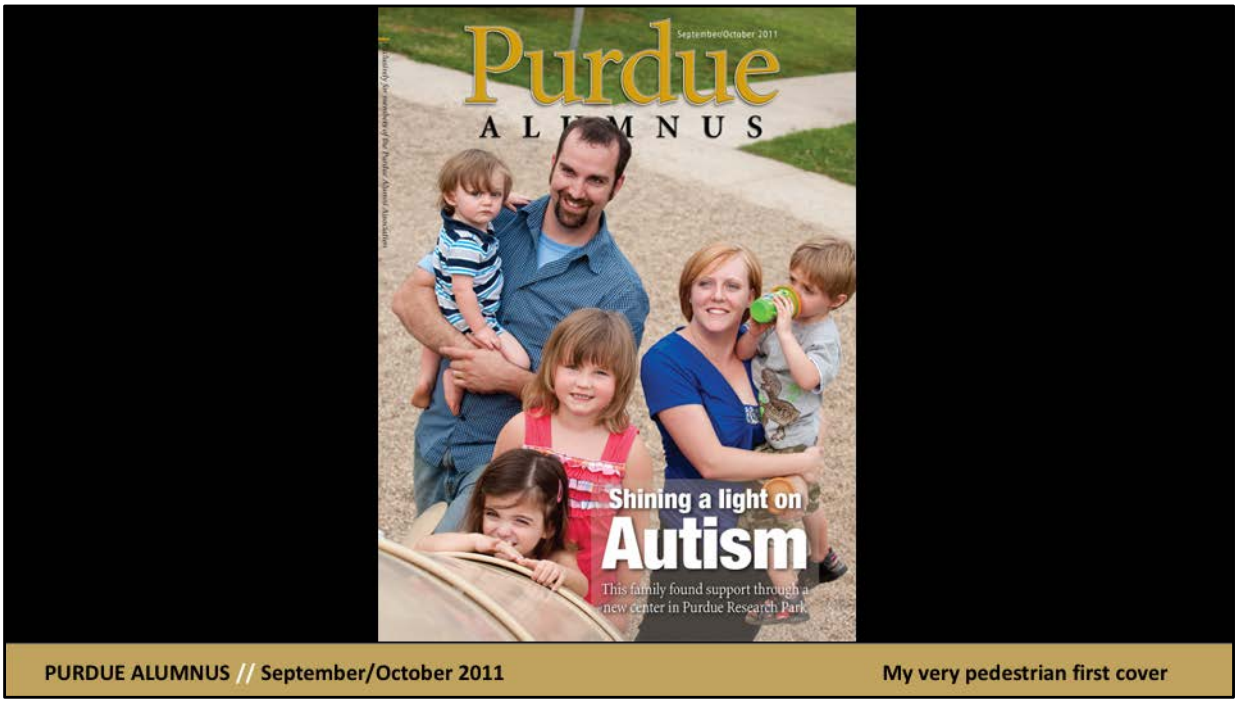
RESOURCEFUL ART DIRECTION

Welcome!

My name is Kat Braz, I am the senior director, creative communications for the Purdue Alumni Association, a fiscally independent nonprofit organization. We are separate from the university, separate from the research foundation, separate from advancement.

I am editor of the Purdue Alumnus magazine. However I have not always been editor, I started off as art director. Which is a strange jump for most people, but I started out in journalism as a copy editor/paginator. So I've always stoked a dual skill set. No. 1 tip for a lean staff, is don't allow people to be shoehorned by their job descriptions. If you have an art director who can write, let them. If you have an editor who can take photos, do it! Be symbiotic, flow together. You're all working to make it the best damn magazine you can.

Joined Purdue Alumni in July 2011 and here is my very pedestrian first cover.

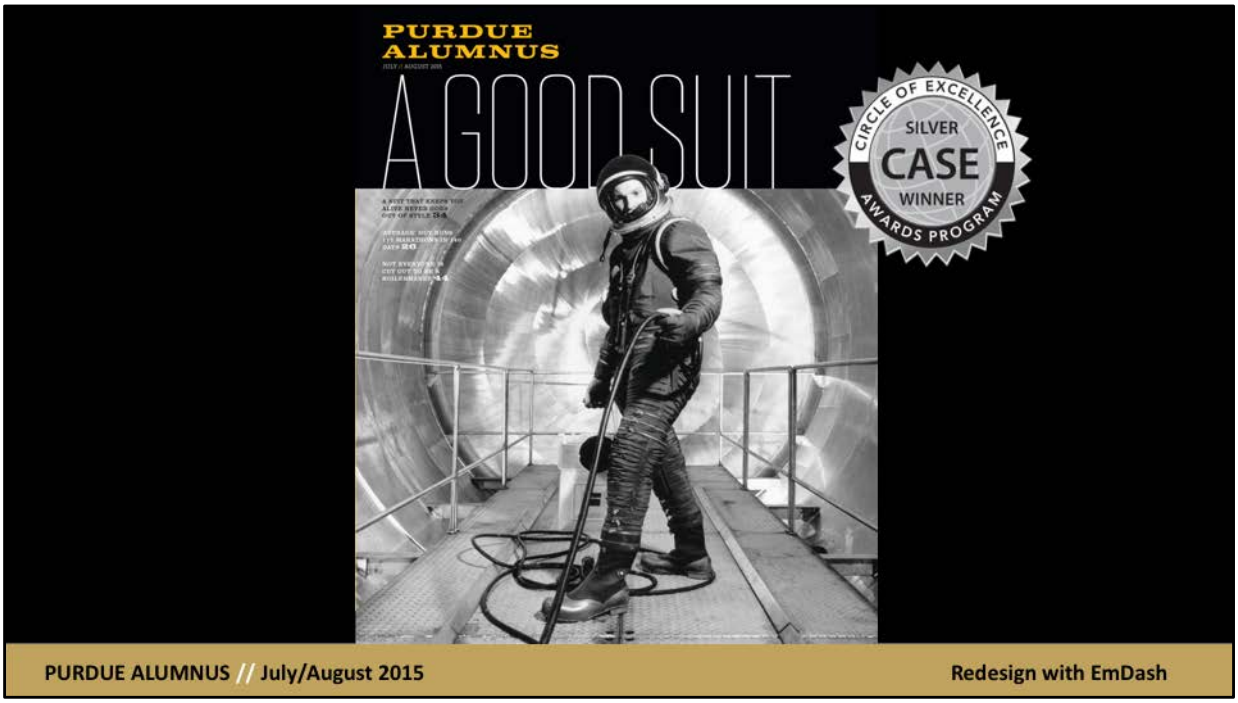


When I joined the alumni association staff in July 2011 as art director …

Six times annually, 64–72 pages; four features; $7,000 freelance budget for all writing and art, pretty much none of which we produced ourselves. We were pulling a lot of content from university news sources.

Two in-house staff people putting together magazine, editor and art director, neither was exclusively devoted to the magazine, and about ¼ of our time was spent working on the magazine.

And it showed.



Underwent a content and art redesign with EmDash in July/August 2015. Won 2016 Silver Case Award for magazine publishing improvement. Still only two people in-house, ¼ of our time devoted to magazine, but freelance budget increased from $7k to $11k, and page count increased from 64 to 80.

I was made editor in October 2016. Now publish quarterly at 96 pages w $14k freelance budget. Four features. Spring 2017 I did all content but the back of the book and bulk of design (68 pages) everything but feature well. Now have an assistant editor who does the back of the book, two graphic designers who will be taking over the bulk of design duties for next issue. I still do art direction. No employees exclusively devoted to the magazine.

In day-to-day operations we serve as the in-house communications department for our entire organization. I supervise a staff of five, overseeing communications (content, design, social media, e-mail, video, web) for all of Purdue Alumni's programs (membership, events, ~80 clubs, ~60 international networks, five affinity groups (and growing!), student group, young alumni, engagement and outreach, travel.) So I've had to learn how to maximize my resources. And I hope that some of what I've learned will be useful to you, too.

If you have lots of time, loads of talent, and tons of money, you will have a killer magazine. I do believe you need to have at least two of these things to have a good magazine. If you have none of these things, there is nothing I can say to help you. If you are working with no staff, no time, no funding, and no control, it will be reflected in your publication.

There is no magic wand. The key is to find balance, skimping and saving with smart decisions where you can, so that you have more to devote to epic projects. Part of your job is leveraging the resources you have for where you want to be. And selling the higher ups on what it takes to get there. Maybe there's no more money, but is there more help available to you? Maybe you can't afford fulltime designers with healthcare benefits, but could you get some student interns to pick up the slack? Can you start planning ahead so you have more time to do awesome things and aren't just playing catch up all the time?

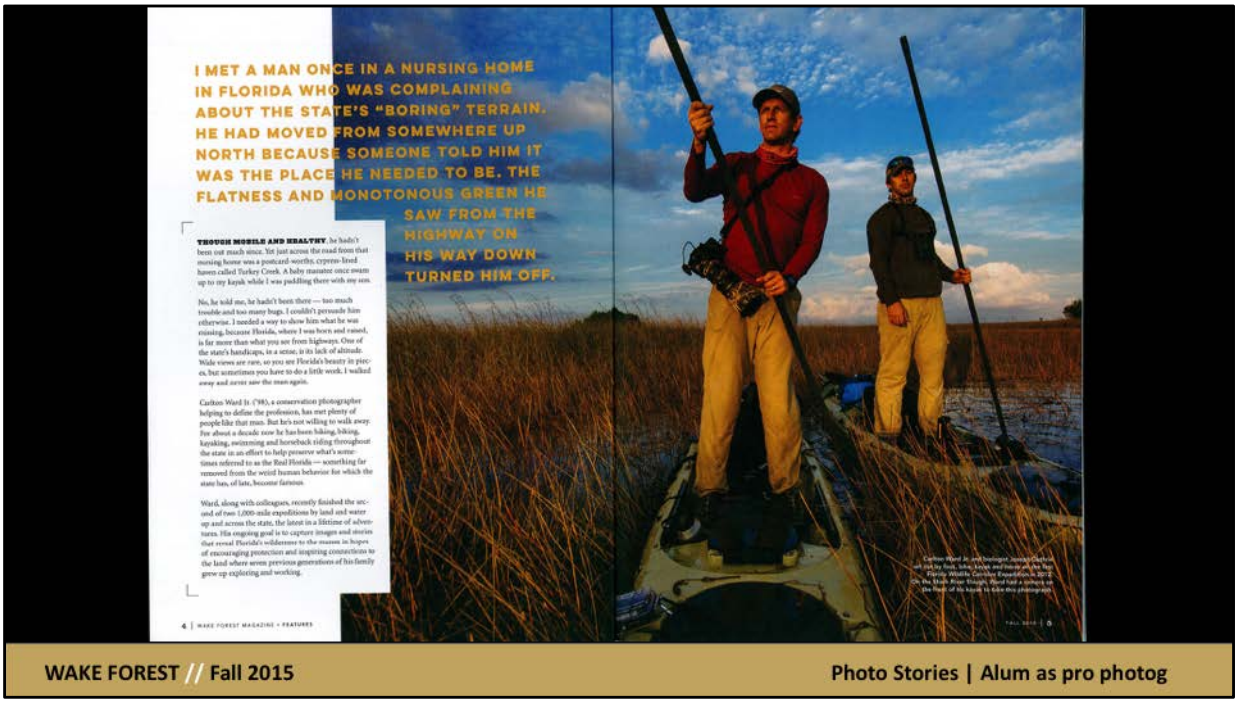
And where should you spend your money? Cover and features. You can get away with less in other areas, but if the anchor of your book doesn't reflect an investment of some kind, no one is going to flip through it.

There are lots of ways to get free art. And photo stories are a great way to maximize your budget for big impact. They can carry through 10 to 12 pages with awesome pics, and there's not a lot of copy so you can write it yourself and save on a freelance writer.

One way to get awesome art is to find alums who are professional photogs and do stories about their work.

A professional photographer alum who takes amazing pics and they weave it into a story about the conservation of Florida's wetlands.

WAKE FOREST // Fall 2015 **Photo Stories | Alum as pro photog**



WAKE FOREST // Fall 2015 **Photo Stories | Alum as pro photog**

Ward's efforts have taken on new significance, as current political and public battles will determine the fate of huge swaths of Florida land that researchers say are critical to wildlife and waterway protection. "I'm really trying to showcase and celebrate the Florida that's hiding in plain sight to the 20 million people living here," says Ward. "You don't know it's there unless you get out of the car, or out in the water."

Suburbs to woods and back

Ward grew up in Clearwater, a heavily populated area on the state's west coast. His great-grandfather, Doyle Carlton, was born 90 miles away in the still-tiny town of Wauchula. That was in 1885, and he went on to become governor during the Great Depression. As governor he cut his own salary, turned down bribes and stood up to Al Capone, who had just moved to the Miami area. Not surprisingly, after all that, he was ready to return to a quieter life in Wauchula, where he bought up land for $2 an acre. Ward's great-uncle would later expand the family's ranch in what's known as the Peace River Valley.

Growing up, Ward visited the historic ranch multiple times a year to celebrate holidays, ride horses, grab oranges and hunt. Every year his dad and uncle hosted a Boy Scout campout on the land — fond memories from Ward's path to becoming an Eagle Scout and an adventurer.

Today, the land has been split between different families. Several of Ward's cousins ranch their pieces fulltime, and Ward owns his own small section. "I grew up in the suburbs, but I had one foot in the woods," he says. "I think that really influenced my appreciation of rural and natural lands and also heightened my sense of urgency for how fast it can disappear."

Most Floridians don't get to see the state in the ways that have so inspired Ward. This is in part because most of Florida's residents, like the man in the nursing home, have come from somewhere else. The populous can be especially unaware of surroundings beyond cityscapes or theme parks — so much so that even residents assume many of Ward's photos must be from another state, or another continent. Ward shows them what they have been missing.

Physics or the law?

Despite his family history and his quest, there was a time when expeditions and conservation efforts would have seemed an unlikely career choice for Ward. When he arrived at Wake Forest in 1994, he planned to study physics and then move on to graduate school in engineering, or possibly law.

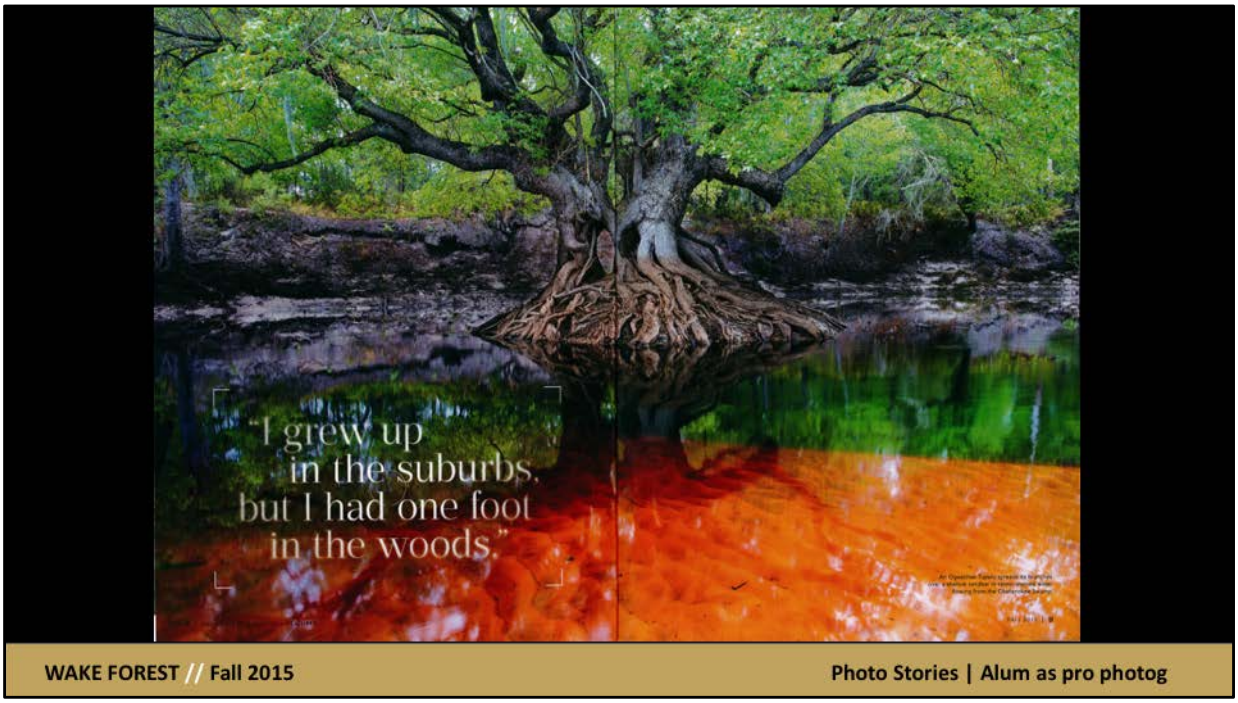
But liberal arts requirements pushed him into a biology class, which he loved. Later, in an anthropology course with Professor J. Ned Woodall (P '99), he learned a lesson that he says more than anything drove him toward conservation as a profession. "I remember in that class really for the first time understanding the story of people and the planet," says Ward, "and in doing so really becoming concerned about sustainability, and really questioning some of my built-in notions of progress and all that."

He ended up with a biology degree, and minors in anthropology and environmental studies. As importantly, he was becoming an accomplished photographer, working for the Old Gold & Black and The Howler. Photography also played heavily into a semester he spent working in Kenya with the School for Field Studies. Based on that trip, he got a grant from the provost's office to show his first exhibition in the Z. Smith Reynolds Library — a sign of things to come.

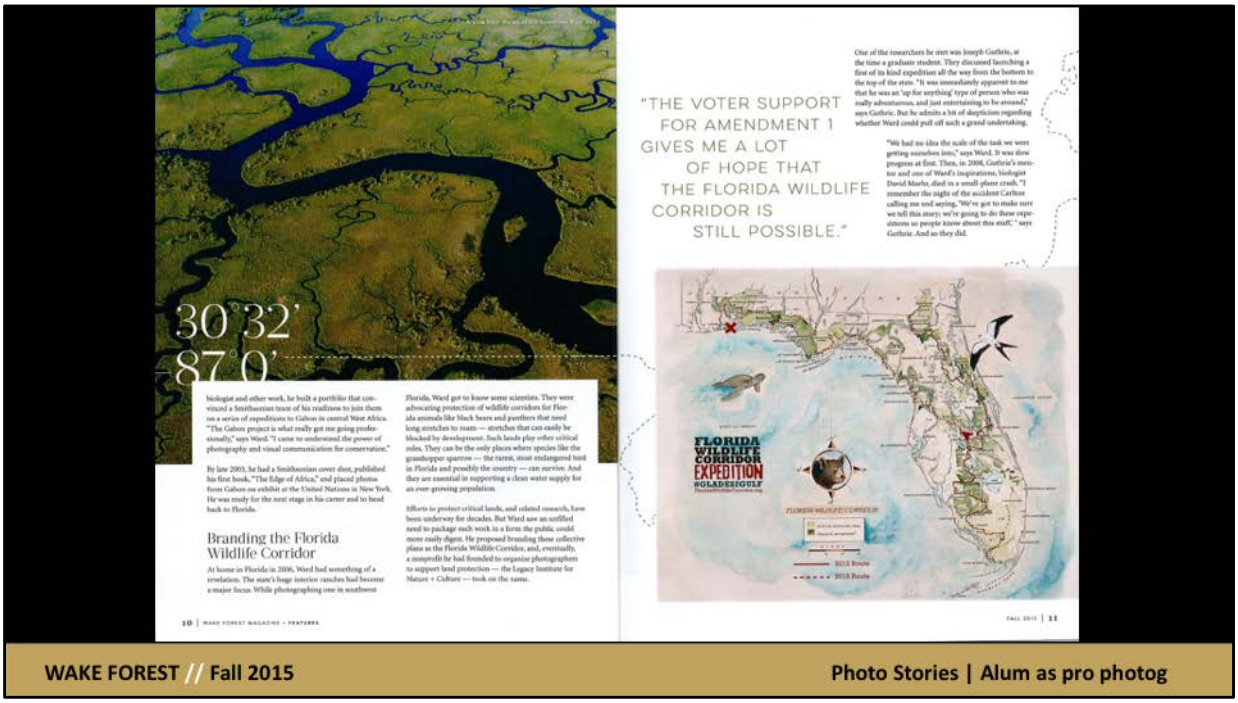
After graduating Ward took an internship with the photo department at the Smithsonian's National Museum of Natural History. Later, through an internship at his hometown newspaper, an Amazon expedition with a mammal

Left: Rocking F Ranch, southwest of Ocala.
Top left: A young man fishes for blue crabs where the St. Marks River flows into the Gulf of Mexico.
Top right: With its longleaf pines, The Nature Conservancy's Disney Wilderness Preserve, near Kissimmee, serves as a gateway to the Northern Everglades.

WAKE FOREST // Fall 2015 **Photo Stories | Alum as pro photog**



Straight up National Geographic quality. What a lucky find!



WAKE FOREST // Fall 2015 **Photo Stories | Alum as pro photog**

PUZZLE PIECES

Jill Knight has launched a promising career in photojournalism—one in which she takes thousands of images to construct the stories of her subjects' lives.

