

APRIL 10, 2019 PAW.PRINCETON.EDU

TOGETHER WE LEAD.

Student. Tiger. Veteran. The collegiate bond is especially tight for a band of brothers who enrolled at Princeton after serving in the U.S. armed forces. Following four years as a helicopter mechanic in the Marines, Tyler Eddy '21 (third from right) co-founded the Princeton Student Veterans Alliance, a community outreach organization that also provides academic guidance to servicemen and servicewomen. **Annual Giving** enriches the Princeton community, **helping military veterans thrive**.

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An editorially independent magazine by alumni for alumni since 1900

PRESIDENT'S PAGE

INBOX

ON THE CAMPUS

Teacher Prep at 50 • New marker recalls the legacy good and bad — of Woodrow Wilson 1879 • Migration plays at McCarter • *Choreopoem* senior thesis • In Memoriam • SPORTS: Women's basketball wins Ivy • Women's hockey • The Big Three

LIFE OF THE MIND

Professor Rhae Lynn Barnes on the history of blackface • Behind the Research: EEB professor Andy Dobson

PRINCETONIANS Padraic Duffy '96: Bar,

theater make good combination • Paul Volcker '49: The former Fed chair is worried • Timothy Hwang '14: A new way of lobbying

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Firestone's old card catalog was transformed into wall art as part of the library's



Firestone, Reborn The decade-long renovation of Firestone

Library is finally complete, providing myriad light-filled spaces for research and study. By Anna Mazarakis '16; photos by Ricardo Barros

Growing Like A Weed Alumni are moving into an expanding new business: legal marijuana. Others warn that not enough is known about the drug's risks. *By Mark F. Bernstein '8*3

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Bachelor Banter

HuffPost podcaster Claire Fallon '10 and her co-host, Emma Gray, talk about dating, relationships, social norms, and friendship — all while recapping *The Bachelor*.

Political Chill

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Gregg Lange '70 looks back at the USG campaigns of the Antarctica Liberation Front.

Princeton Books

Sign up for our monthly email featuring new books by alumni and faculty.

Top Tigers

Read Tiger of the Week profiles of healthcare-tech entrepreneur Robbie Cape '93, tutoring matchmaker Andrew Geant '05, and major-league marketer Brian Barren '89.

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On the cover: The light-filled "Tower" study space in newly renovated Firestone Library feels like a sanctuary. Firestone now provides areas of different sizes for individual and group study. Photograph by Ricardo Barros

Princeton as a Research University

Pablo Debenedetti, the Class of 1950 Professor in Engineering and Applied Science and professor of chemical and biological engineering, has served as dean for research since 2013. I invited him to write a guest column for this issue. I am delighted that he has responded by offering some thoughts on Princeton's fundamental commitment to groundbreaking research.—C.L.E.

rinceton was founded in 1746, but its status as a modern research university is more recent: its origins can be traced to the late 1800s, when a handful of American universities began to adopt the ideas of German philosophers such as Wilhelm von Humboldt.¹

Humboldt and his contemporaries conceived of universities as institutions defined by open-ended scholarly inquiry, academic freedom, and the integration of teaching and research. In Humboldt's view, the role of the university was to teach students how to think, and the best way to accomplish this goal was by engaging them in research.

Today, Princeton continues that tradition in ways that make it unique among the world's great research universities. We are committed to undergraduate and graduate teaching of unsurpassed quality, and our teaching and research missions are seamlessly integrated. A single faculty of world-class teacher-scholars, engaged with undergraduate and graduate



students in the classroom and the lab, embodies Princeton's dedication to the creation and the transmission of knowledge.

The scope of research carried out by faculty, graduate students, postdoctoral fellows, undergraduate students, and professional researchers ranges from robust engagement with the major challenges of our time—energy, the environment, health, security—to probing the

Dean for Research Pablo Debenedetti

origin of the universe. Our researchers expand the confines of the known and strive to find solutions to societal challenges through creative, systematic, and fact-based inquiry. Their scholarly papers, books, inventions, symposia, exhibits, and performances enrich us as human beings, and often lead to innovations that can improve our quality of life.

Many honors attest to the extraordinary quality of the research produced at our university. Seven Fields Medals (for outstanding achievement in mathematics), 11 National Humanities Medals, 21 National Medals of Science, and 26 Nobel Prizes have been awarded to Princeton faculty and staff who were either employed by the University when they received the distinction, performed their award-winning work at Princeton, or are currently employed by the University.

Below I provide three examples, in the vital areas of bioengineering, data sciences, and the environment, that illustrate the scope of research at Princeton. Bioengineer Clifford Brangwynne investigates the mechanisms by which cells form organelles, structures that perform essential functions such as photosynthesis and protein folding. Until recently, it was thought that organelles are always membrane-bound. Brangwynne, an associate professor of chemical and biological engineering and a Howard Hughes Medical Institute investigator, has shown that phase transitions, akin to the separation between two liquid phases such as oil and water, constitute an additional mechanism for partitioning cellular material without a membrane. Phase transition-driven compartmentalization is emerging as a new paradigm in cell biology and is potentially applicable to the treatment of some neurodegenerative diseases.

Leah Boustan '00, a professor of economics, studies historical events through the powerful lens of big-data methodology. She recently applied this lens to the age of mass migration (ca. 1850 – ca. 1920), and found that the conventional view, that European immigrants during that period assimilated and climbed the economic ladder more quickly than modern immigrants, does not stand up to rigorous quantitative scrutiny.

Using fossil records from the Southern Ocean, Daniel Sigman, the Dusenbury Professor of Geological and Geophysical Sciences, found evidence of increased circulation in the Southern Ocean during the last 11,000 years, leading to enhanced release of dissolved carbon dioxide, and hence to warmer climates that have supported human civilization. This work suggests an oceanographic mechanism for the stability of the Earth's climate throughout human history.

World-class research, and the learning opportunities that come with it, are expensive, requiring funds for state-ofthe-art equipment, graduate student stipends, postdoctoral salaries and more. Our faculty are very successful in competing for grants from federal agencies such as the National Science Foundation and the National Institutes of Health.

There are roughly 1,600 externally funded research projects at Princeton, with annual expenditures exceeding \$220M. Recent years have seen a steady increase in industrial support for research: in fiscal year 2014, industrial funding represented 6 percent of Princeton's total sponsored research funding; in fiscal year 2018 this number was 12 percent. Fields driving this trend include computer science, where frontier research often happens at the fertile confluence of industry and academia.

The knowledge and ideas produced by research are among Princeton's most important contributions to the world. They bring to mind the words of Robert R. Wilson, first director of the Fermi National Accelerator Laboratory (and a physics instructor at Princeton in the early 1940s), during his 1969 testimony to the Joint Committee on Atomic Energy. When queried about the value of building Fermilab's first accelerator, Wilson responded: "...this new knowledge has all to do with honor and country but it has nothing to do directly with defending our country, except to help make it worth defending." Princeton's contributions to the creation of knowledge are immense in scope and extraordinary in quality, and they are an essential part of what makes this institution great.

1. The Rise of the Research University: A Sourcebook, Menand et al., eds., The University of Chicago Press, 2017.

Inbox

PIPELINE QUESTIONS

"Pipe Cleaners" (Life of the Mind, Feb. 6) features engineers who advocate pumping CO_2 emitted from Midwest ethanol refineries to, and into, Texas oil fields. This sounds like the same kind of thinking that got us here.

Massive pipelines disrupt ecosystems all along their routes. "[P]roducing more oil" doesn't exactly sound like a good thing for the atmosphere. And no one knows the unintended consequences of injecting massive amounts of CO_2 underground, especially as the practice scales up in, let's say, the next seven generations.

So tell me again why taxpayer subsidies to industry to build "thousands of miles of pipeline" for this project are a "win-win," rather than just a win for those who fear they will lose too much if we act on our need to end dependence on fossil fuels?

Michael Goldstein '69 Oakland, Calif.

LIFE STORIES

Nine years ago, my husband (Harry Pringle '68) and I took a Princeton Journeys trip to the sites in Mexico where the monarch butterfly overwinters after its migration south. Lincoln Brower '53 ("Lives Lived and Lost," cover stories, Feb. 6) was our guide.

Aside from all that we learned from Lincoln, we most remember his infectious enthusiasm as we climbed up to the first stand of oyamel fir trees, on which were hanging tens of thousands of monarchs. His palpable excitement

WE'D LIKE TO HEAR FROM YOU

Email: paw@princeton.edu Mail: PAW, 194 Nassau Street, Suite 38, Princeton, NJ 08542 PAW Online: Comment on a story at paw.princeton.edu Phone: 609-258-4885 Fax: 609-258-2247 was as though this was his very first visit, even though he had been dozens of times before. He was even more excited to show us the sex organs of the monarch and how they mate! From what he learned from Lincoln, Harry is now revered in our small community as a monarch expert and has even given lectures. Thank you, Lincoln, for a memorable experience and one with an afterlife. We think of you every time we see a monarch in our butterflyfriendly gardens.

Anne Pringle s'68 Portland, Maine

I was one of 19 classmates studying architecture in the spring of 1962, our junior year. We were fortunate to have David Billington '50 as our professor in Engineering 206a. For the first three years at Princeton I kept a cryptic journal in which I, on a daily basis, commented on the lectures and precepts I attended. On May 3, Professor Billington gave a lecture in our Art 314 class, no doubt on the aesthetics of structural systems in famous buildings. That night I wrote in the journal, "Billington was fabulous - one of the best lectures I have ever heard." Indeed, your article on Billington states: "When Professor Billington lectured, he could hold a room like no other person." I had this experience.

Billington and I share the same birthplace (Bryn Mawr, Pa.) and high school (Lower Merion), even though he eventually graduated from The Hill School. What Billington and I did not share was the love of solving engineering

Letters should not exceed 250 words and may be edited for length, accuracy, clarity, and civility. Due to space limitations, we are unable to publish all letters received in the print magazine. Letters, articles, photos, and comments submitted to PAW may be published in print, electronic, or other forms.

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TELL US WHAT YOU THINK No doubt to the relief of Princeton officials, the University was not among those implicated last month in what was called the largest COLLEGE-ADMISSIONS SCAM ever prosecuted by the U.S. Department of Justice. Among the allegations were falsifying test scores and transcripts, fabricating athletic abilities, ghostwriting essays, and paying bribes.

Those things are illegal. But what's just inappropriate? Is it OK for a parent to edit a child's essay - or to pay a professional for revisions? Should the children of alumni — or of those who donate money for a college building — get extra consideration? Is it fair to hire a test-prep tutor or invest in costly summer experiences that burnish a teenager's résumé? Where is the line between giving your kids opportunities that will help them thrive and bestowing an unfair advantage? LET US KNOW (see below for ways to reach us). We'll publish responses in our print issues and at PAW Online. — The Editors

problems. I struggled in his course, and when I received his grade of 4, my journal entry was, "This is fantastic — I can't believe it." I had expected much worse.

Over the years I would see Billington in the P-rade, and I would yell his name and wave. He responded in kind. He indeed was "a revered teacher whose legacy lives on." (I went on to practice architecture for 52 years, and always hired a structural engineer consultant.) **Ernest Dreher '63 *65** *Louisville, Ky.*

When we adopted our daughter we had almost no information about her birth parents, her parents' health histories, personalities, etc. We knew that her birth mother had been adopted, so she herself would not likely have known much about her own birth parents. We knew that our daughter might have learning disabilities later on due to poor prenatal care for her

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Inbox

teenage birth mother.

Dr. T. Berry Brazelton '40 was my guide to early-childhood parenting. Reading his book and watching his program on television helped me know more about how each child is an individual from birth. He helped me to better understand the developmental stages our daughter was progressing through. Especially helpful was understanding that at times she was not regressing but rather was at a touchpoint, heading into the next developmental stage. My daughter and I together had fun while watching Dr. Brazelton on television.

Although we would like to have known more about our daughter's birth parents, we know that our daughter is a beautiful, loving, compassionate, and wise young woman who is fulfilling her highest potential. Parenting is the most important job we'll ever have, and the job for which many of us feel the least trained to do well. Thank you to Dr. Brazelton for being my guide and helping hand.

Marcia Gonzales-Kimbrough '75 Los Angeles, Calif.

Re "Failure Is an Option": If the guiding idea behind the Feb. 6 issue was to illustrate a great university's greatness by profiling some of its graduates' notable professional accomplishments, this piece offers an important reminder: The kind of greatness that really counts exists (or not) independently of awards, prizes, one's position in society, and even one's professional proficiency.

Even without

knowing what Dr.

T. Berry Brazelton

pediatrics, or even

for babies, I could

tell from the cover

photo that the

'40 did for



man was really something. Both components of this issue, Matthew David Brozik '95's essay toward the end and the cover photo (and lovely Brazelton appreciation), fit together movingly. I admire both Brozik and Brazelton very much. **David Hingston *76** San Francisco, Calif.

I was surprised and disappointed that the "Lives Lived and Lost" articles did not note the death of Frank C. Carlucci '52. After service in the Navy and Harvard Business School, he joined the Foreign Service, working for the State Department for 13 years. He then served as undersecretary of HEW, ambassador to Portugal, deputy director of the CIA, and deputy secretary of defense. Carlucci served as secretary of defense from 1987 to 1989. He later had an outstanding career in business. Few Princetonians have served their country as long and as well as Frank Carlucci. Charles S. Rockey Jr. '57 Boca Grande, Fla.

FOOTBALL COVERAGE

I noted with interest James W. Seymore '65's letter (Inbox, Feb. 6) criticizing PAW's coverage of the football team's notable achievements this past fall. Reasonable alumni may differ on the amount of space PAW should devote to an extracurricular activity pursued by a small minority of the student body. However, when Mr. Seymore attributes the purported paucity of coverage not, for instance, to football's contribution to brain injury, but to "#MeToo and regnant feminism," it simply shows the absurd lengths to which some men will go to blame absolutely everything on women.

Nevertheless, She Roars. Thomas G. Hess '77

Milton, Mass.

Luck allows me, at age 92, to continue driving more than 80 miles to watch Princeton football home games. My grandson and I attended each one in the 2018 season. What we saw was a team of disciplined, dedicated, well-coached, and skilled young athletes who sustain the element of sportsmanship in the game of football. Princeton is fortunate to have Bob Surace '90 and his staff in charge of that part of its athletic program.

At the games it is discouraging to see so many empty seats. The team and the coaches deserve more support for their efforts. The free "Athletic News" handed out at games contains information about players past and present, but the readership is tiny (and already captive) compared to the wide audience PAW

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reaches and might influence through one or two feature articles covering the undefeated 2018 season.

The Ivy League made a conscious (and I think wise) decision to put limits on its football program. It makes those who planned the conversion of Palmer Stadium to Powers Field at Princeton Stadium look shortsighted, however, to see the space so underutilized.

The Princeton football program looks, to me, extremely promising. It is not too late for PAW to devote a few pages to boost this cause.

Kent Young '50 Centreville, Md.

THE COURT AND KOREMATSU

"Prisoner in Paradise" (cover story, March 6) incorrectly reports that the Supreme Court overturned *Korematsu* in June 2018. The majority decision upholding Trump's travel ban did not overturn *Korematsu*. The majority repudiated the decision and wrote that the case had been "overruled by history." It did not overturn the precedent.

PAW also mischaracterizes the spirit of the decision. In its decision to uphold the Muslim ban, the Supreme Court rhetorically repudiated *Korematsu* but materially upheld it. This is why Japanese Americans did not celebrate the decision. For reference, please see: https://constitutioncenter.org/blog/didthe-supreme-court-just-overrule-thekorematsu-decision.

Naomi Murakawa Associate Professor Department of African American Studies Princeton University

NIGHTS ON THE ICE

In the unisex Princeton of the early 1950s, we had "Skate Night" (On the Campus, Feb. 6) almost every weekend and it was open to anyone. My roommate Ralph Greenman and I used to attend regularly, because it was one of the few opportunities to possibly meet a girl from the town.

We were never very successful in that, but we enjoyed the skating mightily and brought our own skates.

E. Berry Hey Jr. '54 *Leesport, Pα.*

Princeton in the service of free speech

s members of Princeton University's journalism community, we stand in proud solidarity with alumna Maria Ressa '86 and call on supporters of democracy everywhere to do the same. Our careers have taken us in many different directions. But all of us have practiced or taught journalism at Princeton. That shared experience made us understand the importance of intellectual freedom, the free exchange of ideas and the ability to speak truth to power.

Those values are what prompt us to speak out on Ressa's behalf. Since December, our fellow Princetonian has been arrested multiple times by the Philippine government in what has become a clear campaign of intimidation against the investigative journalism she has enabled in her home country.

A veteran Asia correspondent for a number of outlets, including CNN, Ressa founded the online news site Rappler six years ago. Her work has won her honors from her professional peers and from international press freedom organizations. In December, *Time* magazine named her one of its Persons of the Year. The National Union of Journalists of the Philippines called her latest arrest "a shameless act of persecution by a bully government."

Discussing her perilous fight for freedom of speech in her home country, Ressa recently told the Princeton Alumni Weekly: "It's important to keep raising the alarm when transgressions happen."

In that spirit, we call upon government officials, policymakers, businesses and private individuals to use whatever leverage they have to press the Philippine government to cease its harassment of Ressa and the rest of that country's press. No person is an island in today's global society; the deprivation of one journalist's freedom limits access to information for us all.

Our university asks its graduates to dedicate themselves to "the service of humanity." Ressa has actualized that lofty goal with her tireless advocacy of the fundamental human right of free speech. We are honored to join our names to her cause.

