn’t advertise. We wanted to build an institutional culture where children were happy to explore and learn—where they developed strong bonds with each other and their teachers. Teresia took in the first child in September 1999; by December she had three boys and one girl.

I retired from active employment in 2004, and my job became taking care of the physical infrastructure by raising the necessary funds. Soon more classrooms were needed, and I built a block of six temporary classrooms made of timber and corrugated iron sheets that are still in use.

The school has received assistance from my Williams classmates in the Class of ’72, from the Asante Africa Foundation, and from many other friends from Williams and elsewhere. In many important ways, these supporters have complemented our own resources and efforts in developing Jeremy to what it is today. We now have 15 permanent classrooms, a kitchen, and a dining room. Jeremy Academy is a day and boarding nursery and primary school with 487 pupils: 52 percent girls and 48 percent boys. The school presented its first set of candidates for the Kenya Certificate of Primary Education (KCPE) in November 2008 and today ranks second among the 61 primary schools in our Kiambu West District. Nationally, Jeremy was in the top 0.8 percentile in Kenya in 2011. Most satisfying to me is that for the four years the school has offered candidates for the KCPE, all the students transitioned to good high schools.

Teresia and I realize that Jeremy Academy is bigger than either of us, or even both of us combined—and it doesn’t really belong to us. It belongs to the 3-year-olds who come to the nursery school, sometimes carried on their mothers’ backs, and leave in their early teens to attend high school and pursue their dreams.

A shared love of classical music initially drew art history professor Charles “Mark” Haxthausen into the world of Sol LeWitt. And a 2010 visit to LeWitt’s Connecticut home—where Haxthausen discovered 4,000 audio cassettes, meticulously catalogued and shelved in the manner of the artist’s iconic wall drawings—inspired the concept for the Williams College Museum of Art exhibition Sol LeWitt: The Well-Tempered Grid, on view through Dec. 9. Curated by Haxthausen, the exhibition explores the centrality of the grid and the ideas of theme and variation in LeWitt’s art. We asked professors across the curriculum to share, in their own words, how these principles—and objects they’ve selected from the exhibition—inform and inspire their own work.
Sol LeWitt’s repertory of lines—and his prolificacy—make me think about Martha Graham. Graham developed a distinct movement language and repeated motifs from that language to create her theater. Her repertory includes pitch turns, contraction falls to the floor, and recoveries—all movements she claimed she didn’t “invent” but rather “rediscovered” to express her ideas. Once she’d taught her dancers her technique, it was up to them to interpret her ballets. She was conflicted about sharing her roles and often left dancers to rehearse on their own. She also gave conflicting messages about the perpetuation of her work, claiming she was interested in innovation but not reproduction.

Like Graham, LeWitt abandoned his art for others to execute, putting his ideas at the forefront and letting the art be secondary. He conceived a situation in which draftspeople would be executing his work based on his directions and under varying circumstances. He said that some versions would be closer to his idea than others, especially those generated by draftspeople who worked with him over time. But he did not consider any of the works “lesser;” his process celebrated seriality.

Like LeWitt’s draftspeople, dancers create and revive the work of choreographers. When you dance a masterwork, you have a responsibility to honor its legacy. Your performance is compared to the collective memory. There is something special about the original cast and the moment in time when the work is born. But younger generations bring new ideas and different training to their art.

In choreographing LeWittisms (an evening of LeWitt-inspired music and dance performed at MASS MoCA on Nov. 1), I looked at the repertory of lines in works such as Bands of Color in Four Directions. The patterns and the way the colors shift invite a certain character of movement and teach me rules about directionality. LeWitt’s work has a rhythmic, energetic quality to it. You’d think working within his specific parameters would be limiting. But as you go deeper into the enforced rules, they become expansive.
Sol LeWitt’s use of basic elements of visual sensation, lines, and simple shapes evokes research by Gestalt psychologists in the early 20th century. The mind creates a narrative from the elements sensed by the eye, a narrative that cannot be deduced from summing the singular entities alone. Neuroscientists can now better understand how this narrative is constructed.

The brain doesn’t receive a camera-like picture of the real world. Complicated processing of the visual field first occurs in retinal cells. This “lower level” perception extracts a selective portion of visual information and relays that information to the primary visual area of the brain, which can only recognize the angle and length of lines. The primary visual area sends that line information for perception of shapes, objects, and scenes to other brain regions. Simultaneously, “higher” brain areas are generating hypotheses about what you are seeing based not only on that information, but from memory. Signals are then sent back to the primary visual area—and even back to the retina—to influence what we think we are seeing. This “top-down” processing accounts for the Gestalt Principles of Perception.

