ALUMNI MAGAZINE • FALL 2015

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— Jim and Ellen King Neff '61

s longtime members of the Honorable Robert Boyle Legacy Society, Jim and Bunny Neff know the importance of good planning. When Bunny's 50th Reunion came along, the couple wanted to support her class gift in a way that would bring their charitable and financial plans together.

The Neffs were familiar with the charitable gift annuity since they had established one with Dartmouth, Jim's *alma mater*. Working with the Gift Planning Office, Jim and Bunny established a gift annuity that provides fixed annual payments for life. These payments will never vary and are backed by the full faith and credit of the College of William & Mary Foundation. They also saved income taxes and capital gains taxes.

Their gift annuity helped Jim and Bunny achieve their goals. And we're pleased to report that Bunny's class did, too. *For assistance with your charitable plans, please contact:*

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528

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IN A SINGLE DAY

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WILLIAM & MARY

Fall 2015

VOLUME 81, NO. 1

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HAVE SOMETHING TO SAY? Please share your thoughts by posting on our online comment section found at the end of every magazine story. Go to wmalumnimagazine.com. NASA/JHUAPL/SWRI PHOTO:

NEW FRONTIERS

On July 14, 2015, the New Horizons probe flew within 7,800 miles of Pluto, snapping photos like this one before continuing on into the far reaches of the Kuiper Belt. Find out why these photos are different than what NASA scientists expected on page 28.



ALUMNI FOCUS

Dreaming Bigger

BY CINDY SATTERWHITE JARBOE '77

William & Mary Alumni Association President



ur beloved *alma mater* is a timeless university that has remained

current for more than three centuries, owing in no small part to a

devoted body of alumni. As your Alumni Association, it is our respon-

sibility and privilege to sustain our uniqueness, remain current and continue to rep-

resent and meet the needs of all 95,000 alumni. A year ago we embarked on a new strategic plan to achieve our vision.

The Alumni Association is poised to transform the relationship between the university and its alumni, providing the engagement and benefits to more fully foster a lifelong relationship and better connect us to each other and the university.

The Alumni Association's focus on engagement supports increased activity around the country and internationally whether your area has five alumni or 2,000. For the first time we have dedicated career services available to alumni. Support for young alumni, legacy families and students will increase exponentially. Enhanced communication strategies will take advantage of multimedia and virtual technology to further deliver events and relevant content to alumni wherever they are.

The current generational change in students and alumni provides an premier alumni associations in the nation share five qualities of success:

world-class regional engagement, signature alumni programs, alumni career services, differentiating outreach programs to students and young alumni, and exceptional alumni communications and use of technology.

It is our goal and our responsibility to shape the next generation of alumni and foster our lifelong relationship with current alumni. It is their character, talent and leadership that will define and chart the future of William & Mary.

We are well on our way to achieving this vision. But more importantly, we have a base of supporters, alumni and friends who continue to believe in us and push us to dream even bigger. To that end, we are proposing changes to our bylaws to be more effective, inclusive and efficient (see p. 60). We are also expanding our committee structure to include more non-board alumni. We need more volunteers, so contact us if you are interested in serving.

There will be no better time to witopportunity for transformation. The ness the first stages of this transformation than at Homecoming on Oct. 22-25. This year it will be extraordinary.



VOLUME 81, NUMBER 1

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FROM THE BRAFFERTON

Leading the Way in the Liberal Arts

BY W. TAYLOR REVELEY III

William & Mary President

HILE PRESIDENT OF PRINCETON, WOODROW WILSON NOTED that changing an undergraduate curriculum is like moving a graveyard – you never know how many friends the dead have

until you try to move them. I know how he felt. Passions run high when the time comes for the obligatory parts of a college curriculum to change. But once or

twice a generation, every school worth its salt must revisit its core or "general

education" requirements to keep up with advances in knowledge, meet the changing needs of students in an evolving society, and reaffirm the enduring purpose of the sort of education it seeks to provide. Members of this fall's freshman class at William & Mary will be the first to study the new College Curriculum (COLL) as part of their general education requirements, which comprise about 25 percent of the credits needed for graduation. COLL will provide undergraduates with a sufficiently rigorous taste of various disciplines to enable them to become familiar with different modes of analysis and ways of solving problems. The way a historian seeks to understand and explain the past, for instance, differs from how a physicist plumbs the mechanics of material reality. Throughout there will be emphasis on teaching students to challenge assumptions, insist on evidence closely evaluated, and become comfortable exploring perspectives different from those with which they started.

COLL recognizes the necessity for more interdisciplinary work to understand multi-dimensional bodies of knowledge and then solve problems that can be tackled only by bringing together information and techniques from different fields of knowledge. Global and cross-cultural learning will be more prominent in COLL along with new emphasis on how to communicate effectively in writing and orally and how to conduct sophisticated research.

COLL also ensures students will share the experience of taking required courses in the liberal arts throughout their four years at William & Mary. In recent years at W&M and other universities with high undergraduate admission standards, many entering freshman have arrived with college credits from AP and IB exams equal to at least a semester of college. Students increasingly have used these credits to check off large parts of our required liberal arts curriculum. Wielding credits based on high school courses in this way also has enabled them to satisfy general education requirements during their first two years of college instead of continuing to explore the liberal arts widely for all four years.

COLL precludes this. While students will continue to receive elective credit at W&M for AP and IB exams, COLL requirements must be satisfied with courses taken on our campus from our professors during all four years of the undergraduate experience.

Several years of preparation by our faculty prepared us to launch COLL with the Class of 2019. Our strategic planning process identified the need to reconsider the general education curriculum put in place in 1993, and that reconsideration began in 2010. In December 2013 the faculty adopted COLL, which debuted this fall after two years of course development.

In their first year, new students will take COLL 100 courses focusing on "big ideas" or "great questions." The faculty have already prepared so many marvelous COLL 100 courses that some have been transformed into COLL 150 courses (first-year seminars). One COLL 100 course that got my attention, among many others, is Professor Paul Mapp's "The Idea of the Liberal Arts Education." Course materials will span 2,500 years — from Socrates to Winston Churchill — and will involve students in the very kinds of conversations that preceded the launch of the new curriculum.

As part of COLL, for the first time at William & Mary, each entering student had a shared intellectual experience before arriving on campus. All new students were sent *Island of the Colorblind* by Oliver Sacks to read over the summer. Faculty will include the book in their class discussions and assignments.

We believe W&M's new COLL curriculum will provide our undergraduates during all four years of their time on campus with a powerful learning experience spread across a wide range of disciplines, with heightened emphasis on critical thinking, research and writing skills, and problem solving in interdisciplinary and global contexts. With COLL William & Mary will continue to lead the way nationally for undergraduate education in the liberal arts.

WILLIAM & MARY ALUMNI HOUSE

WEDDING CEREMONIES • RECEPTIONS • REHEARSAL DINNERS

Congratulations to Bonnie Powell '87 and Caesar Velasco III '98

Contact Cindy Gillman 757.221.1168 cbgill@wm.edu

wmalumnihouse.com

Homecoming events

Find the full schedule at wmhomecoming.com

Registration is required for events with * denotes special campaign events Events are free unless otherwise noted

THURSDAY 10.22

OWJ ANNUAL MEETING (Order of the White Jacket) 1:30 p.m. Sadler Center, York Room

FRIDAY 10.23

WE LEADERSHIP SYMPOSIUM

"19th Century Education in a 21st Century Economy" 9-11 a.m. School of Education, Matoaka Woods Room

OLDE GUARDE LUNCHEON* Classes of 1965 & prior

Reception: 11:30 a.m. Luncheon: Noon-2:30 p.m. Campus Center, Trinkle Hall \$35 per person

GALA JOHN BOSWELL MEMORIAL LECTURE^{*}

(Gay and Lesbian Alumni/ae) 3 p.m. James Blair Hall, Room 229

Brandeis Professor Susan S. Lanser

"Confronting Growing National Security Threats"

1:45-3:30 p.m. Phi Beta Kappa Hall, Mainstage Theatre

HOMECOMING PARADE

4:30 p.m. Parade route available at wmhomecoming.com

SUNSET CEREMONY

6 p.m. Wren Courtyard (Rain Location: Sadler Center, Commonwealth Auditorium)

FRIDAY NIGHT FEST*

7-11 p.m.
The Sunken Garden
Pay-as-you-go food trucks
\$25 per person for Beer, Bourbon & Bordeaux
\$15 per Young Guarde (2006-2015)
Additional \$10 per souvenir glass

W&M COMEDY AND IMPROV

9-11 p.m. Merchants Square, Kimball Theatre (Register online to reserve your seat)

SATURDAY 10.24

WIVERSITY SHOWCASES A Sampling of Academic and Cultural Life 9-11 a.m. Complete listing at wmhomecoming.com

W LEADERSHIP SYMPOSIUM

"Transformational Innovation" 9-11 a.m. Miller Hall, Brinkley Commons

CAMPAIGN BRIEFING

with President Reveley 11:30 a.m.-12:30 p.m. Phi Beta Kappa Hall, Mainstage Theatre

WREN BELL RINGING

Noon-3 p.m. Wren Building

REGISTER ONLINE AT RESPONSE.WM.EDU/HOMECOMING

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ALL-ALUMNI & REUNION CLASS TAILGATE*

Noon-3 p.m. The Sunken Garden \$20 per person/ \$10 per child (3–12)

WRENSTOCK, CHILDREN'S CARNIVAL AND CLASS PHOTOS

Noon-3 p.m. The Sunken Garden Specific class photo times and pricing available at wmhomecoming.com

ABO ANNUAL MEETING AND PRE-GAME GATHERING*

(Alumni Band Organization) 1-3 p.m. Alumni House, Richmond Road Tent \$10 per person

FOOTBALL GAME W&M vs. Hampton

3:30 p.m. Zable Stadium Tickets available at tribeathletics.com

GALA RECEPTION*

(Gay and Lesbian Alumni/ae)

6:30–9:30 p.m. Tucker Hall Foyer

REUNION RECEPTIONS*

Classes of 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005

7:30-9:30 p.m. Tents surrounding the Sunken Garden \$50 per person; \$65 to include Saturday Night Bash Specific tent location information available at wmhomecoming.com

YOUNG GUARDE CELEBRATION*

Classes of 2006 – 2015 Includes Class of 2010 Reunion 7:30-10 p.m. Young Guarde Tent, The Sunken Garden \$25 per person \$40 to include Saturday Night Bash

SATURDAY NIGHT BASH*

9-11:30 p.m. The Sunken Garden \$25 per person

SUNDAY 10.25

SUNRISE SERVICE

7 a.m. Wren Chapel

ALUMNI COFFEE AND DONUTS

8:30-11 a.m. Alumni House Foyer

> **Register online at response.wm.edu/homecoming** or call (757) 221-3106.

VISIT **WMHOMECOMING.COM** FOR A FULL WEEKEND CALENDAR, EVENT DETAILS AND FOR REGISTRATION AND ACCOMMODATION INFORMATION.

A RESEARCH UNIVERSITY: Approximately 70 percent of William & Mary's undergraduates participate in research-oriented classes. Many also co-author articles and present at conferences.

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BY&LARGE

RESEARCH IN ACTION

Stewards of Know-How

For undergraduates in Lisa Landino's lab, chemistry is just the beginning

BY SARA PICCINI

AST FALL, WHEN JULIA ZUERCHER '17 BEGAN working in chemistry professor Lisa Landino's laboratory, she was initially tasked with purifying a compound needed for the lab's research studying the biochemical foundations of neurodegenerative diseases such as Alzheimer's and Parkinson's.

Zuercher and her lab
mate Molly McMahan $^{\prime}15$ tried one method, and then another. And y
et another.

"Nothing went like it was supposed to," says Zuercher. "Just when we thought we had it, it didn't work. It took us an entire semester to figure out the compound, but we got it. Now we have an official protocol."

"I tell my students there are two goals always: the first is to learn, and the second is to get stuff done," Landino says (revealing that she sometimes substitutes a more colorful word for "stuff"). As Landino's undergraduate researchers have discovered, there is as much to be learned through failure as there is through success.

Zuercher, who plans to practice veterinary medicine, saw the results first-hand this summer while working for an equine vet. "The constant problem-solving skills I learned in the lab really helped. There would be four or five opinions of what might be wrong — the horses can't tell you. You had to rule them out systematically."

Approximately 70 percent of William & Mary's undergraduates participate in research-oriented classes or are guided by faculty mentors such as Landino, who holds the Garrett-Robb-Guy Professorship in Chemistry. "Here an undergraduate can knock on a professor's door and is highly likely to get a conversation with that person pretty quickly. You are rapidly absorbed into



TEACHER'S

HELPERS: Chemistry professor Lisa Landino's research focuses on neurodegenerative diseases, such as Alzheimer's. Her undergraduate students have made vital contributions to her work.

BY[©]LARGE

the research process," says Dennis Manos, CSX Professor and vice provost for research. "I've studied our peers a lot and I've looked hard for a place where I could say, 'This is more or less identical to William & Mary.' I haven't found it."

Manos notes that W&M undergraduates coauthor journal articles, present at conferences, and gain expertise in skills ranging from the interpretation of original historical documents to the use of sophisticated lab equipment.

The intangible benefits are equally — if not more — significant. "There is a thumping, glorious, visceral rush that comes from being the only person who knows something nobody else knows, and that you are the steward of this piece of know-how for some brief period of time," Manos says. "It's a feeling that's very difficult to achieve any other way — it's like climbing to a mountaintop."

As a faculty member, Landino is on a path of discovery along with her undergraduates, constantly refining and rethinking her research. As Manos noted, "Our faculty are students as well — they never stop learning, they never stop striving. That's what we try to transmit to the next generation."

Landino has received university funding through both a Plumeri Award for Faculty Excellence, named for donor Joseph J. Plumeri '66, D.P.S. '11, and her five-year appointment to the Garrett-Robb-Guy Professorship. "It gives you the opportunity to think in a new direction," Landino says. "I'm talking about making con-

> nections in my head that other people might not think of as related. I was on the review committee for the new College Curriculum, and this is what we're trying to encourage students to do. It's what keeps you energized."

Landino's work on neurodegenerative diseases began when she was a graduate student at the University of Virginia. "I was working on a connection between Alzheimer's and aluminum," she says. "The more I read about

Alzheimer's, the more intrigued I was. I also saw my great-uncle Art develop the disease, even though my grandfather and their other siblings did not. I was interested in the diet/lifestyle/disease connections."

"My post-doctoral work at Vanderbilt medical school was more about reactive oxygen species those molecules produced on the path between oxygen and water," Landino continues. "Essentially I combined work from both labs into what I do now."

At a basic level, Landino investigates oxidative damage to a protein called tubulin, which acts as a kind of scaffolding within neurons — the cells that are the core components of our brain and central nervous system. When we breathe in oxygen, our bodies transform most of it into water. But some of that oxygen is transformed into so-called "free radicals" that are reactive, essentially stealing electrons from proteins in our cells.

"With Alzheimer's, where my research might play a role is in understanding how and why neurons first start to die. Are they starving?" Landino says. "That is, they can't metabolize glucose properly because the interactions between the enzymes that process glucose and the microtubules made of tubulin are not functioning properly. Not much is known about this, although it is clear that tau, a protein that normally binds to microtubules, forms neurofibrillary tangles inside cells that we see in Alzheimer's."

Landino has received more than \$850,000 in grant funding from the National Institutes of Health, enabling her to employ three or four undergraduate researchers full time in the summer. During the academic year, she has had up to 10 undergraduates working in her lab, from freshmen to seniors, each focusing on a crucial piece of research.