Attorney, Goulston & Storrs PC; University Press Club

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Sarah Sakha '18 Fellow, Rockefeller Foundation; Former Editor-in-Chief, The Daily Princetonian Arthur Schankler '77 onian, 1973-77

Chanakya Sethi '07 Editor-in-Chief, The Daily Princetonian (2006-2007) Mark Sherman '83 Supreme Court correspondent, The Associated Press; Princeton University Press Club, 1979–83 Amy Shipley '91 Former Reporter, Washington Post and Miami Herald; University Press Club 1988–91 P.G. Sittenfeld '07 University Press Club: Cincinnati City Councilman Deborah Sontag Ferris Professor of Journalism Princeton University Joe Stephens Ferris Professor of Journalism in Residence; Director Program in Journalism, Princeton University Mark Stevens '73 Former chairman. The Daily Princetonian Annalyn Swan '73 Former Editor-in-Chief, The Daily Princetonian Anne Tergesen '86 Richard W. Thaler, Jr. '73 Vice Chairman (retired), Deutsch The Daily Princetonian 1969–73 tsche Bank Securities; Evan Thomas Ferris Professor of Journalism in Residence, 2007-14 David Thorburn '62 Professor of Literature and Comparative Media Massachusetts Institute of Technology; University Press Club President 1961–62 Andrew Trees '90 Iniversity Press Club Bob Warner '71 University Press Club; Philadelphia Daily News and Inquire Jonathan Wax '68 Iniversity Press Club President 1967–68

Wendy Donath Selig '86

Founder and CEO. WSCollab

Thomas E. Weber '89 President, Daily Princetonian Board of Trustees Sandra Sobieraj Westfall '89 National political correspondent, PEOPLE Magazine Chair of Princeton Alumni Weekly board Matt Westmoreland '10 Atlanta City Council; Editor-in-Chief, The Daily

Marcy Williams '84 University Press Club; WSB Radio, Atlanta, GA Vince Willmore '86 Former Managing Editor, The Daily Princetonian Nicholas Wu '18 Michael Zielenziger '77

Former Tokyo bureau chief, Knight Ridde Newspapers; The Daily Princeton, 1973-77

Student Signatories Kaveh Badrei '20 | Columnist, The Daily Princetonian Sinan Ozbay '19 | Columnist, *The Daily Prince* Ricki Heicklen '19 | The University Press Club Kalyn Nix '21 Gian-Carlo Toriano Parel *24

The Class of 1986 is urging Princetonians to contribute to Maria Ressa's legal defense fund. Contributions may be made online at support.pressfreedomdefensefund.org/donate/pfdf or by check to First Look Media Works Inc at First Look Media, Attn: Kate Myers, Press Freedom Defense Fund, 114 Fifth Ave., 18th Fl., New York, NY 10011

YOUR ALUMNI ASSOCIATION -ALUMINARY Bob Fockler '81, Committee to Nominate Alumni Trustees Chair

fter three years of "daunting and fulfilling work" on the Committee to Nominate Alumni Trustees, current chair Bob Fockler '81 says, "The quality of alumni that we consider for service on the board is incredible and just awe-inspiring. It makes you feel really great about Princeton."

Bob has been feeling great about Princeton since arriving on campus in 1977 from Memphis, Tennessee. A history major with a love for music, he played in the prestigious jazz and wind ensembles, as well as in the band, serving as president his senior year. "I loved traveling with the band, going to football games in the fall. You can't be in the band without having a unique, warm feeling for Princeton. It's easier to bleed orange and black when you're wearing orange and black."

And when you marry a Princeton Tiger.

"We were always involved with Princeton one way or another," Bob says of himself and his wife, Cristina "Tina" Seeley Fockler '81, whom he dated all four years at Princeton. Before he began volunteering, the pair mostly attended their major Reunions. Eventually their trips became more frequent as they accompanied her father, Ted Seeley '49, to campus to join the Old

Guard. (Tina's grandfather, two uncles and brother also attended Princeton.) Last year, Bob and Tina added P-rade marshal to their resumes, but unfortunately their stint was cut short due to lightning strikes in the area. They've signed up again this year.

While Bob built a very successful career as a commercial and investment banker following graduation, he says that his work became less fulfilling over time. "After I made a certain

amount of money, it didn't mean as much to me. I really wanted to do something more important for the community." In 2006, he took a large pay cut to become president of the Community Foundation of Greater Memphis where he had served on the board and was attracted to the organization's mission. The foundation manages about 1,000 charitable funds with assets of \$469 million. He's been in that role



Photo by Larry Kuzniewski

now for 13 years, having grown the foundation to be the largest grant maker in Tennessee and one of the largest in the south, giving away \$178 million last year.

His desire to do more also spilled over to his volunteer efforts for Princeton. Already a longtime Alumni



circa 1979

Schools Committee volunteer and active in his regional association, Bob became involved with the Princeton Prize in Race Relations in 2007, after he was contacted by his friend Buck Brown '85, who was eager to bring the program to Memphis. "I think we've made a real difference, both with the Princeton Prize nationally but also here in Memphis with getting the Princeton Prize known, and that is particularly important in a place like Memphis

where issues of race are always so seemingly close to the surface."

As the trustee election draws near — "everyone, please vote!" — Bob is grateful to be a part of such an important process and excited to be back on campus soon. Most important of all, he's hoping for blue skies for this year's P-rade!

2019 ALUMNI TRUSTEE ELECTION

IN OCTOBER OF 1900, Princeton's Board of Trustees adopted a plan to ensure alumni representation on the University's board. At that time, the board added five alumni trustees, one of whom was elected. The board has amended the plan for elected trustees several times over the course of the decades, designating regional and at-large ballots, adding two graduate alumni ballots, and creating the position of young alumni trustee. Now 13 of the 40 trustees on Princeton's board are alumni who have been elected to their positions. Four of these are young alumni trustees, elected by the junior and senior classes and the two most recent graduated classes. The other nine have gone through a nomination and election process overseen by the volunteer committee known as the Committee to Nominate Alumni Trustees (CTNAT), a special committee of the Alumni Council.

Below are the two ballots for the 2019 Alumni Trustee Election. Polls will open on April 15 and will close on May 22 at 6 p.m. EST. For more information visit: alumni.princeton.edu/volunteer/committees/ ctnat/trustee.

AT-LARGE BALLOT



Terri A. Sewell '86 Birmingham, Alabama

GRADUATE BALLOT



Jeffrey S. Sharp '80 Chicago, Illinois



Marc S. Sternberg '95 Brooklyn, New York



Amy E. Alving *88 Arlington, Virginia



Joyce Chang *90 New York, New York



Michael P. Huerta *80 Park City, Utah

There are many ways to stay connected to Princeton through volunteer work. To learn more, contact the Office of Alumni Affairs at **609.258.1900** or **alumni.princeton.edu**.

DEAR FELLOW ALUMNI



Jennifer A. Daniels '93 President, Alumni Association of Princeton University, and Chair, Alumni Council

Returning to campus for special events such as affinity conferences, Homecoming, Alumni Day and, of course, the one-and-only Reunions, provides us with a unique opportunity to connect with one another, the campus community, and our homeaway-from-home for which we share a special and enduring affinity. Equally important are the occasions between visits to campus when we gather to participate in activities that foster friendship and strengthen our ties through opportunities in:

- Lifetime learning through semester-long edX courses, Princeton Journeys, local book clubs, faculty on-theroad programs, podcasts, (In)Visible Princeton walking tours, and the new Pre-read in a Box program;
- Service in the Princeton Prize in Race Relations, Alumni Schools Committee interview blitzes, regional Annual Giving events, and the Tigers in Service initiative;
- Shared affinities for local affiliated group events, Princeton Women's Networks, career mentoring programs, and the parent/grandparent class initiative;
- **Tiger celebrations** with local admitted students receptions, Princeton Athletics away-from-campus events, and visits from Princeton leaders across the country and globe.

In partnership with the University and throughout the world, alumni continue to envision creative ways for Tigers to stay connected to "the best old place of all." I encourage you to explore new ways to connect, and I look forward to seeing you on (or off) campus soon!

Tiger cheers!





Class of '69 alumni celebrated Tiger Basketball during a Princeton Varsity Club reception at the lvy League Tournament in New Haven.



Graduate School Dean Sarah-Jane Leslie *07 addressed graduate alumni on her travels throughout the world.



Young alumni learned and traveled together on a Princeton Journey to Cuba.



Helen Zia '73 signed copies of her book in Houston after a happy hour hosted by the Asian American Alumni Association (A4P).



Philly Tigers prepared meals for Aid for Friends during the "Tigers in Service" month.



Young alumni gathered in New York City to support Annual Giving during the Clash of the Cities.



Members of the Association of Black Princeton Alumni and friends gathered in Atlanta to provide feedback for the upcoming affinity conference.



United in Princeton's Service



CAMPUS NEWS & SPORTS • TEACHER PREP TURNS 50 • WILSON MARKER • WOMEN'S BASKETBALL

Serving by Teaching

Turning 50, Teacher Prep has trained more than 1,000 to work with students

cross the state, from Trenton to North Jersey, a tenacious group of Princetonians is reporting for duty in a unique classroom. They're students — and soon-to-be teachers.

After years of coursework, fieldwork, and student teaching, this pack of undergraduates, graduate students, and alumni will have the opportunity to earn a teaching license (a Certificate of Eligibility with Advanced Standing), to teach full time in middle and high schools in New Jersey, as well as in many schools nationwide.

"I loved my teachers, but I found that I was rarely taught by a teacher who looked like me, a black girl," said Pam McGowen '20, a student in the Program in Teacher Preparation (Teacher Prep) who plans to teach high school English someday. "This has pushed me to work to become a role model for students of color, because I believe that representation is important."

Now more than 1,000 graduates strong, Teacher Prep was created with the support of then-Provost William Bowen *58, later Princeton's 17th president. The program received state approval in 1969 and earned national "Instead of money, I earn a sense of satisfaction that I never had when I was working on Wall Street."

— Barbara Fortunato '98, physics teacher

accreditation in 2007. Ten to 15 students are certified every year, with 45 to 55 students in the program at any one time. In the past five years, 30 percent of Teacher Prep graduates were alumni. A third of graduates earned a teaching certificate in English, a quarter in social studies, and about a tenth each in math, science, and world languages.

"We see education as a way to help others improve their lives and increase their opportunities," said Teacher Prep director Todd Kent. "There's more emphasis on that in terms of access and equity these days," he said, but the heart of the program is unchanged: to support students and alumni who begin this journey.

Surveys conducted by Teacher Prep have found that 74 percent of its alumni have been teachers, and 60 percent were working in the field of education (including teaching) at the time of the surveys. Public schools accounted for 58 percent, independent or religous schools 37 percent, and public charter schools 5 percent of first teaching jobs. Nearly three-fifths have taught in suburban schools, a third in urban schools, and less than 10 percent in rural areas.

To celebrate its 50th anniversary, Teacher Prep is convening a campus conference April 12 and 13. In the stories below, graduates reflect on the program's role in their lives.

BARBARA FORTUNATO '98

"I wasn't planning on being a teacher," Barbara Fortunato '98 said. After graduating with a degree in electrical engineering, she set up shop in New York's financial district. But the events of 9/11 — and its aftermath — stayed with her.

"I decided that I wanted to make a change in my career where I would feel that I was more directly giving back to the world," she said. She enrolled in Teacher Prep and served her studentteaching post as a physics teacher at West Windsor-Plainsboro High School. It's a job she cherishes to this day.

Still, her decision to leave Wall Street behind and take up teaching has raised eyebrows among her Princeton classmates. Some told her they might consider teaching only after they retire, "as if teaching may not be a profession





From left: LaYow Yu; Momotaj Hossai; Raymond Li

worthy of a first career," she said.

"I do not think about it very often, but I make a fraction of what they make," Fortunato said. "But I still make a good living as a teacher, and I feel that I have everything I need, and most of the things I want. Instead of money, I earn a sense of satisfaction that I never had when I was working on Wall Street."

JULIE KWONG '16

"I always envisioned myself as the math teacher who continually pushed students to think in different ways and grow a love for math," said Julie Kwong '16, a firstgeneration college graduate who teaches algebra and AP calculus at MESA (Math, Engineering, and Science Academy) Charter High School in Brooklyn.

Now her focus has evolved: She aims to meet students where they are, whether they come to class with knowledge gaps or need "behavioral resets." She tries to engage the entire classroom, including the quiet students.

"A teacher is someone who opens doors for learning to happen," Kwong said. She tries to be a role model who "facilitates learning and guides students to develop lifelong questioning and critical-thinking skills," she added.

Kwong never expected to work at a charter high school, but during her interviews, her future changed. "The world of charter schools is as diverse as the world of public schools," she said. *continues on page 14*.



CAPTURING 'A COMPLEX LEGACY' Wilson Marker To Be Installed



Construction of an installation to address Woodrow Wilson 1879's complex legacy is expected to begin in June and be completed by September on Scudder Plaza in front of Robertson Hall, home of the Woodrow Wilson School. The sculpture, "Double Consciousness" (a term used by W.E.B. DuBois to describe an identity divided into dual facets), will have

two columns with black and white stone surfaces. They will be etched with quotations representing both the positive and negative aspects of Wilson's impact.

The 39-foot-tall installation was designed by artist Walter Hood, the founder of Hood Design Studio in Oakland, Calif. "A progressive to some and a bigot to others, Wilson left a complex legacy this installation aims to capture," Hood said. \diamondsuit *By W.R.O.*

IN MEMORIAM



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Sameer

Studio;

Design

Hood I

rendering,

From top:

ALAN B. KRUEGER, one of the nation's leading labor economists and a faculty member for more than 30 years, died March 16 in Princeton at the age of 58. A family statement said his death was a suicide.

"Alan changed the field of economics with his innovative empirical approaches to studying a wide range of topics — from the minimum wage

and education, to terrorism and ticket prices at rock concerts. He also was a diligent and dedicated public servant," said Cecilia Rouse, dean of the Woodrow Wilson School. Krueger also researched the correlation across generations of high economic inequality and low economic mobility, which he termed the "Great Gatsby curve," and the influence of the "gig economy" (such as driving for Uber or Lyft) on the national economy. His research on the minimum wage found that if set at a moderate level — say \$12 per hour, he wrote in 2015 — it would have little or no effect on unemployment.

In Washington, Krueger held the positions of chief economist of the Labor Department, assistant secretary of the treasury, and chair of the Council of Economic Advisers in the administrations of Bill Clinton and Barack Obama. He also was the founding director of the Princeton University Survey Research Center. His latest book, *Rockonomics: A Backstage Tour of What the Music Industry Can Teach Us About Economics and Life*, will be published in June. See http://bit.ly/krueger-2014 for a PAW feature about Krueger.

Readers are invited to submit their remembrances of Krueger, as well as of three former faculty members whose In Memoriam stories appear on page 15; write to paw@princeton.edu. �



"Building dense, walkable cities is the key to a lot of things, including – as Kelbaugh persuasively argues– building momentum in the climate fight. This is the kind of creative thinking a crisis moment requires!"

 Bill McKibben, Middlebury College, founder of 350.org, the nation's leading climate action group

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On the Campus

continued from page 13

"My students teach me daily about trust, consistency, and respect," Kwong said. Learning difficulties are built over time, she added, and many students were never taught how to be an effective learner. But this can be challenged with patience and compassion, she said. Confidence, courage, and grit can be taught, too.

NOLIS ARKOULAKIS '88

"About a year ago, I stepped back from the day-to-day practice of clinical medicine," said Nolis Arkoulakis '88, who teaches Latin at Princeton High School. After two decades as a plastic surgeon, his days now revolve around a language that has long been close to his heart.

Growing up, Arkoulakis spent most summers with his family in Greece, and took his first Latin class in middle school. At Princeton, he majored in classics, and he continued his studies in a master's program at Oxford. Then came medical school and a career as a surgeon — but he felt there was "some unfinished business."

It all began during his 25th reunion. "There was an ad from Teacher Prep in PAW encouraging alumni to get their teaching certificate," he said. "A phone call was made the following Monday."

Arkoulakis took one class at a time and served as a student Latin teacher at Princeton High School. He taught in the morning and saw his patients later in the day. "I kept coming back because it was all so interesting, but I really had no agenda in terms of changing careers. It was just tremendous fun," he said.

After Teacher Prep, the school offered him an opportunity to teach full time. "I was very lucky to be offered this spot," he said. "Teaching is a tremendous privilege because you are invited to share in your students' lives, and hopefully help them in some real way."

DIVYA FARIAS '15 LEKHA KANCHINADAM '15

Divya Farias '15 and Lekha Kanchinadam '15 moved to Oakland, Calif., a year after graduating to teach in the public school system. Now, they're roommates — and in February, they walked school picket lines together.

Farias, a special-education teacher

"There is no way to be an ethical teacher without taking on political organizing work as well."

– Lekha Kanchinadam '15, special-education teacher

who works with sixth- and 10th-graders at Coliseum College Prep Academy, said the most important lessons she learned at Teacher Prep were "know your students, structure is key, and set yourself up to be flexible."

Kanchinadam also teaches special education while co-teaching English, biology, and chemistry at Castlemont High School. "We have a tight-knit special-ed community," she said. "I love working with young people. … I am always inspired by their creativity, good humor, and resilience."

Both teachers have worked as site representatives for the Oakland Education Association, a teachers union that voted to strike in February. After a seven-day strike, the union reached an agreement with the Oakland Unified School District that ensures higher pay, more support staff for students, and slightly smaller class sizes over the next two years.