Although LeWitt may appear to be activating only lower level vision by the use of simple line elements, it is impossible for the viewer to restrain top-down processing. Examples of Gestalt Principles can be found in many works in the LeWitt exhibit. In Drawing Series I/3241/A& B, both the similarity and proximity principles cause us to deduce inner squares composed of four adjacent squares of similar horizontal lines in the center. Schematic Drawing for Incomplete Open Cubes illustrates the closure principle, automatically filling in missing information from memory. Some lines provide enough clues to allow us to mentally construct the cube, others suggest different objects or shapes. Sometimes the cube is open toward us, sometimes away. These are visual hypotheses that the mind constructs.

CLOCKWISE FROM TOP: Schematic Drawing for Incomplete Open Cubes, 1976, ink on paper, LeWitt Collection, Chester, Conn.; examples of Gestalt Principles; Drawing Series I/3241/A&B, 1968, ink on paper, LeWitt Collection, Chester, Conn.
Despite its modern guise, Sol LeWitt’s *Three-Part Variations on Three Different Kinds of Cubes 3 3 2* bears a number of structural relations to the music of J.S. Bach. LeWitt’s *Three-Part Variations* explores the ways three different kinds of cubes—solid, open on one side, and open on two opposite sides—can be uniquely assembled in stacks of three. In various studies for the piece, LeWitt enumerates distinct arrangements of cubes, distinguished not only by kind but also by the relative orientation of the open sides. The steel installation at WCMA presents eight columns that exhaust the distinct arrangements of two single cubes, open on one side, set atop a cube open on the opposite side. Proving that the combinations are exhaustive is, for me, part of the intellectual delight of this and other of LeWitt’s combinatorial works.

LeWitt’s fascination with combination and permutation evokes the Baroque *Ars Combinatoria*, as manifest in the great contrapuntal works of J.S. Bach. Bach’s Three-Part Invention in D major systematically and exhaustively explores the permutation of three distinct melodies, labeled A, B, and C. At the first simultaneous statement of all three melodies, Bach places the main melody A in the middle voice, B in the bottom, and C on top; thereafter Bach places A on the bottom, B on top, and C in the middle. In subsequent statements, Bach presents all remaining permutations of the three melodies, from top to bottom: ABC, CBA, BAC, and ACB. Although three stacked cubes and three stacked melodies seem an obvious parallel, LeWitt’s combinatorial works share with Bach’s a more general aesthetic of variety—recasting the same elements in ever new ways—and it’s in the contemplation of their respective variation principles that each work can inform and sharpen our attention to details of the others.
The Grid and...

COMPUTER SCIENCE

Morgan McGuire, associate professor of computer science

Sol LeWitt’s work is art through computation. He separated the wall drawing from the processes of designing and executing its specification. He produced the written description, which is a program. It happens to be a program with instructions for a draftsperson instead of a machine. For LeWitt, the process is primary, and the artifact of the actual drawing is secondary. Computer graphics are about creating art through computation by focusing on the process and specification, just as LeWitt did.

Furthermore, the main ideas of computer science—abstraction, enumeration, integration—are the core ideas LeWitt is exploring visually. This is a wonderful resource for a computer science student, and I regularly use LeWitt’s work in the classroom to illustrate complex concepts. For example, LeWitt’s sets of stacked cubes explore enumeration. He’s iterating through every possible way to orient these cubes. It’s logical and mathematical. Computer science picks up the trail that LeWitt starts here by providing the tools to understand and harness enumeration when the combinations become too complex to list explicitly.

LeWitt would need 216 figures to work out all ways to arrange three identical cubes in a stack. And for him, working out and showing those arrangements was the artistic goal. My students can recognize this and then leverage the science and engineering to extract any figure from the pattern without drawing all of the cubes. When you have trillions of complex patterns—think about Facebook’s or Google’s databases—you need a way of reasoning about the pattern. You can’t look at every possible combination of two friends on Facebook and analyze that data. You have to somehow abstract the pattern. LeWitt’s work is a great way to engage the students visually, help them to appreciate the cultural value, and then seamlessly bring that value into our domain and reveal a deeper computational concept.
When starting an archaeological excavation, one of the first things you do is lay out a grid plan over your site. The grid provides structure to your work and gives the three-dimensional space you’re working in some coherence; without it, there is no way to convey your results to other archaeologists accurately.