"Working in any kind of lab is great for teaching you the value of teamwork," says Soni Patolia '17, a double major in chemistry and film and media studies. "Everyone is working on a different thing, but ultimately everyone wants the entire lab to succeed." Patolia's work involves growing yeast and extracting



"For our undergrads, it's very important that they engage, which means to throw yourself into it, heart, mind, spirit, all of it, and do something as a consequence of being educated."

BY&LARGE

tubulins from the cells. "Dr. Landino took a whole day to guide me through the steps and then said, "OK, now you're on your own."

As Zuercher adds: "To have that kind of trust from a professor to be on your own, even though we're undergrads, helps with confidence in all your classes."

Undergraduates have made vital contributions to Landino's recent work on reversing oxidative stress. "We've started studying how one protein can have some damage, but other proteins can repair it through what we call the redox reaction — oxidation reduction. They exchange electrons," Landino says. "We've published a paper on this using two purified enzymes. The positive/ negative interactions had been studied, but now we've identified this redox reaction, and so that's new."

Landino's students have found that they've learned life skills of value beyond the classroom, including time management. "She also taught us the importance of taking breaks," Patolia says. "When the clock strikes 4 or 5, she says, 'OK, you guys need to get out of here." And in a field where the gender gap is still very apparent, Landino serves as an important role model for her female students.

For Elizabeth Johnson '16, her work in the lab has elevated her to the role of teacher. Johnson, who is pursuing degrees in chemistry and biology, spent the summer in Landino's lab conducting fulltime research on fluorescent molecules and how they attach to proteins. The lab had just acquired a new fluorescence instrument, which Johnson learned how to master. "She knows how to use it better than I do," Landino says. "Now I look at her as a teacher for the other students, not only with this particular instrument, but with her other work."

As Johnson discovered, teaching requires a different set of skills that complement her research, especially breaking down a process into steps. "Things become intuitive, so I'll find myself going, 'Oh wait, I have to teach that' — it's not a habit for them the way it is for me."

Like her labmates, Johnson is usually focused on the day-to-day problem-solving involved with her research. As Landino noted: "We're chemists — what most of us get excited about is understanding interactions at a really fundamental level." But the bigger picture is always in view.

"Sometimes I'll start reading a paper to look at a method, and I'll think about the context. I'll stop and realize that I'm working on something that could potentially lead to helping people, and that's awesome," Johnson says. "It's definitely a big reason why I want to do science." "For our undergrads, it's very important that they engage, which means to throw yourself into it, heart, mind, spirit, all of it, and do something as a consequence of being educated," Dennis Manos says.

"And the best of all possible worlds for undergrads exposes them to that continuum of individual curiosity up though and including working in multidisciplinary teams, in order to solve the pressing problems that the world agrees we need to get after now."

For more on the need for top-flight lab equipment and how you can help, see p. 21.



TECHNOLOGY

A WALK THROUGH HISTORY

William & Mary has launched a new campus walking tour that allows guests to explore the people, places and events in the university's history. Developed by William & Mary's Swem Library, TribeTrek is a free mobile app that puts the history of the nation's second-oldest institution of higher learning in the palm of your hands. • The app, which can be downloaded for smart phones and tablets at the App Store or Google Play, shares the history of campus buildings, sculptures and other sites through photographs from the library's archives. There are 74 sites currently included on the tour, with more to come, ranging from the Wren Building and the Sunken Garden to the Campus Center and Zable Stadium. — TAMI BACK BY&LARGE







NATIONAL ACCLAIM: Bell's book El Deafo earned her a Newbery Honor and Angleberger landed on the New York Times bestseller list with his Origami Yoda series.

BY THE BOOK

DRAWN TOGETHER

An alumni couple creates unique characters for children's books

BY KELLEY FREUND

VERY WRITER HAS A PROCESS. FOR CECE BELL '92, it's walk, work, work, work, work, work. For her husband, Tom Angleberger '92, it's walk, walk, walk, work, walk, walk.

The couple, who met their freshman year at William & Mary while having dinner in the Caf with mutual friends, are authors/illustrators who each have experienced recent success with their children's books. From sock monkeys to origami Yoda, both Bell and Angleberger have created a unique set of characters to inspire kids.

While attending the College, both Bell and Angleberger worked at the *Flat Hat* in the graphics department. (David Lasky '90, their first graphics editor, went on to become an award-winning graphic novelist and colored one of Bell's books, *El Deafo*). "I know Tom thought I was pretty weird," Bell says. "Nothing stuck at that point. It wasn't until sophomore year, when I joined the staff of the *Flat Hat* that something stuck."

Bell claims Angleberger was involved in a lot more entertaining activities at the College, while she was mainly focused on getting straight As.

"Seriously, I would not have had some of the great experiences I had at the College if weren't for Tom," Bell says. "I would have spent all my time studying in Swem if I hadn't met him, and I certainly wouldn't have been an art major — a change that made the rest of my life a lot more fun."

When Bell began to study art, she started to think that children's book illustration was the ultimate dream. Despite being a former English major, Bell wasn't thinking about the writing part until she read somewhere that it was a little easier to get a



Life in Williamsburg ... *return to it*

It's about connecting with fellow alumni and cheering on the Tribe. At Williamsburg Landing, just minutes away from William & Mary, you have the time to relive old memories and make new ones.

Similar to the proud campus, Williamsburg Landing is a vibrant community with tree-lined streets, friendly neighbors and an abundance of cultural and educational pursuits including the Christopher Wren Association. Here you will enjoy a maintenance-free lifestyle in your choice of six neighborhoods and the peace of mind knowing there is healthcare available if you need it.

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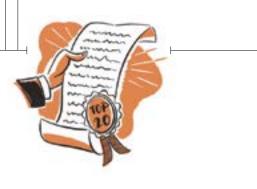
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children's book published if you both wrote and illustrated the book.

The first books Bell wrote were her *Sock Monkey* series, inspired by her actual sock monkey, which she made in 1995 from a kit her grandmother had given her. *Sock Monkey Goes to Hollywood* received an Oppenheim Toy Portfolio Gold Seal Award and was named Quirkiest Picture Book by *Publishers Weekly* in 2003.

Angleberger began wanting the same career when he saw how much his wife was enjoying hers. At the time, he was working as a reporter for the *Roanoke Times*. After the couple's first child was born, Angleberger took some paternity leave and during the baby's "down time," wrote a book. "When my paternity leave was almost up," Angleberger says, "I decided I would be leaving the paper instead of returning, and I started writing children's novels full time."

Angleberger is most famous for his *New York Times* bestselling *Origami Yoda* series, which follows the story of a young boy named Dwight who creates an origami likeness of Yoda from the "Star Wars" film franchise in order to give advice to other students. Some of the other books in the series



HIGH RANKINGS

ACCUMULATING ACCOLADES

William & Mary is included in the *Princeton Review*'s annual guide to the nation's best colleges, and it also landed on two of the book's top-20 rankings. William & Mary is ninth on the list of colleges where the students are most engaged in community service and 17th on the list of best college libraries. The top-20 rankings were based on surveys sent to 136,000 students at the 380 colleges in the book in 2014-15 and/or the previous two school years. —UNIVERSITY RELATIONS STAFF

include Darth Paper Strikes Back!, The Secret of the Fortune Wookiee and The Surprise Attack of Jabba the Puppett.

"I was inspired by Fukiami Kawahata's incredible origami Yoda, which I have never been able to fold because it is too difficult for me," says Angleberger. "So I tried to make an easier one myself. I'm not necessarily all that creative. I'm more of a puzzle putter together. I take all these little puzzle pieces — Yoda, middle school problems, Cheetos — and I fuss and fuss with them until I fit them together."

Bell's favorite book she's done is a picture book, *Bee-Winged*, which she considers to most closely represent what she wants to be doing with the medium. "But *El Deafo* of course is very meaningful to me and has totally changed my life in more ways than one," Bell says.

Bell grew up hearing-impaired after meningitis left her profoundly deaf at the age of 4. *El Deafo* chronicles her hearing loss and her subsequent experiences with the Phonic Ear, a very powerful — and very awkward — hearing aid. Bell wanted to create something so that children who were deaf could see themselves positively represented in a book. She uses the imagery of everyone illustrated as rabbits as a visual metaphor — when she was growing up, she felt like the only rabbit whose ears didn't work. Many of the rabbits are based on real people in Bell's life. The book received the Newbery Honor and the Eisner Award for Best Publication for Kids in 2015.

Angleberger also bases many of his characters on real people, including himself in the *Origami Yoda* series. "There are two characters in the books who are very different from each other, but both represent two very different sides of me," Angleberger says.

Bell works in a Home Depot barn next to the family's house. It's finished on the inside with electricity and heat. She likes to keep work and home separate and needs the sensation of "going to work," even if that just means taking a few steps from one building to the other. But Angleberger seems to be able to work anywhere. "I have a room in the house that is *supposed* to be my office, and sometimes I work there," Angleberger says. "But you can also find me working at the kitchen table, or on the front porch, or pausing during a long walk to write something down."

Both Bell and Angleberger claim that having a spouse in the same career field has its advantages. "It's nice to celebrate little successes with someone who totally gets it and respects it," says Angleberger. "We also get to collaborate sometimes, which is fun."

"I love the fact that I can moan and groan about some of the more frustrating aspects of my job, and Tom totally gets it," Bell says. "Sometimes things can get very annoying — deadlines that you might not be able to meet, editorial decisions that you might not agree with — and it's so nice to be able to talk to your spouse about the ugly font decision on the cover and not have him roll his eyes at you."

BY&LARGE

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BYCLARGE

GAME CHANGER: Tribe basketball player Brooke Stewart '16 was able to attend William & Mary thanks to a scholarship she received. Athletics hopes to boost endowed funding for such scholarships in the future.

MORE POLICY FOR THE PUBLIC

Beginning next fall, the William & Mary Master of Public Policy Program will offer an international development and policy track in addition to its existing domestic policy offerings. The new program was officially launched at a special event in Washington, D.C. in July. "Broadening the scope of this program will allow us to better prepare our students for careers in public policy formulation and evaluation," said Sarah Stafford, director of the Public Policy Program. -SUZANNE SEURATTAN



PAYING IT FORWARD

COMPETITIVE EXCELLENCE

Tribe Athletics looks to the future

BY KELLEY FREUND

CCORDING TO SENIOR TRIBE BASKETBALL player Brooke Stewart '16, her time at William & Mary has molded her into the person she is today. It has given her access to a great academic experience and the chance to be a part of the special community that makes up William & Mary. But it wasn't easy for Stewart to get here. "I am the youngest of four children and my scholarship was the key factor in my being able to continue my edu-

cation in Williamsburg," Stewart says. "It gives me the opportunity to do what I love — play basketball at the highest level, and get a great education."

For many William & Mary students like Stewart, athletics is an important part of their college experience. From hard work to teamwork, student-athletes learn as much on the field as they do off. The Tribe Athletics Department wants to make sure this continues, but it won't be easy. According to William & Mary Director of Athletics Terry Driscoll, there have been changes to the landscape of college athletics in recent years and financial pressures have escalated. Tribe Athletics currently sponsors more varsity sports than any other member of the Colonial Athletic Association (CAA). And while William & Mary has won more CAA championships since the conference's inception than any other school, that success comes at a price. The athletic fee paid by each William & Mary student to help fund varsity athletics is already the fourth-highest among all public universities in Virginia. Last summer, a working group led by Driscoll set out to outline a roadmap of success for Tribe Athletics in the face of these pressures. Their report was released in April.

The Committee on Competitive Excellence, which includes staff, alumni and faculty representatives, evaluated a number of aspects of Tribe Athletics, including facilities, finance, human resources, admissions and financial aid, marketing and media, and fan experience.

The report is about being strategic with limited resources, mapping a vision for the future and affirming William & Mary's identity as a university where athletes can be exceptional students and be a part of a championship experience.

"William & Mary ranks among the nation's elite academic institutions," Driscoll says. "Tribe Athletics should aspire to the same level of excellence. The time has come to define a vision for the future and move confidently towards it."

The report, titled "A Championship Experience for Every Student-Athlete and Every Fan," details funding needs for scholarships, operating expenses and facility improvements as well as enhancements to streamline current policies and practices, including improving the game-day experience for fans.



MATT CRISPINO '02

Director of Swimming Matt Crispino '02 has led his *alma mater* to perhaps its best threeyear run in the last 40 years as he enters his eighth season at the helm of the Tribe men's and women's swimming teams. • After seven complete seasons, Crispino is the second-winningest coach in program history for both the men (34 wins) and the women (52 wins). • Crispino returned to his *alma mater* in 2007 after five years in the assistant coaching ranks at Colgate University and West Point. Directly responsible for the sprint corps at Colgate, Crispino saw his athletes race to 49 lifetime-best performances, including four school-records. At West Point, Crispino helped the Corps of Cadets to a pair of second-place showings at the Patriot League Championships. • The captain and Most Valuable Swimmer of the 2001-02 Tribe men's swimming team, Crispino helped set the school record in the 800 free relay as a freshman at the CAA Championships. Crispino received his bachelor's of arts in government from the College in 2002, and his master's in physical education from Florida State in 2003. In July 2008, he married Liz Koch '03, former Tribe swimmer. The couple resides in Williamsburg with their two-and-a-half year-old daughter, Lydia Grace.

BY&LARGE

SPEED QUEEN

Runner Emily Stites '16 finished third in the nation in the 10,000m at the track and field NCAA Championships in June. Stites, who was running in her seventh-straight NCAA finals dating back over the last three years, finished in 33:26.15, for the sixth-fastest time in school history; Stites now has four of those top six races, and is just the third woman in school history to finish in the top three at national collegiate championships. She also earned first-team All-American honors, her program-record seventh All-America title, and is just the sixth W&M athlete to earn All-America honors in three different seasons in one school year. -JACOB SKIPPER '05

A key part of meeting these needs is an increase in private philanthropy.

"Already, donors to W&M athletics have been far more generous than those of any other CAA school," says William & Mary President Taylor Reveley. "To do what's sketched in the report will require an even more serious commitment from alumni and alumnae who believe strongly in the value and potential of Tribe athletics."

The past year has already seen many such alumni step up. Last August, two \$6 million gifts, one from Hunter J. Smith '51 and the other from James W. '62, J.D. '64, LL.D. '00 and Frances G. McGlothlin '66, enabled the university to move forward with construction to enhance the 79-year-old Zable Stadium. This year, John Dawkins '51 donated another \$2 million for the renovation.

"The planned changes are designed to enhance what is already a beautiful facility," Smith says. "It will be wonderful to watch this campus treasure transform into a state-of-the-art gathering place where fans enjoy coming together as a community to support William & Mary football."

Once complete, the renovated stadium will have improved safety and accessibility features including

EDUCATION IDEAS

BLENDED HISTORY

The Colonial Williamsburg Foundation's ENLIGHT online learning initiative and the William & Mary School of Education collaborated this past summer to offer the blended course "Teaching with Exhibits in the History/Social Studies Classroom." The course provided an introduction to using museum exhibits in the classroom as an effective interdisciplinary and interactive learning strategy and offered students the option of earning one to three graduate credits. The format for the course included project-based instruction on planning, designing and building classroom museum exhibits; creation of resources for immediate classroom implementation on using exhibit concepts for discovery education; panel discussions with museum experts and School of Education professors; and the opportunity to tour Colonial Williamsburg and William & Mary's museums and interact with staff. -COLONIAL WILLIAMSBURG STAFF wider aisles, renovation of existing restrooms and additional facilities, improved egress lighting, an upgraded sound system, additional concession and retail locations, and a new entrance and ticketing location.