"It was a major victory to me to be on picket lines alongside my 10th-grade students and to be discussing union politics with them at a high level," Farias said. "This was an incredible learning moment for them, and me, and our fellow participants in the struggle for public education in Oakland."

Kanchinadam said "there is no way to be an ethical teacher without taking on political organizing work as well. ... Teachers' working conditions are students' learning conditions."

She believes her experience as a Writing Center fellow at Princeton has been invaluable for her work teaching English in Oakland. Even more, her role as a special-education teacher — and the challenge of figuring out how to meet the needs of diverse learners — prompted her "to reflect on my own learning style and strength, making me really believe that we *all* should have individualized education plans." ◆ *By Jeanette Beebe '14*

On the Campus

IN MEMORIAM



Biology professor emeritus WILLIAM PAUL JACOBS died March 3 in Princeton. He was 99. Jacobs joined the faculty in 1948

and became emeritus in 1989. He studied hormonal control of plant development and was an early proponent of quantitative techniques in that field. Jacobs published 165 papers and a book, *Plant Hormones and Plant Development*, and received an award from the American Society of Plant Biologists for his work in plant physiology. His 1955 paper "What Makes Leaves Fall" was published in *Scientific American*.



Former biomedical sciences professor ARTHUR PARDEE died Feb. 24 in Boston. He was 97. Pardee was a faculty member

from 1961 to 1975, serving as chair of the biomedical sciences department (later known as the Department of Molecular Biology). Pardee was a world-renowned cancer biologist whose research changed the understanding of molecular biology and cell growth. His work included the first report of ribosomes in bacteria in 1952, and he demonstrated the presence of what became known as messenger RNA in 1954.



Professor emeritus of ecology and evolutionary biology HENRY HORN died March 14 in Princeton. He was 77. Horn joined

the faculty in 1966 and retired in 2011. He was the founding director of the Program in Environmental Studies. Among his research interests were the spatial patterns of trees and forest succession, and he had a longtime fascination with butterfly behavior. He was an expert on the ecology of the Princeton campus and the Institute Woods surrounding the Institute for Advanced Study; in recent years he led a popular weekly nature tour at the University. \blacklozenge

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Spotlight on Migration

University research project inspires plays in partnership with McCarter

s part of a three-year University project to study migration, McCarter Theatre Center — in partnership with the Princeton Institute for International and Regional Studies — will bring to the stage readings of five short plays on the nature of migration, how it is represented culturally, and the ways in which it shapes the world around us.

The Migration Plays will be read April 14 at 2 p.m. on the Matthews stage. The event is free and open to the public, with reservations required. McCarter commissioned the works from playwrights who are intimately familiar with the subject of immigration.

The plays were inspired by a project called "Migration: People and Cultures Across Borders," conducted by 35 Princeton faculty members in more than a dozen fields along with graduate and undergraduate students. The program has examined why people become stateless, how migrants acclimate, and Adam Gwon's play asks: What is it like to sacrifice everything you know to give your children a better life?

how cultures respond to migrant flows.

Since 2018, the authors of The Migration Plays have met with professors and students, attended seminars, and explored the campus to gain inspiration. Directing the plays is Elena Araoz, a lecturer in theater at Princeton who is a professional theater and opera director.

"Sometimes when we look at this issue through the data, we don't perceive the human struggle," Araoz says. "What's so wonderful about these plays is that by watching these characters — with their fears, their senses of humor, their loves — the audience starts to realize, "That person is a little bit of me.'" \diamond By Jennifer Altmann



THE MIGRATION PLAYS Crossing Borders

Early Decision by Adam Gwon

Getting into his dream college is all that high-school senior Owen Li can think about until long-kept family secrets are revealed and threaten everything he holds dear. Gwon's grandparents fled persecution in their home countries. His play, he says, asks: "What is it like to sacrifice everything you know to give your children a better life?"

Museum by Martyna Majok

An art museum docent takes the audience on a tour through his galleries, begging the questions: How did we get where we are, and what remains after we're gone? Majok, who was born in Poland, won the 2018 Pulitzer Prize for Drama for her play *Cost of Living* and this year is a Hodder Fellow at the Lewis Center for the Arts.

Solomon's Pools by Heather Raffo

Two women in a Palestinian refugee camp ponder the meaning of home and ownership in a world that is increasingly governed by commodities, money, and power. Raffo, an American with Iraqi roots, has witnessed her family "scattered across the world as global refugees" due to the war in Iraq, she says.

The Family by Mfoniso Udofia

Language is a vehicle of both connection and division in a story that follows a young African woman and her family as they navigate the unexpected in their new American homeland. Raised by Nigerian immigrants, Udofia writes "about and for immigrants so that we can see ourselves represented both onstage and in the wider media," she says.

The Monkey with the Green Tail: A Migration Story by Karen Zacarías

A college art instructor addresses her class about a recent incident of hateful graffiti on campus by sharing her personal journey in a narrative that interweaves fiction and reality. Zacarías, who emigrated from Mexico, says, "When I was 10, we put all the belongings that could fit in our car and crossed the border. What happened after would change not only our lives, but eventually affect the lives of millions of people." •

On the Campus



STUDENT DISPATCH: TAKING AIM AT THE PRINCETON EXPERIENCE

By Jimin Kang '21



Three seniors who created a stage production that explores the black female experience at Princeton said they

hope it encouraged students to take a more critical view of their time at the University.

A Spectrum Unspoken: An Original Choreopoem, a collaborative thesis written by Feyisola Soetan, directed by Janelle Spence, and choreographed by Jessica Bailey, was performed five times at the Lewis Center's Wallace Theater last month. (A choreopoem, a genre devised by African American playwright Ntozake Shange, combines poetry, song, and dance.)

"We wanted to figure out a way to combine all three of these arts forms together in a really seamless way, and I think that we accomplished it," said Bailey, who, along with Spence, is pursuing a certificate in music theater.

Much of the dialogue was directed toward the audience and performed in the style of a spoken-word poem. Seven vignettes — accompanied by minimal props, costumes, and stage decoration — dramatized themes ranging from exclusion and privilege to trauma and identity-based prejudice.

Soetan, an anthropology major who is pursing a certificate in theater, said the three creators held several workshops with cast members "based on innocence, exclusion, social climbing, colorism, sexism," and other issues. "The cast created this play — their stories and all their narratives [are what] is on the stage," she said.

The narratives ranged from the personal to the institutional: One poem depicted the challenges of dating as a

black woman ("Sometimes I feel too black / Like when they look at me / All they see is skin / Skin and hair and eyes"). Another examined the privileges experienced by Princeton students because of their affiliation with an "elite" institution ("Not every student has a way to simply make / six figures a year after they graduate / that's absurd. It's absurd. / That we have this at our fingertips").

Some poems took aim at Princetonspecific traditions like the eating clubs, bicker, and Reunions ("Elite networks we seek — / We rush, we bicker, / and go out of our way to meet / our peers and certain alum. / It's good old Reunions fun!"), recognizing that not all students experience these institutions in the same way ("White spaces were created / for white people — patience. / Make it out better than you came in").

Bailey, a sociology major, recognized that some of the content could be controversial: "I think we really wanted to ride in [the] truth and not have to censor ourselves, because we censor ourselves on every other place on campus." By including segments that were contentious, she said, they hoped the choreopoem would help students "be more critical of the Princeton traditions [they] take advantage of."

Nathan Poland, a junior in the African American studies department, said he felt "thrilled and broken, and healed and repaired" at the opening-night performance. "As someone who's a black man, I just know that there is no black experience at Princeton without black women. So to see their voices uplifted in this way is imperative and special."

Spence said she hoped *Choreopoem* would encourage other theater students "to be unafraid of devising and pursuing something new" in their thesis projects. \blacklozenge

RESEARCH SCHOLAR WINS ABEL PRIZE



Visiting senior research scholar KAREN UHLENBECK has won the 2019 Abel Prize for her work in geometric analysis and gauge theory, the mathematical language of theoretical physics. She is the first woman to win the \$700,000 prize, presented by the Norwegian Academy of Science and Letters, and one of the most prestigious in mathematics. Uhlenbeck, who is also a professor at the University of Texas-Austin, co-founded the Program for

Women and Mathematics at Princeton and the Institute for Advanced Study, which offers intensive summer classes for women from across the country. \blacklozenge

"Gearing up for a Good Time!"



REUNIONS 2019

This year we celebrate Chemical & Biological Engineering, Civil & Environmental Engineering, Computer Science, Electrical Engineering, Mechanical & Aerospace Engineering, and Operations Research and Financial Engineering. As always, alumni from *all* disciplines are welcome!

Thursday, May 30 – Sunday, June 2, 2019

Graduate Alumni invites graduate alumni to return to campus for REUNIONS 2019

Highlights from the schedule: Nightly music

performances at the APGA tent with three DJs on Thursday; local favorite Brian Kirk and the Jirks on Friday; and Reunions staple 80s cover band Rubix Kube on Saturday.

Revisit an old stomping ground – the DBar – to enjoy a casual drink and reminisce!

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WOMEN'S BASKETBALL

Dancing Again

For the second straight year, Princeton beats Penn to earn an NCAA bid

ella Alarie '20 was named the Ivy League Tournament's Most Outstanding Player after scoring a game-high 25 points in Princeton's 65-54 championship win over Penn March 17 (and 21 points in the prior day's semifinal win over Cornell). But it was Alarie's defense that keyed the most pivotal plays of the Princeton-Penn game.

After the Quakers took a three-point lead into the final quarter, Alarie blocked Penn's star forward, Eleah Parker, and kept the ball in play, allowing Gabrielle Rush '19 to race ahead for a fast-break layup and foul shot that tied the game 47-47. Later, Alarie blocked Parker again to preserve a 51-51 tie, followed by another Rush basket that took the lead for good.

Alarie added a steal down the stretch that helped seal the victory. In her highly anticipated battle with Parker a matchup of the only two unanimous

All-Ivy honorees, the league's Player of the Year (Alarie) against the Defensive Player of the Year (Parker) – Alarie won decisively, holding the Penn center to 10 points on 5-23 shooting and blocking her four times. Alarie also played all 40 minutes of the game.

"Eleah Parker's really good — she's exceptional, and Bella is one of the few people in the country that can guard her. She doesn't shoot from far away, so those were 23 shots that were around the paint, and [Alarie] was able to disrupt them," said Princeton coach Courtney Banghart, who added that Alarie's leadership extended to the postgame celebration she started a dance party in front of the Princeton Band.

Though Princeton and Penn had finished first and second in the league for five straight years, this was the continues on page 20

Sports / On the Campus

THE BIG THREE

ADAM KELLY '19

tossed a career-best – and Ivy League record — 23.38 meters in the final round of the weight

throw at the NCAA Indoor **Track and Field** Championships March 9,

capturing second place. Kelly earned first-team All-America honors for the first time in his career and posted Princeton's best NCAA finish in the weight throw since 1980, when Dave Pellegrini '80 won the event.



MAX VÉRONNEAU '19 made his NHL debut for the **Ottawa Senators** just five days after his final collegiate game,

a triple-overtime ECAC playoff loss at Brown. Véronneau made his first pro assist March 16 in Ottawa's 6-2 win over Toronto, Princeton teammates Rvan Kuffner '19 and Josh Teves '19 also signed NHL free-agent contracts, with the Detroit **Red Wings and Vancouver** Canucks, respectively.

Baseball coach SCOTT BRADLEY won his 400th

game at Princeton when the Tigers topped George Mason, 5–3, in the opener of a doubleheader

March 2. Bradley, who has led his teams to seven lvy League titles in 21 seasons, ranks second on Princeton's all-time wins list behind **Bill Clarke, whose** teams won 564 games in 36 seasons. 🔶

On the Campus / Sports

continued from page 19

first year they shared the conference championship, finishing with identical 12–2 records. The tournament final was a rubber match on multiple levels — not only did the two sides split this season's regular-season meetings, but they also beat one another in the last two Ivy League Tournament finals (Penn winning in 2017, Princeton in 2018).

In the NCAA Tournament, Princeton earned a No. 11 seed and a first-round meeting with No. 6-seed Kentucky in Raleigh, N.C., March 23. The Tigers led at halftime and for parts of the third quarter before the Wildcats surged ahead with a 9-0 run. Kentucky made 15 of 26 second-half shots on its way to a 82–77 victory.

Alarie scored 20 points, grabbed 15 rebounds, and assisted on five Tiger baskets. Rush scored 22 points, including six 3-pointers, and Sydney Jordan '19 had a career-high 17 points in her final collegiate game. • *By Kevin Whitaker '13 and B.T.*



WOMEN'S HOCKEY

Ivy-Champion Tigers Fall to Minnesota

With an 8–0–2 record against Ivy League opponents in the regular season, Princeton women's hockey earned the league championship for the first time since 2016. The Tigers lost to Cornell in the semifinals of the ECAC Hockey Tournament but earned an at-large bid to the eight-team NCAA Tournament field.

In Princeton's opening-round NCAA game at Minnesota March 16, forward Sarah Fillier '22 scored two goals, tying the game late in the second period, but the Golden Gophers fired back, scoring three times in the final period (including two empty-net goals) to win 5–2. \diamondsuit



Life of the Mind



HISTORY: RHAE LYNN BARNES

American Stain A Princeton scholar explains the insidious and pervasive history of blackface

hen the news broke that both the governor and the attorney general of Virginia had worn blackface as students in the 1980s, Rhae Lynn Barnes wasn't surprised. An assistant professor of history at Princeton and the author of the forthcoming book *Darkology: When the American Dream Wore Blackface*, she studies the history of blackface minstrel shows, which date back to the 19th century and persisted openly until the civil-rights movement,

when African American activists successfully fought against them. Barnes spoke to PAW about the history of amateur blackface minstrel shows and how the vestiges of their popularity can still be felt in American culture.

What are the origins of blackface minstrelsy?

Blackface is a makeup technique that's been used for hundreds of years — think Shakespeare's *Othello*. But in terms of

blackface as we understand it today in the United States, you have to look to the Jacksonian era. Starting around 1828, a white celebrity named T.D. Rice began performing as the character Jim Crow. His song was called "Jumpin' Jim Crow." It globalized very quickly — he traveled to perform throughout the British Empire — and became very popular.

In the 1840s, we see the rise of the Virginia Minstrels, which is the group that created the three-act minstrel show. This show was an entire evening of blackface entertainment, as opposed to being a one-off character or dance performance. Throughout the show you'd have classic American music by the songwriter Stephen Foster — songs that we still know today like "Camptown Races" and "O! Susannah." And it was tremendously popular. In the 19th century, blackface was seen as the No. 1 entertainment form and the U.S.'s major contribution to global popular culture.

How did it evolve after the Civil War?

There's this idea that by 1900, blackface minstrelsy is subsumed into vaudeville and later radio, film, cartoons, television. But as technology advances in the 20th century, the omnipresence of blackface only increases. The difference is that it's mainly amateur blackface, rather than professional theatrical blackface, which is a separate and distinct genre. For most of the 19th century, blackface was centralized in New York City - you'd have to go there to see a minstrel show. But a fraternal group called the Elks Club is founded in 1868, and they begin publishing their own scripts for these shows, which transforms the people who used to just watch blackface minstrel shows from passive consumers into active participants. They start putting on their own shows. And this pro-slavery, white ideology is then passed down through these scripts, which are sung



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Life of the Mind



"[Blackface] undermines this tremendous progress that's being made by African Americans."

— Rhae Lynn Barnes, assistant professor

and performed across the country in the 20th century.

What were some of the themes of these shows?

The thing all of these shows have in common is very romantic ideas about Southern life and slavery. The shows aren't linear - they're a series of sketches, like a variety show — but usually an African American character will try to do something like use a telegraph or a telephone or get on a train. Then they make a mistake that's obvious and silly, and they end up getting maimed or killed. It entrenches these characters as Southern, dim-witted, not understanding technology, not being able to fend for themselves in the world at a moment when millions of African American people are getting educated and moving to urban areas and obtaining professional jobs. It undermines this tremendous progress that's being made by African Americans.

Blackface minstrel shows were based in New York? Wasn't this a Southern phenomenon?

I'm always surprised by how many people associate blackface with the South, because it is not a Southern phenomenon at all. It originated in New York. Southerners didn't really bother with it because during slavery, white people had access to African Americans that they owned. It was completely a Northern creation, and it was also very popular in the American West.

Why did blackface performances remain so popular?

You have to remember that it was seen as the U.S.'s unique contribution to global culture, so it was always considered patriotic. That's confusing for us today, but that's how it was seen through Jim Crow and up until the civil-rights movement. In the 19th century, minstrels performed in front of the American flag wearing red, white, and blue. The songs are very patriotic. And the shows were seen as a clean form of fun — appropriate for all ages — in that there was nothing sexually scandalous going on.

What were some of the venues where white Americans in the 20th century might have seen blackface shows?

People were exposed to it at multiple points in their lives. School curricula would use Stephen Foster songs as representations of authentic African American music. Fraternal orders like the Elks put on their own minstrel shows. During World War II, the federal government was mobilizing it for the troops. There were productions at colleges, in fraternities. And many politicians were participating by viewing blackface minstrel shows as a way to galvanize and connect with communities.

How does this history connect with the scandal in Virginia?

Today, we're talking about blackface costumes and not blackface minstrel shows. But we do see it re-emerging in the South in the 1970s as a backlash to the civil-rights movement. And I think we have to remember the history here, especially that blackface is not a product of the South.