As you dig within sections of the grid, you also dig down within layers. When you find an object, you give it X, Y, and Z coordinates. LeWitt’s work, particularly *Series ABCD*, is evocative of this process.

While the grid is used to establish a general organizing principle, in the end, every archaeological excavation is unique, just like LeWitt’s artworks. There’s an artistic process to interpreting what you find on an archaeological dig. For example, during a dig in Omrit, Israel, over the summer, my students and I excavated a Byzantine house full of pottery that had been smashed by a collapsed wall. We can reconstruct and date this pottery because it conforms to known types. But what does it mean? Who used it and for what? What can this pottery tell us about the lives of the people at Omrit? There is no grid-planned answer to these questions. The grid simply acts as a starting point, the pottery as a muse.

Many people think of archaeology as a science, and it’s true that we do use a scientific methodology to study our data. But ultimately archaeology is an interpretive field; I’ve always thought of it as one of the most humanistic of all academic endeavors. And it all starts with a grid.
When history professor Magnus Bernhardsson was asked to serve as the college’s Gaudino Scholar in 2011, the Arab Spring was in its early days. “I was impressed with the lengths to which young people were willing to put themselves in danger to implement change,” he says. Working to shape opportunities for experiential education and uncomfortable learning for the campus community in his new role, he saw great potential for the interdisciplinary study of danger. Some professors were already teaching courses that, with some modification, perfectly fit the theme. Others were inspired to develop new classes altogether. Among the 18 dangerous courses being offered this year:

**Anxiety Disorders: Responses to Danger, Both Real and Imagined**, an advanced psychology course, examines empirical research on psychological responses to traumatic experiences.


**Dangerous Exposures: Environment, Immunity, and Infectious Disease**, a biology tutorial, studies the ecology and evolution of recently emergent diseases such as SARS and AIDS.

**Dangerous Leadership in American Politics**, a political science and leadership studies tutorial, asks how—and whether—we can distinguish between leadership that is desirable and that which is dangerous (or perceived to be so) in today’s world.

**Dangerous Music**, a music tutorial, covers the historical, cultural, and global contexts in which music has been intertwined with violence and harm.

**Financial Crises: Causes and Cures**, an economics course, examines why financial crises are a regular fixture of societies and what can be done to prevent them—or at least reduce their cost.

—Julia Munemo

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**Students Help Keep Berkshire Farming**

Samantha Murray ’14 had never before set foot on a farm. Yet at one point over the summer, the beach loving, Southern California native found herself in a field, facing down 50 sheep who’d come barreling over a hill in her direction.

It’s an experience Murray says she’ll never forget. And it was just one of many adventures she and three other students had as they interviewed farmers across Northern Berkshire County as part of Keep Berkshire Farming, a county-wide initiative that will form the basis for a community food systems plan.

The three-year effort in the northern portion of the county, coordinated by Sarah Gardner, associate director of the college’s Center for Environmental Studies (CES), involves surveying area residents, farmers, restauranteurs, food store managers, distributors, and institutional purchasers to better understand the challenges and opportunities of producing and buying local food. Gardner and her students (she has five more this fall) present their findings to agricultural commissions and at public forums. They’re also developing recommendations to make regional agriculture more economically viable.

“We ask the farmers how they got into the business,” says David Nolan ’13, another summer student and philosophy major, who grew up in Williamstown. “More often than not they answer with a grin: ‘By bad luck and being born into it.’

“Our goal,” he says, “is to understand what has made farming ‘bad luck’ and, if we can, to begin to remove the obstacles that threaten the most consistent, and consistently productive, industry this area has ever seen.”

Gardner, a lecturer in environmental studies who teaches an environmental planning workshop each year, says Keep Berkshire Farming meshes well with the CES mission of community outreach and experiential learning. “Right now most of our farms are losing money,” she says. “We stand to lose a lot of our farmland.”

The challenge is to create a regional food system in which the milk, meat, and produce grown here is consumed here. “A hundred years ago, local food systems were the norm,” Gardner says. “If we can figure out how to re-localize the food economy in the Berkshires, it will be a model for other regions and communities.”

—Julia Munemo
admittedly, it’s a mouthful: Packera insulae-regalis. Especially considering that most people—including botanists—will call this new plant species by the simpler Isle Royale Ragwort, named for its home on the far side of Michigan’s Lake Superior.

But when Joan Edwards, the Washington Gladden 1859 Professor of Biology at Williams, and two colleagues from the University of Wisconsin described and named the species in the September 2011 edition of the journal *Brittonia*, they were among the last botanists to follow a requirement in place since 1935: formally describing each plant species in Latin.