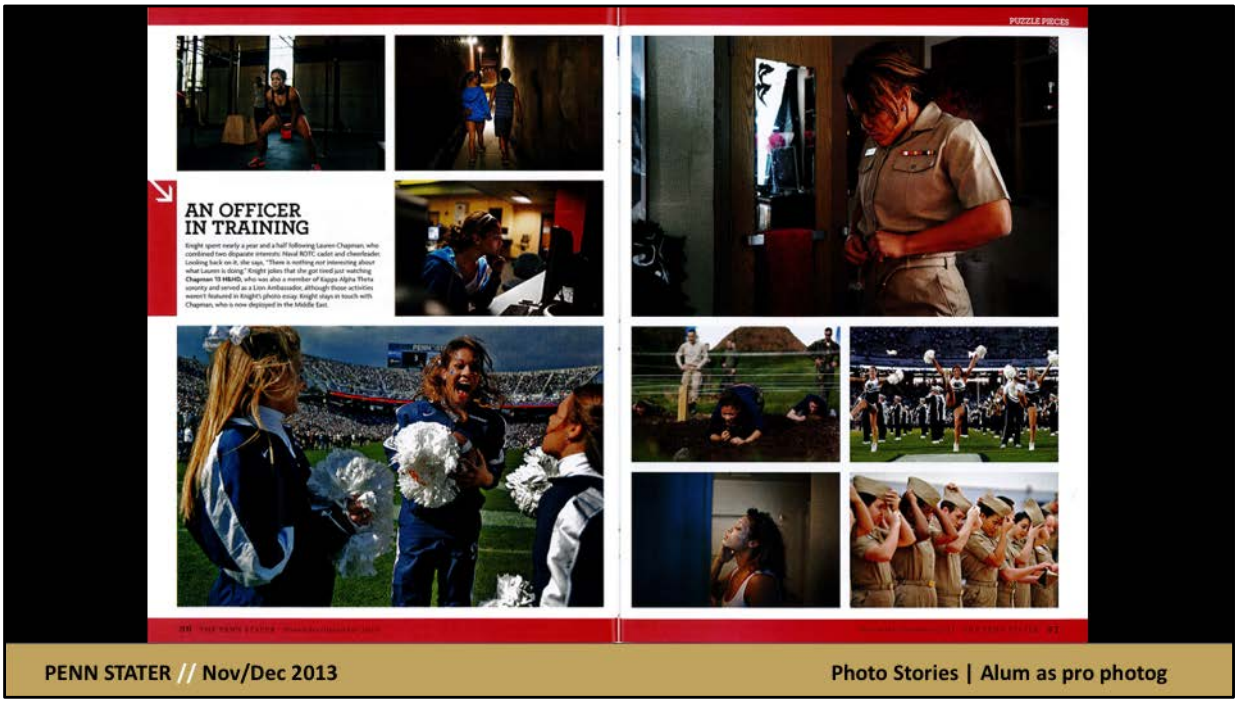
AN OFFICER IN TRAINING PAGE 38

FOR JILL KNIGHT, ONE PHOTO ISN'T ENOUGH. It's not that she doesn't appreciate the impact and beauty of a single, well-composed photo. It's that she usually sees stories not as individual images, but as series of images. ☐ Just months after finishing her journalism degree, **Knight '13 Com** is beginning to establish herself as a documentary-style photographer. Two of her essays, reported as undergraduate independent-study projects, got national attention this year: "Officer in Training" won fourth place in the William Randolph Hearst Foundation Awards, considered the Pulitzer Prizes of college journalism, and "Special Delivery" was featured by the Lens photography blog of *The New York Times*. ☐ For each of the stories, she took between 4,000 and 5,000 photos. "It's frustrating," she says. "You want to take an instantly gratifying picture, but the equation doesn't work until you have all the pieces of the puzzle. Then it tells the story." ☐ We've reprinted highlights from each of those photo essays on the following pages. For the full versions, visit her website, **jillianknight.com**. —*LS*

SPECIAL DELIVERY PAGE 38

PENN STATER // Nov/Dec 2013 **Photo Stories | Alum as pro photog**

Penn State had an alum who's a photojournalist, so they showcased two different topics she'd shot.



PENN STATER // Nov/Dec 2013 Photo Stories | Alum as pro photog

PENN STATER // Nov/Dec 2013 **Photo Stories | Alum as pro photog**

Easy art! A photo competition, so all the images selected will be winners. This is a mix of student and faculty photogs.

OHIO STATE // Mar/Apr 2013 **Photo Stories | University run photo competition**

DENISON MAGAZINE // Spring 2015 Photo Stories | University art class

Easy art! An art competition. Love the little shadows added to give the images life on the page. These pieces were inspired by music. And if you view online, you can listen, too.

COMPOSITION:

The Swash of Water and Red

by Ching-chu Hu

FROM THE ARTIST:

"My print is inspired by the first part of *The Swash of Water and Red*: 'Swash I: Icy, Silent Morn.' The first time I listened to the piece, I was immediately struck by the similarities between it and my own roots in Irish fiddle. I was reminded of the loneliness that my favorite Irish airs always brought to mind. 'Icy, Silent Morn' brought to mind images of empty, sweeping hills and wide, open skies. As the piece progressed into Chinese-influenced sound, I felt liberated from the vast solitude of the beginning of the piece, as the sounds began to rise above it."

—ABBIE THILL '16, *a women's and gender studies major from Minneapolis, Minn.*

FROM THE COMPOSER:

"What I really appreciate seeing in Abbie's work is the sense of coldness. In this movement, I try to capture a sense of loneliness in a vast landscape, in wind, and in the motion of the sounds—and she has represented that beautifully."

—CHING-CHU HU, *composer and Denison professor of music*

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DENISON MAGAZINE

SPRING 2015

COMPOSITION:

Long Distance

by Steven Snowden

FROM THE ARTIST:

"The electronic pops and clicks within the piece drew me to it. When I later learned that these sounds were actually the sounds of 'hacked' pay phones from various locations throughout the U.S., I was intrigued further. It was interesting to learn about the phone phreaking community in the 1970s, and it made me think of the issues we face with computer hacking in the 21st century. The various software applications that come into play for human communication purposes can now easily be hacked through advancing technology. In addition, information can now be crafted easily across oceans, which I have tried to convey through my piece."

—SHIVANI MITHBAKKAR '16, *a studio art major from Mumbai, India*

FROM THE COMPOSER:

"The concept for the music has to do with analog telephone systems in the 1970s, and I think Shivani has highlighted an aspect of this that is intrinsic to this subject, even though I had not initially considered it when composing the piece. Her work reveals the kind of recursive and redundant nature of long-distance communication that was true then and still is today. Patterns emerge from mass amounts of seemingly random data to reveal a world in which physical distance is largely overcome by virtual interconnectivity."

—STEVEN SNOWDEN, *a composer who recently returned to Austin, Texas, after a year at the Hong Kong University of Science and Technology, where he was a visiting professor and composer*

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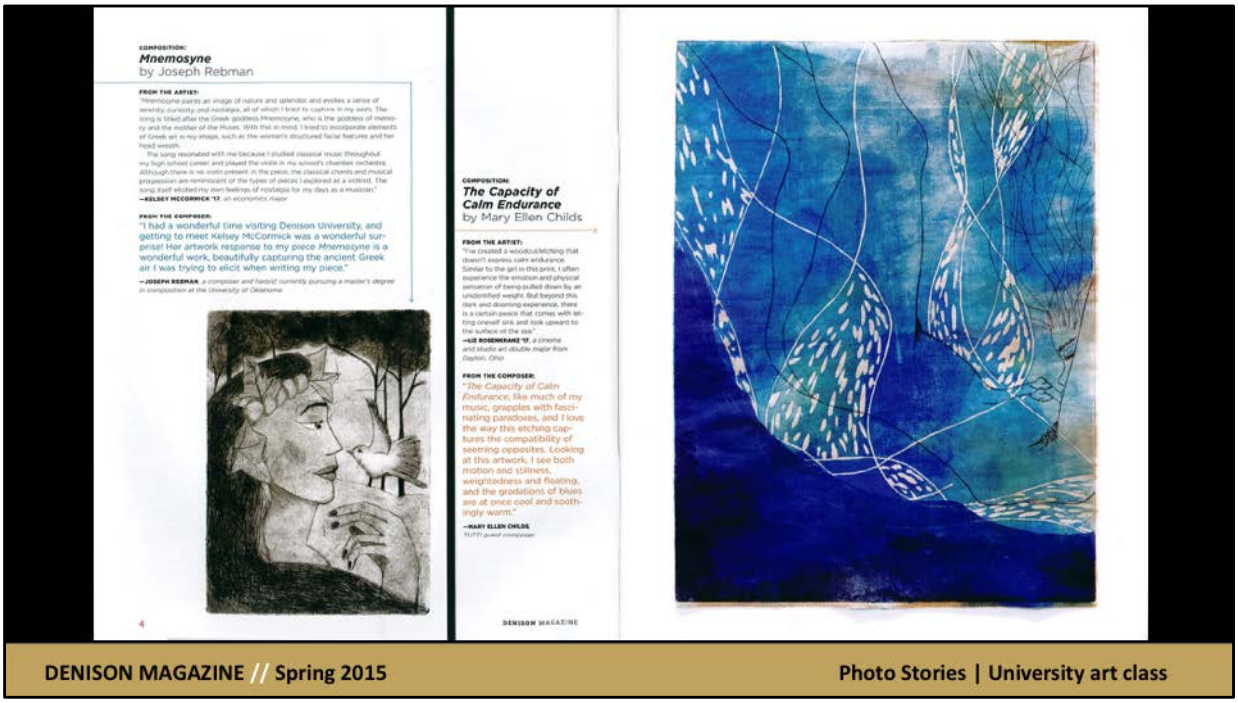
DENISON MAGAZINE // Spring 2015 **Photo Stories | University art class**



COMPOSITION:
Mnemosyne
by Joseph Rebman

FROM THE ARTIST:
"Mnemosyne paints an image of nature and splendor, and evokes a sense of serenity, curiosity, and nostalgia, all of which I tried to capture in my work. The song is titled after the Greek goddess Mnemosyne, who is the goddess of memory and the mother of the Muses. With this in mind, I tried to incorporate elements of Greek art in my image, such as the woman's structured facial features and her head wreath.

The song resonated with me because I studied classical music throughout my high-school career and played the violin in my school's chamber orchestra. Although there is no violin present in the piece, the classical chants and musical progression are reminiscent of the types of pieces I explored as a violinist. The song itself elicited my own feelings of nostalgia for my days as a musician."
—**KELSEY MCCORMICK '17**, *an economics major*

FROM THE COMPOSER:
"I had a wonderful time visiting Denison University, and getting to meet Kelsey McCormick was a wonderful surprize! Her artwork response to my piece *Mnemosyne* is a wonderful work, beautifully capturing the ancient Greek air I was trying to elicit when writing my piece."
—**JOSEPH REBMAN**, *a composer and harpist currently pursuing a master's degree in composition at the University of Oklahoma*

COMPOSITION:
The Capacity of Calm Endurance
by Mary Ellen Childs

FROM THE ARTIST:
"I've created a woodcut/etching that doesn't express calm endurance. Similar to the girl in this print, I often experience the emotion and physical sensation of being pulled down by an unidentified weight. But beyond this dark and doleful experience, there is a certain peace that comes with letting oneself sink and look upward to the surface of the sea."
—**LIZ ROSENKRANZ '17**, *a cinema and studio art double major from Dayton, Ohio*

FROM THE COMPOSER:
"*The Capacity of Calm Endurance*, like much of my music, grapples with fascinating paradoxes, and I love the way this etching captures the compatibility of seeming opposites. Looking at this artwork, I see both motion and stillness, weightedness and floating, and the gradations of blues are at once cool and soothingly warm."
—**MARY ELLEN CHILDS**
TUTTI guest composer

DENISON MAGAZINE // Spring 2015 **Photo Stories | University art class**

COMPOSITION:
Amor
by Scott Anthony Shell

FROM THE ARTIST:
"Amor's hypnotic ostinato is juxtaposed with a bit of disquiet. The music evokes a sense of movement akin to meandering gently through an indefinite space. At intervals, a pause offers time to stop and gaze in wonderment in an unfamiliar setting before continuing on with nervous excitement and escorted by the doubts and marvels of the unknown. The musical composition was inspired by a Spanish poem of the same name, so the print pays homage to the poetess, Dámaris Augustini. Inspired by Augustini's personal story, and by the sensations aroused in the musical version of *Amor*, the print deals with the ideas of mystery, ambiguity, and movement in an improvisational way. It could be likened to my 39-day, 500-mile walk of discovery along the Camino Francés de Santiago de Compostela, where feelings of wonder and apprehension were the underlying current of each day. The experience continues to be a well of profound emotions from which I draw. My ongoing studies of the universe, its vastness and uncertainty, are a more recent inspiration."
—**DEBRA JOYCE DAWSON**, community scholar, Pataskala, Ohio

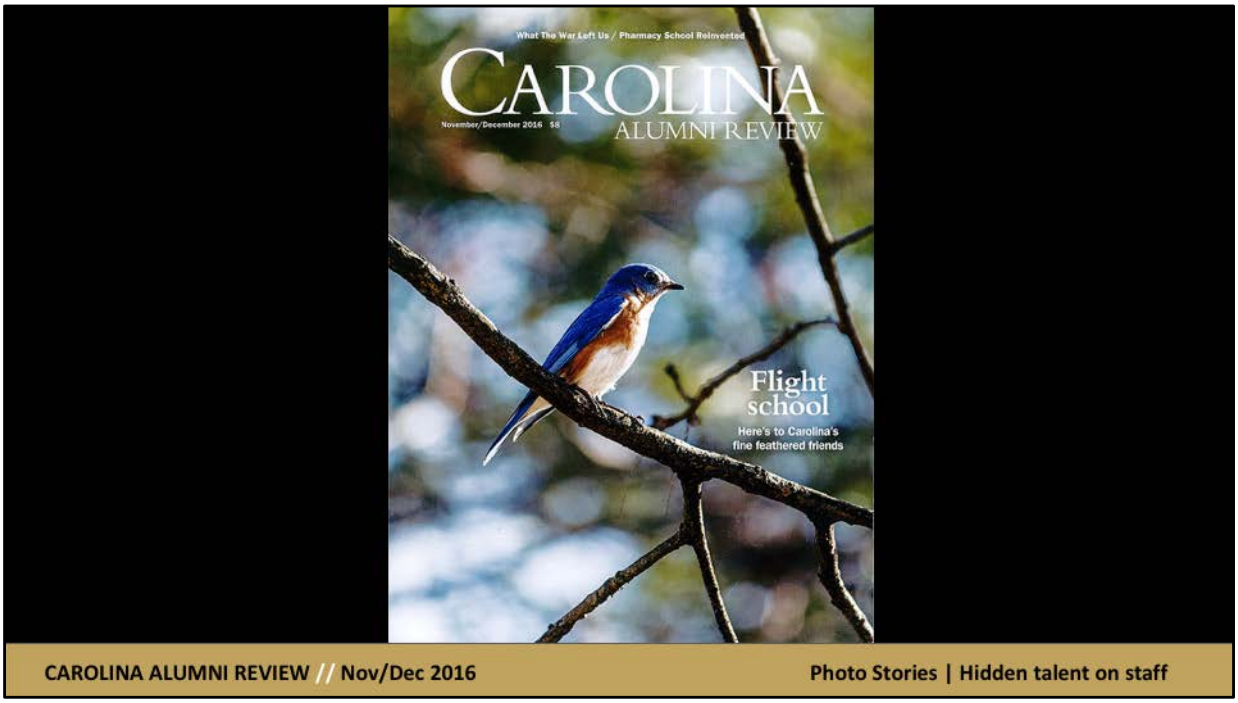
FROM THE COMPOSER:
"I really feel Debra's work captures the dream references around which the poem *Amor* revolves, as well as the dreaminess of the music. There is an ethereal, ghostlike quality to the portrait of the poet, who died tragically young. The swirling mass above her head, to me, represents her dreams."
—**SCOTT ANTHONY SHELL**, classical music composer

COMPOSITION:
Sanctuary to Sea
by Andrew Cole

FROM THE ARTIST:
"I was inspired by the juxtaposition of natural sounds—birdcalls and waves—to the heavily synthesized sounds within *Sanctuary to Sea*. It reminded me of the struggle found between the natural and man-made, and in our internal struggles between who we are and who we think we are. I tried to recreate this conflict through the juxtaposition of the bird wings and the albatross skull. As I approach graduation this spring and move away from Denison, I'm working to find my identity and my sense of self."
—**BRITTANY KIRCH '15**, a geosciences major from Midland, Mich.

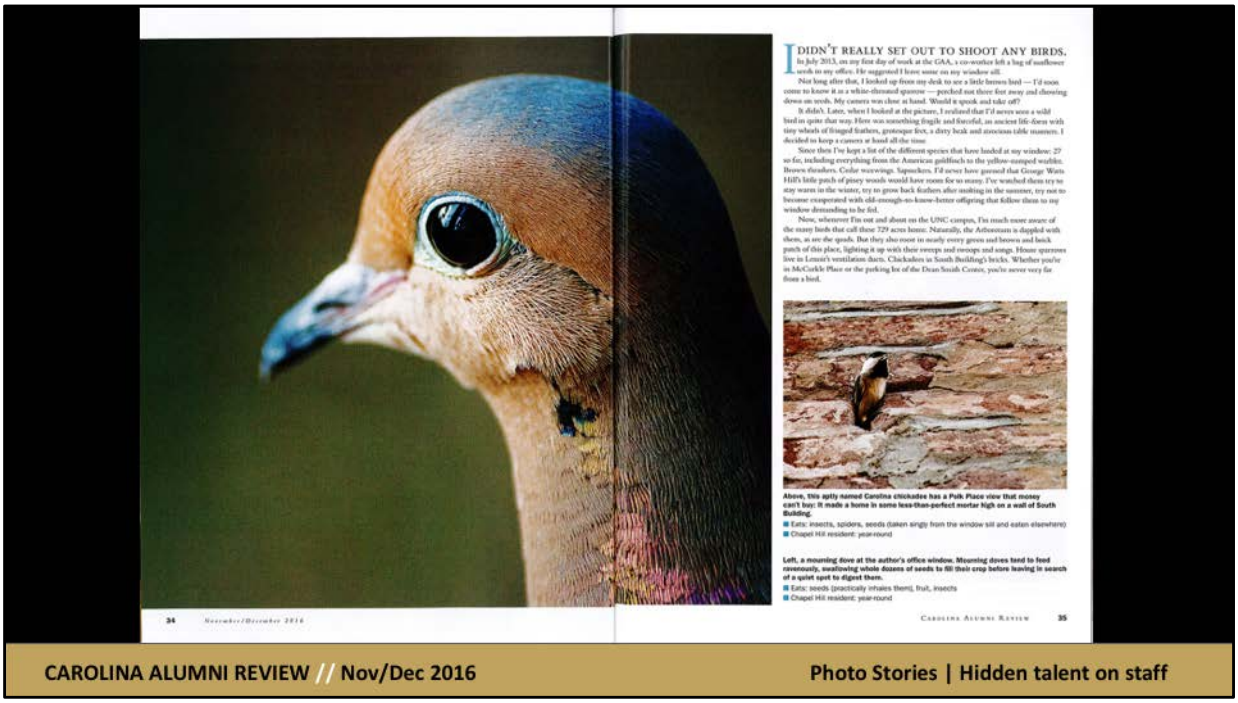
FROM THE COMPOSER:
"*Sanctuary to Sea* is a very personal work, really, about my experiences hiking in Wellington, New Zealand, and the unique landscapes and birds there. Brittany definitely got it and responded better than I could have myself. What I find most interesting about her work is that it brings to mind birds both as otherworldly creatures of song and flight and as fragile creatures that often depend on ocean and coastal ecosystems to survive."
—**ANDREW COLE**, *a visiting instructor of music at the University of Central Missouri*

DENISON MAGAZINE // Spring 2015 **Photo Stories | University art class**



Hidden talents! The design director for North Carolina is a hobby photog, who takes pictures of birds.

FOURTEEN PAGES OF BIRDS!!!! Know your audience. I could not get away with fourteen pages of birds at Purdue. But I could run fourteen pages of space. I could run fourteen pages of trains. I could probably run fourteen pages of squirrels. Honestly.



I DIDN'T REALLY SET OUT TO SHOOT ANY BIRDS. In July 2013, on my first day of work at the GAA, a co-worker left a bag of sunflower seeds in my office. He suggested I leave some on my window sill.

Not long after that, I looked up from my desk to see a little brown bird — I'd soon come to know it as a white-throated sparrow — perched not three feet away and chowing down on seeds. My camera was close at hand. Would it spook and take off?

It didn't. Later, when I looked at the picture, I realized that I'd never seen a wild bird in quite that way. Here was something fragile and forceful, an ancient life-form with tiny wheels of fringed feathers, grotesque feet, a dirty beak and atrocious table manners. I decided to keep a camera at hand all the time.

Since then I've kept a list of the different species that have landed at my window: 27 so far, including everything from the American goldfinch to the yellow-rumped warbler. Brown thrashers. Cedar waxwings. Sapsuckers. I'd never have guessed that George Watts Hill's little patch of piney woods would have room for so many. I've watched them try to stay warm in the winter, try to grow back feathers after molting in the summer, try not to become exasperated with old-enough-to-know-better offspring that follow them to my window demanding to be fed.

Now, wherever I'm out and about on the UNC campus, I'm much more aware of the many birds that call these 729 acres home. Naturally, the Arboretum is dappled with them, as are the quads. But they also roost in nearly every green and brown and brick patch of this place, lighting it up with their sweeps and swoops and songs. House sparrows live in Lenoir's ventilation ducts. Chickadees in South Building's bricks. Whether you're in McCorkle Place or the parking lot of the Dean Smith Center, you're never very far from a bird.

Above, this aptly named Carolina chickadee has a Polk Place view that money can't buy: It made a home in some less-than-perfect mortar high on a wall of South Building.

- Eats: insects, spiders, seeds (taken singly from the window sill and eaten elsewhere)
- Chapel Hill resident: year-round

Left, a mourning dove at the author's office window. Mourning doves tend to feed ravenously, swallowing whole dozens of seeds to fill their crop before leaving in search of a quiet spot to digest them.

- Eats: seeds (practically inhales them), fruit, insects
- Chapel Hill resident: year-round

CAROLINA ALUMNI REVIEW // Nov/Dec 2016 **Photo Stories | Hidden talent on staff**

CAROLINA ALUMNI REVIEW // Nov/Dec 2016 **Photo Stories | Hidden talent on staff**

CAROLINA ALUMNI REVIEW // Nov/Dec 2016 Photo Stories | Hidden talent on staff

As an aside, ads in the feature well make me very sad.