That forces us to grapple with the fact that there was also a Jim Crow North and West that might be just as powerful as the Jim Crow South, but manifested in a different way redlining, rather than segregation. The persistence of blackface minstrelsy is a reminder of how deeply these racist stereotypes were institutionalized in American life. • Interview conducted and condensed by Amelia Thomson-DeVeaux '11



RESEARCH

ECOLOGY AND EVOLUTIONARY BIOLOGY: ANDY DOBSON Paying Attention to Our Planet's Parasites

"Growing up in the wilds of Scotland, I was always drawn to wilderness areas," says Andy Dobson, a professor of ecology and evolutionary biology at Princeton. But Dobson became concerned when he saw how factors such as the conversion of natural habitats to farmland and climate change were fundamentally altering the environment. "The fabric of the natural world is sort of unraveling," he says.

Humans are highly dependent on natural forests and savannas for clean water and oxygen, so conservation of these environments — and the creatures that live in them — is paramount, Dobson says. Since parasites, viruses, and bacteria cohabitate with nearly every plant and animal on the planet, Dobson focuses his research on diseases and their impact on various ecosystems, from the Serengeti to the Arctic. ***** *By Agatha Bordonaro 'o4*

READ Dobson's essay about the importance of charting food webs, at **http://bit.ly/dobson-essay**

Dobson's Studies: A Sampling

IT'S ALL CONNECTED In the 1960s, farmers in the Serengeti began vaccinating cattle against the virus rinderpest, which was also infecting native wildebeest. Without the virus's deadly effects, the population of wildebeest soared. In 2009 Dobson's research showed that as all those wildebeest ate more grass, the area's incidence of fire dropped, nurturing tree cover, ultimately transforming the Serengeti from carbon producer to carbon sink.

"That's why you need this food-web structure: to understand how a twinge on one part of it causes perturbations to species that you don't necessarily see as directly connected," Dobson says.



WOLVES AS GUINEA PIGS When gray wolves were reintroduced to Yellowstone National Park in the mid-1990s, they presented an ideal population for ecologists to study the transmission and effects of disease. The animals arriving in their new environment disease-free meant that as infections inevitably took hold, their impact could be more easily studied. "With fewer confounding variables, we could focus on the possible impacts of each [disease]," Dobson says. In a series of papers, **Dobson and several** colleagues demonstrated

a link between the effect of a disease and its host animals' social structure, suggesting the need for new food-web models that address group behavior.



FROM COLD TO HOT Dobson lately has been focused on the impact of climate change on parasites — especially in the Arctic, whose rapidly warming temperatures and simple network of flora and fauna serve as a predictor of how changes might occur in warmer places. For example, hotter Arctic summers have led to a disease season with two peaks — one in late spring and another in early fall - compared with one summertime spike. Partly due to this, infections are felling caribou and muskoxen at record rates, causing a ripple effect in the food chain. "If [the Arctic] falls apart due to climate change, it will generate impacts that hugely influence the rest of the global climate," Dobson says. 🔶 By A.B.



FIRESTONE REBORN

AFTER SEVEN DECADES, THE LIBRARY IS NEW AGAIN

> By Anna Mazarakis '16 Photographs by Ricardo Barros

ICAN STUDIES

R B 78

THE SH<mark>IP OF TH</mark>ESEUS IS A TIMELESS THOUGHT EXPERIMENT:

If you replace every part in the ship with a new part, is it the same ship? So it is with Firestone Library. It's marking its 71st birthday this year — and also a rebirth.

A decade after work began, the renovations to the library are complete. "The entire library was touched — *the entire library* — it was a gut renovation, down to bare concrete walls and ceiling," says Jeffrey Rowlands, the director of library finance and administration, who oversees library facilities. "Every single square inch of this building, including all of the mechanical spaces — everything was touched."

If you haven't set foot in Firestone in a while, it might feel like a completely different building. Though the footprint of the 430,000-square-foot building (three-quarters of it underground) was not expanded, there are new spaces, new applications of technology, and new lighting that make the building feel airier, more inviting, and more conducive to study. (One additional incentive for students to spend time at Firestone remains under construction: the Tiger Tea Room, which is expected to open in late June.)

Renovations took almost 10 years to complete because Firestone had to remain open — and quiet — during the entire construction period. The overhaul was expected to cost \$165.6 million, according to an economicimpact statement released by the University in October 2016 (more recent figures were not released). The executive architecture firm, Shepley Bulfinch, describes the new Firestone as "an open and flexible laboratory designed to keep pace with future demands in humanities research."

It's been somewhat of a passion project for President Christopher Eisgruber '83. He was closely involved with the planning while he was provost, visiting other renovated university libraries with faculty and library staff. "On those trips, I learned that libraries express the scholarly character of individual campuses," Eisgruber said in a statement. "That is very true of Firestone. ... Our Firestone has always been a powerful laboratory for the humanities and social sciences; it is now also a beautiful and inspiring home for scholars and the books they love."

The library remains rooted in its history. When Firestone opened in 1948 — the first large American university library constructed after World War II — PAW called it innovative, thoughtful, and even a place of "miracles." It had a different look than most university libraries, with a gothic revival exterior but an industrial, art deco look inside. The goal of designers working on the just-completed renovations was to "retain the DNA" of that building "and to bring it into a contemporary learning, teaching, research environment," says design architect Frederick Fisher.

As a result, amid the technology and modern design of the new library you will find frequent nods to the past: The old card-catalog faces have

AFRICAN AMERICAN STUDIES READING ROOM

ILE LINE 17 3 Mously Lo '22 works in the African American Studies Reading Room. Firestone has reading and study rooms devoted to different fields. been transformed into floor-to-ceiling wall art; three original metal study carrels remain among the rows of stylish open ones; vintage stereoscope viewers occupy a large glass display case near the collection of rare books. The new mid-century-style chairs and sofas placed throughout the library evoke the period of Firestone's construction.

"One of the things that intrigued me about it is it does have these different layers to it that are seemingly contradictory but, I think, add a richness to it," Fisher says. "The intellectual basis for our approach to the project ... was preserving the essence of the building and modernizing it, rather than erasing all those layers."

THE FIRST THING A VISITOR NOTICES UPON ENTERING THE "NEW" Firestone is the light. The wooden paneling remains, but the place seems suddenly bright and open. Overhead in the lobby is a massive LED light, reminiscent of an oculus. Throughout the building, study spaces take advantage of natural light. Where the card catalog once was, there is now a sleek black information desk, students sprawled on a collection of sofas and chairs, and a long bar-height counter where students sit on stools, typing into their laptops. To the right is a "Discovery Hub," a large, open space with work tables of different sizes, plus shelves of newspapers and books written by faculty members.

The light and sense of openness continue as one descends underground. Once-forbidding rows of bookshelves are now welcoming, with lights automatically brightening as you walk through the stacks. Before the renovation, the building was "extremely brown and very dark," says University Librarian Anne Jarvis. Now, she notes, it's a warm environment with a variety of spaces in which people can work.

Fisher says he has a "real obsession" with light because it's one of the biggest contributors to a person's comfort. As a result, skylights were installed — most notably at the top of the main stairwell — and offices were moved inward from the perimeter, so the windows would be in communal spaces. Instead of installing solid walls throughout the building, Fisher opted for glass partitions in many places to maintain a sense of openness.

Easier navigation was another renovation goal, and the designer used light and color to help visitors orient themselves. The building's color palette changes throughout the building to give visitors an indication of where they are. Bookcases run from north to south, with the south end painted a lighter shade and the north end a darker one. "It's almost like a shadow," Fisher says. "When you look down an aisle, you intuitively understand where's the north and where's the south, and it keeps you oriented because when you're down in the bowels of the building, it's hard to really keep track of which way you're going." Signs also help visitors find their way.

THE RENOVATION OF FIRESTONE WAS SPARKED PARTLY BY technical demands: Fire-suppression and electrical systems had to be updated by law, and the University wanted the building to be more energy-efficient, Rowlands says.

At the same time, the University wanted to better embrace technological advancements. "We are moving beyond the concept of a library as a finite place with traditional collections to that of a library as a partner in research, teaching, and learning," Jarvis says. The Data and Statistical Services Lab offers help in analyzing data, and the new digitalimaging study allows greater digitization of the library's vast resources. "What the digital environment helps to do is to make our collections more discoverable," which facilitates more national and international research, Jarvis explains.



ABOVE: The Trustee Reading Room on the first floor holds Firestone's reference collection and is a favorite late-night study area, open most nights until 2 a.m. FAR **RIGHT: The glass-walled Ellen** and Leonard Milberg ['53] Gallery, which has exhibitions that are open to the public. The inaugural exhibition, "Welcome Additions: Selected Acquisitions 2012-18," is a retrospective from 2012 through the present, showcasing 80 items from the library's special collections. NEAR RIGHT: The large light in the lobby is reminiscent of an oculus. The sense of airiness and light continues as one descends underground.







"There are lots of things that have been designed to enhance this environment to meet those 21st-century needs," Jarvis says. "But, you know, I'm a librarian through and through. There's nothing like the look, feel, and smell of the original."

Printed books — there are about 2 million in Firestone, not including rare books — are still prominent. A conservation lab preserves and maintains the library's rare books and circulating collections.

"One of the guiding principles was to keep the same number of books in the building after the renovation as before," says Rowlands. "It's not just about the book you find in the catalog; it's about all the books all around that book on the shelf that you discover while you're out browsing."

IDEAS FOR REORGANIZING THE SPACES IN FIRESTONE GREW

out of meetings with students, faculty members, and library staff and among the things students wanted were more and different kinds of study spaces. They got them: the gorgeous William Elfers '41 Reading Room, with a massive new tapestry by John Nava; the "Tower" study space, which feels like a sanctuary; special study spaces for graduate students and different disciplines, strategically located near the resources those students and scholars would use. Group study and research have become more popular, and the new spaces allow students to work "on their own together," Jarvis says: "We're providing spaces for our students to come together, to create together, to innovate together, to bounce ideas off each other."

Researching Firestone's history, Fisher found old photographs of Firestone in which there were islands of study areas interspersed among the bookcases, and he wanted to re-create those. "It encourages people to stop and find a place, near where they're trying to find a book, to study," he says.

Fisher aimed to make students feel at home in the study spaces, choosing carpets, couches, fabrics, and artwork to domesticize and personalize what could be considered an institutional building. "We wanted them to feel comfortable and bring an intimacy, which in a way is almost contradictory to an enormous building like that," he says. "We made an effort to create many varied, intimate environments with a particular kind of furnishing to, in a way, change the overall feeling of the building from the so-called institution to the home."

Designers also worked to make Firestone a greener, energy-efficient building. The motion-sensing and LED lights save energy, the HVAC system was upgraded to use "chilled beam" technology, new windows are thermal insulated, and the bathrooms now have low-flow plumbing.

Rowlands notes that workers were able to recycle or repurpose a significant amount of the materials that were taken out of the building, including concrete, wood, electrical wiring, and copper, among other materials. (Contractors also found old notebooks, complete with drawings and references to the Honor Code, a pipe that still smelled of tobacco, empty bottles of beer, an origami crane from 1969, and other relics — some of which the library displayed in a 2013 exhibition called "Building Firestone.")

"Princeton has this great legacy, and they will continue to have this great legacy in the future," Fisher says. "We were very interested in doing something that would have a timeless quality to it, and not be just a design fad that would look cool for a few years and then look dated. That was part of going back to the original DNA of the building.

"My hope," he continues, "is that the library will be used in a way in which these successive generations can imagine new pursuits that we can't even imagine." •



ABOVE: A tapestry

commissioned from California artist John Nava hangs in the William Elfers '41 Reading **Room and incorporates** images of objects from **Firestone's Rare Books and Special Collections. FAR RIGHT: A view of the lightfilled Rare Books and Special Collections Reading Room** from the B-level bridge. NEAR **RIGHT: Oscar Torres-Reyna, a** data and statistics consultant in Firestone's Data and **Statistical Services Lab, helps** students analyze their data.

Anna Mazarakis '16 is a podcast producer.







GROWING LIKE A WEED

Alumni jump into the legal cannabis business

BY MARK F. BERNSTEIN '83

he smell hanging over the warehouse is the first thing one notices. The building covers a full city block in a northeast Denver industrial park, but the name of the company that owns it, Verde Natural, is nowhere to be seen. Keypad locks on all the doors and security cameras everywhere are the only signs that there might be something interesting inside. That, and the telltale odor, pungent even a hundred yards away: slightly sweet, slightly acrid, but unmistakable to anyone who has been a young person in the last two generations.

It is the smell of marijuana. And lately, it is the smell of money. Andrew Salini '06, Verde Natural's chief operating officer, offers a tour through the rabbit warren inside. He has offices, testing labs, 25,000 square feet of grow rooms full of cannabis plants under 1,000-watt heat lamps, and a 7,000-square-foot greenhouse for seedlings. There are "cut rooms" where nipped buds hang upside down to dry and processing rooms where the high-inducing cannabis resin is distilled into hashish oil or dried into something that looks like peanut brittle. It's all perfectly legal: Colorado allowed medical cannabis in 2009 and broadened that to include recreational use in 2014.

About 74 miles to the west, in the ski town of Silverthorne, Colo., the overpowering smell is of pine trees and mountain air. In a strip mall above what used to be a Quiznos sub shop, Nick Brown '05 runs High Country Healing, one of four dispensaries he owns in the state. If Verde's Denver warehouse represents the wholesale end of the cannabis business, High Country Healing is a typical retail store, although Brown, too, grows the stuff. Display cases contain jars of marijuana buds with brand names such as Train Wreck, Cookie Monster, Grape Ape, and Strawberry Cough. Patrons can see the cannabis growing behind large show windows while they shop. The store even lets customers select their own buds from the plants, which might be a great first-date idea — sort of the stoner's version of apple picking.

A few years ago, when he worked for Brown, Salini had the idea to color-code cannabis by the effect it induced, and that is how the products at High Country Healing and Verde (which operates two dispensaries) are grouped. Blue and gold are *cannabis sativa*, and their effects range from mindfulness to euphoria. Purple and red are *cannabis indica*, which will chill you out or put you to sleep. "Indica — in da couch," as devotees say.

Alongside the store's marijuana buds are pre-rolled joints, which also have provocative names such as Bruce Banner, the mild-mannered scientist who turns into the Incredible Hulk. There are shelves of vape pens, salves, tinctures, and "edibles" such as cannabis-infused chocolate bars and gummy bears. Brown's trained staff members are eager to explain their wares or recommend something new. "We're here to help people find the strain that would best suit them for the moment," one employee explains from behind the counter.

It's all a little like venturing into your local wine store or cigar shop. In fact, Brown and Salini would argue, it's *exactly* like venturing into your local wine store or cigar shop.

This is the state of marijuana in 2019, at least in states where it is legal: no longer baggies full of who-knows-what scored from a friend of a friend, but a fully consumerized product. Former House Speaker John Boehner recently joined the board of a cannabis company, while Goldman Sachs, Bank of America, and other pillars of Wall Street are also starting to invest in the industry. Legal marijuana is projected to produce as much as \$12.4 billion in revenue this year, a figure that could double by 2025. According to the Marijuana Business Handbook, there are now more people working in the cannabis industry than there are dental hygienists.

At the same time, however, a small cadre of writers and scientists warn that we don't understand the long-term effects of cannabis use and call for further research and perhaps a pause in legalization. Even they concede, however, that they are trying to stop a moving train, because the legal marijuana business has already left the station and is well down the tracks.

en states and the District of Columbia now allow the recreational use of cannabis, and 23 others allow it for medical use with a doctor's prescription — 36 if one includes products, such as salves and lotions, that include cannabis chemicals used to treat pain or nausea. Put it another way: Only four states — Idaho, Kansas, Nebraska, and South Dakota — do not allow the use of cannabis-based products in any form.

Cannabis plants contain more than 100 chemical

Nick Brown '05, left, and Andrew Salini '06, who work in the legal cannabis industry, in Silverthorne, Colo., home of one of Brown's four dispensaries. compounds, known as cannabinoids, but the two most significant are delta-9-tetrahydrocannabinol (THC), the stuff that makes a user high, and cannabidiol (CBD), which is believed to have palliative properties. Closely associated with cannabinoids are terpenes, the aromatic oils secreted by cannabis and other plants. Terpenes give different types of cannabis their distinctive smell or flavor, and they interact with the cannabinoids to affect mood and outlook.

Brown prefers to say "cannabis" rather than "marijuana," a slang term that "disrespects the plant," in his opinion. (Other slang terms, such as "pot," "weed," and "grass," don't bother him, though.) Call it whatever you want, he has been smoking it for a long time — how long, he'd rather not say. Still, this is a man who had a "bud bar" at his wedding reception last year, offering homegrown weed to family and friends.

Engaging and friendly, Brown gets passionate when he talks about cannabis. He doesn't smoke cigarettes and drinks only rarely. He smokes cannabis to relax and says that, unlike alcohol, it doesn't leave him with a hangover or make him belligerent. "Cannabis," he insists, "is all I have ever wanted or needed."

Real-estate agent in July 2009 when he decided to attend an information session offered by the Colorado Department of Health to explain the state's new medical-marijuana law. An individual with a recognized medical condition and a doctor's prescription could own up to six cannabis plants for personal use, but could transfer those plants to a third party, such as a licensed dispensary, which could in turn hold them for dozens or hundreds of people.

Brown recognized his calling.

After obtaining a license, he opened High Country Healing, the first medical dispensary in Silverthorne, in October 2009. From the beginning, he built bridges to local officials, inviting the entire city council and the local police department into his store before it opened, to introduce himself and familiarize them with what he was doing.