In May, Athletics announced the construction of the Plumeri Indoor Baseball Practice Facility, thanks to a gift by Joseph Plumeri '66, D.P.S. '11. "The practice center will greatly enhance our player development opportunities and will allow us to practice more efficiently in all weather conditions," says head coach Brian Murphy. "This commitment to Tribe Baseball will also help us continue to attract quality student-athletes, as it is one more reason why it is great to be a part of Tribe Baseball."

Also this past year, Sue Gerdelman '76 and husband John '75 made a \$3 million commitment to support Athletics, including a football scholarship endowment and funds for the Tribe Club. An anonymous donor contributed \$1.6 million to Athletics.

To help attract and retain promising student-athletes in the Tribe football program, Rich '65 and Carole Kraemer established a \$1.2 million scholarship endowment in May. They created the endowment to honor two former William & Mary football players who have been among the most loyal Tribe fans over the last several decades — Richard E. Korns '68 and Michael G. Weaver '66, M.Ed. '70.

"Dick and Mike came to William & Mary because a football scholarship was offered to them," says Kraemer. "During their time at the College and after graduation, football has always been an important part of their lives. I am happy to recognize their commitment to education and William & Mary."

The Kraemers' gift announcement came on the heels of Athletics receiving a \$3.5 million commitment from Terry Thompson '67 for student-athlete scholarships. A significant portion of this commitment supports scholarships for student-athletes participating in the women's basketball program. It was the largest gift ever given to women's basketball from a single donor.

"I hope my gift inspires other former players to take the time to learn what the needs truly are and find a way to make their own impact."

Thompson served on the Committee of Competitive Excellence. During her time helping to shape the report, she gained a much deeper understanding of the need for increased support for the Tribe Athletics Program. It also reaffirmed her original belief that, at its core, William & Mary continues to do athletics "the right way."

"I have always believed that athletics is a core part of William & Mary's liberal arts mission," says Thompson. "To me, academics and athletics go handin-hand and I am passionate about seeing both areas of our university continue to move forward at the highest level. We are not only going to need continued, and improved, support from all our longtime athletics donors, but also find ways to educate and motivate a new generation of donors."

BY&LARGE



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PROFILES BY KELLEY FREUND AND BEN KENNEDY '05 || PHOTOGRAPHED BY ADAM EWING

TOOLS OF THE TRADE: Han's contemporary Apple computer is connected to an old-school IBM keyboard. "I'm a fetishist for old technology, probably like a lot of other historians." It's all about the mechanical, spring-loaded keys.

Eric Han

ASSOCIATE PROFESSOR OF HISTORY

Budget showdowns, congressional power struggles and controversial national symbols are some of Eric Han's research interests – it's just that he's looking back into the history of East Asia to study them.

"Examining these historical developments in East Asia allows us to test the universality of a lot of our own beliefs and our own positions," he says. When the Japanese parliament sought greater political influence in the 1890s, they used government shutdowns and budget threats to do it. "You do see very interesting repetitions of similar political strategies."

Broadly, Han's work examines questions on national

180 DEGREES

As an undergrad at Princeton, Han started the school's first student anime club and earned his bachelor's — in molecular biology.

> and individual identity in China and Japan. As a Chinese-American, Han taught English in Japan in the 1990s and was intrigued by the Chinese communities there, given the two countries' long and contentious history.

> Since then, he earned a Ph.D. at Columbia and has been looking at the challenges facing Sino-Japanese reconciliation ever since. After a brief moment of pan-Asian solidarity in the late 19th century, much of the 20th has been marked with

discord and war between the two nations. Han helps his students draw parallels with other long-standing cultural conflicts.

"We can understand that everyone has their subjective perspective: that Japan needs its own view and that the American South needs its own view," he says. "We accept that to a certain degree – that everyone has a right to have their own perspective – but we can't coexist in the world without shared understanding about what states should do; how to cooperate and promote trade; how individuals should be treated. We have to have these shared rules and norms."

And as he tackles the complex issues surrounding his own background, he helps his students answer their own personal questions.

"I can make my research useful to them or provide some insights about how we live in the world," Han says. "I can bring from the answers I've received some type of insights for them. This is more or less how I approach the broader goals of the humanities."

Blending his own research with his teaching pursuits makes William & Mary the perfect fit. He says, "William & Mary is a wonderful institution because it allows you to develop your own approach, because so much value is placed on teaching and research."



FAVORITE CAMPUS SPOT

Swem Library. "What is better than getting lost in the stacks, surrounded by books? There is always something new that piques my interest."

Molly Swetnam-Burlanc

ASSOCIATE PROFESSOR OF CLASSICAL STUDIES

Students who went on last year's study abroad trip to Italy with Molly Swetnam-Burland might call her a really fast walker. But that's just because she's so enthusiastic about her research and wanted to pack as much material as possible in the few days the group had in Rome and Pompeii.

Swetnam-Burland teaches in the College's Classical Studies Department, including classes on Roman archaeology and art, the cities of Rome and Pompeii and Latin language and literature. She has been interested in Roman material culture (and Pompeii especially) since taking coursework as an undergraduate student. Her research is important to her not only because she has an interest in how the Romans lived, but she believes this type of research can benefit her students as well.

"I love teaching about the Romans because we must put different pieces of evidence together, like a puzzle, to truly understand them – combining art, inscriptions, ancient texts, each offering a little bit of the big picture. I think that looking at the world in that way, balancing complementary material, is good for students whatever their major is."

At various points in her life, Swetnam-Burland wanted to be a writer, teacher, historian and an actress. "I guess that my current job rolls a lot of aspects of this into one, since teaching in college requires a bit of showmanship and lots of creativity."

Swetnam-Burland joined the W&M faculty in 2008. "I've taught at several different institutions, and this is my favorite. W&M students are smart, diligent and endlessly curious." While on leave this past year, Swetnam-Burland took an Italian class at the College and she enjoyed having the chance to get to know a group of students from a new perspective. "Our students juggle a lot – extracurricular activities, double majors, internships – and they are really cool and interesting people."

Swetnam-Burland recently completed a book about "Egyptianizing" motifs in Roman material culture, which explores how, when the Romans annexed Egypt in 30 B.C., they began not only to import Egyptian artifacts to Italy, but started to emulate these styles in their own art.

"I'm proud of the writing I've done, the travels I've taken, the awards I've gotten. But mostly, I think I'm proud that I continue to learn more about the ancient world every day. I love reading new things and hope to remain curious."

AFTER CLASS

"I like to jog, spend time with my family, knit and cook ... and I've been known to binge-watch a series on Netflix."

Jonathan Scheerer

ASSOCIATE PROFESSOR OF CHEMISTRY

Thanks to a two-year-old in his house, Jonathan Scheerer is expanding his understanding of chemistry.

"You never realize how much chemistry nerd gear is out there until you have a child," he says. "Other people think that your child should have a lot of these chemistry bibs and periodic table onesies."

For Scheerer, an associate professor of chemistry, it's fun to watch young people – undergraduates, in this case – get excited about science research.

"Even before I got here, there was one student who was emailing me about what research I was going to be doing," he says. "So they're certainly passionate about getting involved in these things, even though they're 18 years old. They'll bring so much enthusiasm that it's fun to direct them in a way that fits in with scholarship."

The Scheerer Lab focuses on the study of biochemical products found in nature. While examining, reproducing and then modifying compounds originally produced by fungi or plants, Scheerer and his students are also exploring possible therapeutic applications.

"We're taking something that is produced in nature and trying to make it de novo from simplified building blocks that you can essentially order," he says. "How do you build that same structure, even though it's produced by a fungus in nature? How do you make it in the laboratory? This gives you the opportunity to ask many broad questions around that." Students relish the chance to do this sort of unique research, but Scheerer values the mentoring opportunity just as much.

"William & Mary is really perfect for me in that it has one foot in the traditional liberal arts, but it's also research-active," he says. "At least for chemistry, we don't have a Ph.D. program. That's a unique niche when you try to do research with almost exclusively undergraduates."

THE RIGHT EQUIPMENT

As a Columbia summer researcher, he sat at a "desk" that was just a door laid across two filing cabinets. They left the knob in.

Scheerer's experience as an undergraduate at Beloit College in Wisconsin continues to inform his perspective on education. He can easily draw connections between where he started and where he is today.

"It made a big difference for me in terms of involvement and all kinds of learning. I saw wonder and amazement and great passion in a lot of different subjects. I don't know that I would have gotten that same exposure in a larger state institution, so it sent me on the path of being more of a lifelong learner," he says. "I guess you'd say that's coming back full-circle now."



Took his entire lab to a conference in Maryland, where they played miniature golf to unwind. "I don't know if minigolf is the way to flesh out the best in everyone," he says with a smile.

ROOTS

"I think students are surprised that I grew up on a small farm in Minnesota. I don't have what they perceive as a Minnesota accent. Not everyone in Minnesota talks like they do in 'Fargo.'"

Jeremy Stoddard

ASSOCIATE PROFESSOR OF EDUCATION

School of Education professor Jeremy Stoddard has a piece of paper thumbtacked to a board in his office. It's a student evaluation form that a school principal filled out, assessing one of Stoddard's students. At the bottom it reads, "I hired her!"

For Stoddard, the fact that his students are able to make an immediate impact in schools is the accomplishment he's most proud of in his nine years of teaching at William & Mary. "I feel very fortunate to work with the students that we have here at William & Mary. They come here because they want to be challenged and they want to work hard and engage."

Stoddard came to William & Mary, not only for the teaching-research mix, but because a lot of his work is in history education. "It's sort of a history geek's paradise."

Stoddard's research focuses on how students learn about history and politics through media. He realized how much teachers' political views came into the decisions of what media they engage students with. "More recently, I've been interested in how that's affected all the money going into politics – a lot of it's been in media strategy, both news and advertising. How do we prepare kids coming out of high school for that media-rich political environment? How do we help them critically filter political messages they find in media, as well as prepare them to be

able to take political action as citizens using these media forms?"

Stoddard has also been involved in studies regarding the impact and validity of standardized testing. What Stoddard and his colleagues have found is that teachers who are engaging their students in things like higher-level thinking, inquiry and writing have students who do as well or better than those who teach to the test.

"You can still teach in more authentic ways, where kids will learn things they actually need out in the world. When you come out of school, nobody asks you to take a

EXTRACURRICULAR

Stoddard is a member of the Colonial Ale Smiths & Keggers (CASK), a local home brewing club.

standardized test."

Stoddard directed the Cambridge Study Abroad Program in 2009 and has taught in two D.C. Summer Institutes. Last year, Stoddard received a Reves Faculty Fellowship, taking two graduate students to Singapore to complete a study comparing Virginia teacher development programs to those in Singapore.

"These types of experiences have made William & Mary unique. Especially at research universities, you don't always get to cross into other departments."



OCCUPATIONAL HAZARDS

"There have been several times when I've done demonstrations in class on how to make a stone tool and I've cut myself. I've also stepped on a cobra in the field."

Neil Norman

ASSOCIATE PROFESSOR OF ANTHROPOLOGY

When Neil Norman was a kid, he wanted to grow up to be an architect. But when he got to college, he quickly discovered that he didn't like the advanced mathematics courses required for the field. "I kind of fell into archaeology because it's a way to do architecture in reverse. We're thinking about the way in which structures fall apart and what's left."

Norman serves as the coordinator for the College's concentration in African studies and teaches African archaeology and African diaspora. His research focuses on the nature of cities: how and why they came to be, who lived in them, and how they relate to rural communities. "I've always been fascinated with cities mainly because I'm from a rural area of south Georgia," Norman says. "So I always looked at cities from the outside, while it seems like most historians and archaeologists look at rural areas from the outside."

Norman's work has been concentrated on the 16th through 19th centuries in West Africa, and while Williamsburg is thousands of miles away, the slave trade entwines the history of the two areas. Norman has I wouldn't be able to do that been looking at a series of palace complexes in West Africa that were all involved in the transatlantic slave trade. "There were places where approximately 1 million people were sold into slavery," Norman says. "That often consumes everything

else, but these places were also very vibrant cities in their own right. What I've been trying to do is tease out the political and economical dynamics of the slave trade, but also look at how rural people related to urban people." This past summer, Norman shifted the location of his work, doing similar research in Zanzibar in East Africa.

"I think we can learn a lot from how and why cities fall apart," Norman says. "Archaeology is a good sounding board, and also it's a way to look at where we might be going instead of just where we've been."

Norman enjoys the freedoms that are associated with being a professor. After he finished his undergrad, he worked as professional archaeologist, which meant he had to dig exactly where other people told him to dig. "Now I get to choose the places and topics that I want to address," Norman says. "And there's a mix of different genres – I get to teach, I get to do historical research and I get to do field excavations. I like to jump around between all those different domains, and if I wasn't associated with the university."

NO. 1 DAD

Has two kids. "That's basically my spare time — playing in the park with them, enjoying a not-so-quiet afternoon.



A Place To Call

NASA Chief Scientist ELLEN STOFAN '83 Searches the Galaxy for Life



BY BEN KENNEDY '05 PHOTO BY MELISSA GOLDEN

KEPLER MISSION:

portion of our region of

the Milky Way to discover Earth-size extrasolar

planets and estimate how

many of the billions of

stars in our galaxy have such planets, Kepler's

sole instrument is a pho-

tometer that continually

monitors the brightness of over 145,000 main

sequence stars in a fixed

field of view. This data

is transmitted to Earth,

then analyzed to detect periodic dimmina caused

by extrasolar planets

that cross in front of

their host star.

Designed to survey a

THERE IS NO NIGHT ON THIS PLANET. THE SUN NEVER GOES DOWN. IT HANGS IN THE SKY, CHURNING OUT A POWERFUL, POSSIBLY DANGEROUS MAGNETIC LIGHT SHOW, EVERY DAY, ALL YEAR. THE YEAR IS 35 DAYS LONG.

This planet is tidally locked in orbit with its star, somewhere in the constellation Lyra. One hemisphere receives all of the sun's heat and light, and the other is always cold and dark. At least, we think so. And then there's the chance that changes in atmospheric pressure could create a runaway feedback loop that renders the whole place uninhabitable.

But if humans ever need to escape our changing, complex planet, it's still the most Earth-like destination we've found so far. It's just a shame it might take two million years to get there.

SIGNS OF LIFE

The planet in question is known as Kepler 438b, an exoplanet huddled close to its red dwarf star, about 470 light years away. In January, NASA announced it as one of the newest exoplanets discovered by its Kepler Space Observatory. If 1.0 is the best score on the Earth Similarity Index (e.g. Earth itself), 438b rates at 0.88. Even if the forbidding hypothetical description above holds true, right now, it's the best we've got. That's the bad news.

The good news, according to NASA Chief Scientist Ellen Stofan '83, is that we're just getting started. 438b is only one of 4,000 exoplanets identified so far.

"Kepler is looking at a really tiny portion of the night sky," says Stofan, "so those 4,000 planets are coming from an area you could basically put your thumb over and cover up.

"That's telling us that almost every star in the night sky has a planetary system around it, and that just blows my mind."

Stofan is a planetary geologist who took her William & Mary geology degree to Brown University for a master's and a doctorate and then to Pasadena, Calif., for more than a decade at the Jet Propulsion Laboratory (JPL). There, Stofan worked on the Magellan spacecraft's mission to Venus and a number of other projects as chief scientist for the NASA New Millennium Program. After JPL, she joined Proxemy Research in Maryland, where she worked on the Cassini-Huygens mission to Saturn and led its radar mapping of the surface of Titan. Cassini-Huygens found cryovolcanoes and lakes fed by aquifers full

of methane on Titan, a place that "stole [her] heart" during the project. She was appointed chief scientist at NASA in 2013, where she leads the science arm of the agency, advises NASA's administrator and corresponds with other federal organizations. She's been enjoying the ride ever since.