CAROLINA ALUMNI REVIEW // Nov/Dec 2016 Photo Stories | Hidden talent on staff

CAROLINA ALUMNI REVIEW // Nov/Dec 2016 Photo Stories | Hidden talent on staff

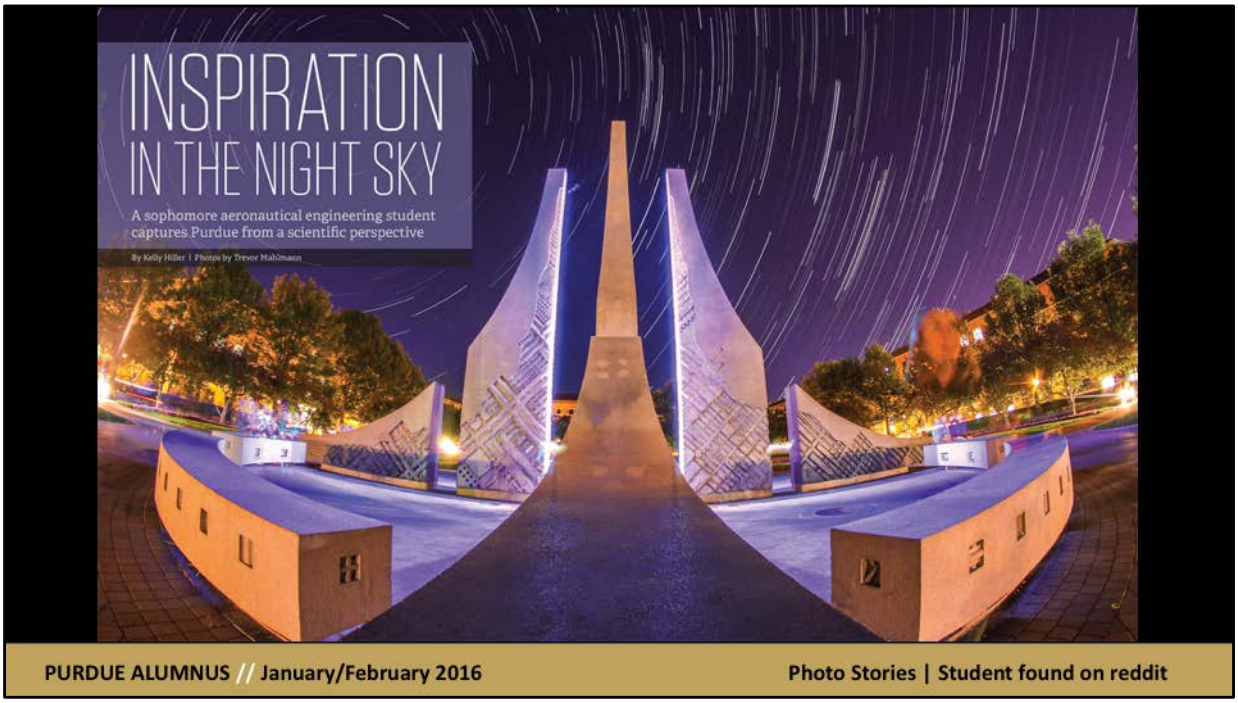
Look how gross that ad is! Don't do this to your readers. The feature well is sacred space. Advertisers had better be paying you a BOATLOAD of money to take over your primo content.

FLIGHT SCHOOL

Below, a white-breasted nuthatch with a halo created by the glare from the bumper of a car parked on Stadium Drive. Nuthatches cache seeds in tree bark to eat later.
■ Eats: insects, seeds ■ Chapel Hill resident: year-round

Opposite, a male pine warbler. Pine warblers spend most of their time in pine trees, but they occasionally visit bird feeders for suet.
■ Eats: insects, pine seeds, suet ■ Chapel Hill resident: summer or year-round

CAROLINA ALUMNI REVIEW // Nov/Dec 2016 **Photo Stories | Hidden talent on staff**



Students take great photos, too! We found this kid on reddit. I troll all sorts of social media feeds to see if there are students taking awesome pics we might be able to use. They are just excited to be published.

When Trevor Mahlmann sees a dot pass through the sky, he doesn't wish upon a star — because it's not happenstance that he is looking up. He knows the dot is not a shooting star or other object soaring through space. He is standing at the right place at the exact right time to see the International Space Station (ISS) pass by. The dot in the air serves as a reminder of Mahlmann's dream to become an astronaut. And maybe even to become one of the select few to have the opportunity to live and work on the ISS.

Just over a year ago, Mahlmann was among a group of people selected to attend a NASA Social event for the SpaceX CRS-6 cargo resupply launch to the ISS in exchange for social media coverage. He borrowed a friend's camera to take along on the trip and his return coincided with the 2014 lunar eclipse. He decided to hold on to the camera and possibly capture the eclipse.

"The eclipse was very early in the morning and I was debating whether or not I wanted to get up and shoot it the night before. I'm glad I did because I discovered a love for photography I never knew I had. That experience definitely gave me the bug."

Soon after, he purchased his first DSLR camera and began capturing the ISS as it flies by in the night sky. He tracks the orbit of the station on heavens-above.com and receives push notifications a few minutes before it will be passing by.

"My favorite thing to shoot is the space station as it passes because although it looks like a dot in the sky, it is actually the temporary home of three to six astronauts," he says. "Plus it appears in different parts of the sky depending on its orbit."

Mahlmann has shot the space station from various spots on campus and really enjoys the challenge of picking out the subject to put in the foreground of each photo. However, his favorite shot was taken from the seat of an airplane. While traveling back from New York in June 2015, Mahlmann tracked the orbit of the station using the in-flight Wi-Fi and determined that the ISS was going to pass by while he was using it, in the air.

"I used a GoPro and suction-cupped it to the window and then held my hands over the camera to avoid glare from the cabin lights. My fellow passengers thought it was a little strange but then couldn't believe the shot I captured once I showed it to them."

The shot impressed others as well. It was posted by the ISS Facebook and Twitter accounts and retweeted by a few astronauts. Just the mention of an astronaut being impressed by his photo makes Mahlmann smile.

"My hobby is as close I can get to space for now."

LEFT

HEAVENS ABOVE

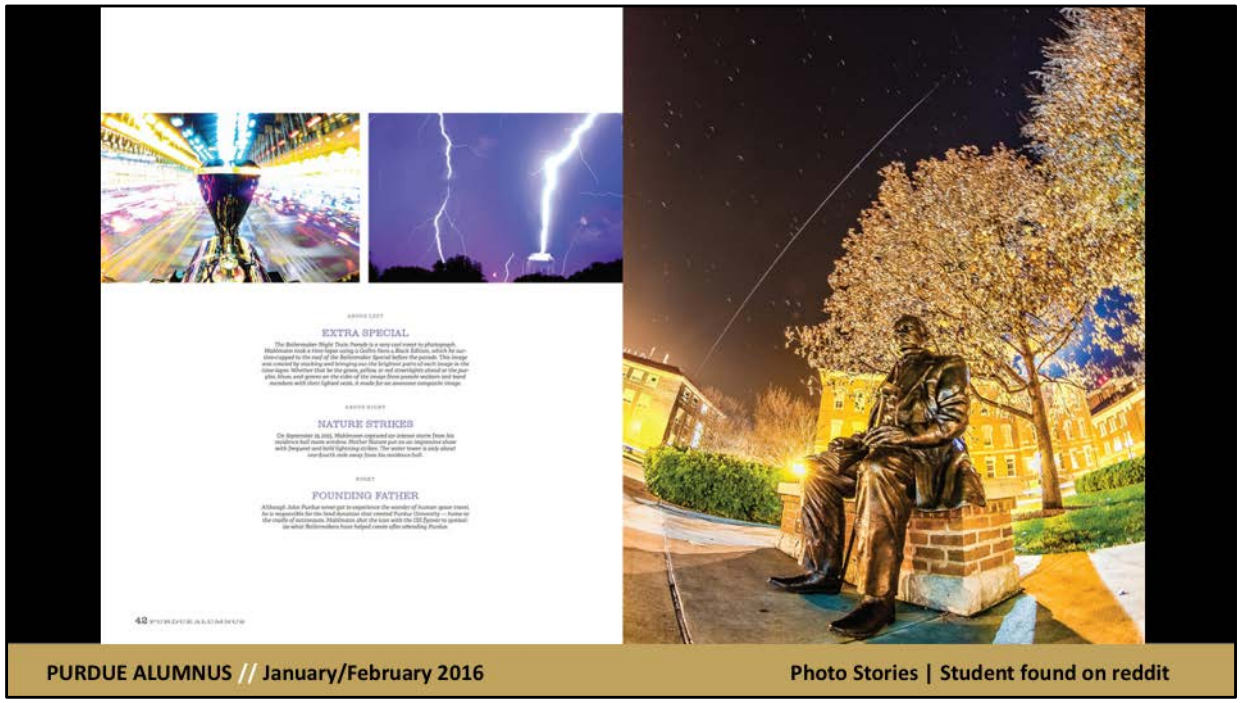
During the summer before his freshman year, Trevor Mahlmann's grandpa taught him how to fly a Cessna 150. He positioned his grandpa's plane on the taxiway just outside the hangar of the Porter County Municipal Airport in Valparaiso, Indiana. This image of Mahlmann sitting on the wing while the 150 flies by represents his two favorite things — being a pilot and watching the ISS.

PREVIOUS PAGE

STARRY NIGHT

Mahlmann enjoys long exposure photography specifically star trails. This photo was taken on September 30, 2015, on a beautifully clear night over campus. One downside of taking star trail images is waiting around by your camera, but he turns this time into an opportunity to bring friends along and show them the skies.

PURDUE ALUMNUS // January/February 2016 **Photo Stories | Student found on reddit**



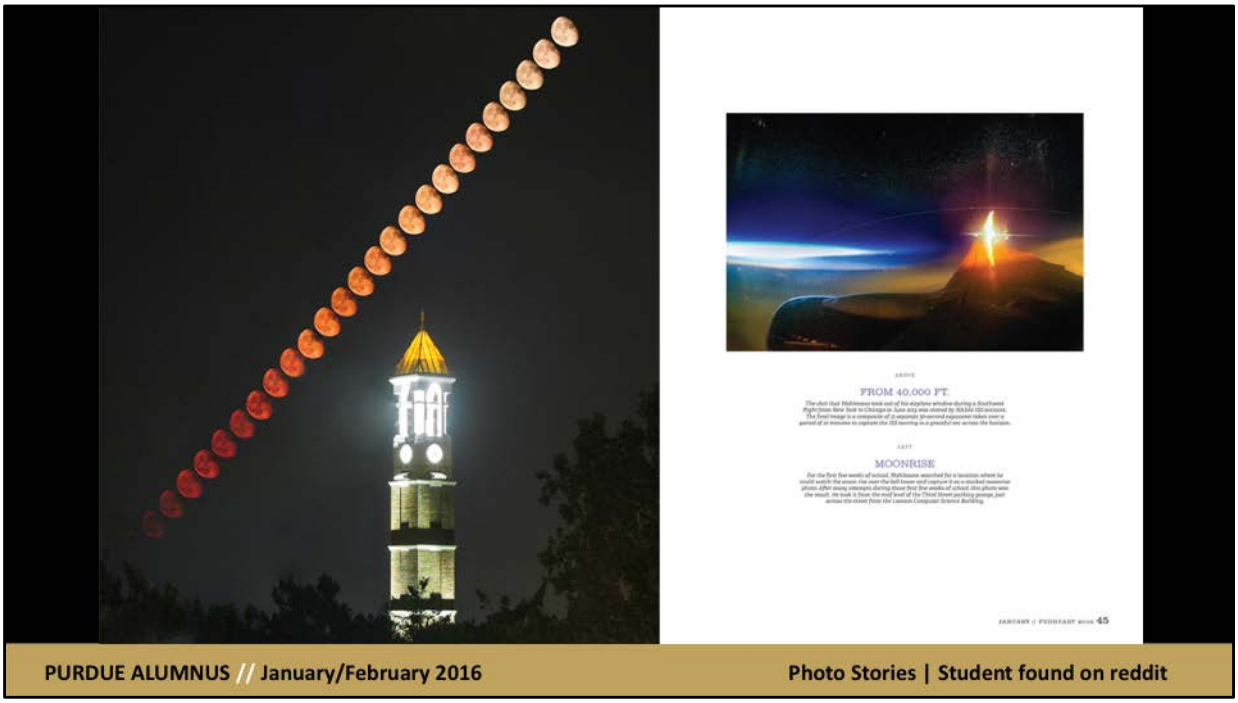
EXTRA SPECIAL

NATURE STRIKES

FOUNDING FATHER

42 PURDUE ALUMNUS

PURDUE ALUMNUS // January/February 2016 **Photo Stories | Student found on reddit**

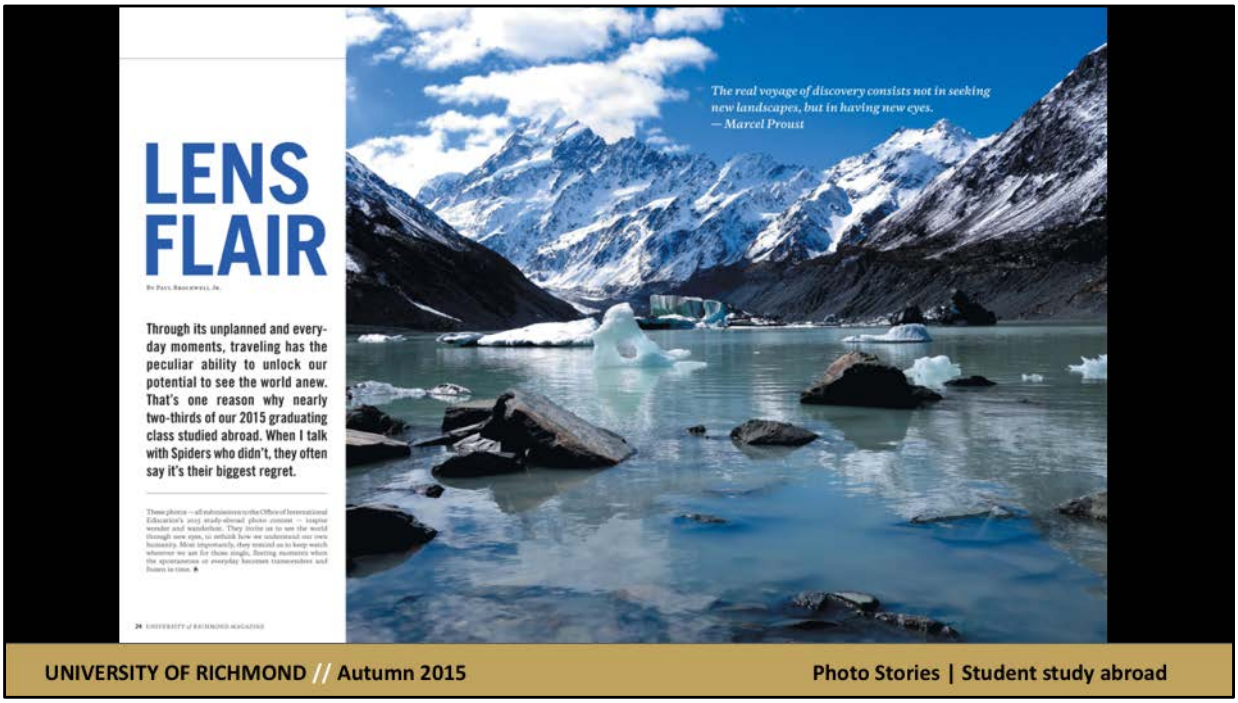


FROM 40,000 FT.

MOONRISE

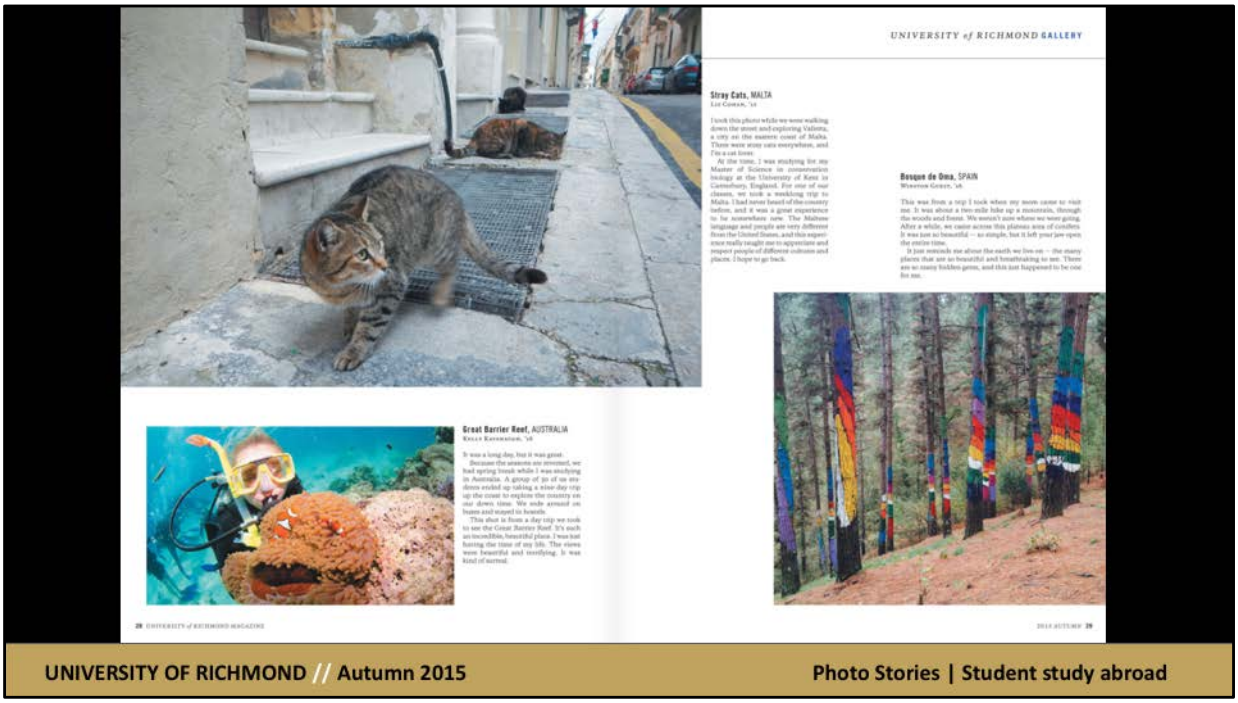
45

PURDUE ALUMNUS // January/February 2016 Photo Stories | Student found on reddit

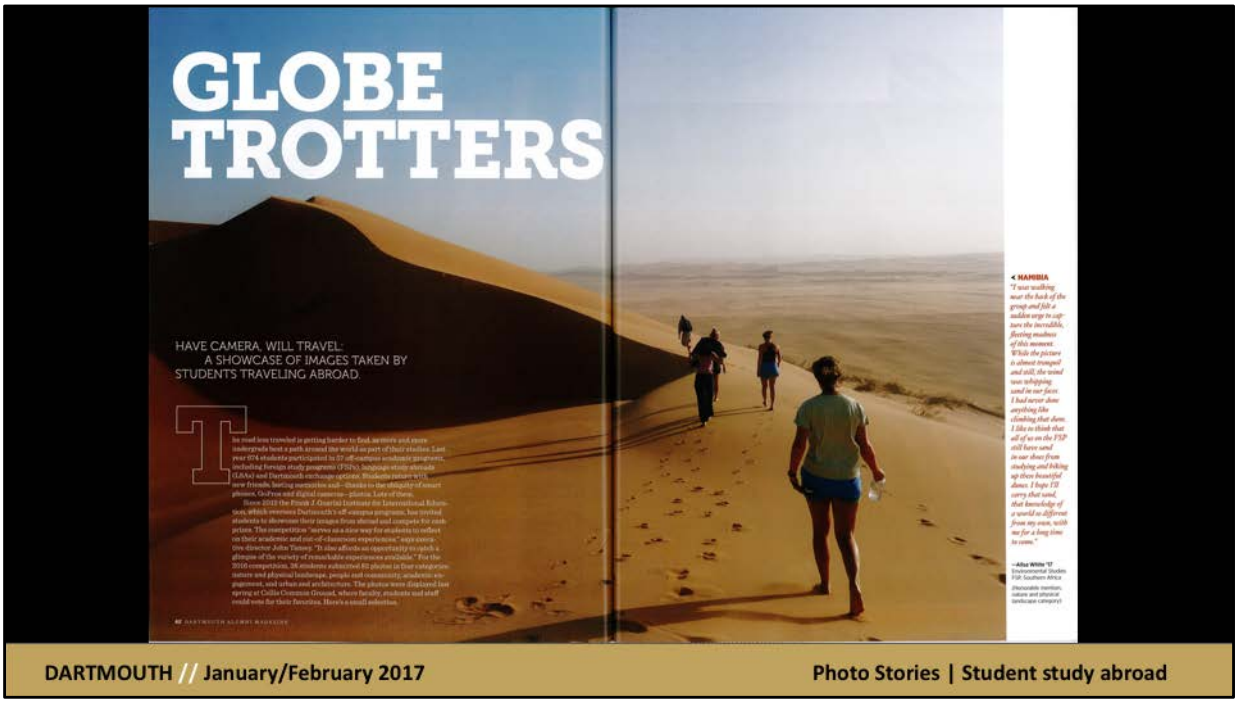


These are all student Study Abroad photos. Incredible!

Gorgeous and provocative. Totally free.



UNIVERSITY OF RICHMOND // Autumn 2015 **Photo Stories | Student study abroad**



More free pics from students studying abroad

SPAIN

"While on the FSP I traveled to Spain for the first time. Walking into Barcelona's Sagrada Familia was truly awe-inspiring. The best part was the bright light beaming through the windows, illuminating the cathedral's interior columns and stonework. I tried to capture this burst of light in my photo to convey the kind of ethereal beauty I felt gazing up at the vaulted ceilings. My breath was literally taken away. I had never cried from architecture before!"

(First place, urban and architecture category)

CHINA

"While I was walking around Beijing Normal University, this building caught my eye because the modern style stood out from the drab concrete buildings on campus. What interested me the most was that despite the modernity, the residents nonetheless followed traditional Chinese customs and left their laundry out to dry instead of using a drying machine."

—Jennifer Zhao '18
Asian and Middle Eastern Languages and Literatures (Chinese) LSA

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DARTMOUTH // January/February 2017 | **Photo Stories | Student study abroad**

SCOTLAND

"In the fall I took a course called 'Philosophy of Time.' I learned that despite our best attempts to understand time, we are forever bound by it. This church [Holyrood Abbey] is a testament to the fact that while nothing escapes time, we can nonetheless learn from it."

—Joshua Tsong-Taatarii '17
Philosophy 712

POLAND

"Our class had Polish language lessons during our two-week trip to Warsaw. Most of the group took the subway to the classes, but a couple of us decided to walk one foggy morning. To get there we had to walk through a small park, which the fog had transformed into an eerie scene like something straight out of a horror film. The picture sums up how our group found excitement and humor in every small detail of the beautiful country."

—Sonia Kobiner '18
"Economics 70"
Amsterdam Experience

COSTA RICA

"This strangler fig stretched 100 meters up and was likely hundreds of years old. Symbolic of the fast turnover of organic resources in rainforests, strangler figs start as saplings in the canopy and slowly grow their roots around host trees, crushing and depriving them of light. The awe-inspiring power of these trees causes us to ponder our significance in the global biosphere."