Brown is an evangelist for the medicinal properties of cannabis, which is used to alleviate the pain and nausea of chemotherapy and to treat a variety of other conditions,

This is the state of marijuana in 2019, at least in states where it is legal: no longer baggies full of who-knows-what scored from a friend of a friend, but a fully consumerized product. including Alzheimer's disease, Crohn's disease, epilepsy, and glaucoma, although there have been relatively few research studies on its effectiveness. Brown gives away a strain of hashish oil used to treat epilepsy, from his own personal supply, to people who cannot afford it. One of them, a young woman visiting from Florida who was seeking cannabis oil to treat her son's seizures, is now his wife.

High Country Healing grew steadily selling medical marijuana, but the big leap came on Jan. 1, 2014, when Colorado allowed its sale for recreational use. Brown and his employees stayed in the store all night on New Year's Eve, preparing to serve the opening-day crowd. "The line stretched all the way down my stairs into the parking lot," he recalls. His Silverthorne dispensary, which had been doing about \$7,000 a day in business selling medical marijuana, sold \$51,000 worth of recreational marijuana that first day and had to close early.

Overall, Brown says that his sales have quadrupled since recreational cannabis was legalized. With four dispensaries now, in Silverthorne, Vail, Colorado Springs, and Alma, High Country Healing is a relatively small chain by Colorado's standards. There are currently 365 cannabis dispensaries in the state, both recreational and medical. To put that in perspective, there are more cannabis dispensaries in Colorado than there are Starbucks and McDonald's combined.

With business booming, Brown brought Salini on board to help guide his company's expansion. The two had been officers at Cottage Club, and Salini would visit Brown every winter "to ski and smoke." Salini, who is as intense as Brown is laid back, had gone straight to Wall Street after graduation. Both his parents had suffered from cancer, and he believed in the palliative properties of cannabis as well as in its business potential. In November 2014, he quit his job at a hedge fund to join High Country Healing as chief operating officer.

"People told me that I'd never work on Wall Street again if I went out [to work in the cannabis business]," Salini recalls with a laugh, "but I never planned to go back."

One of the biggest challenges Brown and Salini faced was broadening the public palate for a product that many casual users regarded only as a vehicle for getting stoned. Imagine if most people had grown up consuming only grain alcohol and were suddenly introduced to wine varietals, single malt scotch, and craft-brewed beer.

In addition to their color-coding system, which Salini says was inspired by a gourmet tea store in Brooklyn, the company introduced new products, including "Mini-Js," which are half the size of a normal joint and easier to smoke in one sitting. "We thought it would be really great to have something portable that had just enough for you and a few friends," Salini told the website The Cannabist, which featured the product in its supply kit for hikers.

Brown and Salini are proud that they grow all their cannabis organically, with a proprietary soil and nutrient mixes developed through years of experimentation. High Country Healing grows as many as 50 strains of cannabis at a time. Plants begin as clones and are grown hydroponically until they sprout roots, at which time they are put into ordinary garden pots. As required by state law, each plant is given its own radio tag, so inspectors from the Colorado Bureau of Marijuana Enforcement (a division of the Department of Revenue) can



track Brown's entire inventory "from seed to sale" and ensure that he is not selling on the black market.

Plants remain under grow lights around the clock until they reach maturity. To produce buds, which secrete the resin used in all forms of consumed cannabis, darkness is required. The company turns off the lights for up to 12 hours a day when it is ready to develop a new crop.

Cannabis is heavily regulated, as those radio tags suggest. Counties and municipalities have the right to restrict the number of dispensaries or ban them altogether. Public consumption of cannabis is prohibited, as are sales to minors, and there are limits on how and where it can be advertised. All cannabis products must have a yellow label stating how much THC they contain.

The products are also heavily taxed. In 2017, Colorado made more than \$247 million from marijuana taxes, licenses, and fees, which sounds like a lot but is still less than 1 percent of the state budget. Much of that money goes into a schoolconstruction kitty; it is also used to fund a day center for homeless people in Aurora and scholarships for disadvantaged students in Pueblo, among other things.

Even in states where it is legal, cannabis is a cash-only business. Banks, most of which operate across state lines, will not process credit or debit charges because cannabis remains illegal under federal law and the Federal Deposit Insurance Corporation will not insure a bank that handles illegal transactions. Almost all dispensaries contain an ATM.

In March 2018, Brown and Salini, who was eager to expand more aggressively, parted ways on friendly terms, and Salini joined Verde. For Verde, the next frontier is California, which allowed recreational cannabis in 2018. Sales in the state actually fell last year, which some observers attribute to the slow processing of dispensary licenses and a huge surplus of black-market pot. By 2020, however, the firm New Frontier Data projects that cannabis sales in California could exceed wine sales. Salini is determined to be there for the bonanza; he has already sent Verde's master grower to open a large growing and processing facility in Humboldt County.

 nthusiasm for legal cannabis can be raucous, but there are still voices of opposition.

Growing and using cannabis remains illegal under federal law. The U.S. Drug Enforcement Administration (DEA) classifies it as a Schedule I drug, defined as a substance that has "no currently accepted medical use in the United States, a lack of accepted safety for use under medical supervision, and a high potential for abuse." That's the same classification as heroin and LSD and higher than cocaine, which the DEA notes can be administered by doctors for local anesthesia.

Much remains unknown about the long-term effects of marijuana use, and the efficacy of many medicinal uses has not been proven by scientific research. Those are among the points that former *New York Times* reporter Alex Berenson makes in a new book, *Tell Your Children: The Truth About Marijuana, Mental Illness, and Violence.*

Berenson cites a 2017 report by the National Academies of Sciences, Engineering, and Medicine that linked heavy

As CEO of Verde Natural, Salini oversees testing labs, 25,000 square feet of grow rooms, and a 7,000-square-foot greenhouse with seedlings.

marijuana use to psychosis, paranoia, and schizophrenia, as well as an increased risk of suicide, depression, and anxiety. "The higher the use, the greater the risk," the report concluded. Those deleterious effects are amplified, Berenson writes, because much of the marijuana consumed today is significantly more potent than it used to be. Cannabis buds contain only 15 to 20 percent THC, but new hashish concentrates, called wax, shatter, or dab, can contain up to 90 percent of the compound.

Brown acknowledges that hash extracts and concentrates have grown in popularity. People like them because concentrates get them higher faster, and the vape pens in which they are smoked are harder to detect since they don't emit that telltale marijuana odor. He and his staff don't promote concentrates but wait for customers to request them and then try to educate customers on the products, their potency, and how to use them safely.

David Nathan '90, a Princeton-based psychiatrist, founded the group Doctors for Cannabis Regulation, which, its website declares, is the "first and only national physicians' organization dedicated to the legalization, regulation, and taxation of cannabis in the United States." He concedes that cannabis can trigger or exacerbate psychosis in people who are predisposed to it. That is one of the reasons he believes cannabis products should contain ingredient and warning labels, so people who are at risk can avoid them. Similarly, he says, cannabis should not be sold or marketed to children.

In short, what Nathan advocates is what states like Colorado already have — legalization coupled with regulation. The war against marijuana use has been a failure, he insists, and the harsh criminal penalties for possession have fallen disproportionately on minorities, helping to drive mass incarceration.

"When I hear people say we need to regulate cannabis like alcohol and tobacco, I disagree," Nathan says, pointing out the patchwork of often-ineffective rules governing their sale and use. "I think we need to regulate it better than we have regulated alcohol and tobacco, because that has led to a host of societal ills that our government has not been particularly proactive in solving."

Robert Mikos '95, a law professor at Vanderbilt University, has studied legal attempts to suppress marijuana over the last 80 years. Although he takes seriously the concerns that Berenson and others raise about improper usage, Mikos suggests that, when it comes to cannabis, what skeptics present as medical questions are often really philosophical ones.

"Let people decide for themselves to take on those risks, so long as they are informed," he suggests. "That is what we do with alcohol and tobacco. We know those are very dangerous substances, but we let people assume those risks. Some, in fact, are even greater than the hypothesized risks with marijuana, yet we regulate [alcohol and tobacco] less heavily. I don't think anyone says that marijuana is harmless."

Back when they worked together, Salini says, he and Brown sometimes imagined the warning labels they might put on cannabis, such as, "Side effects might include euphoria and anti-inflammation. You might also fall asleep or have a great time." Still, it is a subject he takes seriously. Regular cannabis users know that smoking too much, or something too powerful, can produce bad side effects. "Is cannabis totally harmless?" he asks. "No, but it's not binary. Cannabis should not be abused. But the benefit is tremendous. We need to understand it."

For his part, Brown also supports cannabis regulation anything that makes it safe and easier for him to spread the word about a product he believes in with all his heart. "I want as much transparency as possible," he says, "because I believe so heavily in this plant as a positive factor in our community." \diamondsuit

Mark F. Bernstein '83 is PAW's senior writer.
PRINCETONIANS

dabbled in TV after graduation, but found himself drawn to the newly formed Sacred Fools Theater Co. and never left. The native Angeleno became managing director nine years ago, and in 2015 he helped Sacred Fools find a permanent home at The Broadwater, a central-Hollywood facility where he and his wife also opened a bar. "I have a ton of experience managing, and a ton of experience drinking," he say allowed me to combine both skills!" Joe Hernandez-Kolski '96 and Nikki Muller are also Sacred Fools members

FOOLS' PARADISE: Padraic Duffy

'96

his

05

READING ROOM: PAUL VOLCKER '49

WHY A TITAN OF AMERICAN FINANCE IS WORRIED



Paul Volcker '49 is worried, and that should make people nervous. If anyone knows what a crisis looks like, it's the 91-year-old former chairman of the Federal

Reserve Board, who presided over the central bank from 1979 to 1987.

A towering figure in every sense of the word (at 6-foot-7 he played on Princeton's varsity basketball squad), Volcker recounts in his new autobiography, *Keeping At It* (PublicAffairs), how he helped the nation navigate several major financial threats — from the ending of the gold standard in 1971 to the war against stagflation administrations — this time his concern is centered on government itself.

Specifically, Volcker, the son of a city manager, is worried that the public has lost faith in the ability of government and policymakers to get things done for the greater good. "The government has been rather gravely wounded," Volcker said in a recent interview. He notes that when Americans are asked if they trust their government in Washington D.C., only around 20 percent say yes, down from 75 percent a generation ago. Faith in state and local government is somewhat higher, but polls show trust there is falling as well.

Yet the stakes are high. As he points out, the federal, state, and local



"Obviously, we haven't had a president like this," Paul Volcker '49 says. But as he points out in his book, presidents have attempted to exert political influence over past Fed chairmen — including him.

from the mid-1970s to the early 1980s, to the global financial crisis that began in 2007.

But while Volcker is best known for his lifelong interest in sound fiscal and monetary policy — which began with his senior thesis on the Fed and culminated with his efforts to combat double-digit inflation in the Carter and Reagan came of age in the post-World War II era, when government work became professionalized, America's distrust of government — and the lack of incentives for professionals to

remain in the

is a hard pill

public sector -

governments

percent of the

country's total

For a

economic output.

policymaker who

collectively spend nearly 40

to swallow. Part of the reason for this distrust, he says, may stem from decades of middleclass economic dissatisfaction with the government's ambivalence about the growing concentration of wealth. And part of it is political. Volcker points out in his book that "Ronald Reagan could always win applause by announcing that 'government is the problem.'" While Volcker concedes that in some cases, government may be the problem, "it also happens to be a necessary part of our national being and of a successful society," he writes. As a result, he argues, "we'd better make it work effectively."

Toward that end, Volcker — who chaired two national commissions on public service — is leading a third effort to address this challenge. The Volcker Alliance, established in 2013, seeks to find ways to restore faith and efficiency in government through increasing responsiveness, transparency, and recruitment efforts; encouraging innovation and new technologies; and promoting an independent civilservice system.

A tall order, perhaps — but in Volcker's opinion, not an insurmountable one. "We've gone through really big, messy wars, and we've had other global crises. And we've survived it all," he says.

Another theme that's woven throughout Volcker's book: The more things change, the more they stay the same. Case in point: President Trump's recent use of Twitter to denigrate the policies of Federal Reserve Board Chairman Jerome Powell '75 — whom he appointed — for raising interest rates.

"Obviously, we haven't had a president like this," Volcker says. But, as he points out in his book, presidents have attempted to exert political influence over past Fed chairmen — including him.

He recounts a meeting with President Reagan and Chief of Staff James Baker '52 in the summer of 1984, months before the presidential election. The president, who was seated, didn't say a word. "Instead, Baker delivered a message: 'The president is ordering you not to raise interest rates before the election,'" Volcker recalls in his book.

"I was stunned. Not only was the president clearly overstepping his authority by giving an order to the Fed, but also it was disconcerting because I wasn't planning tighter monetary policy at the time," he writes.

What did Volcker do? He walked out without saying a word.

But now, it's his time to talk — about what it will take to make government great, or at least effective, again. *By Paul Lim '92*

PRINCETONIANS



A young technology company, FiscalNote, unites Washington, D.C., policy and big data

Even before arriving at Princeton, Timothy Hwang '14 had an interest in politics, working as a field organizer for Barack Obama in 2008 and serving as a student member of the Board of Education of Montgomery County (Md.) Public Schools when he was 17. At college, Hwang majored in the Woodrow Wilson School but also took courses in computer science. Then, in a Sunnyvale, Calif., Motel 6 during the summer after his junior year, Hwang put those interests together, founding a company with two high school friends that news organizations have said could automate the ways of Washington.

That company is FiscalNote, founded with Jonathan Chen and Gerald Yao, which brings the principles of big data to Washington, where policies affecting the lives of millions can be won or lost on personal relationships. Hwang originally thought he would take "a more typical Woody Woo-major path" and work on tech-policy issues at the State Department, Federal Communications Commission, or on Capitol Hill — "but then I thought maybe we could do the opposite and take some of that policy expertise and apply it in the technology space," he says. FiscalNote was designed as a platform that would allow lobbyists and policymakers to track what was happening across federal, state, and local politics — a tool that can quickly sort through and analyze data that, in the past, would have required hundreds of hours of labor.

"Lobbying, like baseball, no longer belongs to old-timers and their seasoned intuition: It's now being refined by computer data and forecasts." - MIT Technology Review Five years later, FiscalNote employs more than 400 people, has 5,000 clients, and has moved from Motel 6 to a sprawling space on Pennsylvania Avenue, complete with a Silicon Valley vibe and a glass-walled conference room called "Princeton." Last summer the technology company purchased *CQ Roll Call*, one of the best-known outlets for nonpartisan political journalism in the United States, for \$180 million from The Economist Group. It's one of several companies that recently have brought big data to lobbying.

"Lobbying, like baseball, no longer belongs to old-timers and their seasoned intuition: It is now being refined by computer data and forecasts," said a recent article about FiscalNote in *MIT Technology Review.* Whether that's good or bad is still being debated.

What can FiscalNote do? If you're a subscriber with an interest in a political issue – say, the minimum wage or renewable energy - the platform will pull up pending bills in Congress and state legislatures that deal with that issue. FiscalNote provides an estimate of how likely it is that a bill will pass and populates a "virtual whipboard" that sorts the relevant legislators according to how they are likely to vote (yes, lean yes, toss-up, lean no, or no). It also provides a liberal-to-conservative ideology scale showing where each legislator's voting record falls on a range of issues from transportation and health to crime and agriculture.

There's a tool for automatically analyzing the comments submitted by the public about a proposed regulation, a process of reading and sorting that, done manually, would take many days. It mines bills, comments, and proposed regulations. There's a search engine for the Twitter feeds of policymakers at the state, federal, and local levels, as well as reports published by the Congressional Research Service and policy documents from countries including Argentina, Canada, Chile, India, and the United Kingdom. (Hwang says a new country is uploaded every three to four weeks.)

The company demonstrated its technical prowess in the spring of 2017, when the Federal Communications

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AA Haven

Feel free to drop by the AA Haven for fellowship from 7 - 11 p.m. Frist Campus Center, Class of 1952 Room.



PRINCETONIANS

Commission opened the publiccomment period on its plan to repeal net-neutrality protections. A record 22 million comments (including many submitted by "bots") poured in. FiscalNote sorted through all of them, organizing them for clients in a way that showed not just whether each commenter was in favor or opposed to the proposal, but for what general reason.

Hwang sees FiscalNote partly as a tool to help large multinational companies gather the data they need to comply with myriad rules at different levels of government. "If you're a large food-and-beverage company, then you have these big farms, distribution arms, restaurants, and all of the agriculture and labor and environmental and food-safety regulations," Hwang explains. "The way our regulatory system is set up [is] complex and byzantine — and then you multiply that across 50 states."

Moreover, he sees "big data" analysis as a way to give smaller Washington players access to tools the big players have wielded for years, helping them better target their message and use resources more effectively. Clients include small and nonprofit organizations including the Boys & Girls Clubs of America, the Natural Resources Defense Council, and Meals on Wheels — nonprofits Hwang says could not otherwise afford to analyze comprehensive policy data.

FiscalNote won't disclose specific fees, but says they are scaled according to an organization's size and whether it is a for-profit or nonprofit entity. A nonprofit typically would pay "in the low five figures," while a large, multinational corporation would pay in the high six figures, according to Chris Lu '88, deputy secretary of labor during the Obama administration, who now works at FiscalNote. Meanwhile, a 2013 New York Times article about lobbying expenses for small businesses estimated that hiring government-affairs professionals to represent them could run \$5,000 to \$20,000 per month.

But others are skeptical of the argument that big data will give a meaningful voice to groups that have not been able to afford access to

Hwang sees "big data" as a way to give smaller Washington players access to tools the big players have wielded for years.

power. "These kinds of tools usually become weapons of powerful interests and organized groups because those groups already have an apparatus up and running to use that information," says Tim LaPira, a political science professor at James Madison University who previously worked at the Center for Responsive Politics.