Over the years, the need for using Latin, once considered a universal language, was clear. “Imagine the confusion,” Edwards says, “if there were Chinese and Japanese and Italian descriptions of plant species.” But English is now the lingua franca in the scientific community, increasingly recognized in scientific publications. So it was no surprise when, last Jan. 1, the International Code of Botanical Nomenclature announced it was changing the requirement to allow the use of English in describing new plant species.

Edwards first got involved with Isle Royale Ragwort in 1999, when she joined Wisconsin’s Robert Kowal and Emmet Judziewicz in studying the forms, modes of reproduction, and genetic makeup of the plant, checking on the population every year. This longer-than-usual process gave the researchers a chance to learn about the plant’s population behavior, a rarity in botanical publications. It also gave them time to have their descriptions checked over by a “Botanical Latin” expert at the Missouri Botanical Garden—an extra step in the process that sometimes can delay publication.

But with an estimated 100,000 plant species still unknown to science, “There’s an urgency,” Edwards says, to identifying and naming them. Deforestation, invasive species, and climate change will threaten up to a third of all plant species in the next half-century, so “the biodiversity crisis is real,” she adds. “We’re losing species all the time to anonymous extinction,” which is when plants disappear before scientists can find and classify them. When this happens, the plant’s potential purpose—as medicine or a renewable resource—disappears along with it.

“Allowing English as an alternative to the Latin requirement,” Edwards says, “is one less obstacle between discovery and publication. It will help in the race to identify plants before they disappear.” —J.M.

At a time when virtually no modern taxonomists know Latin, the International Code of Botanical Nomenclature’s decision to allow English in publications describing new plant species is certainly welcome. For Joan Edwards and her team, here’s how the change translates:

**Packera insulae-regalis**
Species nova foliis imis et caulinis Packerae indecorae similis, sed juventute pubescentia arachnoidea exili differt, autem capitulis radiatis similibus Packerae pauperculae; reproducio vegetativa in radicibus per rosulas adventitias minutas. Chromosomatumnumerus 2n=ca. 66+66=ca. 6x.

**Isle Royale Ragwort**
A new species with the basal and cauline leaves resembling those of *Packera indecora*, but differing in having the young leaves sparsely arachnoid pubescent, but with its heads resembling those of *Packera paupercula*; reproducing vegetatively by means of tiny adventitious rosettes on the roots. Chromosome number 2n=ca. 66+66=ca. 6x.

—English translation courtesy of Robert Kowal, University of Wisconsin
Beyond Words

Chapin Library’s Breman Collection of black poetry is a treasure trove for scholars.

It’s one thing to read a poem by Langston Hughes. It’s quite another to hold an inscribed, first edition of his work—one with a signed birthday card or personal note from him tucked into the pages.

These are the kinds of treasures Bob Volz, custodian of the Chapin Library of Rare Books, is unearthing as he pores over the library’s latest acquisition: The Breman Collection. Consisting of some 4,000 volumes assembled by Paul Breman, an antiquarian bookseller with a lifelong passion for black poetry, the books and related ephemera are, says Volz, “one of the most focused and skillfully crafted collections of printed sources that I have encountered in over 45 years as a rare-book librarian.”

Breman was studying English at Amsterdam University in the late 1940s when he became interested in jazz and jazz lyrics, tracing their roots to a black poetical tradition based in spirituals and slave songs. He discovered the tradition was being kept alive by black poets, many of whom were working in obscurity.

He set out to uncover and collect song lyrics, poetry, and other writings from blacks across America, the Caribbean, and English-speaking Africa. Their works became the basis of two anthologies Breman published and his pioneering Heritage Series of Black Poetry: 25 volumes spanning 1962 to 1975.

Along the way Breman developed deep, lasting friendships with the poets, who admiringly called him “that crazy white boy in Europe who takes us seriously.” His personal correspondence with them has been found in many of the volumes he collected and in separate files of prominent friends such as Hughes, W.E.B. DuBois, Waring Cuney, and Ronald Fair. There are also woodcuts and pen-and-ink drawings of some of the poets, broadsides, leaflets, and obscure texts such as tiny poetry pamphlets in translation.

The collection, which Volz says constitutes “a large portion of 80 years of the extant black poetry in English,” includes other “big names” like Gwendolyn Brooks, Nikki Giovanni, Audre Lorde, and Williams’ own Sterling Brown ’22. Yet “many of the poets Breman collected weren’t widely published,” says Andrew Langston ’13, a philosophy major who worked over the summer with Volz and two other students to organize the materials. “Students now have the opportunity to read the work of these underground writers.”