—Perri Visser '17
Biology FSP

NEW ZEALAND

"We were amazed by how well the history of this beautiful area near the Taranaki volcano connected to the topic of our FSP: colonialism. The volcano holds great spiritual significance in Māori culture and has recently been renamed Taranaki, after decades of being referred to by its colonial name, Mount Egmont."

—Kristen Chalmers '17
Anthropology and Linguistics FSP

DARTMOUTH ALUMNI MAGAZINE

JANUARY/FEBRUARY 2017

DARTMOUTH // January/February 2017 Photo Stories | Student study abroad

COLLAGE
IS NOT A FOUR LETTER WORD

Embrace the craft-made revolution. This retro intentionally bad collage look is back in. This is just a lot of time with photoshop.

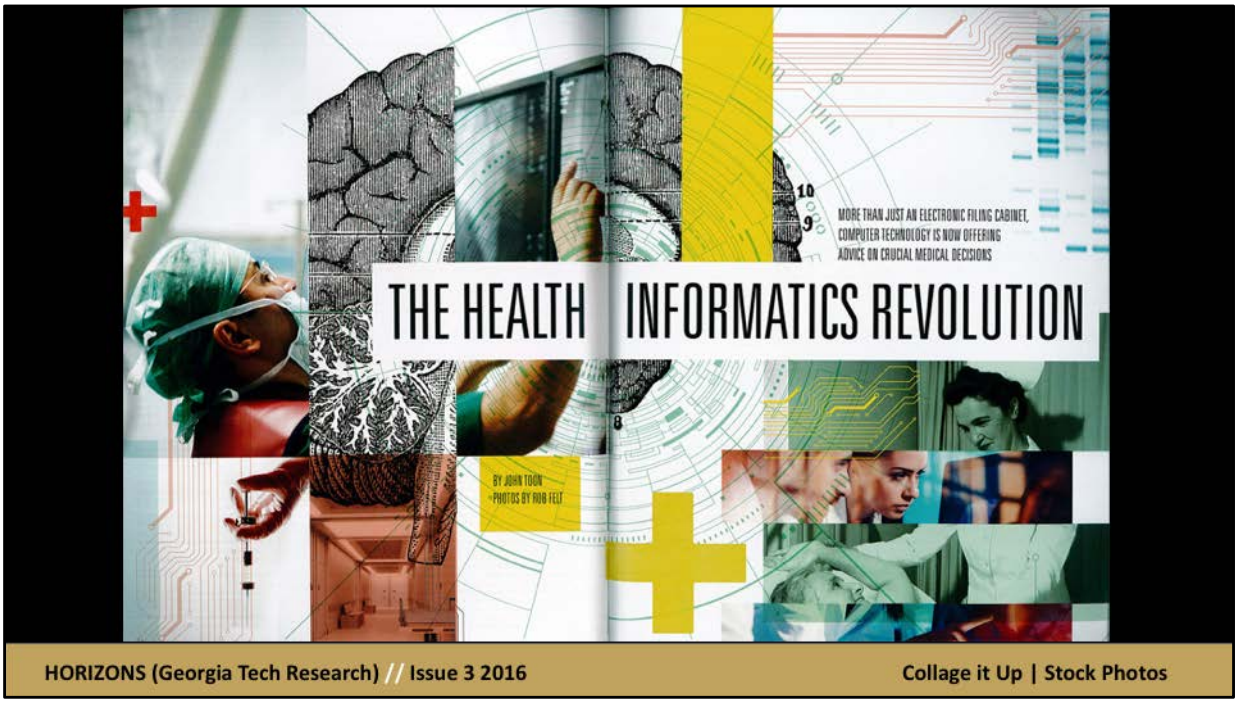
RITES of SPRING

MARCH COMES IN LIKE A LION.

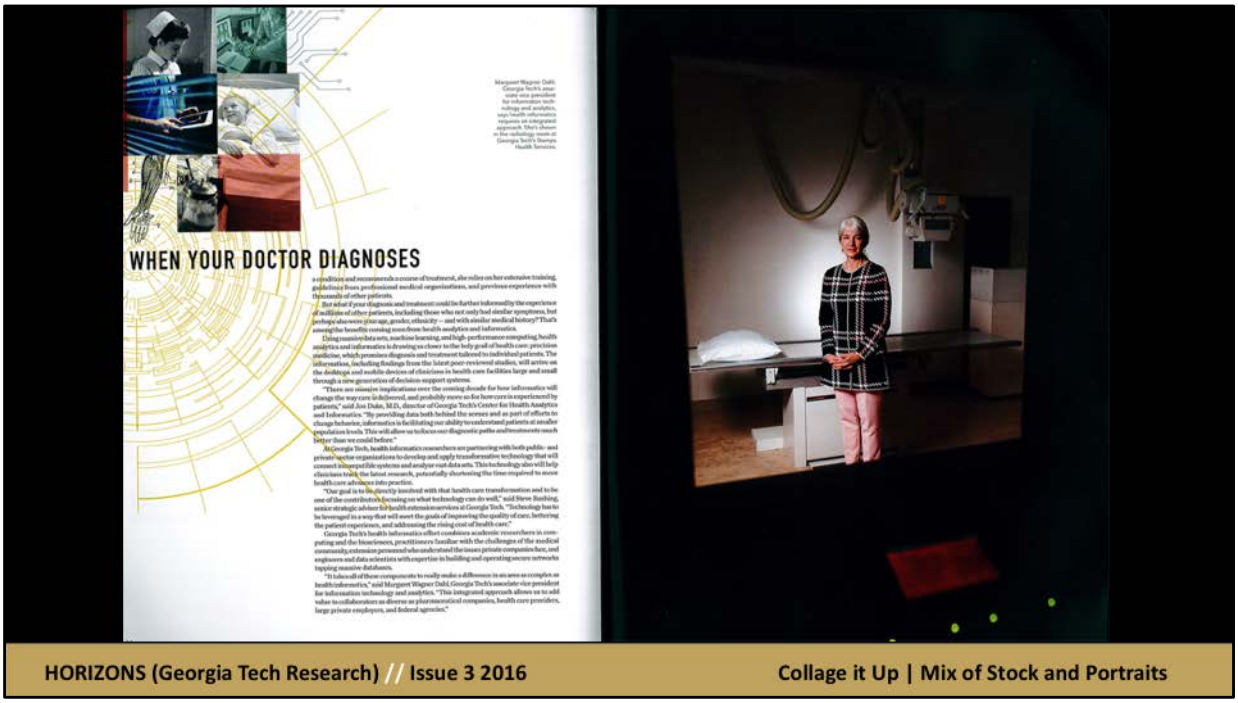
But by April and May, spring has sprung and students are able to treasure some warm-weather fun. From music festivals to Blue-White weekend, here are a few of Penn State's biggest spring traditions, both then and now.

BY AMY STRAUSS DOWNEY '04 Lib ILLUSTRATION BY JAMES TAYLOR

PENN STATER // March/April 2015 **Collage it Up | Pulled from the Archives**



Many elements available on stock websites for cheap. Great way to illustrate conceptually challenging topics.



Collage carries through to next spread, with the expected faculty photos following.

Love Letters

Tributes to relationships born at IU

Remember falling in love?

The scent of Indiana spring in the air. The taste of Jiffy Treat sugar cone study breaks. The current of energy between palms, squeezing hands one last time before splitting for class. Taking a chance on a hunch and a flutter. What a rush.

Love is part of the college experience. The place and time—a coming of age, hopeful and youthful—lend themselves to passion.

Often, students leave IU in pairs. For those couples, IU is even more special. It's the wellspring of a lifetime relationship. Over time, the shared experience, the common bond of college, gives way to something more enduring than passion—commitment.

Dozens of readers sent us tributes to relationships born at IU. Here, we share five stories that bear testament to the life-changing, inspiring, unbridled affection IU alumni feel for one another and their university.

See snippets of other stories along the bottom of pages 26 to 31. And find the complete version of all the readers' love stories online at ***alumni.indiana.edu/magazine/love.***

Stories written by CJ Lotz, BAJ'11; illustrations by Larry Buchanan, BAJ'11; photos from IU Archives.

MATHILDA and OTTO KLOPSCH

THE TALE *of the* SUNDIAL

MATHILDA ZWICKER AND OTTO PAUL KLOPSCH FOUND EACH OTHER AROUND THE SUNDIAL, AND THE MEMORY OF THEIR LOVE LIVES THERE FOREVER.

Just inside the Sample Gates, a sundial keeps time in a paved roundabout. The face is weathered, years of snow and rain and wind wearing away its shine. Beneath its marble pedestal, among the shadows of the old campus, a bronze plaque reads:

Mathilda Zwicker Klopsch
Otto Paul Klopsch
Class of 1906
They met at this sundial
when classmates.
Their ashes rest here
together until eternity.

Mathilda Zwicker and Otto Paul Klopsch met at the sundial as seniors in 1905. The sundial was a gift to IU from the graduating class of 1905, whose students donated 50 cents apiece for its purchase.

The year that Mathilda and Otto's love story began, IU was in its 70th year. The library just began staying open until 9 p.m. Lovers didn't kiss at the Rose Well

He cherished his parents' stories about the Bloomington campus and wanted to scatter their ashes where the couple met and fell in love.

House or exchange vows at Beck Chapel—neither had been built. It was a different time in IU's history, to say the least.

The college sweethearts married that year. They shared a life for 37 years and were cherished by their friends and three children, Olga, Elsa, and Otto Jr. In 1933, Mathilda passed away. Otto followed two years later.

In July of 1953, their son, Otto Klopsch Jr., met with IU President William Lowe Bryan to discuss something very important to him. Klopsch cherished his parents' stories about the Bloomington campus and wanted to scatter their ashes where the couple met and fell in love—the sundial.

Bryan honored the request. Otto Jr. laid his parents to rest and commemorated their love with the plaque. The urn Otto Jr. used to transport his parents' ashes now belongs to the IU Archives.

Today, students hustle past the lonely sundial en route to classes, meetings, meals, and dates. Nearby stands the iconic Rose Well House, with a romantic history well known and remembered by lovers who kiss there at midnight. The lesser-known sundial's story is timeless, too—reminiscent of so many settlers of lifelong friendship and care born at Indiana University.

—written by CJ Lotz, based on research by IU archivist Dina Kellams, BA'06, MLS'09.

INDIANA UNIVERSITY ALUMNI MAGAZINE

ALUMNI|INDIANA EDU|MAGAZINE 25

INDIANA UNIVERSITY MAGAZINE // Spring 2013 **Collage it Up | Mix of Stock and Archive**

Such sweet little illustrations. Images compiled from stock and archive cost you nearly nothing.

TERRY and MARK FISH

A DRIVE FROM THE PARK

A SINGLE MOTHER FALLS FOR A MAN AND HIS COLLEGE TOWN — THEN MAKES BOTH HER OWN.

He was washing dishes in the back of Nobie Roman's Pizza. Standing tall over the sink with dark messy hair covering his forehead, he turned to me with a huge smile. He reached out his hand and told me his name. "Hi, I'm Mark Fish."

Shoot. My new manager was cute. My new manager was two years younger than me, and he was cute. My new manager Mark Fish, BS'92, had just graduated from the business school at Indiana University, and he was cute. I was a single mother of two, scraping by in Greenwood, Ind. And the manager of the pizza joint where I waited tables was cute. I hadn't planned for this.

I knew it was crossing a line to go on a date with this new manager, so after hanging out a few times with mutual friends, I thought of a clever way to see Mark alone. I told him some friends and I were picnicking in Brown County State Park. When he showed up, it was just me.

Over sandwiches, we traded stories. It was a cold spring afternoon, and he asked me if I wanted to go on a drive and see where he went to college. I had heard of IU, but I'd never been to a university. No one in my family had ever been to college.

We drove west on Hwy. 46 and cruised into Bloomington. I didn't know where we were or where we were going. I just knew I was with someone I wanted to be with. I kept looking for the college. It would be a big building, right?

He pointed out Willkie Quad. "Is that the college?" I said.

He laughed, and I admitted I was waiting to see that one big building. He told me he'd show me how a college is a whole campus of buildings and people. And he did. He showed me that college is a statuesque library lined with books, and it's bicycles and professors and students running to class in what seems like hundreds of buildings. It's Dunn Meadow and the business school and fraternity row and old buildings and new construction and brick paths.

We walked all the way to the Little 500 track. The brisk wind blew against our jackets as Mark leaned against the railing. I watched him standing there. I can still see him leaning like that. That moment is like a song whose words come to me when I'm thinking about nothing.

He's standing there and it's cold and he's telling me about the race—cyclists leaning into turns and sprinting down the straights. He describes bleachers full of people organized by colored T-shirts, a chorus of chants and screams. I wanted to see it myself.

I wanted to be a college student, to be part of this place. And I didn't know why I felt it so strongly, but right then, I wanted Mark. I wanted Mark to be the next verse in my life. Mark and I started dating. In 1995, we were married.

We couldn't leave the children by themselves for too long, so our honeymoon was a weekend in Bloomington at the Ramada Inn. Walking across campus, sitting in the booths at Mick's English Hut and eating cheap during happy hour at Irosnick Sweeney's restaurant, I could see myself coming back to study. My new husband supported my dream.

After our honeymoon, Mark helped me put together my résumé, write my essays, and send off my application. We had moved to Brownstown, Ind., and I commuted up to Columbus to take my general education classes at IUPUC. After two years, I transferred to Bloomington. I was one of just a handful of non-traditional students at the time. It didn't bother me that I was almost a decade older than the undergrads sitting around me. I was just excited to be an IU student.

I experienced as much as I could of campus life before driving home to a part-time job and my family each day. I hoofed at the Business mounds in Woodburn Hall. I ate lunch in the Union and then napped among the morning undergrads on couches. I walked through Dunn Meadow and studied in the Wells Library. I bought married-student basketball tickets, and Mark and I watched the team in Bobby Knight's heyday. I made IU my home.

I graduated from the School of Business in 1001 and took an internship that led to a job in public accounting. Not only did IU prepare me to work and help support my new husband and our two children, it made me financially stable for the challenge ahead.

Not only did IU prepare me to work and help support my new husband and our two children, it made me financially stable for the challenge ahead.

Just three years after I graduated, Mark had a disabling stroke. He was only 33 years old. At the time, he was CFO of a large privately held company. But after his stroke, the financial responsibility fell to me.

I have been his caregiver and he has been my loving husband for more than 17 years.

We make time every year to visit the Bloomington campus, where I fell in love with a supportive man and a welcoming university. Those rolling hills aren't the easiest for pushing around Mark's wheelchair, but we still visit our favorite spots — Sample Gates, Dunn Meadow, and the Auditorium to see shows.

Mark and I have four beautiful grandchildren. Recently, we took our 11-year-old grandson on a visit to Bloomington. His grandparents' love story only began in a pizza parlor. IU is our real story.

Someday, when he's older, I'll tell him all about it.

— Terry Ann Fish, BS'91, as told to CJ Lotz

Find the complete version of these readers' IU love stories online at alumni.indiana.edu/magazine/love.

We came to the exact place where we had first met. I knelt got down on one knee and asked me to marry him!
ERIN BRUNER FAHEY, BS'10

Just walking around the beautiful campus makes me feel at peace and at home.
KAY CAMPBELL ENDERLE, BSW'84

I can sparsely imagine a better place for a young gay couple to grow together.
BRYCE WINNINGER, BS'09

I knew attending Indiana University was a great decision, but after meeting Caitlin, it became the best decision of my life!
ANDREW DANLEN, BA'15

Who would have thought that my daughter would get married at the same location where we went on our first date over 20 years ago?
JOHN BILD, BS'84

IU loved us — We loved IU — We loved each other. Thank you IU.
MARY L. "JACQUIE" PANTALEO REED, MA'72

They made music together and married in 2058 while Emi was stationed in Germany.
MARILYN BERENHAM FISHER, BME'54, MS'62

INDIANA UNIVERSITY MAGAZINE // Spring 2013 **Collage it Up | Mix of Stock and Archive**

KEVIN NEWKIRK and MARGUERITE HUBER

LITTLE 5 SWEETHEARTS

KEVIN AND MARGUERITE SUPPORTED EACH OTHER THROUGH THE BUSY WEEKS, SORE MUSCLES, AND NEAR-CRASHES TO TRAIN FOR IU'S MOST FAMOUS SPORTING EVENT.

Marguerite says the first time we met was our senior year, but I know it was two years earlier.

Our Greek houses were paired for Little 5 events, and I remember seeing the athletic Marguerite, BSPATL, with her long brown hair and cycling gear in her house's parking lot when I was returning equipment.

It wasn't until our senior year at IU Bloomington that Marguerite remembers meeting me.

Our roommates were dating, and a few of our friends got together for a party. Marguerite and I clicked.

There were funny coincidences—we both love Nutella, and we're from the Chicago suburbs. But more important IU bonds really stitched us together. We were both in a Greek house, we had mutual friends, and we were both putting in long hours training to ride in our final Little 5.

We saw *Lion King* 3-D for our first date. Believe it or not, I got lost driving on the way to the movie theater. She was cute in her 3-D glasses. And I made up for my navigation faux pas with Cyclones from Jiffy Treet. We shared all the classics our senior year—we ate heart-shaped Mother Bear's pizza on Valentine's Day and used my season basketball tickets to see our boys go all the way to the Sweet Sixteen.

Not only did we always have something to talk about, we understood each other's busy training weeks and relaxed together on our off-days. It helped that we both lived on Grant Street that year, only a few blocks apart.

When Little 5 weekend came, we were there to support each other. Even in the freezing rain, Marg was nervous to have me stand near her pit, so I yelled and cheered from the cold metal bleachers. I saw her catch up with the pack and help Alpha Gamma Delta pinch seventh. Every time there was a wreck on the track during the men's race, Marg told me her heart jumped. I never went down, and our team, Theta Chi, had its strongest finish at fifth place.

We both graduated and have managed to stay in Bloomington a bit longer. I took a job at Baxter Pharmaceuticals, and she's finishing up a master of public affairs program at SPEA. Even though our next phase of life is creeping up on us, I'm thankful for how we've loved each other here. I can't imagine my time in Bloomington without Marguerite.

—*Kevin Newkirk, BS'12, as told to CJ Lotz*

My roommate (Robert Miller, BS'78) announced, "There's a cute girl, let's go sit next to her."
ALAN CAUDILL, BS'83

IU played a role in our love story, even though it began thousands of miles from Bloomington.
MARILYN VUKOBRATIC NOVOSEL, BA'78

In 1975, we decided to elope and traveled to Bloomington to be married in Beck Chapel.
PETE VUKOV, BS'71, MSEd'76

Forty-five plus years, and we still are in love and still love IU.
MARY E. LYNCH DAVIS, BA'70

JANICE and VICTOR MALINOVSKY

BOOKS, BRAINS, *and* BRAWN

On a Saturday night in the spring of 1969, my Alpha Chi Omega sorority sisters were dancing to The Temptations and Peter, Paul, and Mary under strobe lights at a Phi Delta Theta party. This was the time of Vietnam War protests in Dunn Meadow, bell-bottom slacks, and Bob Dylan. Our hair was teased high, and we were wearing miniskirts and flowing flowered tops. We passed beers from the keg in the corner.

It was 11 p.m., so I wasn't expecting to see a clean-cut, tall, athletic guy with an armload of books walk through the door of this wild-under way party.

I was a serious student myself, but my initial thought about Victor Malinovsky, BS'71, OD'73, was, "What a nerd!"

I couldn't imagine someone studying so late on a Saturday night. Even though I was a math education major, hitting the books late into the weekends was not in my lesson plan.

I couldn't help but be curious. When our eyes met, he walked across the room, books in hand to introduce himself. I learned that he had been studying in the library and then enjoyed a late-night burger at the Gables with his football teammate. He was on a football scholarship to study optometry. I was impressed. He felt the same way and told me later he was attracted to my big brown eyes and sexy dancing, but fell hard when he found out I was a dean's list mathematics major!

Vic gave me a call the next day on our house's wall-mounted, coiled-cord phone and asked me on a double date with our roommates. We spent the rest of that spring semester together, getting to know one another as the dogwoods and daffodils flowered in Bloomington. We dated over the next fall.

I usually sat in the wooden bleachers with my sorority sisters during all his football games, but I was sitting with my father during Dad's Weekend when we heard a loud thud. Vic got blocked and totally blew out his knee. With his cream and crimson number 37 letter jacket wrapped around me, I wanted to run onto the field to take care of him. Just a few months later, he would ask for my father's blessing and propose to me.

That August, between our junior and senior years at IU, I said "I do" to a lifetime of memories with that athletic, nerdy boy. I couldn't have created a better lesson plan for our fate.

—*Janice (Bramlett) Malinovsky, BS'71, MS'92, as told to CJ Lotz*

JANICE COULDN'T IMAGINE WHY SOMEONE WOULD STUDY ON A SATURDAY NIGHT. AND THEN SHE MET THE HANDSOME, STUDIOUS ATHLETE VIC.

Who gets set up by their mother?
NANCY FLECKINGER BALL, BA'96

All that gas could have been shattering. I was horrified.
BOB GAINES, BA'09

Our years at IU were amazing, and it was a magical time to be at IUB.
SONIA NIVIA LAMOUNE, BS'08

We fell in love twice that year (2005), with each other and with Bloomington.
GEOFFREY CRIPE, BS'04

INDIANA UNIVERSITY MAGAZINE // Spring 2013 **Collage it Up | Mix of Stock and Archive**

JENNIFER and JAMIE MARKUS

WEDDING ROYALE

WHAT STARTS IN BLOOMINGTON CONTINUES IN VEGAS

Jamie and I nearly missed each other's lives by the space of a thin envelope. He originally wanted to go to Illinois for graduate school and was dismayed when he never heard back about his application. After enrolling at IU, he found his Illinois application under the front seat of his car, hidden from sight. Had that application been mailed on time, he might have never attended IU.

I'm so glad that envelope slipped under his floor mat. Had he mailed it, we never would have hatched our plan. We were two graduate students in my cinderblock apartment in Evermann in Bloomington. And we were ready. Together, we'd fly to Las Vegas. To elope.

Jamie Markus, MLS'05, and I had been dating for three months when we hooked a flight one afternoon, flew from Indianapolis to Vegas, and got married.

I knew I could marry this man I'd only known for a year.

In 2003, we were both graduate students in the School of Library and Information Science, and I was in charge of the Apartment Housing Library in Bloomington's Campus View neighborhood. He started as my assistant and was soon promoted to librarian at Foster Library.