Benjamin Waterhouse '00, a history professor at the University of North Carolina at Chapel Hill who wrote *Lobbying America: The Politics of Business from Nixon to NAFTA*, says just giving smaller organizations access to more information may not be enough to amplify their voices in policy debates. "There's a tendency to over-valorize the power of small businesses and groups, and giving them more data may be part of imagining that those smaller voices can have a serious impact, but the power centers in lobbying have always been the biggest, richest organizations," he says.

Indeed, Hwang insists that FiscalNote aims to help lobbyists with research and tracking, not to replace them with fully automated software counterparts. Princeton computer science professor Edward Felten, a former U.S. deputy chief technology officer who serves on a task force looking at how the labor market can adjust to advances in artificial intelligence and technology, seems to agree that lobbyists need not worry about unemployment. "To me, [FiscalNote] sounds less like a robot lobbyist and more like a robot research intern," he says. "A governmentrelations person is trying to understand what policymakers are thinking; they're looking at legislation and other proposals and trying to figure out what's going to happen – and that's going to require human judgment."

Notes Waterhouse: "Even in an age of big data, lobbying still operates the same way it always has — based on personal connections." Φ By Josephine Wolff '10

CLASS NOTES

Online Class Notes are password protected. To access, alumni must use their TigerNet ID and password. Click here to log in: http://paw.princeton.edu/ class-notes



PRINCETONIANS

MEMORIALS

PAW posts a list of recent alumni deaths at paw.princeton.edu. Go to Reader Services on PAW's home page and click on the link "Recent Alumni Deaths." The list is updated with each new issue.

THE CLASS OF 1943



Arthur M. Coddington Jr. '43 Art died peacefully Dec. 29, 2018, in Oxford, N.Y., surrounded by his three children. He was 98. Like brothers Carlton '38

and James '46, Art came to Princeton from Johnson City (N.Y.) High School, where he was a standout athlete. He spent one year at Phillips Exeter Academy, again excelling at sports. At Princeton he played freshman football and quarterbacked the undefeated 150-pound football team. He also played baseball and rugby. He belonged to the Catholic Club and Tiger Inn. He majored in biology, noting in the *Nassau Herald* that he planned to study medicine at Penn and become a doctor.

He did just that. Entering Penn right after graduation, he spent three years there and two years interning at Robert Packer Hospital in Sayre, Pa. After two years in the Army, where he served as a captain and medic in peacetime Japan and Korea, he completed residencies in pathology and pediatrics. In 1952 he established a private practice of pediatrics in Johnson City.

In 1954 Art married Margaret "Margie" Nealon. Art was a devoted husband, loving father, involved citizen, and forever a Tiger. His family reports that one of his last words was "Princeton."

Art was predeceased by Margie in 2012. He is survived by daughters Dr. Jane A. Coddington and Mary Spezzano, and Mary's husband, Bill; son Arthur M. Coddington III '87; and grandsons Patrick, Sean, and James Spezzano.



Blake W. Ogden '43 *48 Blake died Oct. 25, 2018.

He was born in Middletown, N.Y., and prepared at Middletown High School, where he was on the basketball

team, the school magazine, and the yearbook staff. At Princeton he was on the 150-pound crew and the business board of the *Sovereign*, and was a member of Tower Club. He majored in electrical engineering.

Blake graduated from Princeton in January

1943 and enlisted in the Navy during World War II. He returned to Princeton to earn a master's in electrical engineering in 1948. With this, he joined Procter & Gamble and remained with that company until his retirement. Over the years, Blake and his wife, Edie, generously contributed their time to civic, charitable, and trade organizations, including the United Appeal, the Red Cross, their church, the Princeton Club of Southwest Ohio, and the Boy Scouts of America.

He is remembered for his love of fun, his volunteering spirit, and his passion for the outdoors. His favorite pastime was fly-fishing in the streams of Montana.

Blake was predeceased by Edie in 1993. He is survived by his children Barbara and her husband, Craig Burns; Tom; and David and his wife, Kristine; six granddaughters; and six great-grandchildren.



Henry B. Wehrle Jr. '43 Henry died Nov. 4, 2018, peacefully at his home in Wellington, Fla. He was 96. He prepared for Princeton

at Charleston (W.Va.) High

School, where he was a member of the band. At Princeton he graduated *cum laude* with a degree in chemistry. He was a member of the Glee Club, the orchestra, and Campus Club. Upon graduation, he served three years in the Navy during World War II, attaining the rank of lieutenant.

After serving in the Navy, Henry returned to Charleston to begin his lifelong career in the family business at McJunkin Supply. He supplemented that busy career by serving as a bank director, as chairman of the Kanawha Airport Authority, and as a trustee of Davis and Elkins College and of Davis-Stuart School.

He was a lifelong Presbyterian and served as a deacon and elder at Bream Memorial Presbyterian Church in Charleston. For recreation, he enjoyed a good game of golf.

Henry's wife Helen died in 1974. He is survived by four children from his first marriage, Bernie '73 and his wife, Cecilia; Beth and her husband, Matt; Steve and his wife, Laura; and Lynne and her husband, Tony. He is also survived by his second wife, Sharon Mason, and her children Michael and Cindy. Henry's legacy also continues through his 13 grandchildren and three great-grandchildren.

THE CLASS OF 1945



John Barwick '45 Jack was born in Jerusalem to John W. Barwick and Laura Hershey, who were working for the World YMCA Education Program.

Jack attended Northfield Mount Hermon and then Princeton, where he was a member of Cloister Inn. His college years were interrupted by World War II. He recounted his Navy experiences in *My War*, published in 2011. After the war Jack graduated *summa cum laude*.

Jack attended the London School of Economics from 1947-1948. He worked with the YMCA and the State Department's International Relief Organization, helping displaced persons in Europe, an interval he described in another book, *Picking Up the Pieces*, published in 2012.

Jack married JoAnn Ridgeway and they had two children, John and Alison. They divorced in 1978, and he later married Ilse Hubrich. Ilse died in 2010.

He founded and was CEO of Performax, a corporate-training company based in Westport, Conn., until moving to Waterbury in 1994, where he and his son, John, bought the Old Stagecoach Inn.

Jack died July 27, 2017. His sister Betty predeceased him. John is survived by son John; daughter Alison; two stepdaughters, Karen and Sharon; two brothers, Peter and James; three grandchildren; and four great-grandchildren.

Rudolph Eberstadt Jr. '45



Rudy died Feb. 1, 2018. He was born in Orange, N.J., and attended Newark Academy. His father was a member of the Class of 1917.

At Princeton Rudy was in the Quadrangle Club.

In World War II he was a sergeant in the Company A 573rd Signal Air Warning Battalion and 582nd Special Air Wing, where he served as a radar technician in Italy, France, Germany, and Austria. He was awarded the Bronze Star and Distinguished Unit Badge.

He started his career at Jones & Eberstadt in Detroit, selling production parts to the automotive industry. Then he joined Republic Industrial Corp., founded by his father, where he became CEO. He built the company into a Fortune 500 company. He later became CEO of Sucrest. He and his wife, Thea, retired to Boca Grande and later to Vero Beach, Fla.

Rudy was predeceased by his brother,

PRINCETONIANS / MEMORIALS

Otis Webb Davey III, and grandson Rudolph Eberstadt IV. He is survived by his children Page Snow and Rudolph Eberstadt III; grandchildren Samantha, Natasha, and Peter; grandchildren Robbie, Henry, Jane, Anabel, and Fallon; and brother Andrew.



John W. Hennessey Jr. '45 John died Jan. 11, 2018. He enrolled at Princeton at

age 16. He graduated *magna cum laude* and was elected to Phi Beta Kappa. His senior

thesis was an argument for comprehensive national health care. He was in Theatre Intime, Whig-Clio, and Campus Club, and won the intramural tennis medal.

John joined the war effort as an officer in the Army. He managed hundreds of service members in the Philippines. After World War II John married Jean Marie Lande and they had two children, John and Martha. He earned an MBA at Harvard Business School and a doctorate in organizational behavior.

John became a professor at Dartmouth and then taught in Switzerland, Turkey, the USSR, and China. He accepted the deanship at Tuck School of Business at Dartmouth, with the condition that the school admit women.

He founded the Council on Opportunity in Graduate Management Education to increase the number of minority students in MBA programs. He became provost at the University of Vermont, and later interim president. He lost his wife of 56 years in 2004.

John was chairman of the board of Mary Hitchcock Memorial Hospital and on the board of Americans for Campaign Reform (ACR). He and his colleagues invited former Vermont Gov. Madeleine Kunin to join the ACR, and a year later, in 2006, they married.

His daughter, Martha Hennessey, is a New Hampshire state senator.



James F. Holland '45

Jim was born in 1925 in Morristown, N.J., and attended Morristown High School. At Princeton he majored in chemistry and was elected

to Phi Beta Kappa. He earned a medical degree from Columbia University's College of Physicians and Surgeons.

He was a captain in the Army Medical Corps in World War II during the occupation in Germany. Returning from Germany, he went to Francis Delafield Hospital, a new cancerresearch center, where he saw one of his child patients with leukemia go into remission.

Jim developed complex clinical cancer trials while at the National Cancer Institute, making them a prototype for later research. He moved to Roswell Park Memorial Institute, Buffalo, N.Y., in 1956. He received the Albert and Mary Lasker Clinical Medical Research Award in 1972.

In 1956 he married Jimmie Coker Holland, a founder in the field of psycho-oncology. In 1973, Jim moved to the Mount Sinai School of Medicine in New York City, where he held an endowed chair in neoplastic diseases.

Jim died March 22, 2018, at 92, shortly after Jimmie's unexpected death. He is survived by his six children and nine grandchildren.

THE CLASS OF 1949



William H. Painter '49 *50 Bill died Oct. 28, 2018. He was a native of Pittsburgh, and his father was in the Class of 1914. He came to us from St.

Paul's School, roomed with Joe Donner for two years, and then roomed with Dick Schmertz. He belonged to Cannon Club, majored in philosophy, graduated with high honors, and was elected to Phi Beta Kappa. He took another year to do graduate work in philosophy at Princeton. He then attended Harvard Law School, graduating in 1954. He taught briefly there as a teaching fellow, and then joined the law faculty at Villlanova. In 1972 he joined the University of Illinois Law School and retired there after 15 years as a full professor. He subsequently served on the faculty at George Washington University Law School.

In addition to his teaching career, Bill was an avid bibliophile, with a substantial collection of first editions of English literature from 1700 to 1840. He also raised and showed English setters. In our 50th-reunion yearbook he said, "Watch how English setters behave and strive to emulate them as best you can."

Bill is survived by his wife, Marion; sons Richard and Edward; and one grandchild. Our sympathy and condolences go to all of them.

THE CLASS OF 1952



Alf joined us from St. Paul's, majored in geology, and ate at Tiger Inn. He played hockey and roomed with Porter Hopkins, John Hoffmann, Craig

Alfred W. Gardner '52

Lewis, and Pete Paddock.

After a couple of years as an expediter at John A. Roebling & Sons, he went to First National City Bank and eventually became vice president. Alf left to focus on real estate in Colorado, first at Harry Kelly & Co. and then his own firm. His firm eventually merged with Basalt Realty, with Alf as a partner for 20 years until 1997.

Alf married Sandra Hebard in 1951. She died in 1996. He later married Kathleen Gulick and lived with her at the Rancho La Quinta Country Club, where he died Dec. 3, 2018. The class sends its good wishes to Kathleen and to Alf's children, Alfred Jr., Frederick, and Mary.

David S. Rowley '52 *56

Dave died Dec. 18, 2018. He came to us from the Kingswood School, as had his father W. Thurston Rowley 1922. Dave joined Dial and

majored in mechanical engineering, belonged to the Society of Automotive Engineers, and was the Dial club treasurer. He roomed with George Paff and Bob Frey. He was in the Navy ROTC — serving two years as a gunnery officer — then came back to Princeton and earned a master's degree in mechanical engineering.

.....

Dave worked in research and development of oil-drilling equipment at Norton Christensen Corp. as vice president of technology and held 23 patents. He then worked for a time in his own business as a consulting engineer before retiring in 1994. Among his volunteer activities, he spent 23 years in the Coast Guard Auxiliary teaching boat safety.

Dave is survived by his wife, Sharron; and his children, Duncan, Katherine, Howard, Laura, and Karen. To them the class offers sympathy and our respect for their father's service to the nation.

Purd B. Wright '52



Purd came to Princeton from Kent, where he rowed crew and went to the Henley Regatta. At Princeton he joined Colonial and roomed with Wilmerding,

Warren, and Collins. In 1951 he joined the Air Force and had assignments with intelligence in the United States and Morocco. He came back to finish his degree with honors in history in 1954. He opted to retain his membership in our class.

Purd's career was in sales with the International Paper Co. and Garden Way. Purd commenced a vigorous association with riding when he joined the Saddle and Sirloin Club of Kansas City in 1966. He was a dedicated trail rider with that club and with the Desert Caballeros Ride in Arizona for many years.

He died Nov. 22, 2018. He is survived by his wife, Margaret Ann; and children Allen, Jennifer, and Abigale. The class sends its sympathy and respect for Purd's service to our country and loyalty to the class.

THE CLASS OF 1953



Peter Roy Carney '53

Peter died Jan. 11, 2019, in Vero Beach, Fla., after a brief illness. He was born in Chicago and came to Princeton from the Canterbury School in New

Milford, Conn. Peter majored in geology and wrote his thesis on the coal and oil resources of Williamson County, Ill. He was on the editorial board of the *Tiger* and was a member of Cap and Gown Club.

After graduation he joined the Army and served with the 97th Field Artillery Battalion at

Fort Carson in Colorado Springs, Colo. Returning to Chicago, he was an investment analyst for Glore Forgan before moving to Denver as a staff geologist for E.A. Polumbus & Associates.

After three years in Denver, Peter returned to Chicago to become president of Superior Graphite Co., which had been founded by his grandfather. Peter led the company to develop an innovative continuous carbon-purification process to convert petroleum coke to graphite, which was commercially successful. The new technology enabled the company to develop products for a number of industries — from iron and steel to advanced battery systems — and to move from a small regional company to a company selling and distributing throughout the world.

Peter served on the boards of such organizations as the Wyoming Chapter of the Nature Conservancy, the Museum of Science and Industry, and the World Business Council.

He is survived by his wife of 61 years, Marina Galitzine Carney; four children; and 12 grandchildren.

THE CLASS OF 1959



Norman H. Donald III '59 Norm died July 11, 2018, at his home on an 80-acre farm in north Georgia. A thirdgeneration Princetonian, he came to us from St. Paul's,

where he rowed on a crew that went to the Henley Regatta in 1954. He continued rowing as well as playing rugby at Princeton, where he ate at Ivy, majored in Romance languages, and roomed as a senior in an 1879 Hall suite with Rob Garrett, Stu White, and Rodney Williams.

Norm went on to Harvard Law School and spent most of his legal career at Skadden, Arps in New York City. Starting there in 1967 as the then-young firm's 18th hire, he remained as a partner for more than three decades, specializing in corporate mergers and acquisitions as the firm grew into a legal giant with dozens of offices and hundreds of partners. As he later related, this high-pressure lawyering took a toll on his family life, leading to divorces from his first two wives.

Retiring to rural Georgia with his third wife, from whom he was later amicably divorced, he reinvented himself as a venture capitalist. It was here that he sustained personal tragedy, losing his son, Norman IV, to brain cancer at age 32.

Norm was survived by his daughter, two grandchildren, and his brother.



Edward V. Furlong Jr. '59

Ted died June 27, 2018, of a heart attack in a Missouri motel while driving from Pennsylvania to California with his daughter, Tracy, to visit his son Edward.

Ted prepped for Princeton at the Haverford School, where he captained the football team,

lettered in wrestling and baseball, and was class president. He continued his athletic prowess at Princeton, where he played freshman football and was on the varsity wrestling team. Ted ate at Ivy, majored in history, and drilled with the Navy ROTC.

After graduation he served two years in the Navy, completing his tour as a lieutenant junior-grade. He earned an MBA in finance at Harvard and then followed his father in business at the Walter Wilcox Furlong paper company, now known as WWF Paper Corp., based in Bala Cynwyd, Pa. The company serves book publishing, commercial printing, business communications, financial printing, and directmail markets. Ted rose through the executive ranks to head the company as president and CEO. He retired from the company in 2004.

Ted is survived by his wife, Rosemary; his son, Edward III; and his daughter, Tracy. We have sent condolences.

THE CLASS OF 1960



Lester L. Cooper Jr. '60 Terry was born and spent much of his life in Charlottesville, Va. He came to us from Episcopal High School in Alexandria, Va. At Princeton he played lacrosse

(a lifetime enthusiasm), joined Charter Club, and was in the Special Program in Humanities in philosophy. He returned to Charlottesville to earn a law degree at the University of Virginia Law School.

He began his professional career with Sullivan and Cromwell in New York City. In time he migrated to the corporate sector and became increasingly involved in corporate political and regulatory issues in Washington, D.C. In 1982 Terry founded his own politicalconsulting firm there, working with corporate clients and political campaigns, largely with Republican candidates at the state and national level. A committed conservative, he was a widely respected thinker and enjoyed a range of friendships across the political spectrum.

After moving his firm back to Charlottesville, Terry resumed his lifelong involvement with the Episcopal Church there. In recent years he also contributed his expertise to OneVirginia 2021, a civic nonprofit founded to promote a nonpartisan redistricting of the Commonwealth.