"I like to talk to people about what we're doing, because in general they get really excited about it," she says. "A lot of people don't know what we're accomplishing here for them every day, whether it's studying this planet and trying to help people here on Earth or searching for life across the solar system, it's something that engages the public."

Stofan's father worked at the Lewis Research Center in Ohio when she was a child, working to minimize "fuel slosh" that might throw a rocket off-balance. There's a picture of him from 1960 that sits in her office today.

"He actually was a rocket scientist," she says. "He was a rocket engineer that helped develop some of the early rockets — actually, some of the first landers to the surface of Mars. So I grew up on the space program."

It's clear that Stofan gets most excited when Mars comes up. The worst-case scenario for Kepler 438b — the one where a small pressure change triggers a climate-destroying catastrophe — is what some think already happened on the Red Planet. But that doesn't rule out the idea that Mars once was home to life; it does have polar ice caps, after all. At a panel discussion at NASA in April, Stofan gave her own thoughts on the topic.

"I speculated that within 10 years we would find indications — strong indications — of life and that within 30 years, we would find definitive evidence," she remembers. "When we go to Mars with the rovers we have, we're looking for indirect signs: things in the chemistry of the rocks, things in the chemistry of the atmosphere that might be consistent with life. We're already on that path and I think within 10 years we'll have even better evidence. What we're really looking for is that fossil evidence of life on Mars and I do think that's likely going to take humans on the surface of Mars."

Specifically, field geologists who are today in grade school.

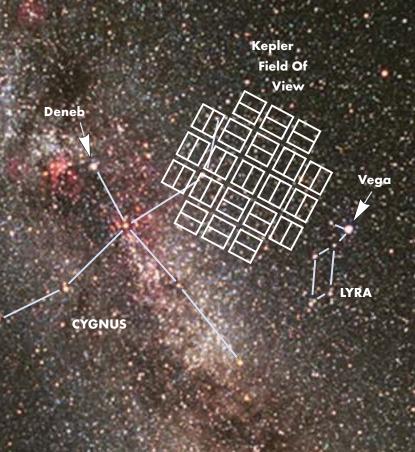
"It's going to take people like me who had a great field geology training at William & Mary to be that astronaut of the future," she says. "Usually I first ask [kids] how many of them want to go to Mars and usually about half raise their hand. Then when I let them know that they actually are the cohort that is going to be the generation of Mars astronauts, literally they gasp and giggle and start talking."

NASA's plans to get humans to Mars are already underway, even if those humans are currently still learning how to tie their shoes. By 2025, the agency will have captured an asteroid into orbit with the Moon and sent humans to study it. In the 2030s, a rocket will propel humans to the surface of Mars.

mapping of the surface of Titan. Cassini-Huygens found cryovolcanoes and lakes fed by aquifers full NASA is calling Orion. Orion is a capsule reminiscent

SECOND HOMES Five Kepler findings that might just look a little like Earth.

LIKELY EXOPLANET DESIGNATION	Kepler 438b	Gliese 667 Cc	KOI- 3010.01	Kepler 442b	Kepler 62e
ESI RATING (Earth Similarity Index)	0.88	0.84	0.84	0.83	.83
CONSTELLATION	Lyra	Scorpius	none	Lyra	Lyra
APPROXIMATE DISTANCE FROM EARTH (in light years)	470ly	23.62ly	1250ly	1120ly	1200ly



DELPHINUS

Altair

"It's going to take people like me who had a great field geology training at William & Mary to be that astronaut of the future." of the Apollo command module, with room for four astronauts instead of the familiar three. It is capable of 21 days of active flight and six months in inactive mode, during which the astronauts will live in a connected habitat module. In December 2014, the first unmanned launch test of Orion sent the pod 3,000 miles above the Earth's surface and splashed down off the coast of San Diego. A further series of test launches will prepare NASA and its astronauts for the asteroid mission, and then for the 21-month round trip to Mars.

If it all sounds a little farfetched, consider this: last fiscal year, Congress authorized \$150 million *more* for Orion than NASA had requested.

"NASA has an estimated 4-to-1 return for every dollar invested," says Stofan. "The technologies that



ALL ABOARD: NASA astronauts step into the Orion crew module hatch during a series of spacesuit tests conducted in 2013. The module will serve as both transport and a home for astronauts during future long-duration missions. have been offered from NASA are a huge investment in the U.S. economy. That's also something we're incredibly proud of."

Although NASA budgets still aren't what they were in the Space Race heyday, Stofan looks on the bright side.

"You know, when budgets get tight, you get more innovative," she says. "You get more creative. Technology gets better every year, so we're able to take those advances in technology and use innovation and creativity to accomplish the big science that we want to accomplish, no matter what our budget is."

The most immediate step for human exploration, says Stofan, is a return to launching astronauts from U.S. soil. By working with private companies like Boeing and SpaceX, NASA hopes to end American reliance on the Russian *Soyuz* program to ferry astronauts to and from the International Space Station (ISS). Crews will continue their pioneering work on the station until at least 2024. The work

done on the ISS is instrumental in determining the effects that extended spaceflight has on the human body — critical for the Orion missions to come.

"Once the country sees [American manned launches] happening again, once they realize all the amazing research that we're doing on the International Space Station and sending humans beyond low Earth orbit ... I think we're going to continue to see the bipartisan support," she says.

But NASA is not just going to sit around until Orion launches in the 2020s. Stofan's scientists are working as hard as they can right now, only remotely. And it's not your typical telecommute.

THE GOD OF THE UNDERWORLD

What you see is not always what you get when it comes to planetary geology. In 1877, Giovanni Schiaparelli discovered what he thought were canals on the surface of Mars — probably built by some alien intelligence. By the time *Viking I* made the first landing on Mars in 1976, it was clear that the planet was cold and arid. The canals were optical illusions, shadows alongside mountain ridges. *Viking I*, in turn, uncovered an apparent "Face" on Mars, which was debunked by better cameras aboard *Mars Global Surveyor* in 1998. In July, the Mars *Curiosity* rover spotted what some called a female figure overlooking the vehicle from a distance. Except at that scale, she could only have been a few centimeters tall.

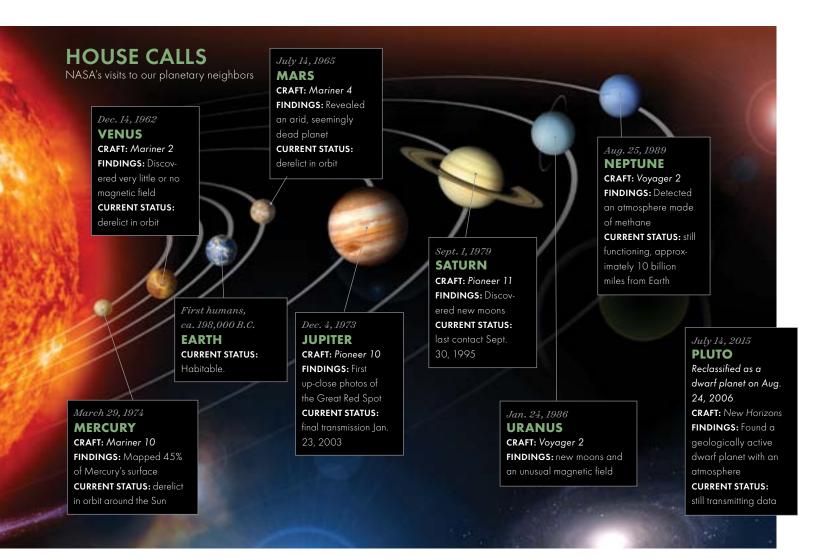
So when astronomers first observed Pluto in 1930, they saw a tiny dead rock on the furthest reaches of the solar system. In some ways, they were wrong. It just took the better part of a century — and a probe called *New Horizons* — to gather the details.

"We've just found mountains on Pluto," Stofan says. "Pluto should not have — nobody predicted mountains on Pluto. So we're missing something."

"[Doctors] will never understand the progression of a disease like cancer unless [they] have lots and lots of patients," she says. "For a geologist or an atmospheric scientist, when you have one planet to study, you make models based on that planet. But until you can go run your model on another planet with different conditions ... you really have a limited view."

Pluto was the last major body in our solar system to receive a visitor from Earth, completing a mission NASA began in 1962 (see "House Calls"). And while some may question the wisdom of spending \$700 million to visit a non-planet, Stofan is confident that by studying our neighbors, there are things to learn about our own planet in the process. NASA expected Pluto to look like Earth's moon: flat, cratered and geologically dead. Instead, they found mountains that rival some of the Rockies and a planetary core that was active much more recently than previously thought. There may even be ice. For a scientist, being proven wrong can be one of the most fun experiences.

"The day after we got some of the images back, and the images hadn't gone out to the public, we were having a senior leadership meeting here at NASA



headquarters. I showed the group one of the images and got up and was talking about it," she says. "When you put it up there and say, 'this is nothing like we thought it would be,' everyone gets excited."

And even though Pluto was reclassified as a "dwarf planet" by the International Astronomical Union in 2006, it doesn't dampen the excitement. NASA is already amidst the *Dawn* probe's mission to Ceres, another dwarf planet in the asteroid belt.

"They're cool things," says Stofan of dwarf planets. "They have a lot to tell us about how planets form and change over time — so we need to explore everything."

To that end, the Kepler mission represents the furthest and most extreme reaches of NASA's planetary exploration. The Kepler Space Observatory uses the transit method to measure how the light from a distant star changes as a possible exoplanet passes in front of it. The bigger the planet, the larger the effect on the observed brightness. And as the edge of an exoplanet's atmosphere begins to travel in front of the star, Kepler can detect what sorts of elements are likely to be present in its atmosphere. This helps NASA narrow down the list of more than 4,000 likely exoplanets to only the more Earth-like (see "Second | Homes"). And soon, Kepler is going to get some help.

"In a couple years, we're going to launch another telescope, the Transiting Exoplanet Survey Satellite, which we don't like to say," Stofan says. "We call it TESS for short."

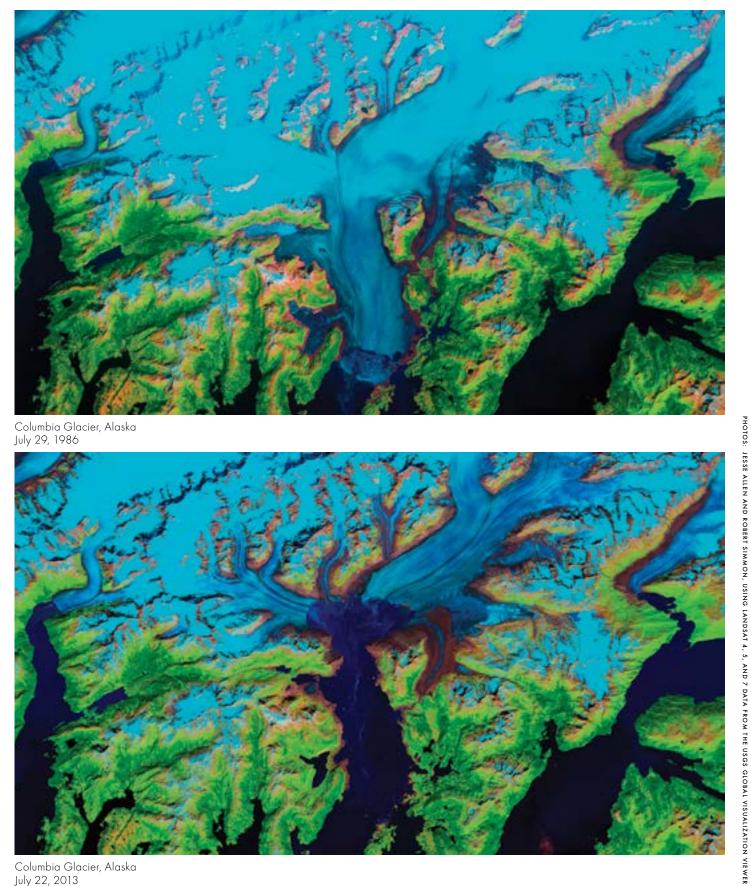
TESS will be looking for exoplanets closer to Earth than Kepler, and in a wider scope — it will take much, much more than a thumbprint to block out its range. NASA expects TESS to spend two years searching more than 500,000 stars for exoplanets of all types. Then, in 2018, the James Webb Space Telescope will launch as a successor to the Hubble.

"James Webb will start looking at the atmospheres of those planets around other stars," says Stofan. "And that's where it gets really interesting.

"Then you can look at the gases that are in the planet's atmosphere. Is there water vapor? Is there nothing? Is there carbon dioxide, or gases that we would associate with life here on Earth?"

Any of those gases would be indicative of a potentially life-bearing planet. But Stofan still thinks it will be several decades before we have definitive proof

"A lot of people don't know what we're accomplishing here every day, whether it's studying this planet and trying to help people here on Earth or searching for life across the solar system."



Columbia Glacier, Alaska July 22, 2013

of life on another world. So alongside all this deep space research, she says, NASA is also concerned with the one planet where we know for sure that life is abundant: Earth.

GOING UP TO LOOK DOWN

NASA is known for the people and probes it sends to other worlds, but there's plenty that went up into space only to look back at where it came from. Twenty-two NASA satellites orbit Earth today, transmitting data about cloud cover, water temperature and atmospheric composition. "We live on the most beautiful planet in the solar system," Stofan says, but the data we're getting back from those satellites isn't always a pretty picture.

"Our focus right now is on climate change. The President has said that this is the greatest threat this country has for the future," she says. "So at NASA, we really try to document what is happening to the planet and how we can improve models to be able to better forecast. And then, certainly, how can we try to communicate that information to the public?"

A few months ago, Stofan helped with the release of a massive NASA dataset of rainfall and temperature predictions under several different climate change scenarios. The data projects out to 2099 at a 25-kilometer resolution in hopes of making a real difference for farmers from South America to Iowa as they attempt to plant more resilient crops.

"Climate change is alarming," she says. "You look at these temperatures and you look at these scenarios, and it's extremely alarming. I don't want to sugarcoat that. ... Climate change isn't just some abstract thing that might happen in the future. It is happening right now on a day-to-day basis.

"We're losing ice in the Arctic; we're losing permafrost; the coast of Alaska is being affected by storms more than ever because of all that open water. The tree line is moving northward as temperatures warm — we're seeing these effects right now."

Stofan wants to use NASA's data to help mitigate some of the dangers of climate change and try to change our behavior so it doesn't get worse. But NASA can't change the world alone. Part of Stofan's mission is to educate and advocate for the next generation of scientists, who will advance NASA's mission on Earth and in space.

One way to do that is to involve regular folks in a sort of crowd-sourced data-gathering experiment. NASA calls it "citizen science," and it's aimed at giving untrained people a role to play in combing through a massive amount of data. NASA's Wide-field Infrared Survey Explorer telescope collected thousands of images of stars between 2011 and 2013, and computers weren't as good as humans at examining them for exoplanet-indicating dust clouds. After posting the images to a public website, NASA received over 1 million classifications of stars by the general public. The No.-1 discoverer got to accompany a NASA scientist to a telescope in Chile to help with further observation. "I think the excitement of discovery is for everybody," Stofan says. "We're trying to find ways to bring more people in."

Once a month, Stofan takes a trip to an elementary or middle school as outreach to students, which she considers just as important as her other roles at NASA. She's even been back to William & Mary a number of times to speak with students about planetary geology, but it's the small children — especially girls — who get most excited. When a little girl draws a female scientist in a white lab coat instead of a man, Stofan gets excited herself.

"Getting to Mars is hard. Working on climate



change is hard," she says. "If we only have half the population trying to solve these problems, we're never going to get them solved."