One early fall afternoon, I needed to unpack stacks and stacks of books after the library was remodeled. I was looking up at the boxes towering above my head, wondering where to start. Jamie knocked on the door just then. "Need a hand?" he asked. I smiled and motioned to the cardboard mountain.

After a few hours of sifting through boxes, we were hungry. Steak 'n Shake's chicken noodle soup wasn't the reason we sat in a red vinyl booth for hours that day. It was so easy to talk to him.

We started dating soon after that.

I was surprised by how quickly our lives came together — but then, Jamie was always surprising me. I remember when he asked for time off from his library job so he could go see the Dalai Lama speak. I respected his curiosity and kindness. I still do.

After we eloped, we moved in to a small married-housing apartment in Hepburn. As newlyweds, we had two classes together and studied at home. That first year of marriage might have resembled others' IU dating memories — we walked to get ice cream at Cold Stone Creamery on Kirkwood, practiced speeches together, and took mad trips to Indianapolis. We swapped pictures with arms draped around the Herman B Wells statue. When I was sick, he wrote down my assignments and brought me soup. And we went go back to Steak 'n Shake from time to time.

Now we live in Wyoming with our 5-year-old daughter.

—*Jennifer Markus, BS'08, MLS'05, as told to CJ Lotz.*

Had he mailed that envelope, we never would have hatched our plan.

All I can say is "Thank you, Julie, for picking my tie!"
RICHARD T. DAWSON, BS'67, JD'70

Although the wedding took place as planned, the reception was delayed until the outcome of the game was certain.
CHERYL RIDDLE ENGLER, BA'67, PHD'92

As we danced I found 20 dollars on the dance floor and knew this would last a good long time.
BRAD TASSELL, BA'87

This summer will be our 40th anniversary!
FRANK D.A. REUMICK, MJ'73

After our midnight kiss (at the Wild House), he got down on one knee and asked me to be his wife.
LAURA REGLE, BA'07

We would walk across the street about 15 minutes before kick-off to watch the football games.
CAROL LATSHAW PEACOCK, BS'69

It lasted 65 years and 11 months. Our kids called it a miracle. She died in 2009.
MAGE BRODIE, BA'67

Our wedding reception came full circle with the playing of the IU fight song.
MANDY JOHNSON LAUSCHE, BA'07

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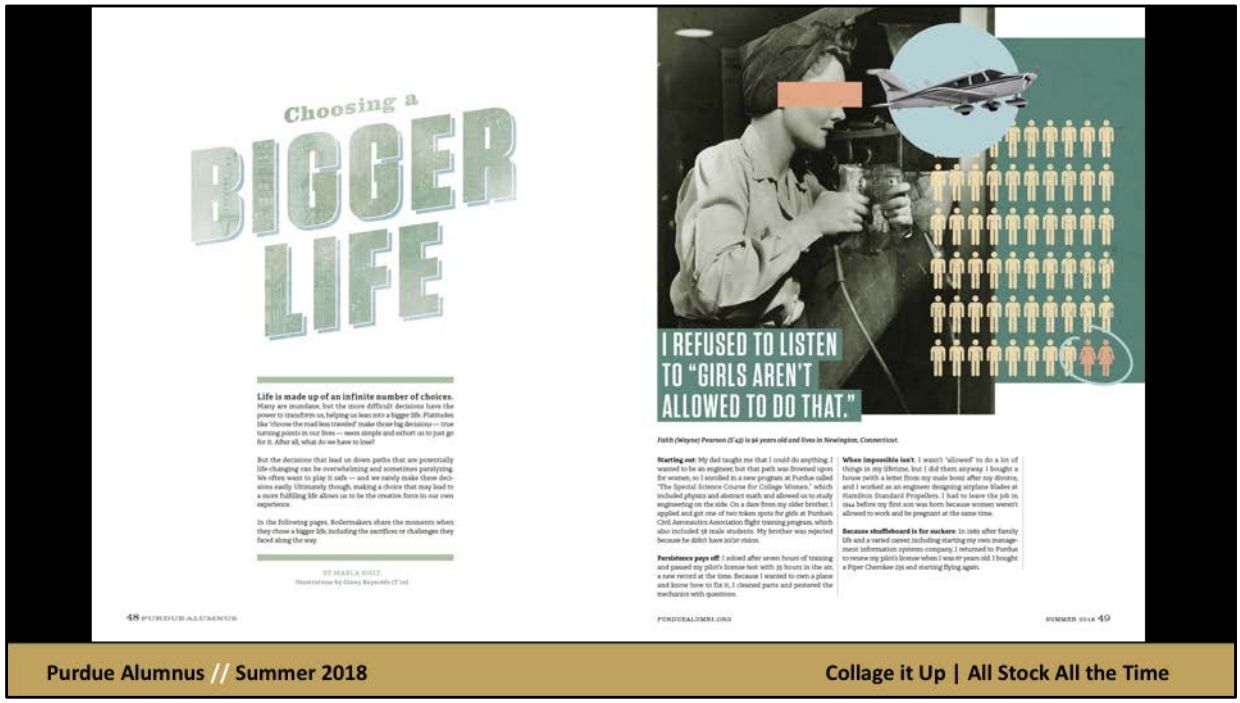
ALUMNI.INDIANA.EDU/MAGAZINE 31

INDIANA UNIVERSITY MAGAZINE // Spring 2013 **Collage it Up | Mix of Stock and Archive**



Purdue Alumnus // Summer 2018 **Collage it Up | All Stock All the Time**

And here's our version of collage a la' stock art.

I MOVED ACROSS THE COUNTRY TO EARN AN MBA.

Randall Herrel (AAE'73) is president and CEO of the Catalina Island Co. in southern California.

When your best isn't enough: My first job after college was as an aeronautical engineer at McDonnell Douglas. We designed a DC-10 that was highly fuel efficient and frankly better than our competitor's, but Eastern Airlines bought their plane instead of ours. I didn't understand — why buy an inferior product? My supervisor told me that our competitor gave Eastern a favorable lease agreement even though we had a better-performing plane.

Tunnel vision: I realized my view of how the world works was too narrow. I'd never considered all aspects of a business: finance and marketing. My vision at that point had been about engineering the best airplane.

California, here we come: That eye-opening DC-10/Eastern Airlines moment awakened a desire to broaden my understanding of the big picture. I was accepted to Stanford University's MBA program, so my wife and I piled everything into our car and moved to Palo Alto, California, leaving behind everyone and everything we knew. It was with mixed emotions — excitement and fear — that we headed west.

A new way to think: The combination of engineering and business degrees trained me to think outside of the box. Looking at the total picture of a company — from design to operations — has become second nature. As a CEO, being responsible for improving an entire company's performance has been fulfilling and rewarding. In choosing a bigger life, my best chance for success was earning engineering and MBA degrees.

50 PURDUE ALUMNUS

I CROSSED RACIAL BARRIERS.

James Ireland Cash (MS E'64, PhD M'70) is a professor emeritus and former senior associate dean of the Harvard University Graduate School of Business.

Breaking the color line: I grew up in a segregated community in Fort Worth, Texas. In 1961, I became the first black player to accept a basketball scholarship in the NCAA's Southwest Conference at Texas Christian University. I was ready to handle the challenges and contribute to the major social revolution of the time — the civil rights movement. I knew the position came with responsibility and the need for thick skin. Occasionally, I needed police escorts to enter and exit arenas. Referees called cheap fouls on me to get me out of the game. I never let racial slurs and discrimination penetrate my psyche — it wasn't in my makeup to let that affect me.

Life beyond basketball: I had developed a valuable but narrow and shallow perspective growing up in a segregated environment. TCU taught me about other people and places, including religious, ethnic, and racial groups that I previously didn't know existed. My college education led to a job at historically black Langston University, then to higher degrees at Purdue, then to becoming the first black tenured professor at Harvard Business School.

Belief system: Romans 5:1-5 conveys that we should rejoice in our tribulations, as every path has a purpose that, though we may not understand it in the moment, will be revealed later. "You cannot discover new lands unless you have the courage to lose sight of the shore" is a quote that I'm committed to by self-imposing term limits on how long I'll live and work in a single place.

PURDUEALUMNI.ORG

SUMMER 2018 51

Purdue Alumnus // Summer 2018 **Collage it Up | All Stock All the Time**

I SAW OPPORTUNITY BEYOND MY HOMETOWN.

Melody Birmingham-Byrd (’94) is president of Duke Energy’s Indiana operations, the state’s largest electric utility.

Home is where the heart is. I grew up in Chicago, the youngest of seven children in a Christian and supportive home. I knew that I could be content in that world, but I also knew there was life beyond Chicago, and I wanted to pursue that life. I grew up in a family that had a strong work ethic, and I anticipated that Purdue would be challenging, so I buckled down on academics and the jobs that helped me pay my way through college. My mother was a great example and I wanted to make her proud. I planned on a career in accounting or law.

Called to lead. I soon discovered that my passion was in leadership. My first experience was as freshman board president in my dorm and then later at the manager of a temporary employment agency — all while I was attending Purdue full time. I began appreciating the importance of effective leadership after growing up hearing my mother discuss the shortcomings of management in her manufacturing workplace. Her experience led to me to pursue a degree in organizational leadership and supervision, which provided me tools to become a more effective leader.

Leading by example. Since leaving home for college, my career has required me to move away from family and friends numerous times to pursue my professional goals. Leadership has come with other challenges and responsibility. As a young African American female who has had roles of increasing responsibility, I’ve held myself to a higher standard in hopes that my track record could help build a bridge for others to cross.

I LEFT A GREAT JOB TO START A NEW BUSINESS.

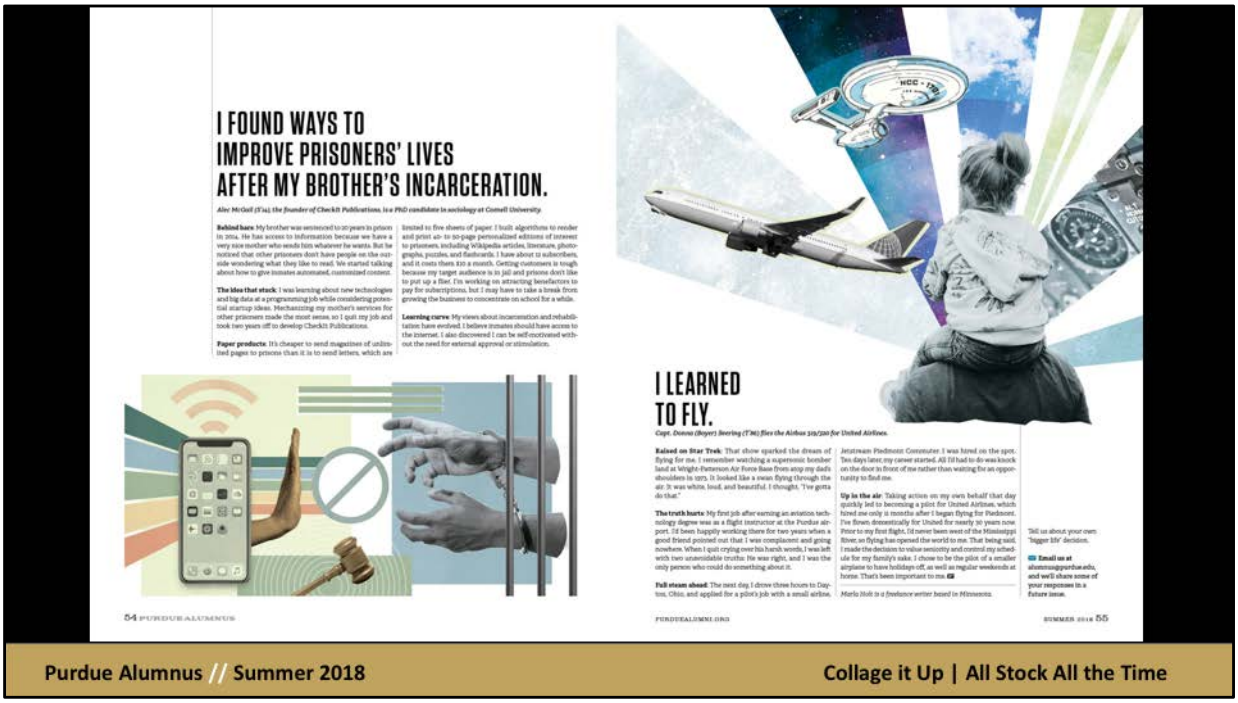
Stephen Can (MS M’84) is a Blackstone senior managing director and cohead of Strategic Partners Fund Solutions.

When life is good. I worked at IBM for 16 years. Near the end of my time there, I was comanaging — with a great partner and mentor — a $5 billion private equity portfolio for the company. I loved the job. As I was selecting private equity funds for IBM to invest in, I was learning from people pitching really smart ideas for great returns at low risk. I walked to work from our home in Stamford, Connecticut. I coached soccer. There were golf courses nearby. We had great friends.

Opportunity knocks. When the Wall Street firm of Donaldson, Lufkin, and Jenrette approached me about starting a specialty private markets business in secondary transactions, saying yes was risky. My wife, Pam, said you don’t want to later wonder, “What if?” so we put every dime we had and more into this startup. I commuted to New York. I worked at high stress most of the time, so happened about a year later, and then the dot-com bubble burst.

The payoff. It’s turned out much better than I ever imagined. Today we’re a Blackstone-affiliated business with 1,100 completed transactions. We’ve raised $31 billion in capital. But more importantly, we’ve built a team of people who are really smart and team oriented. I can focus on giving back by funding scholarships for students at the community college I attended.

Purdue Alumnus // Summer 2018 **Collage it Up | All Stock All the Time**



I FOUND WAYS TO IMPROVE PRISONERS' LIVES AFTER MY BROTHER'S INCARCERATION.

Alec McGail (T'12), the founder of CheckIt Publications, is a PhD candidate in sociology at Cornell University.

Behind bars. My brother was sentenced to 20 years in prison in 2014. He has access to information because we have a very nice mother who sends him whatever he wants. But he noticed that other prisoners don't have people on the outside wondering what they like to read. We started talking about how to give inmates automated, customized content.

The idea that stuck. I was learning about new technologies and big data at a programming job while considering potential startup ideas. Mechanizing my mother's services for other prisoners made the most sense, so I quit my job and took two years off to develop CheckIt Publications.

Paper products. It's cheaper to send magazines of unlimited pages to prisons than it is to send letters, which are limited to five sheets of paper. I built algorithms to render and print 40- to 50-page personalized editions of interest to prisoners, including Wikipedia articles, literature, photographs, puzzles, and flashcards. I have about 12 subscribers, and it costs them $20 a month. Getting customers is tough because my target audience is in jail and prisons don't like to put up a fiber. I'm working on attracting benefactors to pay for subscriptions, but I may have to take a break from growing the business to concentrate on school for a while.

Learning curve. My views about incarceration and rehabilitation have evolved. I believe inmates should have access to the internet. I also discovered I can be self-motivated without the need for external approval or stimulation.

54 PURDUE ALUMNUS

I LEARNED TO FLY.

Capt. Donna (Boyer) Soering (T'96) flies the Airbus 319/320 for United Airlines.

Raised on Star Trek. That show sparked the dream of flying for me. I remember watching a supersonic bomber land at Wright-Patterson Air Force Base from atop my dad's shoulders in 1973. It looked like a swan flying through the air. It was white, loud, and beautiful. I thought, "I've gotta do that."

The truth hurts. My first job after earning an aviation technology degree was as a flight instructor at the Purdue airport. I'd been happily working there for two years when a good friend pointed out that I was complacent and going nowhere. When I quit crying over his harsh words, I was left with two unavoidable truths: He was right, and I was the only person who could do something about it.

Full steam ahead. The next day, I drew three hours to Dayton, Ohio, and applied for a pilot's job with a small airline, Jetstream Piedmont Commuter. I was hired on the spot. Ten days later, my career started. All I'd had to do was knock on the door in front of me rather than waiting for an opportunity to find me.

Up in the air. Taking action on my own behalf that day quickly led to becoming a pilot for United Airlines, which hired me only 11 months after I began flying for Piedmont. I've flown domestically for United for nearly 20 years now. Prior to my first flight, I'd never been west of the Mississippi River, so flying has opened the world to me. That being said, I made the decision to value seniority and control my schedule for my family's sake. I chose to be the pilot of a smaller airplane to have holidays off, as well as regular weekends at home. That's been important to me.

Marlo Holt is a freelance writer based in Minnesota.

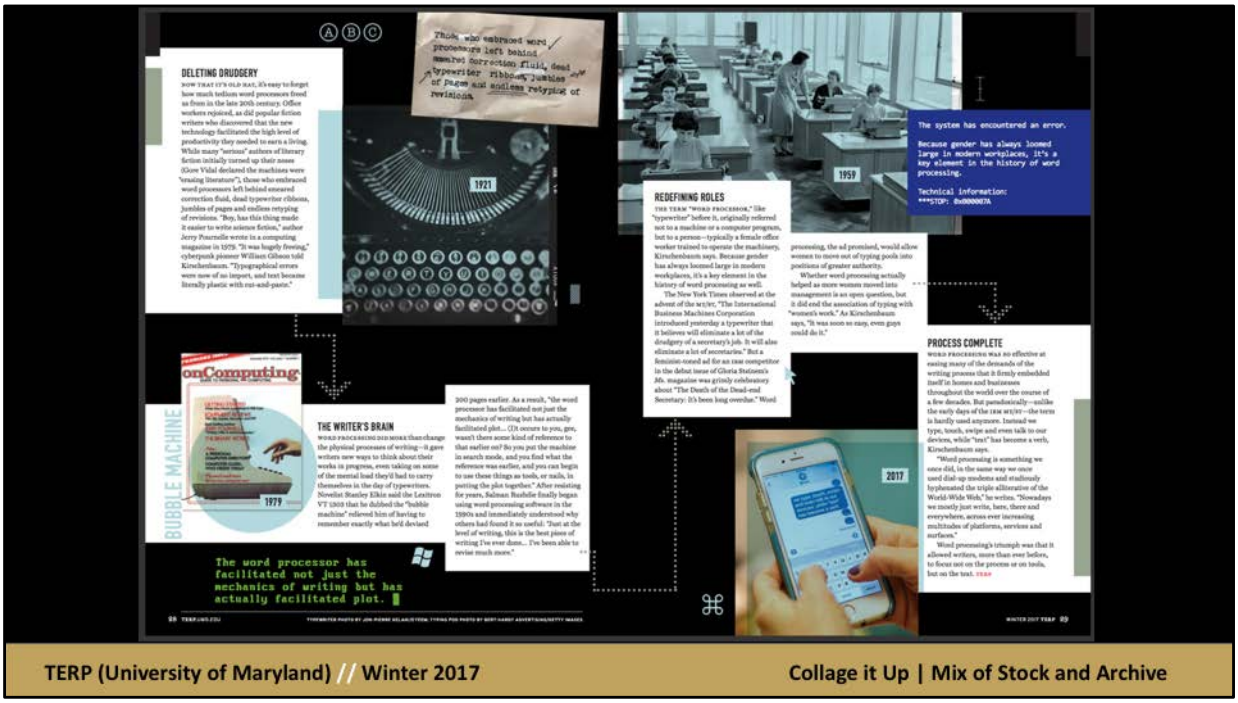
Tell us about your own "bigger life" decision.

Email us at alumnus@purdue.edu, and we'll share some of your responses in a future issue.

PURDUEALUMNI.ORG SUMMER 2018 55

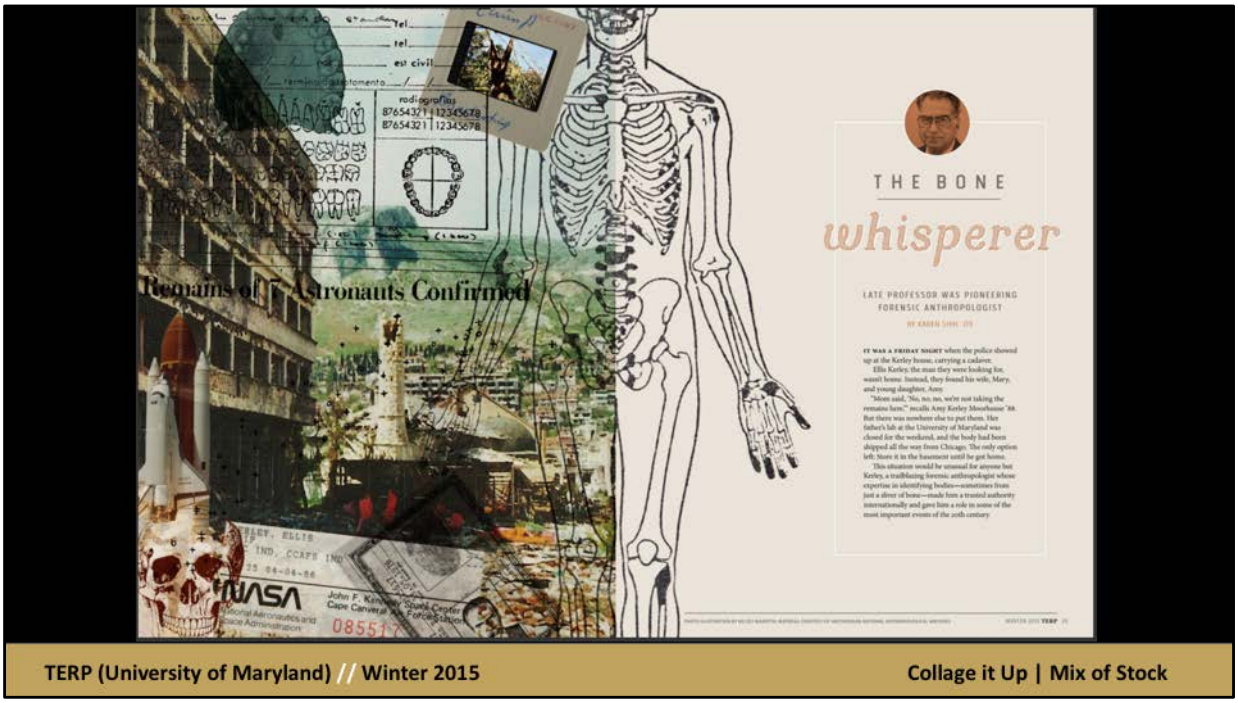
Purdue Alumnus // Summer 2018 **Collage it Up | All Stock All the Time**

Pre-redesign, Maryland definitely had a bolder style than many alumni mags, but they do an incredible job mixing together content, archival, and provided imagery to make interesting collage based layouts.