His work was cut short by bladder cancer. He died Dec. 16, 2018. He is survived by his three sons and eight grandchildren.



William W. Dudley Jr. '60 Bill died Nov. 15, 2017. Born and raised in rural Olean, N.Y., Bill came to us from The Hill School. He brought his country ways to

Princeton in the form of muskrat trapping in Carnegie Swamp and an enthusiasm for firearms. Bill dried his pelts on his Pyne Hall fireplace and pursued weapons activities through the Pistol Club and Army ROTC. He dined at Tower Club, earned honors in geological engineering, and became battalion executive officer and winner of both the Cadet Award and the Alexander Hamilton Award in ROTC. He rather famously deferred his active duty Army service by shooting himself in the leg during an unsuccessful quick-draw exercise. He employed the time usefully by earning a master's degree in engineering and a Ph.D. in geophysics and groundwater geology at the University of Illinois-Champaign.

Bill's Army service was in geodetics in the Corps of Engineers, which led to his career with the U.S. Geological Survey. He served largely in the Western states studying groundwater issues, leading to revisions of federal doctrines of reserved water rights. He also worked on federal nuclear-waste disposal issues. He was awarded the Department of Interior's distinguished service award in 1994 and retired in 2003. Prostate cancer surgery and successive health setbacks somewhat curtailed his many outdoor enthusiasms in his last years.



Alfred R. Glancy III '60

Al died Jan. 10, 2019, from complications of a stroke suffered in October. He died wearing his Princeton shirt and surrounded by Tiger memorabilia.

Born and raised in Detroit, Al attended The Hill School. At Princeton he majored in economics and joined Tower Club. After graduation Al went directly to Harvard Business School. Graduating in 1962, he immediately married Ruth, who survives him.

A diversified and successful business career, commitment to Detroit and its institutions, devotion to Princeton, and love of family defined Al's life. At Michigan Consolidated Gas Co., he rose to become chairman and CEO in 1984 and retired as chairman in 2001, having seen the company through transition into an energy holding company — MCN Energy — and ultimately a merger with DTE Energy.

Al was especially appreciated for his role in saving the Detroit Symphony from failure in the difficult 1980s and 1990s. He was also chairman of Detroit Renaissance through the same challenging times. He and Ruth were ubiquitous in Detroit's cultural and charitable institutions for decades.

Al's father was in the Class of 1932, and Al expressed his devotion to Princeton in part by creating the Alfred R. Glancy Class of 1960 Scholarship. He is survived by Ruth, their three children, and numerous grandchildren.

Neal H. Petersen '60

Neal came to us from Milwaukee University School, where he was class president and active



in several sports. At Princeton he majored in history, joined Cannon, and continued his sports activities at the IAA level. He was known and feared for his legendary wind-up tennis serve.

Neal served two years as a lieutenant in the Army, at Fort Sill, Okla. Following his passion for finding the truth, he earned a Ph.D. in history at Georgetown University. This led to a 24-year career at the State Department, where he rose to become deputy historian. He was instrumental in compiling 17 volumes of *Foreign Relations of the United States*, the official documentary record of American foreign policy. He then served 10 years with the CIA Historian's Office, where he authored *U.S. Intelligence: An Annotated Bibliography* and *From Hitler's Doorstep: The Wartime Intelligence Reports of Allen Dulles*. Neal was widely admired for his acuity in U.S. diplomatic history.

In our 50th-reunion yearbook, Neal enumerated (literally) his enthusiasms: 60 years of tennis, 5,000 fish caught, 130,000 stamps collected, 25 years of Washington Redskins games, and many more.

He died Aug. 25, 2018, after a succession of health setbacks. He is survived by his wife, Nancy, and their three children and families. We send our sympathies to them all.

THE CLASS OF 1961



Joseph M. Barone Jr. '61 *68 Joe died Sept. 20, 2018, having struggled with Parkinson's disease since 2014. Born in Newark, N.J., he came to Princeton from Nutley High

School. At Princeton he majored in Italian in the Romance languages department, took his meals at Terrace Club, and won the William Koren Memorial Prize in Italian. His senior-year roommates were Len Berton and Myron Uman.

Joe earned three degrees at Princeton, culminating in a Ph.D. in linguistics in 1968, after which he taught at Rutgers and Guelph universities for several years. Having become a forerunner in computational linguistics, he then joined Bell Laboratories, where he designed computer-to-computer communications protocols that remain in use today. After retirement he continued to work in "fuzzy logic," presenting papers internationally and serving as president of the North American Fuzzy Information Processing Society. He was a true scholar, approaching each new interest by spending hours in the library researching it. He was known for his kindness, selflessness, and high ethical standards. He influenced many young people during his career by being a role model for them.

He is survived by his wife of 42 years, Carol Broll; children Joseph, Catherine, and Bruno; and six grandchildren.

William E. Guy '61

Ted died Dec. 24, 2018, at his home in Stuart, Fla.

Born in St. Louis, he came to Princeton from John Burroughs High School, but was with us only during freshman year. He went on to graduate from Washington University in St. Louis with a degree in economics. In 1962 he joined the Navy and was on active duty for four years, followed by a career in the Reserves, retiring as a commander. In the 1970s he owned and operated Grand Lagoon Marina in Panama City, Fla.

In 1982 he earned a law degree at Florida State University, after which he founded Guy, Yudin & Foster in Stuart, where he practiced until retirement. Ted was passionate about trains and boating and owned a number of sail and power boats during his lifetime.

Ted's first marriage to Stella Saxton ended in divorce after 17 years. His second wife, Sharon Rogers, died in 1998, after which he re-married Stella, who survives him along with children Jeanne, Ted, and John and their families; and his brother, Steve.



Edmon G. Luke Jr. '61 Ned died Sept. 25, 2018, at the Kanas Center for Hospice in Quiogue, N.Y.

Born in Brooklyn, he came to Princeton from Tabor Academy

in Massachusetts. At Princeton he majored in biology and took his meals at Court Club.

Following Princeton, Ned earned a master's degree in teaching at Harvard and embarked on a teaching career of more than 50 years. For 32 years he taught math and biology at Spring Valley High School in Spring Valley, N.Y., followed by retirement and substitute teaching at Pierson High School in Sag Harbor, where he was a longtime resident before moving to Peconic Landing.

Ned was predeceased by his brother John '57. He is survived by his brother James '65, eight nieces and nephews, and 23 grandnieces and grandnephews.

Edwin M. Mulock III '61

The son and grandson of Princetonians, Ed died Dec. 3, 2018, at home in Darien, Conn., after a yearlong struggle with cancer.

Born in Detroit, he came to Princeton from Hackley School in Tarrytown, N.Y. At Princeton he ate at Key & Seal, was in the Sailing Club, and ran cross-country. He roomed with Pierce Selwood, Mike Hewitt, Geoff Smith, and Mort Rible. He left after junior year and earned a bachelor's degree in economics at Michigan State and a master's degree at Darden in economics. Later on he earned an MBA at Adelphi.

Ed spent his entire career in computersystems development and information-services management with Bristol-Myers Squibb and Hoffman-LaRoche Pharmaceuticals. A resident of Darien since 1973, he was active in the community with a number of charitable and civic organizations and was able to indulge his passion for sailing at the Noroton Yacht Club, where he served as its foredeck man for years.

After an absence, Ed reconnected with the class in recent years and became a reunion and events regular, attending many Princeton-Yale athletic events in New Haven with a small coterie of Connecticut classmates.

He is survived by Neville, his wife of 54 years and the daughter of a Princetonian; his children Lyndsay and Luke; and two grandchildren.

Gerald W. O'Neill '61



Jerry died Dec. 14, 2016, in West Chester, Pa. A son of a member of the Class of 1920, he was born in Bronxville, N.Y., and prepared for Princeton at

Garden City High School in New York.

At Princeton he majored in aeronautical engineering, was active in the Glee Club and the Institute of Aeronautical Sciences, and took his meals at Terrace Club. His senior-year roommates were Steve Roberts, John Bright, and John Douw.

We know little of Jerry's life after Princeton, except that he served in the Navy and worked at various times for Grumman, Shell Oil, BP, and Amoco as an engineer.

He is survived by his partner, Barbara K. Scott, a retired speech therapist.

THE CLASS OF 1963

Howard K. Hamm Jr. '63

Howie died Feb. 2, 2018, at his home on 22nd Street in Manhattan. He had suffered a stroke several years ago. He was a real-estate investor and retired trade-show manager.

He grew up in Kalamazoo, Mich., where he began a lifelong pastime of sailing. Howie roomed during sophomore year with Will Little and Ken Allen, and was invited to join Cloister Inn. He left school to join the Navy, becoming a boatswain's mate whose ship took part in the Cuban missile crisis, and finished college at Western Michigan University.

After working at First National Bank & Trust, he joined George Little Management, rising to vice president and serving as president of the New York chapter of the National Association of Exposition Managers. In retirement Howie used deep knowledge of historical context to make successful investments in real estate. He owned a historic home on Shelter Island in New York.

Confined to a wheelchair and speaking with difficulty, Howard filled his days with art, piano (he played some mean left-handed pieces), his collection of Shelter Island photos, speech and physical therapy, and a yearly trip to Prince Edward Island.

Howie is survived by his partner of 47 years, Jeff Hochhauser; brother Robert L. Hamm; and nieces and nephews.



Leslie P. Jay '63

Lee died Dec. 20, 2017, of cancer. He was a partner at Orrick, Herrington & Sutcliffe, an international law firm based in San Francisco, where he was

a gifted mentor to young lawyers. He chaired the corporate practice and transactional groups and sat on the executive committee.

A son of a member of the Class of '38, he entered Princeton from Mount Hermon (Mass.) School, majored in economics, competed in rugby and judo, dined at Cannon, roomed with Beard, Tony Cox, Grad, Hardt, Hawkey, Hugill, Jim Pugh, and Worthington, and went on to Harvard Law School.

He started at Chickering & Gregory in San Francisco as a corporate attorney. In 1981 he joined Orrick, Herrington & Sutcliffe, a 100-lawyer regional firm that subsequently grew to 1,100 attorneys and 23 offices worldwide. Periodically Lee was cited as one of northern California's top lawyers. A mergersand-acquisitions book published in 2017 by Bloomberg Law was dedicated to Lee. During this century he worked seven years in Paris, where he married Stephanie Schreiner, an artist who became his second wife. In his off-hours, Lee was an avid walker, golfer, sports fan, and art lover.

The class conveys its warm wishes to Stephanie; Lee's daughter, Katie; son David; and three grandchildren.



Kenneth E. Scudder '63 Ken died Dec. 20, 2018, of

traumatic brain injury. He graduated from Wisconsin's Whitefish Bay High School and majored in

politics at Princeton, which he credited with beginning his critical thinking. Viewing the era's confluence of events as a "great moral crisis," Ken joined the Student Non-Violent Coordinating Committee in 1964's Mississippi voter drive. He met his first wife, Patricia, and they had a son, Reed, during two years with SNCC.

Summer 1963 had been an "On the Road" trip with friends to Kerouac's 'Frisco. When his marriage ended, Ken headed for Mendocino to live on a commune. He eventually earned a law degree, worked 26 years for the University of California's Continuing Education of the Bar, and volunteered with the San Francisco Bar's Homeless Advocacy Project and the Lawyers' Committee for Civil Rights.

Ken's passion for peace and justice never waned. He avidly followed current events, volunteered for local campaigns, and wrote "cranky, seldom published" letters to the editor. He loved running, art, films, museums, food, and wine.

In 1984, Ken and wife Kellin visited Greece, becoming lifelong Hellenophiles. They explored it extensively on hikes and by car, and on magical adventures with classmate Peter Baiter.

He is survived by Kellin, son Reed, grandson Atticus, sister Carolyn, and ex-wife Patricia.

THE CLASS OF 1964



Chip died April 4, 2018, in Charleston, S.C. Chip grew up in Rumson, N.J., and attended Rumson

Royal H. Gibson Jr. '64

public schools before entering the Lawrenceville School. At Lawrenceville, he managed the basketball team and was a member of the House Council and the science and Spanish clubs.

At Princeton he majored in basic engineering and the plastics program. He wrote his thesis on "Blow Molding of Thermoplastics" under Professor Maxwell. He participated in lightweight crew, serving as captain of the freshman squad and junior varsity coxswain in his sophomore and junior years. He was also a member of the Flying Club all four years. He was a member of Charter Club and lived there his last two years.

Chip initially pursued a career in computer technologies manufacturing, which kept him occupied for 18 years. Then he and his wife, Kimberly, whom he had married in 1965, took their four children on a two-and-a-half-year cruise from Maine to the Caribbean. They then settled in Charleston, where Chip ended up teaching high school math for 18 years.

Chip is survived by Kimberly and three of their children, Andrew, Jeffrey and Margaret, to whom the class extends its condolences. One child, Amy, predeceased Chip.

THE CLASS OF 1965



Simon Fodden '65 Simon's four-year battle with cancer ended Feb. 10, 2018, six weeks short of his 74th birthday, the original of which occurred in Leeds, England.

He came to us from Milwaukee University School. At Princeton he ate at Campus and majored in the Woodrow Wilson School.

He attended Johns Hopkins and earned a law degree from Osgoode Hall in Canada, where he taught for his entire career. There, he helped found the school's program in poverty law and later helped launch its program in family law, serving — in the words of that school's eulogy to him — "as a well regarded scholar, lecturer, and teacher, and the author of two novels." In 2014 he received the Canadian Bar Association's president's award for "significant contributions to the Canadian legal community."

An early adapter of technology in legal education, Simon saw its potential to enrich debate and discovery in law. In 2005 he helped found Canada's leading online legal magazine and blog, Slaw.ca, remaining publisher until 2014. The dean of Osgoode put it best by saying, "In so many ways, he made Osgoode a better community. He will be sorely missed and his memory cherished."

Simon is survived by his wife, Christine Hawkes; and daughters Jennifer and Rebecca Fodden Saha. To them we extend our condolences at their loss of our learned and energetic classmate.

THE CLASS OF 1966



Charles G. Burr III '66 Charles died Dec. 15, 2018, in Tampa, Fla., where he resided. Charles came to Princeton from Avondale High School in DeKalb County, Ga.,

where he was student council president. At Princeton he was active in lightweight crew, Whig-Clio, Jamesburg Reformatory Program, Campus Fund Drive, Orange Key, and the Undergraduate Council. He was a politics major and a member of Colonial Club. Roommates included Jim Linville.

During his long and distinguished legal career, Charles fought relentlessly for the protection of civil rights. For decades he worked closely with the Florida State Conference of the NAACP, which honored him with its Gwendolyn Sawyer Cherry Award and with a redistricting award for his efforts at increasing minority-voter participation.

Charles is survived by son Charlie Burr; stepsons James, Edward, and Tyson Chittenden; and sister Becky Stephens. The class extends its condolences to them.



John B. Mitchell Jr. '66

John died Dec. 14, 2018, in St. Louis, after a long battle with Parkinson's disease.

John came to Princeton from St. Louis Country Day School,

where he was an outstanding athlete. At Princeton he majored in politics, was a member of Ivy Club, played football and track as a freshman, and belonged to the rugby club.

After Princeton John returned to St. Louis to earn a law degree from Washington University. He practiced law for the rest of his career, concentrating primarily in commercial real estate. He excelled at athletics, loved music and reading, and was devoted to his family.

A highly spiritual person, John practiced meditation on a daily basis and credited the practice with providing strength in the final chapter of his life.

John is survived by his devoted wife of 22 years, Joelle; son John III; daughter Mariah; stepchildren Abraham and Zoey Nicholson; and sister Nichola Gillis. The class extends heartfelt condolences to them.

THE CLASS OF 1972



Huntley J. Stone '72 Huntley died suddenly Dec. 3, 2018, in Easton, Conn., where he lived and worked. He was 68. Known to classmates as

Bucky, the Connecticut native was a graduate of Phillips Exeter Academy. His father, Huntley Stone, was a member of the Class of 1940.

Bucky was a member of Ivy Club and recalled as unfailingly cheerful and delightful company. He won the Isidore Brown Thesis Award for his sociology thesis, "Towards a Sociology of the Circus."

Bucky earned a law degree from Boston University and worked in the law firms Pullman & Comley and Bodine and Stone before beginning a career in real-estate investment and management. He was active in the local community, serving as president and secretary of Connecticut Region 9 Board of Education and president of Easton Little League. He was co-chair of the building committee for Samuel Staples Elementary School. He also served on the Easton Conservation Committee and the Easton Democratic Town Committee.

He is survived by his wife, Kyle I. MacGillivray; son Huntley "Dylan" Stone; daughter Cordelia "Lia" Stone; and sisters Carolyn Stone Johnson and Cordelia A. Stone. The class sends condolences to the family.

THE CLASS OF 1973



J. Evan Sadler '73 Evan died Dec. 13, 2018, in Clayton, Mo., of a rapidly progressive neurodegenerative disease. He was 67.

He attended Huntington (Va.) High School, where he played varsity tennis. At Princeton he majored in chemistry, graduated *summa cum laude*, and was elected to Phi Beta Kappa. He was a member of Colonial Club.

Evan earned medical and scientific degrees from Duke, where he also completed his residency in internal medicine. He completed a fellowship in hematology at the University of Washington in Seattle. In 1981 Evan married Linda Pike, and in 1984 they moved to St. Louis to take up faculty positions at Washington University.

Evan was the Ira M. Lang Professor of Medicine and the chief of the division of hematology. He was president of the American Society of Hematology and won the organization's Henry M. Stratton Medal for Basic Science in 2016, followed by its Exemplary Service Award in 2018. Evan was also a competitive ballroom dancer.