These are the kids, after all, who might be onboard that Orion mission to Mars in the 2030s. Or maybe they'll study the exoplanetary data returning from the James Webb Space Telescope. Stofan counts herself in the earthbound group, thanks in part to an experience at an early NASA launch.

"When I was four years old, the rocket exploded on the launch pad," she says. "So maybe that's why I never wanted to become an astronaut."

But the thrill of discovery is just as powerful from her office in Washington, D.C. — or on the occasions when data comes back while she's on vacation.

"It's this incredible feeling of exploration — of discovery," she says. "But if you're a chicken like me, it means I could be in my pajamas at home downloading the images onto my computer. It's a very comfortable way to do amazing exploration and discovery. That's what I love about this job."

And on a really clear night, from her deck at home in Virginia, she can sometimes watch a rocket launch skyward, soaring into the great unexplored vastness of space.

Someday, maybe even to distant, mysterious Kepler 435b. & FUTURE ASTRONAUTS: Above: Stofan and NASA Administrator Charles Bolden answer questions from kids prior to the White House's annual State of Science, Technology, Engineering and Math address in January.

CHANGES: Facing page: The Columbia Glacier in Alaska is one of many vanishing around the world. Glacier retreat is one of the most direct and understandable effects of climate change. The consequences of the decline in alpine glaciers include contributing to global sea level rise.

BIG IDEAS: Hear from Ellen at Homecoming 2015, during a panel discussion on Transformational Innovation, at 9 a.m. Oct. 24 at Miller Hall on campus.

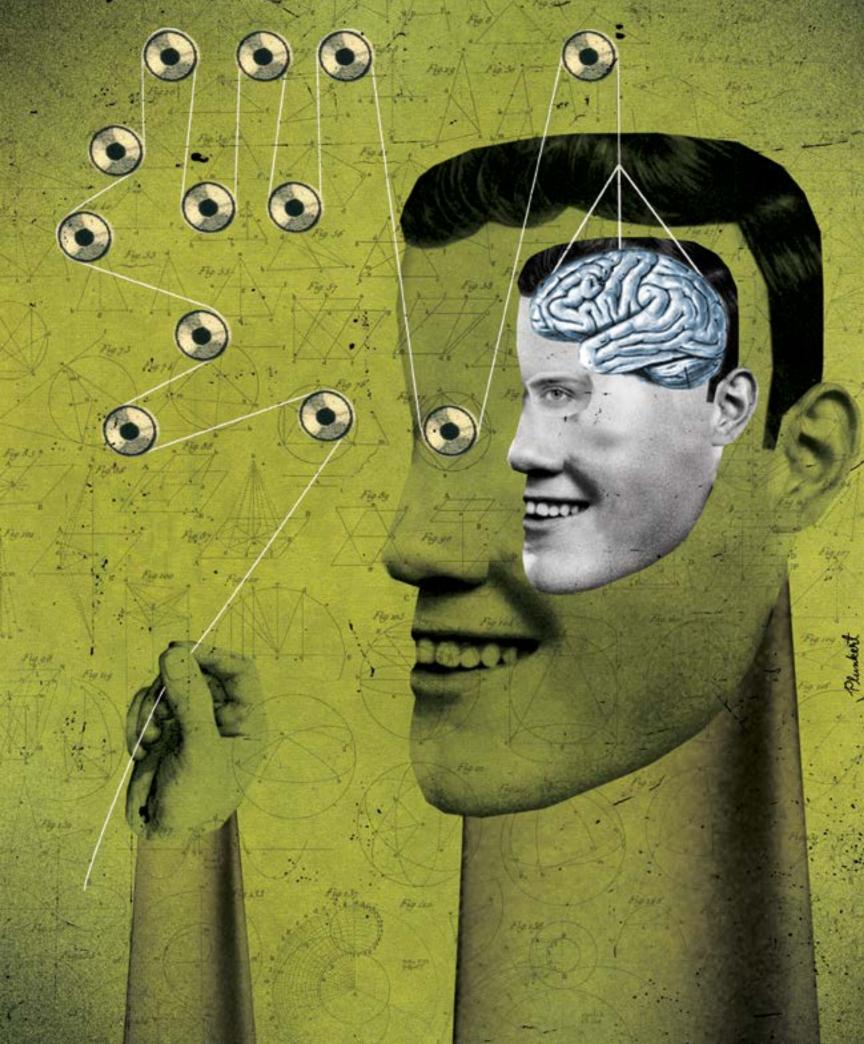
The

Syllabus

Ted Dintersmith '74 reimagines education

By Kelley Freund

ILLUSTRATION BY DAVID PLUNKERT



A third-grade boy takes a test in his science class. A question asks, "What would you use to lift a grown man?" For the past few weeks, the class had been learning about simple machines. The boy really liked the subject. In fact, his father took him to the hardware store and they bought gears and pulleys and put them together. The boy thinks about this, then sketches out a six-pulley system into the small space allotted for the answer. •A few days later, the boy gets the test back. A big red X is slashed through his design. The correct answer? Lever.

ON A MISSION

The boy's father is Ted Dintersmith '74. His thoughts on the "correct" answer? "These kids are 3 feet, 11 inches tall. Show me how they're going to use a lever to lift a 200-pound man. Also, the assumption that there's only one answer is sheer stupidity."

Don't underestimate Dintersmith. Behind the warm smile and glasses is a man on a mission. After a 25-year career in venture capital, Dintersmith is now focused on issues at the intersection of innovation and education. In the fall of 2012, he served as part of the delegation representing the United States at the United Nations General Assembly, where he focused on global education and entrepreneurship. He is now funding and supporting a range of initiatives, mostly nonprofits, which seek to improve the life prospects of youth around the globe, including Avanti Fellows and the African Leadership Academy.

Dintersmith also used his time and resources to help fund and produce the education documentary "Most Likely to Succeed," teaming up with director Greg Whiteley of One Potato Productions. The film premiered at the Sundance Film Festival in 2015 and Dintersmith will be bringing the documentary to all 50 states in the coming school year. In each state, he plans to pull together educators, state officials, philanthropists, parents and students to catalyze a discussion around the future of K-12 education. Also just in time for the new school year, Dintersmith released a book of the same name with education expert Tony Wagner, sharing insights and stories, including profiles of successful students, teachers, parents and business leaders.

But what does a venture capitalist know about education? A lot, actually. Dintersmith's career has

been all about innovation and entrepreneurs. As one of the top venture capitalists in his field, Dintersmith has interviewed many people, usually for senior positions, and he had started to notice a pattern. He saw that often those with the most impeccable academic track record who had great careers at large structured companies, often floundered when they left to work at more innovative startups.

"These people were very good at jumping through hoops," Dintersmith said. "They did very well at a structured companies like IBM or Goldman Saks. But put them in something that has wide-open spaces where you have to invent things, deal with ambiguity and fail frequently as part of your daily life, those people who were academic superstars often didn't do that well in that environment."

It seemed to Dintersmith that if the top performers in the education system were at a loss in the innovation world, something was wrong.

That something is an education system that was created over 120 years ago for an economy that no longer exists.

A HISTORY OF EDUCATION

Classes based on age. Separate classes for each subject. The ringing of a school bell to denote when to shuffle to the next subject. Structure. To us that's school. Because for over a century, that's what school has been.

This education model was specifically designed to meet the needs of the industrial revolution of the 20th century. In the late 1800s, people like Andrew Carnegie and John D. Rockefeller saw that the United States no longer needed to produce farmhands. The education system needed to be able to



ON DISPLAY: At the end of each school year, High Tech High invites parents, families and the local community to a showcase of student projects, like this gear project made by a freshman class.

"Our school system is not the way it is by accident. It was designed thoughtfully, over 120 years ago, and ironically, it was designed to purge the creativity and innovation out of students."

produce people who could follow instructions, read, write and do basic math; in other words, be good factory workers. Being creative or thinking critically was actually seen as getting in the way of being a good worker on the assembly line.

The United States was the first nation in the world to take everyone, regardless of class, and eventually regardless of gender, and give those people a basic education. And as a result, for 100 years, nobody could touch America in terms of producing a workforce. This won us two World Wars and produced one of the world's best economies. But now we find ourselves with the exact same school system, but an economy that continues to shift due to globalization and improvements in technology.

"Our school system is not the way it is by accident," said Dintersmith. "It was designed thoughtfully, over 120 years ago, and ironically, it was designed to purge the creativity and innovation out of students. There's a mismatch between a world that's begging for creativity and innovation and a school system that's trying to crush it out of kids."

Dintersmith feels this is a defining issue in today's society. As a person who spent most of his career in venture capital and technology, he understands how

rapidly innovation is advancing. "One of the byproducts of that is, if a job is structured and routine, if it's following instructions, if it's doing the same thing over and over again, that job will not be done by a person. You're seeing that already."

A few years ago, Dintersmith had a meeting with a fellow venture capitalist. His colleague was excited that they had just funded a company called Harvest Automation, which was going to replace minimum wage jobs in landscape nurseries by using robotics instead of people to move plants around. "I said, if those jobs are under threat, what job isn't?"

According to a 2012 Associated Press report, 53 percent of recent college graduates are unemployed, or in a job that they could've just as easily gotten if they had skipped college. Dintersmith thinks that today, parents are pushing their kids to excel at something that's actually going to hurt their chances in life later on.

"Education has to take into account what the economy is already looking like," said Sir Ken Robinson, an author, speaker and international advisor on education featured in "Most Likely To Succeed." "Part of the problem is the current systems of education are rooted in the old industrial economy of the 19th century; they're not rooted in the new economies of the 21st century. It's why so many employers are complaining that the kids who do well in education still don't have the right skills or attitudes or dispositions to fill the vacancies they actually have."

THE ROAD TO SUNDANCE

Robert Redford founded the Sundance Institute in 1981 to foster independence, risk-taking and new voices in American film. That year, 10 emerging filmmakers were invited to Sundance Resort in the mountains of Utah, where they worked with leading writers, directors and actors to develop their original independent projects. Now the Sundance Film Festival is the largest independent film festival in the United States. Many notable filmmakers received their big breaks at Sundance, including Quentin Tarantino, Steven Soderbergh and Kevin Smith.

"People always ask, how hard is it to get into Sundance?" said Keri Putnam, executive director of the Sundance Institute. "It's pretty tough." 12,000 films are submitted to the festival every year. Out of do that documentary for you," Whiteley said, "but if somebody does it, you're really going to hate the film."

"Right away, I thought, I like this guy," said Dintersmith.

Whiteley explained to Dintersmith that if there were just talking heads making lecture points, it would end up being a boring documentary. He needed a good story to rally the facts around. Fortunately for Dintersmith, Whiteley was a good storyteller. Although Whiteley was going from tailing a bass player and a presidential candidate in his other films to an issue-based "Most Likely To Succeed," he had a strong passion for subject matter and he felt that, under Ted's tutelage, he would be able to use those storytelling skills to find subjects who provided a lens for the bigger issue.

"What I love about 'Most Likely to Succeed," Putnam said, "is that it takes a bold idea about a new educational model and presents it in a way that becomes a story that ... really engages us in conversation about this idea. It's destined to generate a lot of debate, a lot of conversation, and hopefully create a



FESTIVAL KINGS: Ted Dintersmith '74 and Greg Whiteley at the Seattle International Film Festival. "You go back and think how much time you dedicated to school, how much worry and anxiety, and you have so little payoff later. I've heard some people say, well, it built character. It taught you to work hard. Those things are important. But can't you build character and learn how to work hard and also learn something that you will be able to take with you later?"

that group, Sundance chooses 120 features and 60 to 80 short films.

"Most documentary filmmakers look at Sundance as Carnegie Hall," said Whiteley. "They will tell you this is the premier place to launch a film."

But Whiteley almost turned down the opportunity to work on "Most Likely to Succeed." When Dintersmith began looking for someone to direct the documentary, he received several consecutive recommendations to hire Greg Whiteley. Whiteley is best known for his production company, One Potato Productions, and his documentaries "New York Doll," "Resolved" and "Mit." His work has garnered two Emmy nominations and three previous premieres at Sundance.

When Dintersmith called Whiteley up, he laid out what he considered his brilliant view for the film. Whiteley was not impressed. "Not only will I not

little change in the world. It's the kind of film we love to see at Sundance."

"I know I have a good idea when I'm starting to talk to people and they ask what I'm working on, and there's two or three sentences that just spill out, and before I get to the third sentence, it starts to feel like a punch line, like the reveal of a really great story," Whiteley said. "I've noticed that those are the kinds of topics that I look for."

For Whiteley, this particular topic was also personal. A father of two, both of his children seemed to have quit on school. While he and his wife were able to convince their son to buckle down and study hard, their daughter wasn't buying it.

"It was forcing my wife and I to really look at education," Whiteley said. "We had a choice to make. We either had to take our daughter and bend her into the type of person who would do well in



CREATIVE SPACE: The original High Tech High opened in September 2000 in a newly renovated facility at the former naval training center in San Diego. Since then, High Tech High Learning has renovated buildings for five additional schools at the same location, creating a "village" of three high schools, two middle schools and an elementary school.

"What I love about Most Likely to Succeed' is that ... it's destined to generate a lot of debate. a lot of conversation, and hopefully create a little change in the world. It's the kind of film we love to see at Sundance."

this traditional school, or we maybe had to reexamine traditional school."

Even Whiteley himself had played the game when he was a kid. School was just something to get through, and that ultimately what he wanted to do in life had nothing to do with what was going on in the classroom.

"And how bizarre is that?" said Whiteley. "You go back and think how much time you dedicated to school, how much worry and anxiety, and you have so little payoff later. I've heard some people say, well, it built character. It taught you to work hard. Those things are important. But can't you build character and learn how to work hard and also learn something that you will be able to take with you later?"

A NEW KIND OF SCHOOL

Before Larry Rosenstock was the founder of High Tech High in San Diego, the school featured in "Most Likely to Succeed," he taught carpentry to innercity kids at the height of desegregation in Boston. For his students, a two-by-four was a lesson in history. The kids he taught really wanted to know why a two-by-four was actually $1\frac{1}{2}$ inches by $3\frac{1}{2}$ inches. Rosenstock told them that they cut the two inches down to $1\frac{7}{6}$ and then $1\frac{3}{4}$, and eventually down to $1\frac{1}{2}$. By looking at the size of the wood used to build a house, students could determine the year it was built. "You can study the world through almost anything," Rosenstock said. "And I did that through carpentry."

Rosenstock also found that carpentry was good for teaching math. His students would have to learn basic geometry in order to build things in class, and he noticed that these kids would not only willingly learn the math, they would retain that information because they saw an immediate application for it.

"If you were to change education in such a way that kids could see the application for their day-today life now and their life moving on, they would be much more willing to work longer and harder at tasks that are developing skills," Whiteley said. "I think you'd be shocked at how a school could be potentially transformed by just addressing that one component. Simply make what they're learning actually useful in their day to day life and in a way that they'll see will benefit them in the future."

High Tech High is doing just that.

In theory, a standardized curriculum, like those at conventional schools, makes sense, at least organizationally. What's being taught in one classroom of a grade level is being taught in the other classrooms of the same grade level. All these kids are learning the same things, so that when they move on to the next grade, administrators can mix up the kids and

TED TALK: Hear more about "Most Likely to Succeed" at Homecoming 2015, at 9 a.m. Oct. 23 at the School of Education on campus.

FILM

GEARHEADS:

Students at High Tech High created a model to show the rise and fall of civilizations throughout history. The model was built using gears, which the students constructed themselves. their new teachers can pick up where the previous ones left off.

But at High Tech High, there is no standardized curriculum. The method of teaching is project-based learning, where students are given a project that involves working independently or in groups, and doing research to complete it. The projects differ in doesn't necessarily want every school to be exactly like his. "What I really liked about this film is that it restated what I've always hoped: the world doesn't need more High Tech Highs; the world needs more differentiated schools," he said. "That's the key message. In an innovation economy, we really need some experimentation."