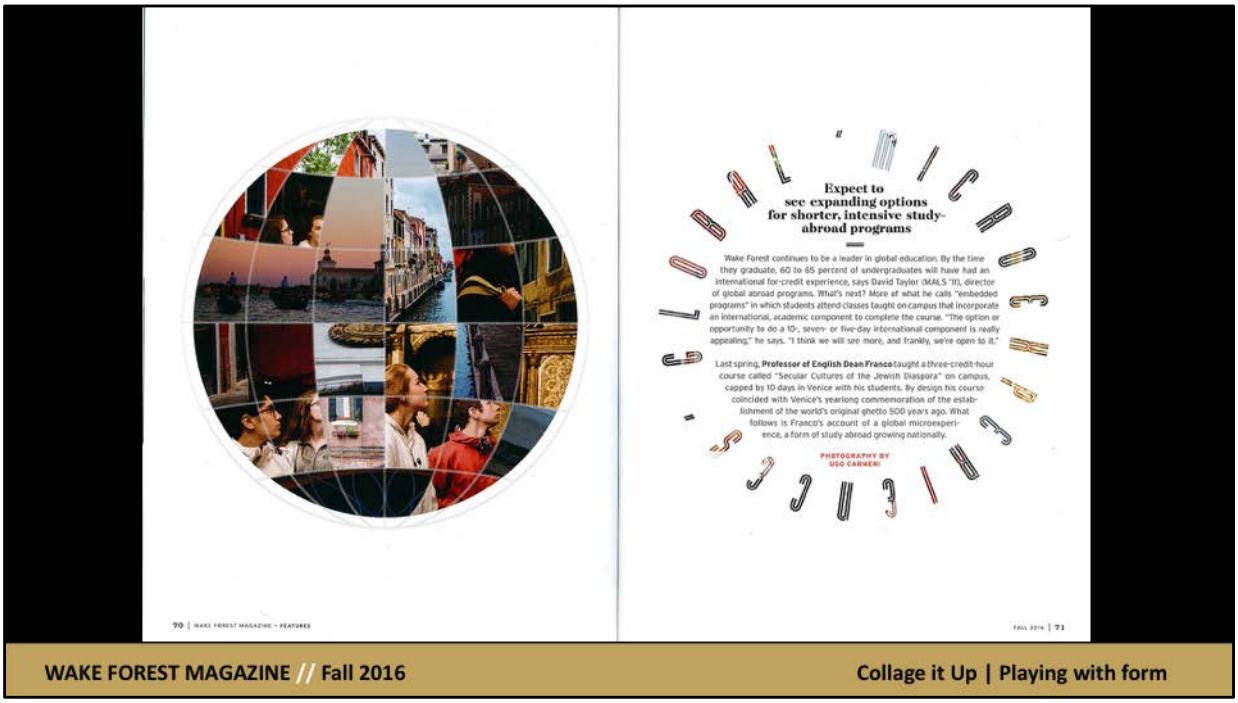
TERP (University of Maryland) // Winter 2017

Collage it Up | Mix of Stock and Archive



TERP (University of Maryland) // Winter 2015 Collage it Up | Mix of Stock

Layers are in. You could do this at home.



Altering how the images are presented. Mix of stock and students. Whole is greater than the sum of its parts. I won't say anything about the typography, though …

YE OL' ARCHIVE IN A WHOLE NEW LIGHT

What a great idea to pull apart a historical moment/milestone from the film. I want to do this!

It was a game that had everything. A David vs. Goliath storyline. A national TV audience. A dingy old gym, packed with screaming fans. A ready-made villain, courtesy of Bobby Knight. And then there was the game itself, a compelling, competitive battle from start to finish—and oh, that finish, a cruel twist that helped No. 1 Indiana escape Rec Hall with an 88–84, double-overtime win. Two decades after the most memorable game in Nittany Lion hoops history, we reached out to the players, coaches, and fans who were in the building on Feb. 9, 1993. (We even got the Nittany Lion on the phone.) What follows is an oral history of that unforgettable night. It's only too bad the referees never called us back.

The Nittany Lions entered their first Big Ten campaign on a run of four straight 20-win seasons. The last of those came as an independent in 1991-92, a year of Big Ten-enforced limbo that severely hampered recruiting. Transfers and injuries left the Lions undermanned in 92-93, just as they were set to open play in what was arguably the toughest conference in the country.

■ **BRUCE PARKHILL:** We were kind of limping into the Big Ten. The league didn't integrate so right away, and we didn't know how many years we were going to be an independent—recruiting-wise, that was awful.

■ **DERON HAYES:** The Big Ten was a great conference. We knew what we were getting into.

■ **MICHAEL JENNINGS:** The league was insane. Sick. Prior to going to the Big Ten, we were a legitimate top-30 team in the country. And then, *ba-boom*, reality hit.

The Lions opened Big Ten play in early January with a narrow home loss to Ohio State. Four days later, they made their first conference road trip—to Bloomington, Ind. Final score: Indiana 105, Penn State 57.

■ **HAYES:** I think we were in awe.

■ **GREG BARTRAM:** At the time, it didn't really feel like we were in awe. But a lot of evidence supports that we may have been. *(laughs)*

■ **JENNINGS:** It was out of those games that made you think, *Should I be playing basketball? Or should I just be thinking about my books?* It wasn't that we weren't prepared, because Coach Parkhill was really good about that. They had a bunch of future NBA players, and they were were hot that night. It was by far the most lopsided loss I've ever been a part of.

■ **BARTRAM:** The fact that it was so lopsided, I think it was actually easier to put it behind us.

■ **PARKHILL:** Fortunately, the kind of guys we had on the team, it wasn't, "Oh, God, we've got to play them again." It was, "Hey, we're better than we showed out there, and we'll have a chance to redeem ourselves."

That chance arrived exactly one month later, on Feb. 9, when Indiana came to Rec Hall for the rematch. Motivation was hardly lacking. The Hoosiers were now ranked No. 1 in the nation. ESPN would broadcast the game. And then there was the matter of how to welcome Knight, who before the season had famously derided the journey to Happy Valley as "a camping trip."

■ **PARKHILL:** At Big Ten media day, Coach Knight came up to me and said, "Hey, how'd they take my comment?" He was smiling. I said, "I think you achieved what you wanted to."

■ **TIM DURANT:** When I was the mascot, I had pretty much free rein. So I made this makeshift campsite. I had this fake campfire going at midcourt, with sticks and marshmallows. And had a chair. When Indiana came out, Bobby Knight saw me, and I gestured for him to sit in the chair. He kind of smiled. Then I flung the chair—not at him, of course. I saw him afterward, and he was laughing about it. He said it was a good skit.

■ **BARTRAM:** It was one of only two ESPN games we had that season. In a season like that, you pick certain things to play for. We had a lot to play for that night.

■ **LOREN CRISPELL:** I was born and raised in State College, and growing up, games at Rec Hall were events. Indiana coming to town was something that everybody had anticipated from the moment we joined the Big Ten.

■ **RAHSAAN CARLTON:** We were definitely ready to go that night.

So was the crowd. Packed to the jogging track with more than 7,000 people, Rec Hall for big games in those days was raucous, earsplitting, and incredibly loud. For opposing teams, its most intimidating feature was the proximity of the students to the court.

■ **PARKHILL:** Rec Hall became a great home court for us when we started getting good in the Atlantic 10. Students started standing the whole game—I got letters from the people who sat behind them, complaining. I was loving that. *(laughs)* It became one of the better venues in the country.

■ **BARTRAM:** I would not have traded our home games at Rec Hall for any place in the country.

■ **STEVE WYDMAN:** Players from other teams would come in and they're like, "Jeez, the students are right on your back." And that was Indiana's first time there.

■ **CALBERT CHEANEY:** One thing I remember—on the sideline, kids were standing right there, just right up on top of you. We played at a lot of places, but that year, the environment there was probably the best—for us the worst—as far as the atmosphere. It was second to none.

■ **CARLTON:** They didn't realize what they were getting into when they came to Rec Hall.

■ **CHRIS REYNOLDS:** It made 5,000 people feel like 20,000.

But the Hoosiers weren't easily intimidated. Led by Cheaney, the consensus national player of the year, Indiana fielded a roster filled with high school All-Americans and future pros. For the Lions, British-born big man John Amaechi gave Penn State its only likely matchup advantage. Hayes, a smooth shooter, was the Lions' leading scorer. The rest of the roster was a patchwork of unheralded recruits, former walk-ons, and players playing out of position.

■ **PARKHILL:** We didn't have a point guard, so Michael, who wasn't a point guard, had to play point.

■ **JENNINGS:** What was in my mind was trying to get the ball up the court against this hounding defense. I had more of a "show" handle—I'll cross you over, I'll break you down off the dribble, but bringing the ball up the

The Players

PENN STATER // Jan/Feb 2012 Archive| Embrace the Grain

Blowing up this old images and leaving em grainy, actually plays into the nostalgia of the historic story.

court all night is a whole different ballgame. You've got a defender turning you and turning you, and you've got to call a play. I really give kudos to Coach Parkhill for teaching me how to bring the ball upcourt.

■ **WYDMAN:** I don't think Parkhill ever got enough praise for how well he did with that cast of characters.

■ **PARKHILL:** From an offensive standpoint, we were really concerned about using patience to get open shots. Defensively, our focus was not giving up second shots. That would be death.

■ **BARTRAM:** We had a lot of confidence going into that game—not necessarily that we were going to win, but we knew we were going to play well.

■ **CHEANEY:** We didn't think it was going to be a cakewalk by any means. We knew after we beat them up pretty good, it was going to be a tough game.

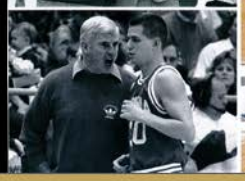
■ **HAYES:** We knew we could beat them.

Indiana won the opening tip and Cheaney scored almost immediately on a backdoor layup. But Penn State never blinked. The Lions led by five early, then trailed by as many as seven late in the first half, but a flurry from Jennings and Bartram—capped by a three-pointer by Jennings just before the buzzer—made it 34-32 Indiana at the break. As ESPN play-by-play man Tim Brando put it, "David's having a pretty good first half against Goliath."

■ **PARKHILL:** With Michael, you just kind of hold your breath. A lot of times something great would happen. That night, he rose to the occasion.

■ **CHEANEY:** That Penn State team fought back admirably. I think it was the thought of, "We're not going to get

> **"I WOULD NOT HAVE TRADED OUR HOME GAMES AT REC HALL FOR ANY PLACE IN THE COUNTRY."**
> — GREG BARTRAM



THE VILLAIN: Fans saw both sides of Bobby Knight, whose reference to Penn State's geographic isolation was spoofed by the Nittany Lion.

blown out the way we did last time."

■ **DURANT:** I used to change in the wrestling room, which was right next to the visiting locker room. I was in there at halftime, and I got a full-on sense of what Bobby Knight sounded like. Every other word was a cuss.

Headed by the Lions' 2-3 zone defense and seemingly distracted by the crowd, Indiana struggled to score after the half. The Indiana big men got deeper into foul trouble in a futile effort to slow Amaechi. Carlton scored 10 points off the bench. Indiana stayed close, helped by timely shots and a trio of calls in Indiana's favor so dubious that the TV announcers commented on them. It was a sign of things to come.

■ **BARTRAM:** When they started tightening up offensively, the fans and the atmosphere compounded the pressure on them. It really did have an effect.

■ **CHEANEY:** Once Penn State went to that 2-3 zone, they really gave us some problems. When teams did that against us, we got open threes. Normally, we didn't miss those.

■ **CARLTON:** We stuck with a lot of teams for half or three-quarters of the game, but then it got away from us. That night, we were knocking down shots. Bruce did a great job motivating us. You always felt like you had a shot.

■ **PARKHILL:** When I coached—this may sound weird—I couldn't wait until the last five minutes. That's when you were going to find out whether you were going to win or not. The rest of the game to me was a pain in the butt.

The final minutes of regulation were palpably tense. Hayes hit a jumper to tie it at 61, then scored inside to reclaim the lead. Indiana's Greg Graham knocked down a three-pointer to put the Hoosiers back on top. Amaechi countered with a pair of free throws to make it 65-64 Penn State. The clock showed :41. ESPN's Brando offered context: "Penn State on the brink of an upset that would match some of the greatest upsets of all time in college basketball." On the next possession, Indiana's Todd Leary lost his footing bringing the ball upcourt; Jennings scooped up the ball, drove for a layup, and was fouled. His free throw gave Penn State a four-point lead with :21 seconds to play. Rec Hall probably has never been louder.

■ **CRISPELL:** I just remember thinking, *We're in this.* Guys were sticking big shots. It was like they had no fear on the court, and you could tell they were buoyed by what was going on around them.

■ **WYDMAN:** Once we started getting some momentum, the crescendo was pretty incredible.

■ **CHEANEY:** You couldn't hear yourself think in there.

■ **PARKHILL:** We were yelling to each other on the bench. We couldn't hear each other. It was unbelievable.

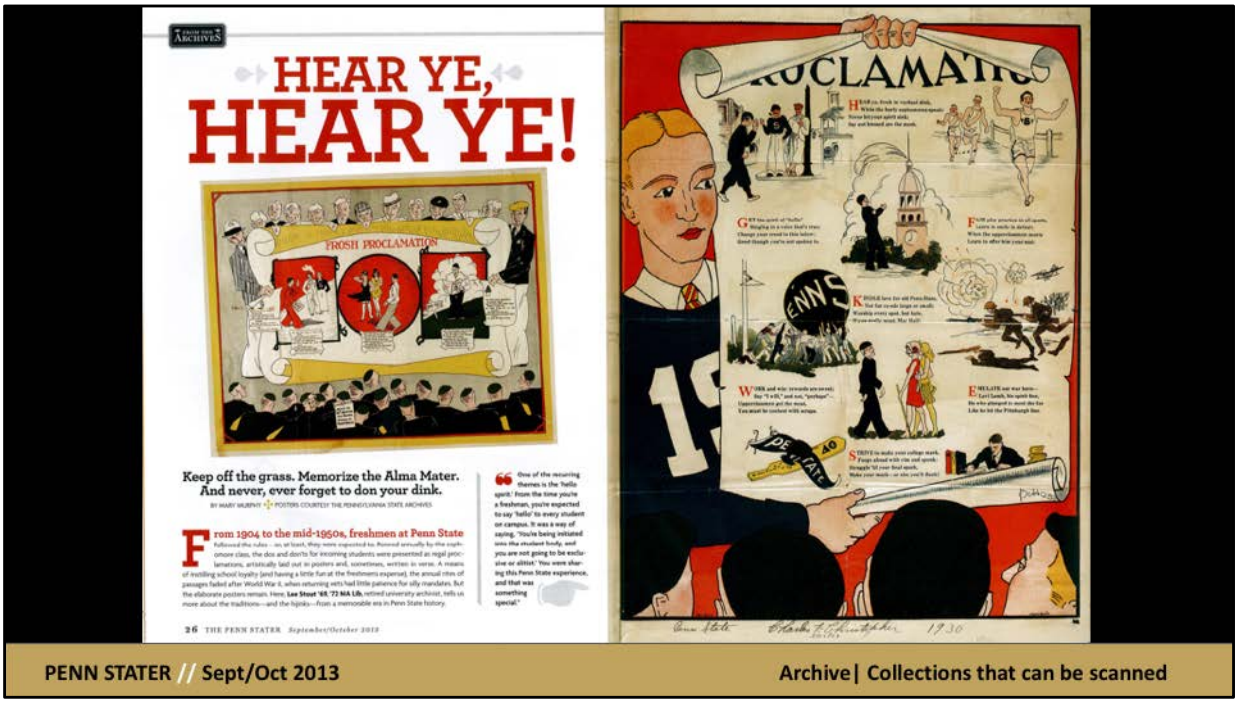
After a timeout, Indiana's Graham halved the lead with a driving layup, giving Penn State the ball with 24.7 seconds left. The Lions in-bounded from under their own basket, Hayes getting the ball to Jennings, who had it tipped away by Graham. Penn State set up another inbounds play, this time from the sideline in front of the student section, with :19 on the clock.

■ **PARKHILL:** In the meeting the day of the game, I said, "We're going to put in another sideline inbounds." That's the play we ran to break Bartram.

■ **BARTRAM:** Our coaching staff had noticed that on sideline plays, Indiana didn't put a man deep. We had been told to pay extra close attention to that. If they had nobody back, I was

LIVE WIRE: Despite playing out of position, Jennings had the best game of his career against Indiana.

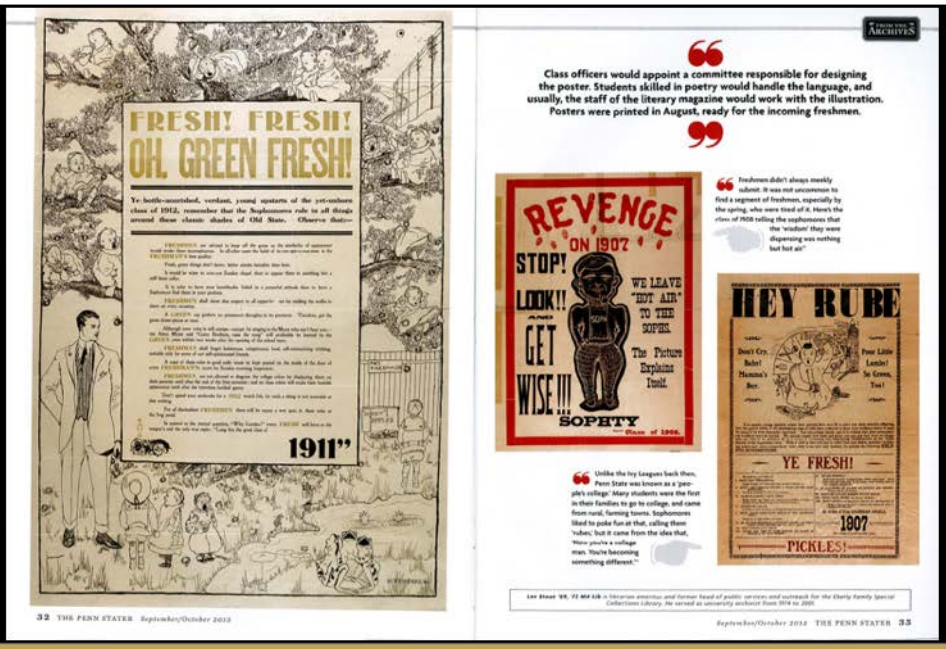
If you saw that pic you would say “we can’t use that. It is too low res” depending on the context, you might be able to … Penn State did.



What do you have that you could scan out of archives? Hardly any copy needed so you save money by not paying a freelancer, or time by not writing a huge story.

PENN STATER // Sept/Oct 2013 Archive| Collections that can be scanned

PENN STATER // Sept/Oct 2013 **Archive| Collections that can be scanned**



PENN STATER // Sept/Oct 2013

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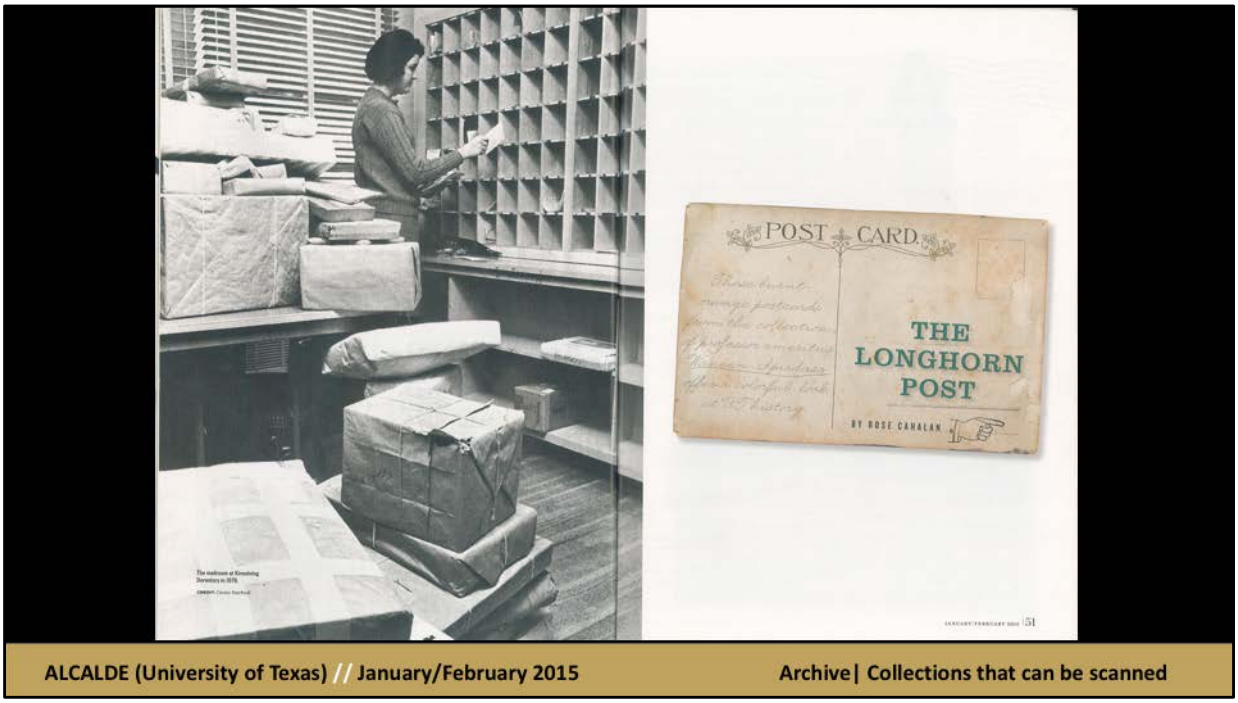


I could find dozens of postcards in the antique stores downtown. History and nostalgia plays really well for our audience. So if that works for your alumni, rip off this idea.

AS THE HUMBLE POSTCARD, AMERICANS MAILED SOME 1 BILLION OF THEM last year. Postcards are by nature convenient, quick, cheap, and visually appealing—traits that may contribute to their persistence in an age of dwindling snail mail. For centuries people have been using them to share travel memories, advertise businesses, and stay in touch. And for postcard collector Waneen Spirduso, they're part of UT history.