Africana studies professor Rashida Braggs is one of several faculty members who have expressed interest in teaching with the collection. “Observing an original edition with a photo, note, or signature makes figures like Langston Hughes come to life for students,” she says. “I look forward to the opportunities for more interactive and engaging learning that the collection offers.”
A Court Transformed
An excerpt from Justin Crowe’s ‘03 recent book

When the U.S. Supreme Court convened for the first time in history at the Royal Exchange Building in New York City on Feb. 2, 1790, it was a sorry scene, and even the justices knew it. With only four of George Washington’s initial six nominees bothering to show up and the court lacking even a single case to hear, Chief Justice John Jay and his three colleagues in attendance—associate justices James Wilson, William Cushing, and John Blair—spent the session devising procedures for the conduct of actual business. The justices could not have known then that they would have no such business for another 18 months, but, in retrospect, the dearth of activity demonstrated how the court’s institutional beginnings were inauspicious and suggested that its likelihood of exerting any measurable direction on the course of American life was slim.

When, more than 200 years later, the court convened for one of the most dramatic moments in its history at its own building in Washington, D.C., on Dec. 11, 2000, it was a stunning spectacle, and all of America knew it. With Chief Justice William Rehnquist at the helm, all nine justices sat at attention for the day’s lone case, an election dispute summoned from the Florida Supreme Court, a thorny little matter known as Bush v. Gore.

The justices steadfastly focused their questions on the arcane interstices of finely wrought election procedures, but, with two of the nation’s leading lawyers—future solicitor general Ted Olson and former government litigator David Boies—arguing and many citizens subsequently listening in via an immediately released (and nationally broadcast) audio recording, the remarkable and incontrovertible fact that a presidential election hung in the balance raised the possibility that the court sat at the apex of not just the American judiciary but also the entire American political system.

The dissimilarity between these two snapshots in the court’s history could not be more profound. … How did such a dramatic evolution occur? How did the federal judiciary in general, and the Supreme Court in particular, transcend its early limitations and become a powerful institution of American governance? How, in other words, did we move from a court of political irrelevance to one of political centrality?


Other recent books...

The Five Elements of Effective Thinking. By Edward B. Burger, the Francis Christopher Oakley Third Century Professor of Mathematics at Williams, and Michael Starbird. Princeton University Press, 2012. Drawing on the elements of air, earth, fire, and water, this guide demonstrates how people can learn to think better and look at themselves and the world in new ways.


A Simple Thing. By Kathleen McCleary ’81. William Morrow Paperbacks, 2012. In order to protect her children, the protagonist of McCleary’s second novel moves to a remote island off the coast of Washington State, threatening her marriage but opening the door to forgiveness.


Who Stole the American Dream? By Hedrick Smith ’55. Random House, 2012. The Pulitzer Prize-winning reporter and Emmy Award-winning producer/correspondent pairs stories of real people with pivotal landmark legislative, electoral, and corporate decisions to show how the American dream was dismantled over the past 40 years. (Watch video of the Williams talk Smith gave about the book last month at http://bit.ly/PtquYL.)

Visit ephsbookshelf.williams.edu to see more works by members of the Williams community and to learn how to submit new publications.
Math majors Hayley Brooks ’12 and Kaison Tanabe ’13 know that a liberal arts education is supposed to prepare students for life, not train them for specific careers. Still, they were curious about the relationship between college major and career path.

The two students, together with associate professor of mathematics Satyan Devadoss—and with the help of the college’s advancement information systems director, Mike Reopell—set out to not only see what the data had to say but also to organize it in a way that anyone could understand.

Last spring, as their final project for Devadoss’ tutorial on phylogenetics—a subfield of biology dealing with identifying and understanding relationships between living things—Brooks and Tanabe sifted through some 15,600 alumni records. Using software called CIRCOS, which was initially developed for visualizing genomic data, they organized the data so it could be displayed in a circular layout, ideal for showing the relationships between majors and careers. They grouped majors into 15 categories that occupied the left half of a circle. They then grouped the many career fields represented in the college’s alumni database into 15 categories that occupied the right half.

The resulting image tells the story in a way that Brooks and Tanabe say a spreadsheet can’t. The strongest correlation is between biology and chemistry majors and health/medical careers. But, for the most part, the visualizations show diverse career paths regardless of major.

In other words, the project is a data-driven affirmation of the most basic liberal arts message.