"We would say, unabashedly, that we're trying to create an educational movement with this. I felt like, if we could get an amazing film, we'd have a fighting chance to do that."

each class. While one group of freshmen might be studying an ancient play and adapting it to modern day, another might be building a model to show the rise and fall of civilizations.

So kids are learning different things in each of the ninth grade classrooms? When Whiteley posed that question to Rosenstock, he admitted that it could be a problem. However, he countered with this: Studies show that when students just memorize content and then take a test, that information is not retained. Sometimes even as little as three weeks later, that content is gone. Schools like High Tech High think it's better to get kids excited about learning a particular thing. Once they start diving into it, they learn a tool set that they can take with them into the next grade. That tool set can be skills like collaboration, leadership and communication, all talents today's employers are looking for.

High Tech High sends 98 percent of its students to college. That's impressive by itself. What's even more impressive is that 45 percent of the school's population is below the poverty line. But Rosenstock

THE START OF A MOVEMENT

So what does Dintersmith think the ideal school looks like? "It would be a school that provides the kind of experience I had my senior year at William & Mary," he said. For Dintersmith, a transformational aspect of his time at the College was the two honors projects he completed as a senior. "I was given a chance to play a big role in defining an important problem that I cared about. I learned a lot along the way about completing an ambitious project and having it fail every which way from Sunday. Did I learn a lot of skills that help me in life? Yes."

But with today's K-12 system, Dintersmith feels that students aren't learning those important skills. "You can't be a doctor unless you do really well in organic chemistry," said Dintersmith. "And I can't find doctors who ever use it. If we're going to insist that our kids

get really good at something, we need to be able to explain what the goal is of that. What is the lasting important consequence from that time spent investing in developing a capability? Because we are not going to have a civil society that holds together or a robust economy if we have a whole bunch of kids who are good at factoring polynomials."

If you go back to when Dintersmith and Whiteley started working on the documentary, they said a great outcome would be getting into a major film festival. In a really great outcome, that film festival would be Sundance. And an extraordinary outcome would be great critical reviews.

"But ultimately, our goal has been much broader than that," said Dintersmith. "We want to use 'Most Likely to Succeed' as a vehicle to provide a clear perspective and vision for parents, teachers and students about what school could be like if you thought about it from scratch, to prepare kids for a world of innovation. We would say, unabashedly, that we're trying to create an educational movement with this. I felt like, if we could get an amazing film, we'd have a fighting chance to do that." @



~FOR THE~

JILL ELLIS '88 AND U.S. WORLD CUP CHAMPIONS INSPIRE ANOTHER GENERATION BY MITCH VANDER VORST

It had been 16 years.

The U.S Women's National Team (USWNT) had not won a World Cup since heroes such as Mia Hamm, Julie Foudy and Brandi Chastain lifted the trophy in 1999. For an entire generation of young women, this was a distant memory — if that.

Jill Ellis '88 was born into the world of English football, or soccer, not long after England had won their first and only men's World Cup. Her father was a respected coach. Her brother played and shared the family passion. Yet she was obliged to be a spectator — playing was unbecoming for young ladies at that time (the first women's World Cup wasn't held until 1991). What little field time she got was at her brother's pick-up games when they needed an extra player. That would all change when her family moved from Cowplain, England, near Portsmouth, to Northern Virginia when she was 15. Three years later, she captained her high school to a state championship, followed by an under-19 national championship with her club team, the Braddock Road Bluebelles.

When it was time to take the next step, Ellis was in unchartered waters. No one from her family had ever gone to college and making a living at soccer for a young woman in the 1980s was still only a dream. She asked her teammates where they were considering and a number mentioned William & Mary. Her father learned that it was a strong academic school with a good soccer program. William & Mary also had the benefit of its intimate size, something that appealed to the extremely shy Ellis. close to. We had very little in terms of resources in those early days. There weren't any scholarships. Our pregame meals were at McDonald's and if we ate at Wendy's we thought we had struck it rich. But in terms of people who were passionate about what they did and who loved to go out and compete in the school colors, there was a lot of pride. It was people playing because they loved the sport. They wanted to represent William & Mary."

The team was a family. They practiced and played games in the middle of campus. Students would wander by and stop to watch. The team also did a lot off the field, socializing together and hitting the delis after a big weekend or big win.

"It was tough to balance the [school] load and that

TRIBE PRIDE: While playing for W&M, Ellis's team made the NCAA tournament all four years. Ellis finished her college career as the program's all-time leading scorer.

"She understood the game and had a great way of working with people. She was a good listener and always responded to people in a positive way. She was competitive but never had an eqo. I saw her leadership at the time and the possibilities of her being a great coach."



"W&M was the perfect fit," says Ellis. "It was small enough that I could have a good group of friends and get to know my professors. It was such a good base for me in terms of all the things that I wanted to do."

Since its beginning in 1981, William & Mary's women's soccer has had its share of success. John Charles, the founding head coach, now a W&M professor of kinesiology, had recruited Ellis to play forward. For Ellis's first three years, the team made it to the NCAA tournament only to lose in the first game. Her senior year, however, under new Head Coach John Daly and Assistant Coach April Heinrichs, William & Mary made it to the Elite Eight and Ellis was named thirdteam All-American. During her college career, William & Mary's record was 44-20-11 and Ellis finished as the team's all-time leading scorer with 32 goals, a record that has since been surpassed.

"She was a joy to be around," says Charles. "She understood the game and had a great way of working with people. She was a good listener and always responded to people in a positive way. She was competitive but never had an ego. I saw her leadership at the time and the possibilities of her being a great coach."

What Ellis remembers most are the people who touched her life. "I have great memories of all the friendships and people, many of whom I am still is still a challenge for student-athletes today," says Ellis. "We would be in the van traveling and we all had a flashlight so that we could study. There were a lot of long road trips spent reading and doing our academics on the road. There are very few schools that can have that balance of academics and athletics. That is what was so appealing to me. I knew I would come out [of William & Mary] with a fantastic education."

Throughout her high school and college career, Ellis played side-by-side with two of her best friends and fellow W&M Athletics Hall of Fame inductees Megan McCarthy '88, the 1987 NCAA Collegiate Player of the Year who missed playing on the 1991 World Cup team due to injury, and Julie Cunningham Shackford '88, who recently retired as the winningest coach in Princeton history. According to Charles, they formed the backbone of a powerful team. Their assistant coach, April Heinrichs, would go on to captain the winning team at the inaugural World Cup in 1991 and coach the 2003 USWNT to a third-place finish.

After college, Ellis had no intention of following in her father's coaching footsteps. While psychology piqued her interest, she majored in English, her second passion, with a minor in history. "I wrote for the *Flat Hat*; I was inspired by Nathanial Y. Elliot's Romantic Lit. courses," says Ellis. "I figured that any profession that I went into would need people who can write."

But coaching would turn out to be a way to pay for graduate school. While pursuing a master's degree in technical communications, Ellis assisted the North Carolina State women's soccer team. The team won the ACC Championship and she enjoyed every minute of her time back on the field. While the hook was set, she still didn't see coaching as a career path.

"My father was a coach and a mentor to many women soccer players and coaches," says Ellis. "My brother was coaching at George Mason. It was definitely in the gene pool and I fought it as long as I could."

Instead, she followed the more lucrative path of becoming a technical writer for Northern Telecom in the Triangle area of North Carolina. After two years, however, Heinrichs reeled Ellis in by offering her an assistant coaching position at the University of Maryland. Ellis hasn't looked back since.

After three years at Maryland she spent another year on the University of Virginia's coaching staff. She would go on to head coaching positions at the University of Illinois and UCLA, where she led the Bruins to eight NCAA Final Four appearances. In 2000, she was named National Coach of the Year. Her overall college coaching record during her 14 years as a head coach was 248-63-14. Coaching appointments to the U.S. national youth teams followed.

"Coaching really helped me evolve," says Ellis. "I was incredibly shy and it was a means for me to really grow in my communication skills and teaching. And it helped me grow in my personality. For me, as much as I fought it, my passion was the game and my passion was teaching and coaching and soccer. So it pulled me back."

In the 24 years since the Women's World Cup began, the USWNT had never finished lower than third place. They were crowned champions in 1991 and 1999. U.S. soccer fans considered themselves as the rightful owners of the trophy. Expectations for the 2015 World Cup were high and questions about the team and comparisons to 1991 filled sports sections across the country.

Then, with a little more than a year remaining until the World Cup, Ellis was called up to lead the full women's national team. "It was a pretty short timeframe," says Ellis. "I had a lot of familiarity [with the players] but it still was about blending new players with the veterans. We knew what our destination was, we knew we wanted to lift the trophy, but it

"My father was a coach and a mentor to many women soccer players and coaches. My brother was coaching at George Mason. It was definitely in the gene pool and I fought it as long as I could."

AT THE HELM: Ellis led the UCLA Bruins to eight NCAA Final Four appearences. She took over for the women's national team in 2014.





HOMETOWN HEROS: The 2015 Women's World Cup final was the most-watcheed soccer game in U.S. history and inspired the next generation of female soccer players.

really was about establishing the path and process that we were going to take and committing to that."

The World Cup was a microcosm of the bigger process. "You don't play your best soccer in the first game," says Ellis, "It is a seven-game tournament, you have to evolve and you don't want to peak too early. It was a four- or five-week snapshot of the big picture with the team."

The USWNT won their group to advance to the knock-out stage of the tournament, but the path to the final was fraught with injuries and yellow-card suspensions to key players. Goals were hard to come by. It seemed the team wasn't firing on all cylinders.

In the U.S., broadcast television commentators criticized Ellis's coaching. They questioned player selection, formation and the style of play.

"From the day I took the job, I knew that I wasn't going to read anything or go outside of the people that were directly involved in the team," says Ellis. "You have to stay focused on what you are doing and the reality is ... that is the nature of being a leader. I just kept my head down and stayed focused on the process."

Ellis recalls individual meetings she had with Carli Lloyd, one of the USWNT's primary goal scorers. In the first couple of games Lloyd was struggling to



play to her full potential. Ellis remembers saying to her, "don't stress, this is going to happen. It is seven games. It is not going to be perfect. Stay focused." She believed that Lloyd was a big game player and that her time would come. "She just had to keep doing what she was doing and not stress about it," says Ellis.

The USWNT walked onto the field in Vancouver for the World Cup final with the expectations of the nation squarely on their shoulders. It was a chance for redemption against Japan, the team that beat the U.S. in the 2011 final only four years before. Most everyone expected a tight, hard-fought game. While defensively the U.S. had been consistently strong, at times the offense struggled. But it only took Lloyd three minutes to score the first goal, the fastest in World Cup final history. Then, within the first 16 minutes, the U.S. had added another three goals, including two more from Lloyd. The game would finish 5-2, with the U.S. again announcing their dominance. **You conste Want to kee You sport The State Stat**

Daly, who is beginning his 30th season as head coach of W&M women's soccer, says, "Jill has worked with and learned from some great coaches, including her father John, who was an outstanding coach, April Heinrichs and Tom Sermanni. She showed with her astute line-ups and substitutions [in the World Cup] that she is a mature and observant coach. To keep star players happy when they are not playing as much as in the past is also the mark of a coach who has won over the dressing room."

"Connecting with my players was a big part of it," says Ellis. "As we went through it, I never looked up." It wasn't until the team was flying home that the weight of the team's accomplishment began to sink in. She still hadn't peeked behind the curtain to see what was going on back in the U.S. On the plane, Ellis was notified of a big rally that would be held in downtown Los Angeles. She had lived in L.A. and her first thought was, "who is going to show up for that?"

When they got to the rally, there were more than 10,000 people celebrating the team. The World Cup final had been the most-watched soccer game in U.S. television history. It was then that she realized that they had accomplished something truly special.

"The hope for me was to bring the sport forward," said Ellis. "You constantly want to keep your sport relevant. I knew that winning the World Cup would inspire another generation and, for these players that have worked so hard, it would cap their legacy because they hadn't won a World Cup. It was nice to see it really come together."

The USWNT is currently on a 10-game Victory Tour. Ellis, with a recently announced multi-year contract extension, will be leading the team onward into the years ahead. "As we look towards the Rio Olympics and build towards the 2019 World Cup in France, we think Jill is the ideal person to lead the next generation of the Women's National Team," said U.S. Soccer President Sunil Gulati in an Aug. 5 press release.

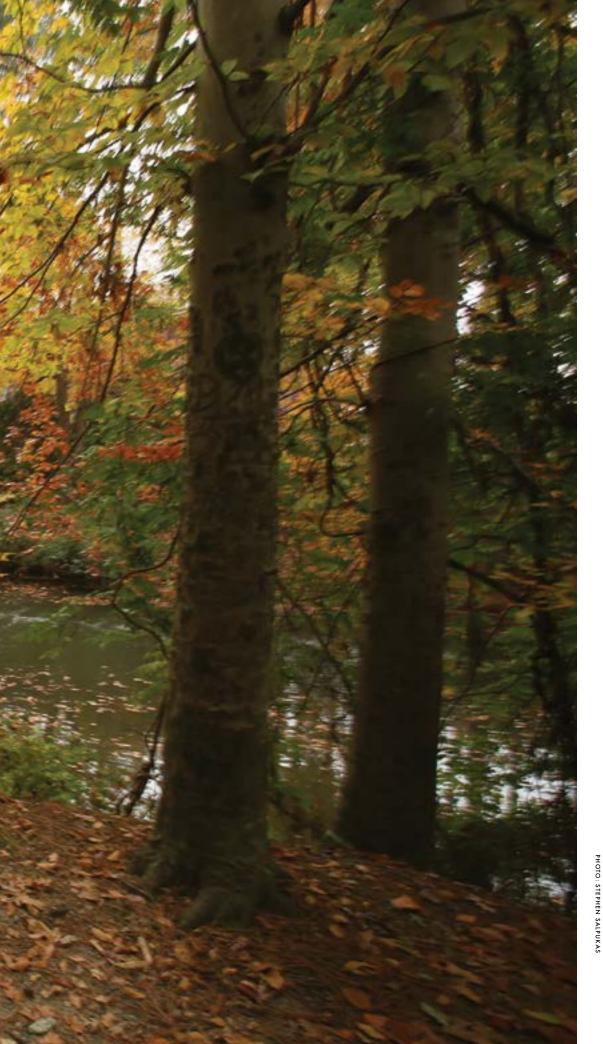
"I am not surprised," says Charles, "but very pleased that she has fulfilled her potential to become an outstandingly effective national team coach."

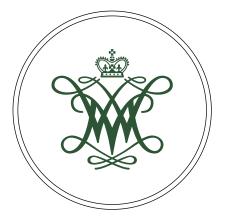
"Ultimately [William & Mary] was a home run for me," says Ellis. "It all worked out and I have a great fondness for W&M. The decision to go to William & Mary was a big juncture in terms of preparing me for this stage of my life."

For Ellis, it has always been about people and relationships. "It is an amazing honor to coach this group of women," says Ellis. "It was a privilege to work with the players and staff because everyone was so committed and so dedicated and singularly focused that we really felt that we were one unit and one team."

"You constantly want to keep relevant. I knew that winning the World Cup would inspire another generation and, for these players that have worked so hard, it would cap their legacy because they hadn't won a World Cup. It was nice to see it really come together."