Spirduso, BS '57, EdD '66, is a professor emeritus in UT's Department of Kinesiology and Health Education. She's also a deltiologist, or postcard enthusiast, who's curating a collection of more than 100 UT- and Austin-related postcards spanning over a century. Spirduso is at work on a book of UT postcards, and she shares 10 of her favorites with us in these pages. For her, the informal, unedited nature of postcards is part of their appeal. "I think postcards were a bit like email or Twitter before those things existed," Spirduso says. "They give a window into what life was like."

University of Texas. AUSTIN, Texas Passed! Address letters to me at University Station.

From 1883-1935, Old Main was the heart of the campus. The building featured a 2,000-seat auditorium, a chapel, a dressing room, and a ladies' study room with rocking chairs in addition to ample space for classrooms and lecture halls. "We felt that every other student in the country would envy us in the possession of such a magnificent building," wrote student Will Visoning in 1884.

But the building's Victorian Gothic turrets and spires were already looking dated by 1934, when it was razed to make way for the Colonial Spanish Revival-style Main Building that stands today. This undated postcard, which shares a student's relief after an exam ("Passed!"), must have been sent sometime before then.

52 | Alcalde

This 1950s postcard shows the typical dress for female students at the time. full skirts with crinoline petticoats and leather loafers. Men didn't dare get caught in women's dormitories, curfews were strict, and hemlines were long.

All this sexual repression boiled over in the bizarre trend of panty raids, when crowds of libidinous men gathered outside the women's dorms and demanded that the coeds toss down their underwear. Panty raids cropped up at UT from the 1950s–60s, and in one of the nation's largest, 3,000-plus men chanted "We want panties!" outside Kinsolving in 1961.

Drive-in diners were all the rage in the 1950s and '60s, and Austin was lousy with them. This postcard was an advertisement for the Jet Drive-In, located near the old Bergstrom Air Force Base where the Austin airport now stands.

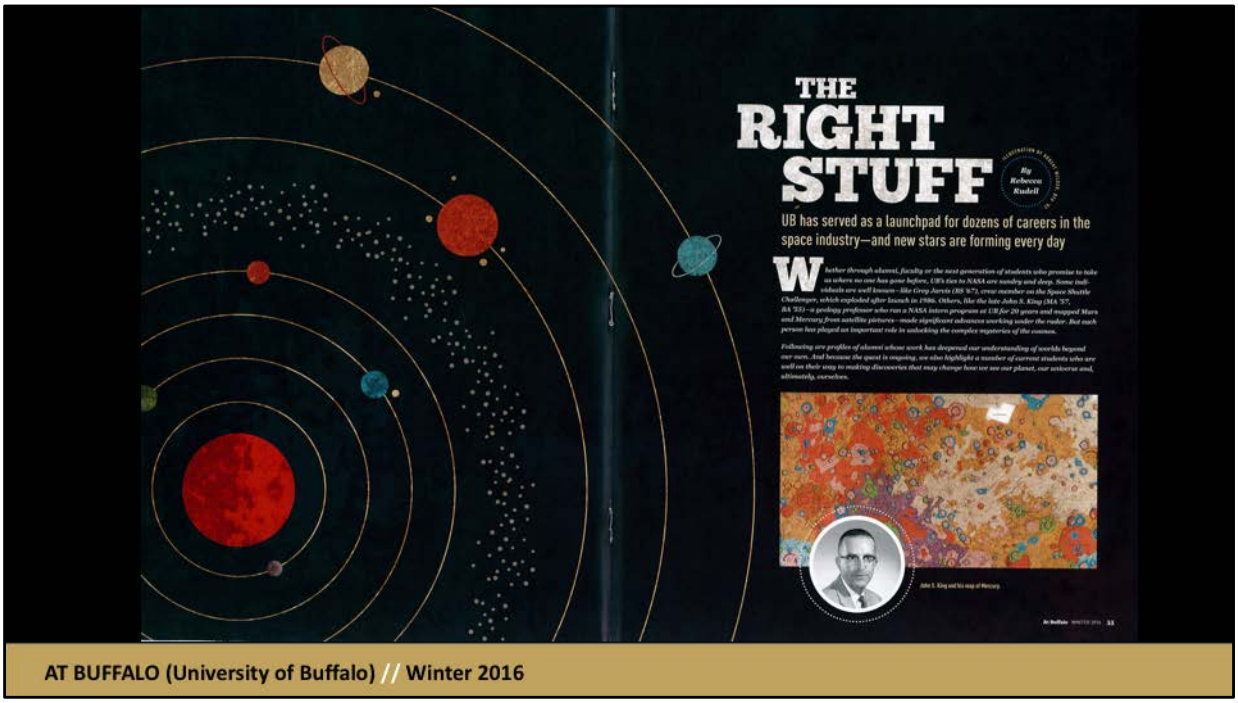
While drive-ins were convenient, they were also a stylish gathering spot for young people to show off flashy cars and impress their dates—something that the message printed on the back of the card gleefully points out. "Bright, natural light from mercury vapor Wide-Lites invites customers into the attractive Jet Drive-In," reads the blurb. "Their color-corrected light flatters food. Flatters faces, too."

ALCALDE (University of Texas) // January/February 2015 Archive| Collections that can be scanned

ALCALDE (University of Texas) // January/February 2015 Archive| Collections that can be scanned

ALCALDE (University of Texas) // January/February 2015 **Archive| Collections that can be scanned**

This may seem like a no duh moment for people who’ve been in the editorial design biz for a while. But this was like taking the blinders off for me. You can use illustrations and photos in the same story!



AT BUFFALO (University of Buffalo) // Winter 2016

Sometimes we can do our own illustrations. This is simple! It's just circles! Any designer could do this.

It's whether we have the time to sit and think and dream up the conceptual ideas. If you don't have time to come up with ideas, then you need to hire an illustrator. That is what you are paying them for. Conceptualizing.

And illustrators are super expensive. So don't be afraid to keep looking if you get turned down, find someone who is still building their career, they won't command as much.

Always try to contact the illustrator directly if you can, rather than going through their agent/representation.

And think of how to use minimal illustration for maximum impact.

Save some money by only paying an illustrator for your opener and then utilizing provided art or less exciting photos within the body of the story. Also, think about how you're breaking up the illustration. This is kind of a full page illustration that uses the corners of the spread. Could you get something like this that covers parts of two pages for a one page rate?

farm outside Burlington. The family moved to Ithaca, New York, for two years while Chris earned his M.B.A. from Cornell University. They settled down in the central Vermont town of Barre, where Deanna taught ninth-grade science and returned to playing soccer. Chris, the CEO of smoke house Vermont Smoke and Cure, got back on his bike. The four Baileys skied and hiked together as often as possible and enjoyed telling jokes at the dinner table.

In 2008 Deanna homeschooled the boys, who had different personalities and interests. Solon played the piano and expressed his love for camping and the outdoors as a Boy Scout. Liam, who the family joked had two speeds, "intense" and "sleeping," followed in his mother's footsteps as a rising soccer star. He liked classic rock and played the drums. Together, the brothers, who were close, ran an egg farm from their house.

The family visit to Kentucky for Christmas 2009 was the first in nine years, so the boys were excited to enjoy time with their relatives. On Christmas Eve Chris, Liam and a cousin played soccer, Solon played piano for his relatives and their grandfather read *The Night Before Christmas*. The family went to bed looking forward to the next day.

After a memorial service in Kentucky and another back home in Barre that drew more than 800 people, Bailey struggled daily to find her footing, going back and forth between coping and not coping, to reach solid ground. She woke up crying every day, but she got up. "I just had to keep putting one foot in front of the other," she says. "Nothing felt good. It was just a matter of trying to do the things on any given day that would help me feel connected to the kids."

She began working with a grief therapist who quickly became concerned that Bailey was experiencing post-traumatic stress disorder (PTSD) and recommended trauma therapy. The trauma therapist gave Bailey desensitization and reprocessing treatment (EMDR)—a widely used psychotherapy approach—to mitigate her PTSD. When she experiences symptoms, she does prescribed exercises involving eye movement and imagines herself in a sanctuary. "It keeps me from being in the fire," Bailey says of EMDR, which she says calms her. "It keeps me from feeling constant fear."

Erin Barnett, Ph.D., an assistant professor at the Geisel School of Medicine and a PTSD specialist—who didn't treat Bailey—says that EMDR helps synchronize the left and right sides of the brain to help integrate trauma. This helps stop intrusive thoughts and the re-experiencing of trauma through flashbacks and nightmares.

"We have to integrate and make meaning of the events to move forward," Barnett says—which may explain why, as Bailey progressed in her treatment, her trauma therapist asked her to create something while thinking about the fire from the boys' perspectives and to envision what happened to them afterward. It could be a piece of music, a work of art or anything that would help Bailey understand what the boys experienced and get her beyond thoughts of the fire.

Bailey avoided the exercise for two months. But one day she started writing on her laptop and didn't stop for four hours. Writing helped her so much that she returned it for the first time in her life—math and science, not writing, were her strengths at Dartmouth, she says. Writing helped her realize that her sons died from smoke inhalation before they could experience much physical pain from the fire. Writing about her sons for several hours each day also brought her closer to them and let her remove them from danger. "It helped me give them a safe place to be," she says.

Bailey spent the next seven months writing her vision of her sons' afterlives. They ride eagles and travel back to their home in Barre to try to console their parents, who they are struggling to live without them. Her resulting book, *Crossing the Horizon*, reflects the beliefs that have guided her since her sons' deaths that Solon and Liam are living on, safe and happy, that they will always be connected to her and Chris, and that Solon and Liam want their parents to continue living. "I felt I had to honor my boys with my life," she says. "They don't want me to die."

Newbery Medal–winning author of *Bridge to Terabithia* Katherine Paterson, a friend of the Baileys in Barre, read an early manuscript of *Crossing the Horizon* and encouraged Deanna to self-publish it. "To me there was a certain urgency that it get out to the public," says Paterson, who believes it will help others. Bailey published her book, available on Amazon.com, last February. "I am sending this out into the world for one reason only," she wrote in her author's note. "I want to help others who are suffering the unending loss of a loved one."

While striving to simultaneously honor her sons, live in the world and take care of herself, Bailey has found new supports and set boundaries. She describes herself as a recluse that first year after the loss, trying to find solace in the outdoors.

The Baileys started the Solon and Liam Bailey Memorial Fund to support Vermont children's access to music, soccer, conservation and literacy. Deanna took on a lot of the responsibility of running the fund early on but soon found it difficult. She loved that it helps kids have access to pursuits her sons loved, which she believes Solon and Liam would want. Yet she found it painful to not see her own sons enjoying their favorite pursuits and soon backed off. She and Chris still find it difficult to spend time with families.

Deanna couldn't return to a traditional school setting, where fire and other alarms would trigger her PTSD, but she pursued a master's in science education. She now works with teachers instead of children as a science curriculum specialist. "If I could, I'd rather be teaching kids," she says. "I used to adore kids and teaching them. Just not anymore."

When Chris' company relocated in 2012, the Baileys moved about 45 minutes northwest to Huntington, Vermont. Deanna says she found it difficult at first to lose such a direct connection to her sons' lives and not be able to visit their bedrooms at night, but that it helps to have more distance. When she has occasion to commute to Barre for work, she visits the schools and playgrounds her sons loved.

Deanna has also found consolation in religion. Raised Catholic, she received her First Communion at 8, but her family stopped attending church regularly after that. She and Chris chose not to raise their sons in any particular faith, but they did talk with them about spirituality frequently, through books and in nature.

The morning of the fire, Deanna cursed God for taking her sons. Within a few weeks she started going to church with a friend and now regularly attends an interfaith service near her home. "I can't be yelling at [God] because my kids are with him now," she says. In her book she writes about a "guiding spirit" who counsels Solon and Liam in their afterlives.

"The pain will lessen over time, but it will be there," she says. Her advice to anyone who loses a child, let alone all their children, draws on her own coping mechanisms: "Don't do what doesn't help you feel safe," she says. "Don't feel like you need to put on a happy face for the world when there's no happiness involved. Do what works for you. And don't put a timeline on it."

Although the death of a child can rip families apart, Deanna says she and Chris have grown closer. "We've suffered the greatest loss that anyone can ever suffer as a couple. I don't think either of us could survive without the other," she says. They talk about the boys frequently and find hiking mountains they hiked as a family—especially Vermont's Camel's Hump and Mount Hunger—a spiritual experience. They maintain a cairn on one mountain in memory of the boys.

Weather permitting, Chris and Deanna try to climb Mount Hunger every Christmas morning. They strap micro-spikes onto their boots to grip the icy trail, don headlamps and try to be at the trailhead at 4:23 a.m., the time the fire alarms woke them. The four-mile hike is rated as "advanced" in local trail guides for fair conditions. When they climbed it on Christmas morning two years ago, it was 15 degrees below zero.

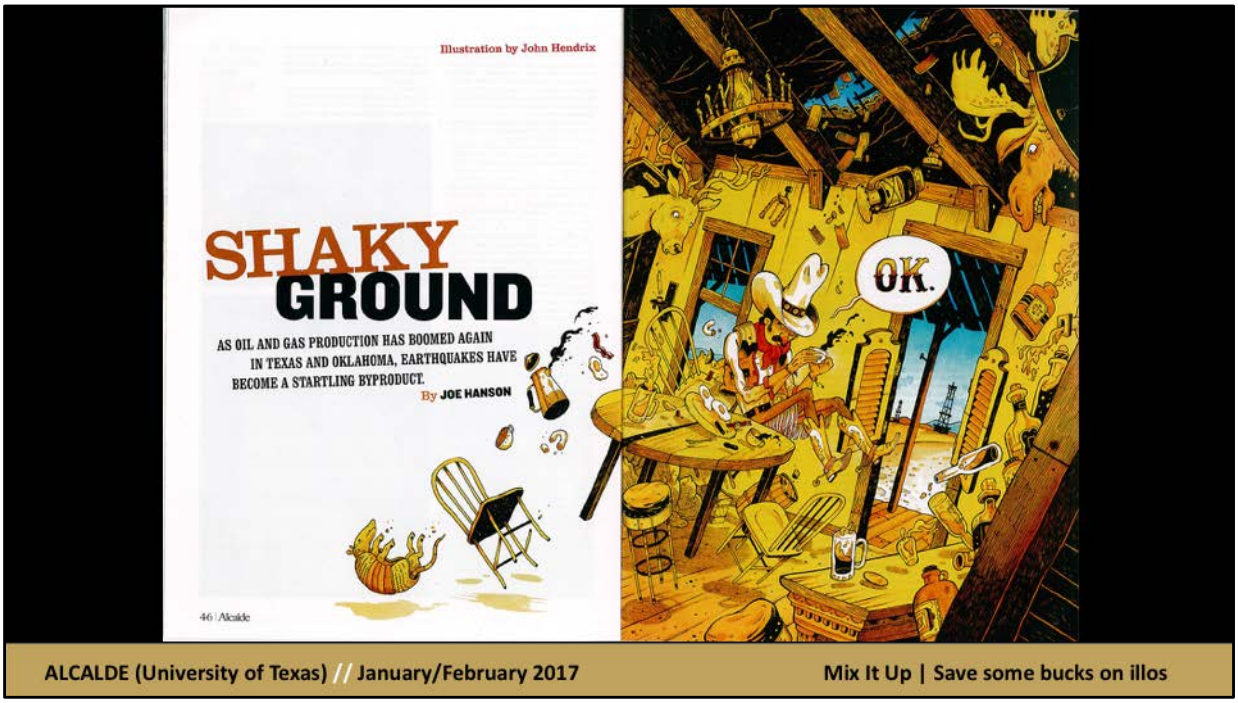
The Baileys watch the sun rise from the summit. Chris says he's been known to yell into the wind his grief and frustration, but mostly he and Deanna talk to the boys and tell them how much they love and miss them. ■

Bailey's advice to anyone who loses a child draws on her own coping mechanisms: "Don't do what doesn't help you feel safe."

SUZANNE SPENCER BERNARD, *its commentator on Vermont Public Radio. She lives in Plainfield, New Hampshire.*

DARTMOUTH // January/February 2016 Mix It Up | Save some bucks on illos

They have the impact of the illo on the opening spread, then move into more expected art on following pages.



Save some bucks by having your opening illo cross over your gutter, but not be a full two-page illo, which would cost substantially more.

Gordon Laird was standing at the foot of the bed. He was about to say goodbye to his wife and go buy tractor parts when the shaking started. The earthquakes were coming almost every day now, but they usually only lasted a second or two.

As he counted past three seconds, then four, it became clear that this time was different. The bed, upon which his wife sat, was now jumping up and down and toying its best to throw her onto the floor. Seven seconds. Eight seconds. The bathroom cabinets joined in by ejecting their contents. Nineteen, 20 seconds. In the next room, deer and elk mounts fell to the ground as if they had come to life and forgotten they were no longer attached to bodies. Just as Laird began to wonder if the house was going to last through this one, everything stopped. By his watch, the shaking lasted 27 seconds.

Moments earlier, several miles underground, two massive pieces of the Earth's crust had slipped past each other, sending untold centuries of accumulated stress rippling under Pawnee County and the Laird family's bedroom. The magnitude 5.8 earthquake that struck there on Sept. 3, 2016 was the strongest ever recorded in Oklahoma, and one of a growing number to hit the state in recent years.

In 2001, Oklahoma recorded just 1 earthquakes of magnitude 3.0 or greater. But in 2015, that number grew to 907. Only perennially shivering Alaska tallied more in that time, while California, a state typically associated with seismic shaking, saw just 130 quakes that year. It's increasingly clear that Oklahoma's surge in earthquake activity is linked to the state's oil and gas production, but exactly how remains the subject of much debate.

Texas has felt its own uptick in seismic activity, although to a lesser degree than Oklahoma, which adds confusion to what was already a conundrum. Consider that each state is home to thousands of active wells that operate in much the same way on either side of the Red River. No one's really sure why Texas isn't shaking as much or how long that may last.

What's certain is that researchers and regulators still have much to learn about what happens when we pump massive amounts of stuff in and out of the Earth's crust. A new research center at UT-Austin hopes to change that.

TO CALL THE Center for Integrated Seismicity Research a multidisciplinary effort would be a bit of an understatement. Based at UT-Austin's Bureau of Economic Geology, CISR's roster includes seismologists; geophysicists; civil, architectural, and petroleum engineers; social scientists; and even a couple of advertising professors. Several oil and gas companies have committed expertise and data, and the Texas state legislature has chipped in $4.3 million to establish TexNet, an update to the state's seismic monitoring network.

CISR's mission is simple: to learn how we might distinguish between natural and human-induced earthquakes, and among the latter, figure out what we're doing to trigger them.

Scott Tinker sits at the helm of this new alliance. He's adamant about being objective and following where the science leads, but as director of the Bureau of Economic Geology, he knows CISR's work will have far-reaching impacts on energy policy, the environment, and the economy. Those are powerful interests for a scientist to take on, but Tinker relishes any opportunity to bring opposing forces together around hard data. "I call that the radical middle," he says. "It's radical because there are not many people there."

There's also not much hard data there yet. There are currently just 17 permanent seismic stations across Texas. TexNet will eventually more than double that number, but right now researchers are woefully uninformed about the state's seismic activity. This highlights the crucial role oil and gas companies, and their decades worth of data, are expected to play in the collaboration. It's likely that no one knows more about what goes on beneath the Lone Star state than the people who make their money there.

The oil and gas business would be much easier if their product came out of the ground like the sprawling geysers that made Spindletop famous, but that's generally not how it works. The stuff they're after is often locked away in porous rock, so to free it, fluids are injected at high pressures, forming fractures that allow the oil and gas to flow more freely up to the surface. This is what's known as hydraulic fracturing, or fracking.

It's commonly claimed that fracking causes earthquakes, but as is often the case in science, the truth is a lot more complicated.

It's logical to think that creating a bunch of tiny cracks deep within the Earth could lead to catastrophic seismic instability, but except for in a few special cases, this isn't what's happening. The real culprit is water. The problem is that oil and gas, fracked or not, rarely come to the surface on their own.

Tinker puts it this way: "When you drill a well, you're drilling into rocks that are full of fluids in little tiny holes, and that's mostly saltwater, old oceans."

Oil and gas are the long-buried leftovers of things that lived in those oceans, and no matter how they're brought to the surface, they bring a lot of old ocean with them in the form of briny wastewater. This wastewater is often contaminated with fracking chemicals or even trace amounts of natural radioactivity from within the crust. "You produce all that saltwater, and you have to do something with it," Tinker says. "It used to get dumped on the surface in man-made reed pits and into streams. More and more, it's injected and disposed back into rocks."

The idea is that pumping this wastewater into deep wells keeps it permanently locked away from the biosphere. The Environmental Protection Agency has monitored the process since 1974, but with a focus on groundwater safety rather than seismic activity. Today it's one of the most widely used methods for disposing of waste from a number of industrial processes, oil and gas included.

There's broad agreement among seismologists that the recent earthquake spikes are linked to wastewater injection wells. They're known this was possible since at least the 1960s, when the U.S. Army triggered a series of earthquakes near Denver after pumping contaminated water into the ground from the Rocky Mountain Arsenal chemical weapons center. But seismologists are a small club, and few of them were asking questions about induced earthquakes before 2008, when, for the first time ever, a series of small quakes hit the Dallas-Fort Worth area. When big cities suddenly start shaking, seismologists like UT-Austin's Cliff Frohlich start paying attention.

"If you study stress in the crust, there's stress everywhere, and there are faults everywhere, but most of them are stuck," Frohlich explains. "It's not that the injection is causing stress or changing the stress, but it's changing the friction." In a sense, all this wastewater is lubricating faults, making it easier for them to slip and slide. Or at least that's true in some places.

Texas is home to more than 8,300 active disposal wells, many of which have been in operation for decades. Clearly, the vast majority aren't causing earthquakes, but according to post-quake studies done by Frohlich and others, a few have caused faults to slip. The problem is, right now no one can predict which wells are safe and which might set off a quake.

THERE'S AN OLD ADAGE in science that correlation doesn't equal causation. To put that another way, just because you see two things happen in close proximity doesn't mean one necessarily caused the other. This tying of cause to effect is the most deceivingly difficult task in science. TexNet and CISR researchers are deeply mindful of this. They acknowledge there are notable differences among disposal wells, including the volumes

Above: Store employee Tala Pershall, 31, cleans up at White's Foodliner grocery store in Pawnee, Oklahoma, Sept. 23, 2016.

ALCALDE (University of Texas) // January/February 2017 Mix It Up | Save some bucks on illos

Starting with an illo moving into less exciting interior images that could be provided.

injected and the concentration of wells in a given area. They know that some seismic activity may be natural. But most of all, they know that oil and gas production make up a huge part of the Texas economy, and rash or incorrect scientific guidance would have serious ramifications.