Among his classmates and colleagues, Evan will be remembered for his extraordinary intellect, his excellence in scientific endeavors, his remarkable gifts as a teacher and mentor, his everpresent kindness, and his profound compassion. Evan is survived by his wife, Linda; children Brooke and Evan D. '09; his mother, Clara; and his two grandsons, Jasper and Dexter Haller. The class extends our sincere condolences to them.

THE CLASS OF 1974



Christopher D. Johnson '74 Chris died March 11, 2016, in Litchfield Park, Ariz., after a valiant battle against melanoma. Chris was a multi-sport standout and outstanding

student at Jesuit High School in Detroit, and he made sure his Princeton roommates Magaziner, Gsell, Marshall, Montebell, Rafeedie, Mooney, Smith, and Kelly were well versed in Motor City music.

At Princeton Chris was a politics major and graduated *magna cum laude*. Chris played freshman and varsity football, winning letters as a cornerback. He was passionate about everything that he engaged in and was a founder of the Dial Lodge Pedro Hoi Room.

Chris earned a law degree at the University of Virginia, where he was a member of the Law Review. Chris then joined the Phoenix firm of Streich Lang, where he became a partner with a practice focused on general corporate, securities, and governance matters. He ended his career as a partner in the firm of Squire Patton Boggs. Chris never lost his passion for rock 'n' roll, sports, travel, long hikes, and Princeton.

He is survived by his wife, Christine; children Dusty, Abby, and Samantha; brothers Mark and David; niece Emily; and nephew Matthew.

THE CLASS OF 1975



John Fedors Jr. '75 John died March 8, 2018, at his home in Basking Ridge, N.J. He was 64.

Raised in Middlebush, N.J.,

John came to Princeton from the Lawrenceville School. After earning a bachelor's degree in electrical engineering, he went on to earn a master's degree in that field at Cornell in 1976. He later earned a law degree from Indiana University and a master's degree in archaeology from Rutgers. He was working toward a doctorate, with aspirations to teach. He continually gave back to Lawrenceville and Princeton to give others the scholastic opportunities that he had.

John was a corporate-law attorney for more than 25 years, working for Citigroup in New Jersey. He was president of the Wallace House and Old Dutch Parsonage Association and had served for more than five terms as president of Sunset Lake in Basking Ridge.

He was an avid reader and history buff, with special interest in World War II and the American Revolution. He enjoyed traveling all over the world and saw the Northern Lights on his last trip in early 2018 to Norway. John is survived by his mother, Geraldine Fedors; and his sister, Patty Helleis, and her family. John's many Princeton friends share their loss.

THE CLASS OF 1991

Thomas J. Murdock '91

Tom - a brilliant poet, musician, teacher, and innovator of the online-learning platform Moodle - died Nov. 2, 2018, of a heart attack while on a business trip to Denver.

Tom came to us from Interlochen (Mich.) Arts Academy, where he grew up as the child of faculty members. He majored in English at Princeton and taught at the Cranbrook Schools in Michigan and St. Paul's School in Baltimore. His colleagues described him as sweet, funny, brilliant, warm, kind, generous, humble, and a teacher's teacher. He was respected for always being on the cutting edge of pedagogy, yet exuding warmth and kindness that drew people to him.

Tom loved to hike and traveled to Australia and India. With his wife, Faith Shearin, and their daughter, Mavis, they explored Cape Cod, the Appalachian Trail, and the crypts of London. His life was celebrated in the chapel at Interlochen Arts Academy with a combination memorial service and Irish wake, at which his poetry was read and his favorite music played.

Tom is survived by Faith, Mavis, mother Carol, two sisters, a brother-in-law, and two nieces. We are grateful for having known Tom and send our deepest condolences to his family.



Andrew J. Tallon '91

Andrew, an innovative scholar of French Gothic art and architecture, died Nov. 16, 2018, at his home in Poughkeepsie, N.Y., after a

three-year battle with brain cancer.

Andrew was born in Louvain, Belgium, and joined our class from Shorewood High in Wisconsin. A music major at Princeton, he earned a master's degree at the University of Paris-Sorbonne and a Ph.D. at Columbia.

He joined the Vassar faculty in 2007, where he taught medieval art, architecture, and pre-modern acoustics and was known for bringing the past to light in vivid and meaningful ways. Among other professional accomplishments, Andrew received a five-year grant from the Andrew Mellon Foundation for the web-based project "Mapping Gothic." His research was featured in an Emmynominated PBS/Nova production, *Building the Great Cathedrals*, which has regularly aired nationally since 2010, and he was co-founder and a director of the U.S.-based charitable association the Friends of Notre-Dame.

Andrew is survived by his wife, Marie Tallon-Daudruy; their four sons, Ambrose, Augustin, Gabriel, and Anatole; his parents, Andrew and Mary Elizabeth; his sister, Clare, and her husband, Dan, and their children; and his brother, Barry. Our class sends its deepest sympathies to Andrew's loved ones.

GRADUATE ALUMNI

Leo A. Falcam *66

Leo Falcam, the fifth president of the Federated States of Micronesia (FSM), died Feb. 12, 2018. He was 82.

The Federated States of Micronesia are a group of associated islands in the Caroline Islands in the western Pacific, captured by the U.S. from Japan in World War II. After 1947 they were administered as part of the U.S. Trust Territory of the Pacific Islands (TTPI), and became self-governing in 1986.

Falcam graduated from the University of Hawaii in 1962. That year he joined the TTPI government headquarters in Saipan, Mariana Islands, as the political-affairs officer for the TTPI high commissioner. From 1965 to 1966 he was a visiting student at Princeton's Woodrow Wilson School.

Returning to the Trust Territory government, Falcam became the first Micronesian to serve as acting commissioner. Several increasingly responsible posts followed. From 1997 to 1999, he served as vice president of FSM, and from 1999 to 2003 he was the fifth president of FSM.

At his death, a period of national mourning was declared with the national flag flown at halfstaff. Falcam is remembered as a founding father of the FSM, a national leader of integrity, and was known for his kindness to his fellow citizens.

Thomas R. Cleary *70

Thomas Cleary, retired professor of English at the University of Victoria in British Columbia in Canada, died Oct. 4, 2018, at age 78.

Born in New York City, Cleary graduated from Queens College in 1965 after three years in the Army. He won a Woodrow Wilson National Fellowship for future college teachers and took it to Princeton, where he earned a Ph.D. in English in 1970, specializing in 18thcentury literature.

In 1969 Cleary, his first wife, Ruth, and baby daughter immigrated to Canada, and he began his 33-year career in the department of English at the University of Victoria. He received an Alumni Award for Excellence in Teaching. Active in the university's administration, he was twice English department chair. Also, he was ombudsman, president of the faculty association, elected to the Senate, and appointed to the board of governors.

Cleary retired in 2002, and he and his second wife, Jean, became world travelers. They also worked on and cherished the five homes they had in their three decades together.

He is survived by his wife, Jean; his three children; three stepchildren; six grandchildren; and five step-grandchildren. His ex-wife, Ruth, predeceased him.

Elizabeth Fee *78

Elizabeth Fee, former chief of the history of medicine division of the National Library of Medicine (NLM), died Oct. 17, 2018, of ALS, at age 71.

Born in Northern Ireland in 1946, Fee traveled as a child with her parents to China, Malaysia, India, Egypt, and throughout Europe and Great Britain. Eventually she was schooled in her native Ireland and at Cambridge University in England, where she graduated in 1968 with a bachelor's degree in biology. In 1978 she earned a Ph.D. in the history and philosophy of science from Princeton.

Fee began teaching at SUNY Binghamton, where she was popular as a scholar of science and medical history and taught new courses in human sexuality. In the 1980s she was a professor at the Johns Hopkins School of Hygiene and Public Health.

After Johns Hopkins, Fee gave nearly 22 years of dedicated service to the NLM as head of its History of Medicine Division. Located on the campus of the National Institutes of Health, Fee led her division to "new levels of global access and support for broadly-based scholarship." She wrote, co-wrote, edited, or co-edited almost 30 books and hundreds of articles.

Fee is survived by her wife and lifetime partner, Mary Garafolo.

Albert K. Smiley *78

Albert Smiley, who after working for the U.S. Department of Justice became the resident innkeeper of Mohonk Mountain House (the historic resort built by his family in 1869), died of leukemia Oct. 16, 2018. He was 74.

Smiley graduated from Syracuse University in 1966. In 1978 he earned a Ph.D. in economics from Princeton. He then became director of research for the Antitrust Division of the Department of Justice.

In 1990 Smiley and his wife, Nina *79, both changed careers. He became president of the resort and Nina became its director of marketing. They retired in June 2018. As resident innkeepers they lived a four-minute walk from the resort.

Mohonk Mountain House is on 7,500 acres, 90 miles north of New York City. Smiley installed a skating rink in an open-air pavilion in 2001 and added a sumptuous swimming pool and spa in 2005. In 2016 he added Grove Lodge, the first new accommodation in more than a century. In the 1960s the family agreed to preserve more than 5,000 acres as forever wild, and in 2011 Smiley was key to transferring an additional 874 acres to the Open Space Institute.

Smiley is survived by Nina, whom he married in 1974, and a sister.

H. Jeffrey Leonard *85

Jeffrey Leonard, president and CEO of the Global Environment Fund (GEF), an

alternative-asset manager, died suddenly Oct. 13, 2018, at age 64.

Leonard graduated from Harvard in 1976 and earned a master's degree in economics from the London School of Economics in 1977. He earned a Ph.D. in politics from Princeton in 1985. He wrote five books and many articles on global environmental issues, international trade, energy production, and technology development.

In 1990, he founded GEF "to invest globally in high-growth clean-energy sources and efficient, environmentally sustainable businesses." At his death, he was also treasurer and senior fellow in global studies of the New America Foundation and chair emeritus of the Emerging Markets Private Equity Association (which promotes private equity and capital investment).

Leonard generously supported many local community and cultural organizations. He was a founding board member of the National Council for Science and the Environment and a member of the Hydrogen Technical Advisory Board.

He is survived by his wife of 40 years, Carolyn; three children (including Anna '10); and his father, George.

Robert J. Williams *88

Robert Williams, professor in the Department of History of Art and Architecture at the University of California, Santa Barbara, died April 16, 2018, at age 63.

Williams graduated from the University of Pennsylvania with a bachelor's degree in 1976 and a master's degree in 1979. In 1982 he earned an MFA and in 1988 he earned a Ph.D. in art and archaeology from Princeton. In 1986, while working on his dissertation, he received the Yates Fellowship from the Warburg Institute at the University of London.

In 1988 Williams joined the faculty at UC, Santa Barbara. From 1990 to 1991 he studied at the American Academy in Rome under an NEH post-doctoral fellowship. His areas of expertise included Italian Renaissance art and art theory, the history of art theory, and art-history methodology. He wrote several important works. Cambridge University Press recently published his last book, *Raphael and the Redefinition of Art in Renaissance Italy.*

From 1992 to 1993 he was the recipient of a University of California Regents' Humanities Faculty Fellowship. In 2000 Williams was a visiting associate professor at Yale, and in 2003 at UCLA.

Williams is survived by his wife, Carole Paul, and a daughter. The UCSB campus flag was lowered to half-staff in his memory.

Graduate memorials are prepared by the APGA. This issue contains undergraduate memorials for Blake W. Ogden '43 *48, William H. Painter '49 *50, David S. Rowley '52 *56, and Joseph M. Barone Jr. '61 *68.

Classifieds

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France, Paris-Marais: Exquisite, sunny, quiet one-bedroom apartment behind Place des Vosges. King-size bed, living/dining room, six chairs, full kitchen, washer, dryer, weekly maid service, WiFi, \$1350 weekly. max@gwu.edu

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Ile St-Louis: Elegant, spacious, top floor, skylighted apartment, gorgeous views overlooking the Seine, 2 bedrooms sleep 4, 2 baths, elevator, well-appointed, full kitchen, WiFi. 678-232-8444. triff@mindspring.com

Italy/Todi: Luxurious 8BR, 7.5BA villa, amazing views, infinity pool, olives, lavender, grapes, vegetable garden, housekeeper, A/C, Wi-Fi. Discount — Princetonians. Photos/prices/availability: 914-320-2865. MarilynGasparini@aol.com, p'11.

Paris, Tuileries Gardens: Beautifullyappointed, spacious, 1BR queen, 6th floor, elevator, concierge. karin.demorest@gmail. com, w*49.

Paris 7th: Fifth floor, quiet, studio sleeps 3. Balcony. View Eiffel Tower. www.parisgrenelle. com, 207-752-0285.

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Rome, Italy: Breathtakingly beautiful art-filled apartment on via Gregoriana near Spanish steps. 2 bedrooms in a 17th century palazzo. Unsuitable for small children. Mariaceliswirth@gmail.com, 212-360-6321, k'38.

Stunning Paris apartments: original period details, high-end amenities, the best locations! Bac/St. Germain, Rivoli, Luxembourg Gardens, Rive Gauche, Odeon, Upper Marais. 1-3BR, 1-2.5BA. 917-746-8056, www.56paris.com/for-rent

Nice, France Promenade-des-Anglais: Spacious renovated 2BR/2.5BA apartment. Secured parking. WiFi. www.nicehomesitting. com/splendid-flat-panoramic-view, k'91'92.

Tuscany, Italy: Val d'Orcia village house with sunny garden, sleeps 4, walk to restaurants, www.cozyholidayrentals.com

Caribbean

Bahamas, Eleuthera. Beachfront villa, 4BR, 5BA, swim, snorkel, fish. www.heronhill.net

United States Northeast Stone Harbor, NJ: Beachfront, 4BR, upscale. 570-430-3639, Stoneharborbeachhouses.com, radams150@aol.com

Southampton, New York: Stunning secluded 4-acre estate on Shinnecock Bay. Beachhouse charm, 7BR, 4BA and 2BR, 1BA guest cottage. Gated drive, fully renovated kitchen/bathrooms, heated pool, private bay beach. Available year-round, weddings/events. info@baybeachestate.com '01.

Downeast Maine: Newly renovated 4BR, 2BA cottage on Cathance Lake, sleeps 8. Gourmet kitchen, large lot with pier, pristine water, ideal for family fun, fishing and water sports. Check us out www.taqanan.com '68.

Onteora Park, NY: lovely 4-BR vacation home available for July 2019 rental. Golf, tennis, fishing, hiking, pool nearby. Outstanding community, great for children. No pets in house. BarclayTLeib@aol.com, 973-525-9257. **Stone Harbor, NJ:** Houses ½ block from beach, sleep 10 each. Great for families, reunions, weddings. VRBO.com/7627382, 7632290. Bayberry10501@optimum.net, 201-803-1669, p'18.

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Madison Valley Montana: Jaw-dropping views, Near Yellowstone, Wildlife, Quiet. Photos/details: MovingWater.org 801-419-7289.

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A Great Physician Had Help From a Freed Slave

By R. Isabela Morales GS *14

Yellow fever struck Philadelphia in August 1793. At the time, the vibrant port city was home to 50,000 Americans. By November, 10 percent of them would be dead. A virus endemic to tropical regions, yellow fever traveled to Philadelphia in the bloodstreams of refugees from the Haitian Revolution. From there, mosquitoes teeming in the summer heat transmitted it from person to person as doctors struggled to contain a disease that, at its peak, killed 100 people a day.

The death toll and devastation reminded Benjamin Rush 1760 of the Black Plague. "It comes nearer to it than any disease we have ever before had in this country," he wrote during the first weeks of the epidemic. A signer of the Declaration of Independence and the nation's pre-eminent physician, Rush diagnosed the city's first case of yellow fever in August. As Philadelphians fled the city in droves, he chose to remain and treat the sick – though neither common fever remedies (wine and sweating) nor Rush's own prescriptions (bleeding and purging) had any effect. Some patients died in a matter of hours. Few survived more than four days.

"Tell the whole village of Princeton



to pray constantly and fervently for us," Rush wrote his wife, Julia, a member of Princeton's distinguished Stockton family. Only God could save them, "for vain — vain now is the help of man."

Yet Rush did have help in Philadelphia. Across the city, African Americans (whom white Americans wrongly believed to be immune to the disease) served as nurses, caretakers, and gravediggers in large numbers. They were "indefatigable," Rush said and none more than his own assistant, Marcus Marsh.

"Marcus [Marsh] has not, like Briarius, a hundred hands, but he can turn his two hands to a hundred different things."

Marsh was born into slavery in 1765, on the Morven estate in Princeton. After his mother's death, the lady of the house, Annis Boudinot Stockton, nursed the infant Marsh, raising him "almost as my own son." The "almost" was key; Marsh had no rights until the Stocktons freed him in 1781. By 1793, he was working for Annis' son-in-law Rush as a servant and, in Philadelphia, as a medical assistant.

In a letter to Julia, Rush compared Marsh to a Greek god with 100 arms: "Marcus has not, like Briarius, a hundred hands, but he can turn his two hands to a hundred different things." He was "equal to any apothecary in town," more competent even than some physicians Rush knew. His courage was most remarkable of all.

"Half the servants in the city have deserted their masters" to escape the disease, Rush wrote in October. Marsh, however, stayed to fight the epidemic alongside Rush. When the doctor himself contracted yellow fever, Marsh brought him food, water, and medicine in the night; he fed the weakened Rush; and he visited Rush's children outside the city to examine them.

"I cannot tell you how much we all owe to Marcus," Rush wrote to his wife when the epidemic finally subsided in November. Without him, the nation's most famous physician might too have numbered among the dead. •





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