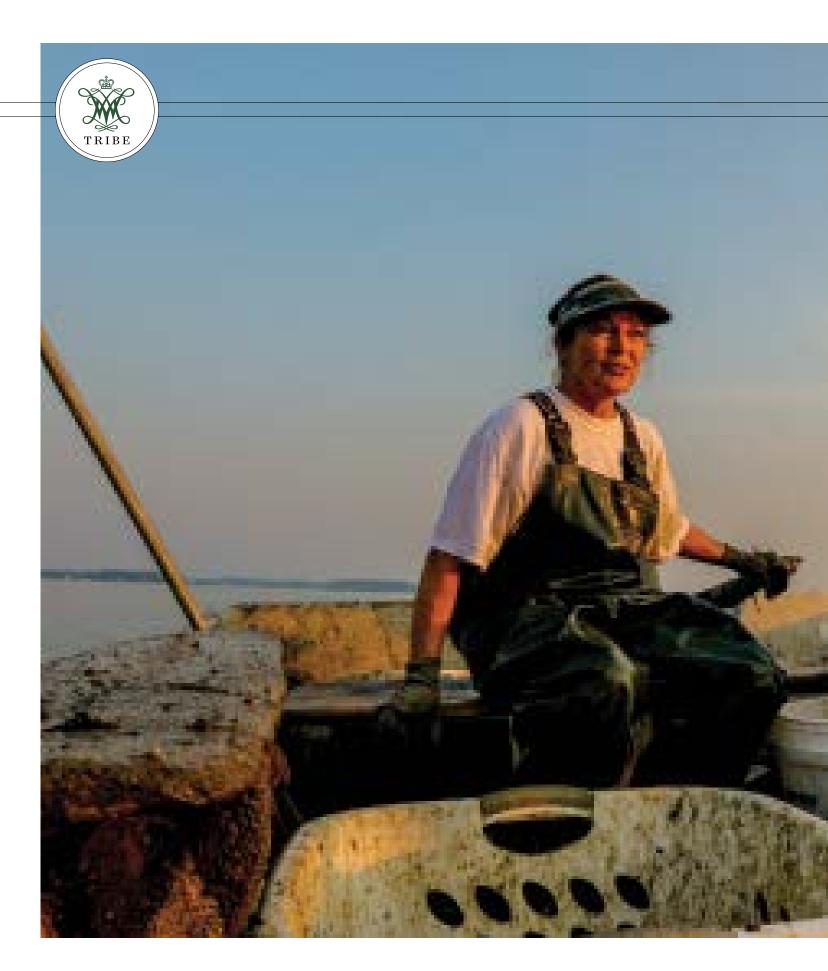
TRIBE

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LOOKS LIKE AUTUMN

Amidst the scenic locations on campus (like the Crim Dell Bridge) are more than 300 species of woody plants. This collection represents a living archive that supports research and teaching at William & Mary. This collection is known as the Baldwin Memorial Collection of Woody Species after John T. Baldwin Jr., professor of biology from 1946 to 1974.





Highliner

IDA HALL '72 FISHES VIRGINIA

ALUMNI PROFILE Ida Hall '72 grew up in Danville, Va., but spent most summers and many vacations at her family's farm on the Chesapeake Bay near Kilmarnock, Va. Her childhood was full of adventures on the water and it was through them that she discovered her calling.

"Uncle Ben instilled in me his deep love and respect for the land and water, taught me how to operate a boat, and respect for other boaters," says Hall.

Ida first experienced a waterman's routine in the summer of 1964 when she went out with her cousin Hal to watch him fish pound nets. From that first sunrise trip, "I was awestruck by the seemingly infinite, untainted, wild beauty of the Bay and surrounding undeveloped land, and amazed that people made a living working so close to nature," says Hall. "I marveled at the bounty, diversity and constantly changing life that Hal and his two-man crew brought up in the nets."

"I knew it was what I wanted to do for the rest of my life," says Hall. "But even as I thought that, I knew it was a foolish dream. The only other women on the water were waterman's wives and even if it was an acceptable occupation for a girl, I simply did not have the size or strength to put out or fish a pound net. That was that. I would enjoy myself and get on with my life."

But by the late 1960s, monofilament gillnets would make gillnetting commercially competitive with and easier than pound net fishing.

"I did not like seeing fish captured by their gills, struggling to escape," says Hall. "It wasn't the same as seeing the fish caught and kept alive in the pound net. I swore I would never fish a gillnet!"

When Ida became a member of the Tribe, she followed another family tradition. Her uncle Ben and many cousins had graduated from William & Mary. Her father, one or two great-uncles, and several cousins also graduated Phi Beta Kappa.

Although Hall excelled in and loved biology in high school, and considered marine science as a profes-



sion, she never took a college biology class. Instead, she followed her academic advisor's advice to major in psychology.

When she attended the first Earth Day celebration at Lake Matoaka on April 22, 1970, she found herself gravitating towards other interests such as protecting the environment. During her senior year, she signed up for a Biology Club camping trip to Shenandoah National Park.



CO-CAPTAINS: Since Ida Hall '72 began working on the water, dogs have played a big part in sharing the waterman's experience on her boat.



"It turned out to be one of the best things I did at William & Mary," says Hall. "The friendships and experiences on the initial and subsequent trips have endured for a lifetime."

After graduation, Hall returned to the family farm on the Chesapeake Bay for two weeks before looking for a job. With friends still nearby at William & Mary and her brother James giving her his slightly used gillnet, the weeks quickly melted into months.

"The first time I successfully set a gillnet, I caught \$54 worth of striped bass!" says Hall. "I was hooked! Making money gillnetting put it into a different perspective by providing necessary income for me to remain on the farm longer."

Ida rekindled her connection to William & Mary in 1986 when she enrolled in the archaeological field school conducted at VIMS and took additional archaeology classes in 1987 and 1988. She was eager to learn more about the Native American and English artifacts that she, her brothers and cousins found on the farm. She learned much from the professors and younger students, and shared with them about her life working on the water, even showing them how to fish a gillnet, catch crabs and tong oysters.

Educating others about what she does is something that Hall has become well-versed in. In 2013, she participated in Virginia's first Waterman's Heritage Ecotourism program which provides additional opportunities for working watermen to earn a living by taking others out to experience first-hand what watermen do. Last year, Gov. Terry McAuliffe HON '14 reappointed Ida to her fourth consecutive term on the Potomac River Fisheries Commission, a bi-state (Maryland and Virginia) governmental organization that works to conserve and improve the fishery resources in the main stem of the Potomac River. In 2014, National Fisherman magazine, the country's largest publication for commercial fishing, named Ida a "Highliner," an award that recognizes commercial watermen who "display a passion for fishing and advocate for the sustainability of fish and fishermen."

Hall serves as secretary for the Virginia Waterman's Association and for the Northumberland Association for Progressive Stewardship, an environmental organization focused on preserving the local environmental heritage through education of sound land-use practices and water-quality initiatives. She is also a member of the Virginia Blue Crab Industry Panel, an organization that works to sustain the population and harvesting of the species, and has served on Congressman Rob Wittman's Environmental Advisory Panel since 2008. She also works part time at Rappahannock Hang-Ups and Gallery in Kilmarnock.

Since 1973, seven dogs have accompanied Ida on the water. Currently, beagle Ruby and yellow lab Toby Grace are often seen in her boat as she continues to follow her passion and preserve a family heritage and culture of working on the water. In 2005, Ida and her two brothers placed a conservation easement on the family farm to preserve in perpetuity their family and environmental heritage.

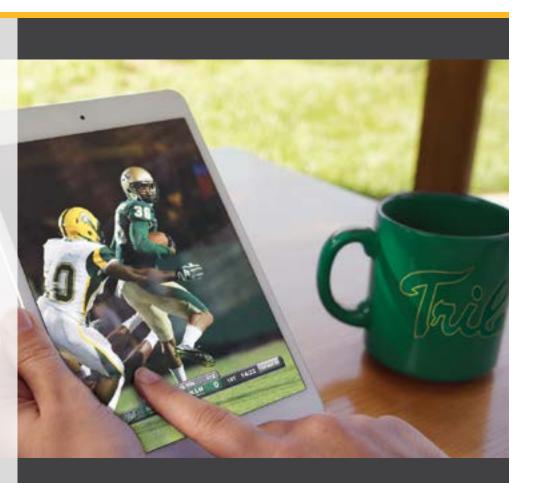
"William & Mary's curricula, professors and students motivated within me a desire for lifelong learning and provided the incentive to further my education in and out of the classroom," she says.

-VAYDA PARRISH '17

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THE BREW CREW: Alex Acker '00 (left) and Kristian Li of Jing-A Brewing in Beijing use unique Chinese ingredients in their craft beer.

Brewed in Beijing

Alex Acker '00 and Jing-A Brewing Ride the Chinese Craft Beer Wave

ALUMNI PROFILE The tap list at Jing-A Brewing in Beijing is unlike any bar you've ever been to. The Worker's Pale Ale, Flying Fist IPA and Mandarin Wheat selections are the first indications that this won't be your ordinary happy hour.

"We're able to brew craft beers that nobody has really brewed before," says Jing-A cofounder and brewmaster Alex Acker '00. "We're able to find interesting and unique Chinese ingredients like Sichuan peppercorn and seasonal Chinese fruits — things that have never really been played around with."

While by now, craft beer is responsible for almost 20 percent of beer consumption in the U.S., the industry is still in its infancy in China. Jing-A is poised to capitalize on the world's largest market for beer, Acker says.

"Things have a way of changing very quickly in China," he says. "Young people in particular here are very open and curious about new things. Many people here are also starting to care more about what they eat and drink — preferring quality and organic over mass-produced — so craft beer fits in with this."

Acker began his career in public relations and went on to work at Apple in China, where he met Kristian Li. They quickly discovered a shared interest in homebrewing, and began making beers together. "We were both ready to take the leap into an entrepreneurial venture, and we were incredibly lucky to find this area that we both love," he says. "Something clicked."

They named the venture Jing-A, after the first run of license plates in Beijing ("Jing" is "capital" in Chinese). Nowadays, according to the brewery's website, drivers would be lucky if they could snag a Jing-Q plate. Jing-A "represents old-school Beijing," says Acker. "For people here in Beijing, it really resonates."

It began while Acker and Li were working five days a week in the corporate world and brewing at night in whatever space they could find.

"The more positive feedback we started to get, we decided to make the jump from our day jobs into brewing full time," he says.

When they opened the brewpub in spring of 2013, they finally had a facility where they could do the experimentation they wanted. In addition to Sichuan peppercorns, Acker has brewed with sweet osmanthus flower, jasmine tea, sake and watermelon.

"We're constantly thinking about seasonal fruit ingredients that we can incorporate into our beer to create something really special," he says. It hasn't all been smooth sailing for Acker, Li and Jing-A, however. For one thing, the microbrewing infrastructure isn't in place yet.

"There were a lot of challenges finding our systems," he remembers. "Where were we going to get our hops? Where were we going to get our malts?" China also presents a unique set of licensing, regulations and administrative challenges for the business. The nascent status of craft beer in the country also contributes to the difficulty operating Jing-A in the capital. But selling the beer and growing a fanbase is the easy part.

"Creating interest in our beers has never been the problem," he says. "If anything, we've struggled to keep up with exploding demand for our beers over the years."

In the near future, Jing-A plans to expand into Shanghai, Tianjin and Hong Kong — which means more taps in China's three largest metropolitan areas. Acker hopes to eventually be able to export his beers to the United States.

"I think craft beer fans in the U.S. would get a kick out of our beers brewed with Chinese characteristics," he says. For now, though, Acker is focused on his home market in China. Given that he planned to spend two years in Beijing before returning to the States for a "serious job," he's amazed that he's now spent over 15 years there.

"Some people want the security of a successful corporate job, right?" he says. "That's really kind of a personal choice — everybody's different — but for now I'm very happy."

Acker gives some of the credit for his entrepreneurial skills and risk-taking to his experiences at William & Mary. "I had an awesome experience at William & Mary," he says. "The Chinese skills that I learned there were immediately useful, but I really grew up at William & Mary. The connections I made, the analytical skills, getting a major in economics — it's all proven useful. I think William & Mary prepared me to be independent and build my career here in China."

And if Jing-A does happen to brew a beer in honor of his *alma mater*, Acker has a few ideas on what to call it.

"We like to be a bit cheeky and irreverent with our beer names," he says. "So maybe Tribe Tripel? College Delly Kolsch? Streak the Garden Summer Saison? Or Jump the Wall Juniper Pale Ale?"

Sounds like the kind of Triathlon that William & Mary beer fans worldwide can get behind.

—BEN KENNEDY '05 AND HUNTER HALL



Colonial Williamsburg



To enter by mell, send your name, date of birth, address, tokophone number and e-mell address to: Colonial Williamsburg Foundation 'Williamsburg Getawoy' Seeepatakes, CW Fund, PD. Box 1776 Williamsburg, VA, 23187. All entries must be

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INTRODUCING

'79, Holly Shockey, and Andre Enceneat.

on NPR, been played

across the country.

"I CHALLENGE MYSELF TO BE CLEVER WITH EVERY TURN OF EVERY PHRASE AND NEVER WASTE A LYRIC.'





All That Jazz

GINNY CARR'S '75 MUSIC HITS THE CHARTS

ALUMNI PROFILE There was never any question that music was in Ginny Carr's '75 blood. With parents who were professional bass players and instrumental music teachers, Carr had a good musical ear. But what started out as a hobby of playing instruments and singing eventually turned into a fruitful career. Carr is now the founder, musical director, alto vocalist, principal songwriter and arranger for the internationally acclaimed Uptown Vocal Jazz Quartet (UVJQ). Carr has emerged as a musician of distinction, especially for her original compositions on UVJQ's newest CDs, "Hustlin' for a Gig" and "Vocal Madness." UVJQ's recordings have made the Billboard Chart, Amazon's top seller list and JazzWeek Top 50 radio chart.

But when Carr was a teenager looking at colleges, she had decided to pursue something other than music. William & Mary offered Carr everything she

had hoped for, from extraordinary academics to a small intimate college community with diverse extracurricular activities. "Most of all, I loved being next door to Colonial Williamsburg," Carr says. "I became a history geek just by being immersed in that culture, and I still am today." (Case in point, Carr now works at the Library of Congress, founded by W&M alumnus Thomas Jefferson 1762).

Although she majored in psychology at William & Mary, music remained a big part of Carr's life. She joined the choir and had acting and singing parts in William & Mary Theatre productions.

Immediately after graduation, Carr stayed in Williamsburg and took on the role of musical director for W&M Theatre. When a new student, Robert McBride '79, joined Carr's pit band, the two became friends and began to collaborate on other musical projects throughout the years. They discovered a

mutual love for the sound of vocal music that was harmonically and rhythmically constructed to sound like big band instrumental music.

The two moved to Richmond, Va., in the early '80s and put together UVJQ, which took off in the local music scene. A few years later, the two migrated to Washington, D.C., teaming up with singers and instrumentalists from the area. Over the years, there were many changes in personnel as UVJQ evolved from an amateur group to a full-fledged professional ensemble.

For awhile, UVJQ performed material that had been done by someone else before it became clear to Carr that she had the ability to write original songs for the group to sing in their signature harmonic style. While the group still does arrangements that are part of the standard jazz repertoire, much of what they perform are original songs written and arranged by Carr.

"I challenge myself to be clever with every turn of every phrase and never waste a lyric," Carr says. "No matter what the subject, don't write filler fluff when you could write something provocative or witty or gut-grabbing that will make the listener stop and think. There's nothing more rewarding than knowing you wrote something that speaks to someone." The real challenge, and sometimes the greatest fun according to Carr, is putting lyrics to the complex palette that is the sound of UVJQ. Carr believes their sound is relatively rare compared to the more common sound of jazz instrumental groups and solo vocalists. As opposed to solo vocalists, Carr's lyrics are delivered using a vocal quartet that can blend together in harmonic precision like a jazz big band. "And we add the human element of story telling through lyrics, which you can't get with an instrumental ensemble. The effect is uniquely engaging. I think it's the marriage of great fun and great art."