“It really doesn’t matter what you major in,” Brooks says. “You can be a history major and go work in information technology.”

Or, as Devadoss says, “You can study what you love and then go do what you want.”

Devadoss and his students are now exploring ways to take the visualization project to other academic institutions, especially ones more focused on training students for particular careers, to see if the results differ.

Tanabe is also working with Devadoss this year to examine whether having a double or triple major makes a difference in career path. They’re also studying how the relationship between major and career path may have changed over time. “Twenty years ago,” asks Tanabe, “did it matter more, or less, what major you chose?”

Visit http://bit.ly/Devadoss to view career paths by individual majors and by academic divisions. The visualizations at left depict career paths for (top to bottom) Division I (languages and the arts), Division II (social studies), and Division III (science and mathematics).
Imagine you come across a little girl in a sandbox, and you ask her what she’s building. If she says she doesn’t know, you don’t answer, “Well, then, get out of the sandbox.” If she says she’s building a castle, you don’t answer, “Oh, there’s an original idea. Nobody ever built a castle before. Think your castle’s going to be any different than anybody else’s?”

If that little girl has poise, she might respond, “I don’t know. I haven’t built it yet.”

Those inner children who just want to be left alone to play—where would any of the artists we most admire be without them? Walter Murch, the great film editor responsible for movies like *Apocalypse Now* and *The Conversation*, once pointed out: “As I’ve gone through life, I’ve found that your chances for happiness are increased if you wind up doing something that’s a reflection of what you loved most when you were somewhere between 9 and 11 years old.”

I tell my students: Do you feel like complaining, when starting to write, that nothing ever happens to you? Then think back. And if you still feel like complaining, then go engage the world. Something’s always happening to it.

I want to enlarge my knowledge of the world because the world is such a staggering and uncanny and heartbreaking place. As a writer, I also want to do so because it’s a way of enlarging the arena of my autobiographical obsessions. It’s a way of expanding those elements in my background that are working to proscribe all of my choices.

In other words, I’ve finally started to fully understand the importance of letting the world teach me. Years ago I discovered that Émile Zola, the 19th-century French novelist, wanting to fathom the lives of coal miners, followed them into the mines to research his novel *Germinal*. Deep below ground he saw a gigantic workhorse, a Percheron, dragging a sled through a tunnel. Zola asked how they got that animal in and out of the mine each day. When the miners realized he wasn’t joking, one of them said, “Mr. Zola, that horse comes down here once, when he’s a foal, still able to fit in the buckets that bring us down here. He grows up down here. He grows blind down here. He hauls coal down here until he can’t anymore, and then he dies down here, and his bones are buried down here.”

That’s a metaphor for—and an epiphanic and empathetic understanding of—the miners’ lives that the world taught Zola, and to which he had to be receptive, in order to write the novel he wrote.

The first worry writers have when they consider working with something like historical or real events has to do with the issue of authority—as in, where do I get off writing about that? Well, here’s the good and bad news, when it comes to authority: Where do you get off writing about anything?

Writers shouldn’t lose sight of the essential chutzpah involved in trying to imagine any other kind of sensibility. And we should take heart from that chutzpah, as well. The whole project of literature—the entire project of the arts—is about the exercise of the empathetic imagination. Why were we given something as amazing as imagination, if we’re not going to use it? 

James Shepard, the J. Leland Miller Professor of American History, Literature, and Eloquence at Williams, is the author of six novels and numerous award-winning short stories and essays. This essay is based on a piece he wrote for *O, The Oprah Magazine*, and a talk he gave July 16 as part of the Williams Thinking series. Watch a video of the talk at http://JimShepard.
A Gift Horse

Part of the Williams College Museum of Art’s collection of ancient Greek objects, which numbers more than 200 (including pottery sherds), this nearly intact terra cotta figurine was given as a gift to the museum 35 years ago. While little is known about the horse, other Greek Boeotian objects at WCMA have been the subject of extensive research. Most recently, Elvira Miceli ’13, a Class of 1957 Research Fellow during the summer of 2010, studied four figurines from the city of Tanagra that were produced several centuries after the horse yet had been part of the same gift. She presented her findings at a gallery talk that summer with classics professor Benjamin Rubin.

Unknown (Greek, Boeotian), Horse, ca. 700-600 BCE, terra cotta, Williams College Museum of Art. Gift of the son and daughters of Charles Bolles Bolles-Rogers, Class of 1907: Frederick Van D. Rogers, Mary Rogers Savage, and Nancy Rogers Pierson.