Carr always knew that music would be a big part of her life, but she never dreamed that her musical passions would take her to the world stage. "The older I get, the more I like to settle into the ensemble and delight in the energy and sounds of my music coming to life at the hands of other great musicians, who add their own creative ideas to it. The musical thoughts, colors and textures come alive in a theater of sound and energy when we perform. It's a thrill."

For more information, visit www.uptownvocal jazzquartet.com. —KELLEY FREUND



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Board Notes

Preparing for the future of alumni engagement

Dear Alumni Association members,

The Board of Directors seeks your approval of a proposal to amend the association's bylaws to (1) increase the size of the board from 16 to 24 elected members and (2) change the term of office from the current single four-year term to a three-year term with eligibility for election to one additional consecutive term. We believe these changes are important to enhance our effectiveness to serve your Alumni Association under the advancement model recently adopted by the College in cooperation with the Alumni Association.

Why are these changes needed?

Since the 2014 launch of the advancement model with the College, the Alumni Board, while maintaining its independence, has committed to a greater and more active role for planning, guiding and shaping

engagement activities. Through an examination of best practices of select peer institutions that have adopted the advancement model, as well as its own self-assessment, the board has concluded that it needs additional and enhanced expertise in order to better address issues and options facing our alumni and the College, to carry out its augmented responsibilities, and to assist alumni engagement staff.

Additionally, in its review of best practices the use of consecutive terms was predominant. It allows both the board member and the organization an opportunity to determine if continued service is in the best interest of both parties, and it allows the expertise of the longer-standing board members to be retained. Thus, the board is recommending a change to a three-year term limit with the ability to serve two consecutive terms.

CAST YOUR VOTE FOR THE ALUMNI ASSOCIATION BOARD OF DIRECTORS

Go online now to cast your vote for the current slate of nominees to replace the four board members whose terms expire in spring 2016. The board recommends a YES vote for the entire slate. Voting closes Nov. 6, 2015 at midnight. All alumni are eligble to vote in board elections. Full biographies and personal statements can be found at www.wmalumni.com/vote.



"William & Mary has always been about people and changing lives. It is the place where the

73

extraordinary happens. We have a great responsibility as stewards of this college to continue the strong story of excellence that is William & Mary into the future."



CARLA SHAFFER MORE-LAND '81, J.D. '84 "William &

Mary is a defining presence in my life. Quite simply, I love this school! I met my husband at W&M and all three of our children have been baptized in the Wren Chapel. I look forward to sharing my love and passion for W&M with alumni, the staff of the College and the future alums."



kid. I came to William & Mary sight unseen. I was shocked by how venerable the institution was. I'm constantly amazed on how well prepared I was for entering the workforce and the real world. William & Mary allowed me to explore and grow in a supportive environment."

DAVID

TODD

"As a

SCOTT '93

California

TODD WILLIAM NORRIS **'86** "W&M

has been a part of my

life since being born to alumni parents. The timelessness of the institution allows multiple generations to come together to appreciate this wonderful institution. I am excited about the opportunity to help the Alumni Association create bonds with classes past, present and future. Go Tribe!"

How will the changes be implemented?

The increase will happen over two election cycles. Four seats will be added to the ballot in 2016 with the remaining four added in 2017. The current nomination processes will not change. Alumni Association members may and are encouraged to nominate fellow alumni and to run for the board themselves.

The recommended changes to the bylaws that require approval of the membership are cited below. A complete version of the Alumni Association bylaws with recommended changes is available at www.wmalumni.com/bylaws_amended.

the Board of Directors shall

be composed of at least 24

elected members, one third

of whom are elected annu-

ally by the membership, as

well as the immediate past

president of the associa-

tion as set forth herein. A

member may be re-elected

after one year has elapsed

or reappointed to the Board

following the expiration of a

Article VI. SECTION I.

As Reads:

The voting membership of the Board of Directors shall be composed of at least 12 but no more than 16 members, as well as the immediate past president of the Association as set forth herein.

As Amended:

The voting membership of

Article VI. Section 1a.

As Reads:

(a) Directors shall serve terms of four years. Directors may not serve consecutive terms, but may be re-elected or reappointed to the Board if at least one year will elapse between terms.

As Amended:

(a) Members are elected for terms of three years. No member may serve more than two consecutive terms. This excludes partial terms and appointed one-year terms provided for an outgoing president to serve in an immediate past president capacity. Additionally, a president, elected to that post in their last year of eligibility, shall remain on the board in that capacity until the completion of their officer term.

New Administrative Paragraphs: (d) In order to effect the transition in Board of Directors composition and terms as they existed prior to Nov. 6, 2015 to that adopted on Nov. 6, 2015, the following transition provisions shall be in effect:

(1) Until commencement of the terms of directors elected in 2016, composition of the board shall remain as in effect prior to the November 2015 adoption of these bylaws. Board growth will be phased in to allow all current members to complete their elected terms.

(2) Directors elected prior to November 2015 shall complete the terms for which they were elected and shall not be eligible to run for re-election to a second consecutive term.

(3) Directors elected in November 2015 shall serve a three-year term in order to effect the transition. These directors will be eligible for a second three-year term.

NOMINATIONS FOR ALUMNI SERVICE AWARDS

second term.

The Alumni Service Award and the Young Alumni Service Award are given annually to recognize individuals for their exceptional service to the Alumni Association and the College through their involvement in alumni chapters, clubs and constituent alumni organizations. The Young Alumni Service Award is specific to individuals ages 25 to 35.

You may download a nomination form for this and any other alumni award at www.alumni.com/?awards or contact the office of the executive director at 757.221.7855. **The deadline for nominations is Feb. 1, 2016.** The Board of Directors will select honorees at its spring 2015 meeting.

NOMINATIONS

FOR

HONORARY ALUMNI

The Alumni Association grants Honorary Alumni status to individuals with a distinguished record of service on behalf of the College. Many honorees have been active and supportive spouses of alumni leaders. To nominate an individual, submit a letter describing his or her visible and consistent involvement, advocacy, loyalty, and affection for W&M. All letters must be signed.

Mail your letter to Honorary Alumni Award, c/o Executive Director, WMAA, P.O. Box 2100, Williamsburg, VA 23187-2100 **by Jan. 15, 2016.** The Board of Directors will select honorees at its spring 2015 meeting.



Bark Upon the Gale

Alumni Stay Connected From Coast to Coast

At William & Mary, the Regional Alumni Engagement and Regional & International Advancement teams partner to provide alumni engagement opportunities that connect William & Mary alumni to *alma mater* and to each other. Below please find the names and contact information for our regional teams:

NORTHEAST Omar Kamara '15

Regional Alumni Engagement Coordinator 757.221.2143 oskamara@wm.edu

William & Mary NYC Office

425 Madison Ave, Suite 300 New York, NY 10017

Renee Davis '94

Managing Director, Regional & International Advancement 212.497.1189 x 201 radavis02@wm.edu

Craig Anzalone '94

Director, Regional & International Advancement 212.497.1189 x 202

| cranzalone@wm.edu

Amanda Manzano '15

Advancement Coordinator 212.497.1189 x 200 ammanzano@wm.edu

CHAPTERS 1. BOSTON

The chapter planned to attend Play Day at the Lawn on D; however, due to an event relocation, alumni met at the Harpoon Brewery to enjoy one another's company. Alumni were also able to get together for a night of Beer & Yoga at the Night-Shift Brewery in September.

2. NEW YORK CITY

The chapter hosted a summer club mixer at the William & Mary

Club of New York, the newest affiliate of the Princeton Club of New York and its 200-plus worldwide reciprocal clubs. Alumni, students, parents and faculty are eligible for membership. Go to alumni.wm.edu/ club/nyc to learn more. Also, the chapter hosted a sold-out, private tour at the Museum of Modern Art. Alumni were able to experience the "One-Way Ticket: Jacob Lawrence's **Migration Series** and Other Visions of the Great Movement North" exhibit.

3. PITTSBURGH

In July, the chapter attended a wine tasting at the Market Street Grocery's Wine Room where they could sip and learn about different California and Italian wines.

4. PHILADELPHIA

The chapter gathered for various happy hours throughout the city including a South Jersey bar, PJ Whelihans.

WASHINGTON, D.C. Jack Edgar '15

Regional Alumni Engagement Coordinator 757.221.2167 jjedgar@wm.edu

William & Mary Washington Office

1779 Massachusetts Ave, Suite 705 Washington, DC 20036

Barbara Draughon

Senior Director, Regional & International Advancement 202.939.4000 bdraughon@wm.edu

Laura Mackler

Associate Director, Regional & International Advancement 202.939.4000 lcmackler@wm.edu

CHAPTERS 5. DC METRO In July, the chapter

& International Advancement 757.221.1371 mknole@wm.edu

John Hunter

Associate Director, Regional & International Advancement 757.221.1027 jmhunter@wm.edu

Richard Long

Assistant Director, Regional & International Advancement 757.221.1016 rnlong@wm.edu

CHAPTERS 7. LOWER NORTHERN NECK

In September, the chapter held their first Tribe Thursday.

8. RICHMOND

The chapter continued their monthly First Table dinner series with restaurants in the Richmond area. The chapter and the Tribe Club went back to the Flying Squirrels in August to celebrate Williamsburg Night, and hosted the Griffin and Tribe men's baseball coaches at a pre-game event at the Children's Museum of Richmond.

9. WILLIAMSBURG

In June, the chapter held their annual dinner and meeting with special guests John Wells, dean and director, and Mark Luckenbach, associate dean of VIMS. Monthly Tribe Thursdays continued with the new regional alumni engagement coordinators in July, the Tribe ticket office in August and alumni in graduate school at W&M in September.

SOUTHEAST Alli Puryear

Senior Assistant Director, Regional Alumni Engagement 757.221.1173 atpuryear@wm.edu

Gerald Bullock

Senior Director, Regional & International Advancement 757.221.1032 igbull@wm.edu

CHAPTERS 10. ATLANTA

Alumni gathered together at Turner Field to cheer on the Atlanta Braves as they played against the Chicago Cubs.

11. CHARLESTON

The chapter hosted an evening with the Riverdogs in July. William & Mary alumnus and Riverdogs second baseman, Ryan Lindemuth '14, felt the support from the field as Charleston alumni, parents and students, including Noah Locasio '19, new

hosted a rooftop pool party at the Embassy Row Hotel. Also in July, alumni gathered for An Evening with Sen. Tom Carper, a discussion and reception held by the William & Mary Washington Office and the Thomas Jefferson Program in Public Policy. August saw the chapter welcoming the W&M Class of 2015 to D.C. with a trip to Nationals Park to see Washington play the Milwaukee Brewers. Finally, in September, the chapter held their

annual Evening at the

Embassy at the Former Residence of the Ambassadors of Spain. The event featured an exhibit of art from along the Camino de Santiago, and special guest Professor George Greenia of William & Mary's Hispanic Studies Department and its Institute for Pilgrimage Studies. The chapter continues to host monthly Martini Mondays.

6. MARYLAND

The Maryland Chapter continues to hold monthly Tribe Thursdays around the state. VIRGINIA Carlton Smith '15 Regional Alumni

Engagement Coordinator 757.221.1171 crsmith03@wm.edu

Ann Ruble '77

Senior Director, Regional & International Advancement 757.221.6322 atruble@wm.edu

Kathy Nolen-Martin Director, Regional

OGAWA



Tribe men's baseball player, cheered from the stands.

CENTRAL Alli Puryear

Senior Assistant Director, Regional Alumni Engagement 757.221.1173 atpuryear@wm.edu

Robert Waggoner

Director, Regional & International Advancement 757.221.1463 rdwaggoner@wm.edu

CHAPTERS

12. CHICAGO The chapter attended a Virginia Schools happy hour in which alumni from five Virginia schools gathered together. They also partnered with the Big Shoulders Fund for a day of service in July.

13. HOUSTON The

chapter gathered together in August to watch "1776," a musical, in support of the director and William & Mary alumna, Liz Sowers Buras '86.

14. DALLAS/ FT. WORTH

In June, the chapter hosted a happy hour at Kent & Co. Wine.

WEST Ric Lampkins '14

Regional Alumni Engagement Coordinator 757.221.2144 crlampkins@wm.edu

Kathleen Daugherty

Senior Director, Regional &International Advancement 858.752.3059 kadaugherty@wm.edu

CHAPTERS

15. LOS ANGELES Alumni volunteers, led by Robert Tisdale '08, assembled to organize an alumni chapter for LA.

16. SAN FRANCISCO

The chapter welcomed new alumni to the San Francisco area with a picnic at the Presidio. Alumni also received a tour of the Mare Island Brewing Company by proprietor Kent Fortner '92.

17. SEATTLE The

chapter held a summer Happy Hour in July at Canterbury Ale House to help reconnect alumni.

INTERNATIONAL Kelly S. Holdcraft

Director, Regional Alumni Engagement 757.221.1172 ksholdcraft@wm.edu

Sani Silvennoinen *Executive Director*, Regional & International Advancement 757.221.2718 spsilv@wm.edu

WILLIAM & MARY LAW SCHOOL

In May, Dean of the Law School Davison Douglas, and Professor Ron Rosenberg visited alumni and admitted students at events in Beijing and Shanghai, China, at the offices of Norton Rose (Beijing) and Skadden Arps (Shanghai). The Richmond Chapter of Alumni for William & Mary Law School, along with Dean Douglas, gathered in June at Lemaire in the Jefferson Hotel. This Law School **Richmond Chapter** meets quarterly. The Virginia Bar takers from the Class of 2015were in Roanoke, Va., recently to take the twoday Virginia Bar exam. Alumni gathered at the Roanoke Civic Center to join them for lunch and to offer encouragement. In September, alumnae of William & Mary Law School, the Raymond A. Mason School of Business and William & Mary met for a William & Mary Women in Washington discussion on "Building Your

Professional Network."

INCOMING STUDENTS RECEPTIONS

Throughout the summer, the Alumni Association, University Advancement and the Offices of Parent and Family Programs and First Year Experience continued to host Incoming Student Receptions across the nation hosted by the following parents and in other locations.

Northeast: New York, | Southeast:

Northern New Jersey, Southern Connecticut – Judy and Alan Buchholz P '15, Alice Davison P '16, Cathy '84 and Don Farnan P '16. Philadelphia, Southern New Jersey, Delaware – Janet '84 and Peter Atwater '83, P '17. Pittsburgh - Mary Pat and Jim Jones P '13, P '18.

Washington, D.C.:

DC Metro - Julie Dobson '78 and Chet Thaker P '17, P '19. *Baltimore* - Doug '86 and Ellen Brinkley '86, P '18, P '19.

Virginia:

Roanoke - alumni chapter. South Hampton Roads - alumni chapter. Williamsburg/ Lower Peninsula alumni chapter. Winchester - Susan '87 and Carl Lauer P '19. *Atlanta* - Emilie and Keith Evans P '16, and Brooke '79 and Winston Weinmann P '17. *Charlotte* - alumni

Central:

chapter.

Austin - Robert and Hollis Gaston P '15. Chicago - Michael and Trisha Nelson P '16, P '19. Cleveland - Terry and Dianne Squire P '18. Dallas/Ft. Worth - Peter and Meg Carlsen P '17 and the Dallas/Ft. Worth Alumni Chapter; Memphis - Edward '92, J.D. '95 and Hillery Efkeman '92, P '19.

West:

Los Angeles - Kevin Burke M.B.A. '84, P '18. San Diego - Jill Gunn and Steven Berman P '16. San Francisco - Patti and Lane Ringlee P '18. Seattle - alumni chapter.



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