If and for how long we should continue to pump oil and gas out of the ground in a warming world is certainly a worthwhile scientific question, but it's not one that CISR is tasked with answering. They simply recognize that as long as wastewater is coming out of the ground, we must find a strategy to dispose of it safely.

Even if scientists are unable to link individual wells to individual earthquakes, they can still learn a lot from the bigger picture. Frohlich likens the problem to smoking and cancer. It sounds like medical sacrilege to say so, but it's difficult to say for sure that any single smoker's death was caused by smoking. It's also difficult to say for sure why a person who smoked their whole life ends up not dying from a smoking-related disease. It's equally difficult to comprehend why a person who never smoked a day in their life ends up getting lung cancer. For all of these questions, if scientists study large groups of people they can tell you with confidence how many out of a hundred smokers or non-smokers will die and by what cause.

Large-scale studies like these are how seismologists like Frohlich have been able to draw cause and effect relationships between wastewater disposal wells and past seismic activity. Now, their task is taking what they've learned and applying it to the future.

Historical data can only provide hints about an area's seismic risk in days to come, and Texas earthquake monitoring has been sparse at best. If CISR and TexNet accomplish anything, it will be to fill in those gaps, so that even if there are no certain answers, we'll be better informed about the risks. If you happen to live on top of a wastewater injection well, this is exactly what you want to know.

UT-Austin civil engineering professor Ellen Rathje and her colleagues were on the ground in Pawnee, Oklahoma, within days of September's quake. As part of CISR, their role is to examine what's going on above the ground rather than what's happening in it. Rathje has traveled around the world to places like New Zealand, Japan, and Haiti to study how buildings and infrastructure are affected by earthquakes, and in doing so she meets a lot of recently shaken people.

When discussing the strength of Texas and Oklahoma's recent seismic events, mainly magnitudes between 3.0 and 4.0, she jokingly suggests that most of the earthquakes here wouldn't disturb folks in California.

"They laugh when they say, 'Oh, those Oklahoma people, they're just not used to it,' but the fact is they're getting events that can cause your dishes to fall off your shelves. Okay, you've got to get new dishes. You get a little crack on your wallboard. You've got to patch it," Rathje explains. She's willing to bet people in Berkeley, California would change their tune if they were living through this every day.

"When we went up to do the Pawnee reconnaissance, the people, they're mad. They're upset," Rathje says. "It's really disturbing to have a felt event almost every week and significant events probably every month."

Laird echoes that. "It kind of sets you on your nerves a little bit," he says. "Like when the air conditioning comes on, that kind of little sound, that little jolt you'll feel. Everybody's heart speeds up."

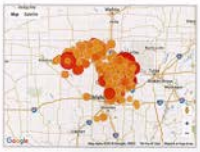
In places like California and Japan, buildings, bridges, and roads are designed to survive large earthquakes. The same can't be said for most of the central United States. Generally, structures are designed to withstand historical seismic risks, so a sudden increase in the magnitude and frequency of earthquakes means older designs are no longer ideal. "It's not like these buildings and bridges are going to be collapsing," says Patricia Clayton, another UT-Austin civil engineer who was on the ground in Pawnee. "They're robust, but things may respond differently over the quake shaking than they do in wind."

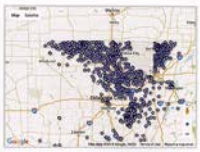
One of those things is the stone facade covering the front of Laird's house. Enough large rocks fell off during the September earthquake that the Lairds have told their four grandchildren who live with them if another earthquake strikes, it's too dangerous to escape through the front door.

So far, the UT-Austin team's research suggests there's no immediate threat to major infrastructure, but no one's certain how the effects of one large earthquake compare to the cumulative effects of many smaller ones. "Once you're at a thousand earthquakes with a little bit of damage," Rathje says, "then you may be talking about a lot of damage."

LEFT: A wastewater holding tank on a drill site in Prague, Oklahoma, March 23, 2016.

CREDIT: Nick Oxford/ The New York Times/Redux





099 earthquakes 2.0 and higher in 2016 in Oklahoma

Sites of oil and gas wastewater injection into the Arbuckle formation, a deep sedimentary rock layer

ANXIOUS CITIZENS MIGHT

be as big a risk to the oil and gas industry as electric cars and solar panels. Ultimately, these companies know their ability to do business requires more than just a legal license to operate or a stamp from regulators. They also rely on a public license to operate. In the practical sense, an earthquake-fearing landowner isn't likely to grant a drilling lease on their property, but on a larger scale, sufficient public anxiety could force regulators to make drastic decisions regardless of whether that anxiety is warranted.

The people making those decisions work for the state's oldest and most misnamed regulatory agency: the Railroad Commission of Texas. In recent years, the agency has come under fire from many environmental groups and scientists for not speaking up loudly or clearly enough about the link between earthquakes and oil and gas production. Commissioner Ryan Sitton is trying to change that.

"The commission has been very public about the fact that we recognize the potential for links between disposal wells and seismicity," Sitton says. "The question, of course, is to what degree is that link a reality and in which areas are the risks the highest? We don't know because we don't have good data, or we don't have complete data. That's why the efforts of CISR and TexNet are so important."

Acknowledgment of the link between disposal wells and earthquakes is a recent shift for the Railroad Commission, and many hairs have been split over wording like "the potential for links," but Sitton insists that Texas is taking a more proactive role than any other state when it comes to preventing induced seismic activity. After the Pawnee quake, Oklahoma ordered the shutdown of 37 nearby disposal wells, but Sitton and the Railroad Commission would prefer to prevent risky wells from ever being drilled in the first place. According to RRC spokesperson Ramona Nye, their office has received 64 disposal well applications in areas with historic seismicity since 2014, and of those, 34 were approved with special conditions such as limits on injection volumes. The office has also added their first staff seismologist and is heavily involved in the deployment of TexNet's seismic stations. Whether this is enough remains to be seen.

"It's our job to give the people of this state, all 27 million Texans, confidence in how the energy industry is operating," Sitton says. "In doing that we have a much more scientific and technical job than almost any role, I think, in all of elected office. We take a lot of pride in that."

In both an economic and very real physical sense, the Texas we know was built on oil and gas. Tomorrow's Texas may be built on something else, but for the time being, hopefully we can sleep tight knowing a diverse team of smart people are meeting in the middle to make sure that future, however murky, isn't built on shaky ground.

What's clear is that the openness with which CISR and TexNet's data will be assembled and distributed represents a major change in how the state's varied and often opposing groups approach this kind of far-reaching problem. If you were feeling poetic, you might even call it a seismic shift. ●

"Once you're at a thousand earthquakes with a little bit of damage, then you might be talking about a lot of damage."

CREDIT: Oklahoma Geological Survey, Oklahoma Corporation Commission

ALCALDE (University of Texas) // January/February 2017

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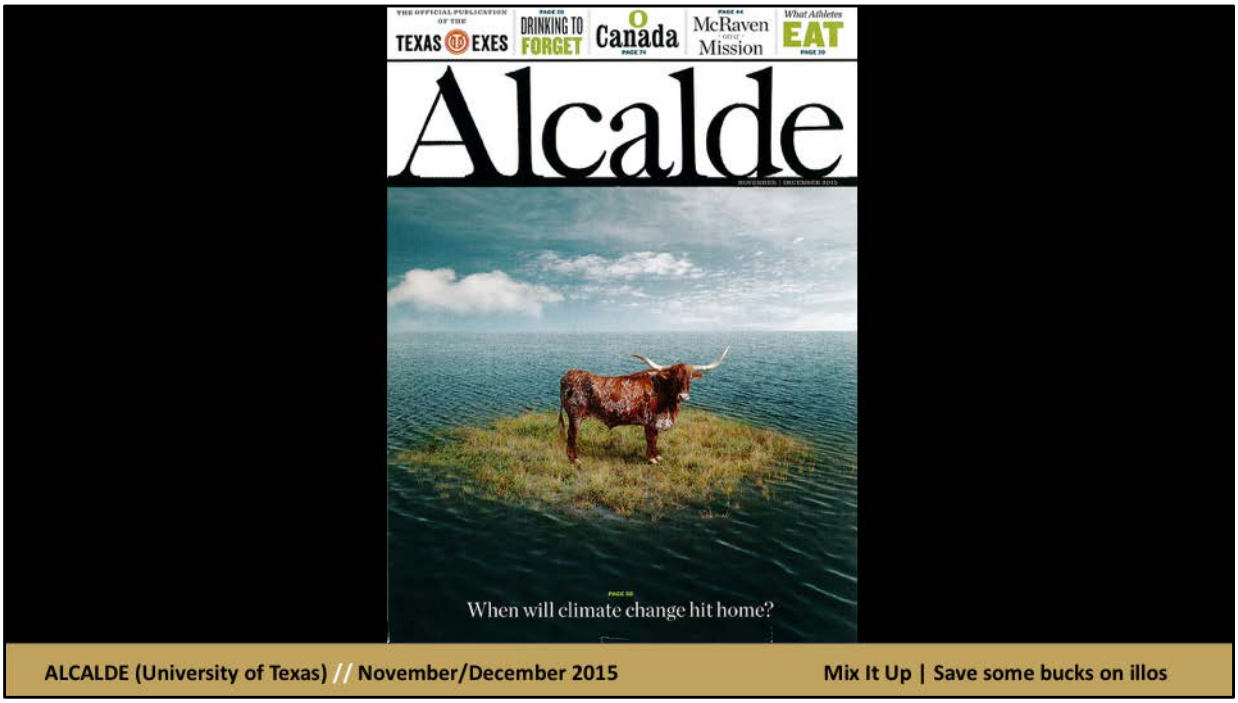
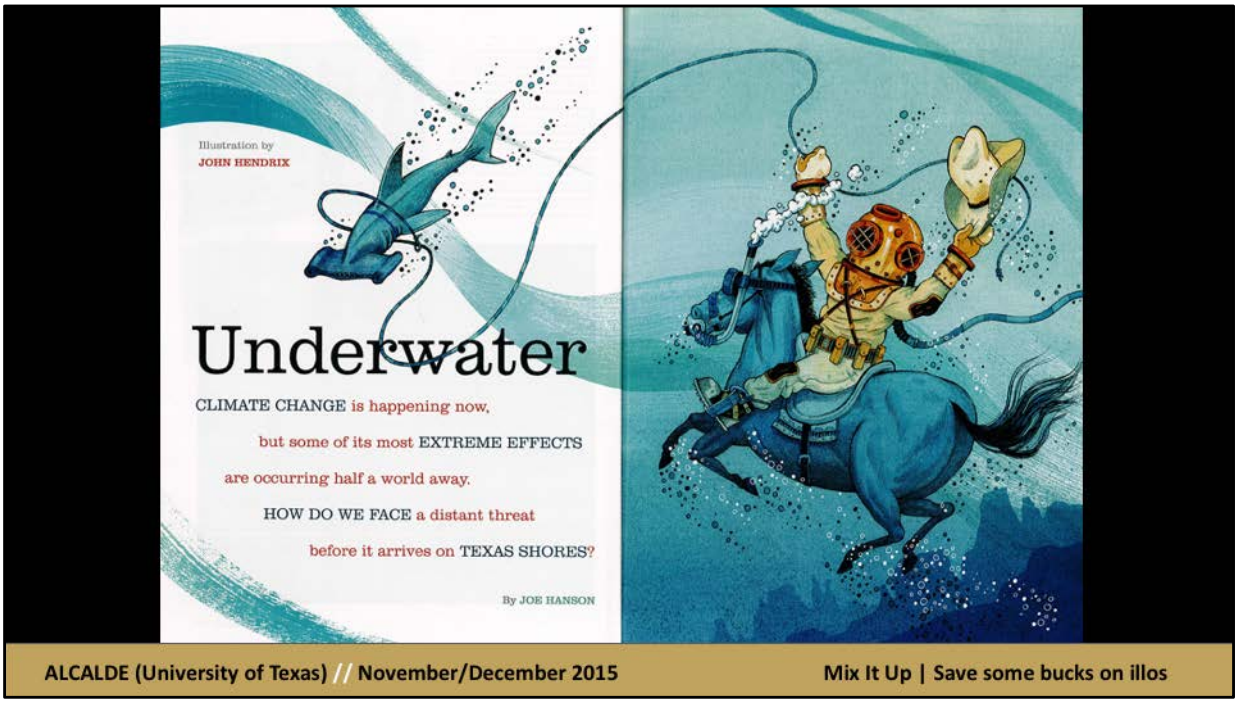


Photo illustration, to illustration opener, to provided photos. And this is a comped photo. What could you comp? Now wait until you see the opening spread for this comp story.



Totally unexpected illo, how fun! And only partly crosses over page.

I'M WATCHING A CHILD BUILD A SAND CASTLE IN Port Aransas. He's picked a nice level plot on the beach. Sand consistency looks good, not too dry, not too wet. But it's low tide, and I don't have the heart to tell him that in a few hours that real estate is going to be underwater.

The wave destined to destroy his keep was born hundreds of miles offshore, beginning its life as windy ripples and tiny wavelets, joining with others, gaining momentum. Eventually it will push the ocean a few feet up onto the beach, wash away that sand castle, and then fall back again. It's the way of things, as it's always been.

But imagine a wave washing on shore, reaching up and up and up, and then never receding. Near the South Pole, an alarming series of events is unfolding that could make that a reality.

The ice sheets of Antarctica are some of the Earth's most remote places, but they affect the lives of hundreds of millions residing near the world's coastlines.

In 2014 scientists announced that a massive ice sheet in West Antarctica is now trapped in an irreversible decline, a melt that could raise global sea levels by up to 13 feet. And earlier this year, researchers from the University of Texas Institute for Geophysics found that East Antarctica's Totten Glacier, a shrinking mass of ice roughly the size of France, appears to be in similarly dire straits.

It's hard to wrap your head around just how much water Antarctica holds. More than half of Earth's freshwater is locked away there, enough to raise sea level by 200 feet if it all melted. Not all of Antarctica's ice is at risk, of course, but Totten Glacier joins a growing number of runaway thaws that scientists fear it may be too late to avoid. Totten Glacier alone could swell global sealevels by as much as 11 feet, and that is on top of the already alarming numbers predicted for West Antarctica.

Antarctica's glaciers exist in a precarious balance. Melting in a normal process anywhere that ice meets ocean, but if a glacier is thawing out faster than inland snowfall can replenish it, the balance is disrupted. Almost all of a glacier's melting occurs where the belly of the ice is exposed to the ocean. If warm ocean currents gain access to a glacier's "grounding line," the point where submerged ice rests on the Earth below, the rate of melting can increase, accelerating the glacier's slide into the sea.

This is precisely what is happening beneath glaciers across Antarctica, according to Jamin Greenbaum, a researcher with the UT-Austin group. For the past eight years, Greenbaum has spent hundreds of hours in the air over Antarctica, peering through the ice to draw a more complete picture of Earth's changing climate.

THE DOUGLAS DC-3 survey aircraft used by Greenbaum's team, streaked with vermillion, with a low tail and wide wings, might look more at home in the final scene of *Casablanca* than humming over these frigid landscapes, but this particular plane is no stranger to the cold. Nearly 70 years ago it delivered U.S. paratroopers into the snowy forests of the Ardennes during the Battle of the Bulge.

That vintage airframe disguises a modern scientific research station. Inside, its parachute hooks have been replaced by racks of electronics. One instrument draws precise maps of surface elevation, while another scans for variations in Earth's gravity. A cylindrical probe juts out from behind the tail, used to sniff tiny fluctuations in the planet's magnetic field. Beneath the wings lung radar arrays hum to penetrate deep into the layers of ice below.

When I joke about the skis affixed to the DC-3's landing gear, Greenbaum is surprisingly matter-of-fact about unplanned snow landings hundreds of miles from their home base at Casey Station. At the bottom of the world, bad weather often arrives with little warning, and even though the team is chauffeured by experienced Canadian bush pilots, they don't argue with Mother Nature. If you're in the air when a storm rolls into base, you're going to be camping on the ice that night.

East and West Antarctica are discordant labels in a place where every direction seems to be north.

If you trace the Greenwich meridian through the South Pole, West Antarctica and its dragon's tail of a peninsula lie roughly in the Western Hemisphere, while much larger East Antarctica spreads out beneath Asia and Australia.

Totten Glacier, due south of Perth, is where Greenbaum and his colleagues have focused their work for the past several years. It is named for George M. Totten, an officer aboard the U.S.S. Vincennes, which arrived in Antarctica in 1839 as part of the United States Exploring Expedition, the first American naval expedition to circumnavigate the globe. But Greenbaum doesn't fancy himself a Totten, or an Amundsen, or a Scott for that matter. "We're not exploring," he says. "The reason we're there is to understand why the ice is changing."

For years, scientists knew that Totten Glacier was thinning, but weren't sure why. From the air, Greenbaum mapped Earth's terrain beneath the frozen mass and identified a deep cavity that he believes is allowing warm ocean water to seep under the ice and speed the glacier's decline. Elsewhere in Antarctica, similar scenarios are leading to disastrous outcomes.

Ala Khazendar from NASA's Jet Propulsion Laboratory has studied the Larsen B Ice Shelf in West Antarctica. In 2002, most of this floating ice sheet collapsed, sending a piece the size of Rhode Island drifting into the ocean and causing the glaciers behind it to speed up their descent to the sea. Khazendar is ringing a death knell for the ice that remains there. "We now know that this ice shelf has existed for at least 11,000 or 12,000 years," he says, "and soon it will be completely gone."

Earth has seen this kind of thing before. About 120,000 years ago, prior to the most recent Ice Age and before humans had migrated out of Africa, Earth's climate and geography were fairly similar to today, save for one key difference. During this Eemian period, oceans were anywhere from five to 30 feet higher than present levels. Where did this extra water come from? Ice cores drilled in Greenland suggest that it retained most of its ice during that time, so the only remaining culprit for Eemian sea level rise is melting glaciers in Antarctica, the same ones melting today.

Despite this precedent, what Khazendar has witnessed at Larsen B is enough to convince him that this time is different. "One thing that the past is telling us in this particular case is how unusual and how rapid these changes are taking place," Khazendar says.

The word "collapse" makes it sound as though the melting and sea level rise are happening quickly and dramatically. But even the worst-case projections show the saga playing out over centuries.

"Frankly, this will happen at some point, if Antarctica continues to warm up," says Ted Scambos, a scientist at the National Snow and

"We now know that this ice shelf has existed for at least 11,000 or 12,000 years, and soon it will be completely gone."

From left: Icebergs seen from the calving front of the floating ice shelf of the Totten Glacier; researchers Jamin Greenbaum and Duane Schroeder fly aboard the NSF/UTIG DC-3 airplane over Antarctica in November 2015.

CREDIT: Jamin Greenbaum and Gregory Ely

ALCALDE (University of Texas) // November/December 2015 **Mix It Up | Save some bucks on illos**

Comped cover, cool illo opening spread, followed by not great pics provided by faculty researchers. All in one story. The elements of cover and opening story were united by their tone, which was a bit whimsical.

Fine pics for interior pages, wouldn't want them opening the story.

What this could mean for Texas

compared to elsewhere on the planet. Over the past 70 years, while average sea levels have risen about 2 millimeters per year worldwide, the tide station in Rockport has seen an increase of 5.5 millimeters per year.

Residents of the Texas coast are no stranger to rising waters. Destructive storm surges swept in front of hurricanes and tropical storms are part of life here, but in the coming decades people may experience those water levels during every high tide. Industries from tourism to petroleum will be affected, although we don't yet know how. Infrastructure from bridges to aquifers will be threatened by the encroaching ocean. Coastal ecosystems that support both economically important and environmentally threatened species will be irreversibly altered. But when?

Reports from the United Nations Intergovernmental Panel on Climate Change have always included a range of best- and worst-case sea level rise projections, but actual observations hover near the upper end of those estimates. This means scientists have tended to underestimate the actual pace of sea level rise. Even more troubling is that the U.N.'s past estimates have failed to take Antarctic melt into account, and the Gulf Coast may experience some of the higher-end sea level rise sooner than we think. This points to the need to begin planning now for how we are going adapt to rising water.

In the aftermath of Hurricane Sandy, New York and New Jersey were awarded nearly $1 billion in federal funds to construct a storm- and flood-protection barrier around lower Manhattan and to build man-made breakwaters offshore. Governments along the Gulf Coast have yet to devote this level of response to the risk of rising seas, even in places like Louisiana, where the memory of Hurricane Katrina still remains vivid.

Some residents here are resistant to that sort of government intervention. Port Aransas resident Matt Richter works in the offshore oil industry, and as a fisherman and surfer, considers himself a steward of the Gulf Coast. But he's not alarmed by Antarctic glaciers. "These are problems that take decades and centuries to play out," Richter says, "and people don't need to jump in with solutions that may end up making it worse."

Still others doubt the severity of climate scientists' predictions altogether. Gaylan Tucker, another local whom I found surfing with Richter, isn't the least bit worried. "If we get 11 feet of water here, it'd be just fine with me. I live at 14."

Tucker has lived and worked around Port Aransas for more than 16 years and hasn't heard any evidence to convince him that climate change isn't part of the natural cycles that accompany life on the Gulf Coast and elsewhere. "We can predict the surf better than they can predict the weather," he says.

But weather is not climate, and an overwhelming majority of scientists are convinced that the Earth's climate is being perturbed by human activity and that as a result, millions of people are at risk.

SHORTLY AFTER Greenbaum's research was published, his phone rang. On the other end was a couple in southwest Florida who had heard about his work on the news. With so much conflicting information, they didn't know what to believe. Greenbaum looked at a map and noticed that the couple lived near the coast, about three feet above sea level. The husband and wife wanted to know if they should plan on giving their house to their children, or whether they should sell.

Greenbaum isn't in the real estate business, but he took a few minutes with the couple to explain his research in simple terms. He pointed them to digestible summaries of scientific data instead of cable news. "What I told them was just to pay attention."

Most scientists who study melting glaciers agree that issues like drought, water availability, extreme weather, and food security probably rank higher on the list of climate concerns, but with roughly a quarter billion people on Earth living within 10 feet of high tide, there is almost no issue related to the climate that can be untangled from the threat of melting ice and rising seas.

The threats posed by thawing ice and swollen oceans will not remain distant forever, though. But the question remains: How quickly will we turn our attention to them, and to all the climate issues they are tied to?

The threats are paralyzingly numerous and confusingly varied, but Ted Scambos believes that once we choose to face them, the solution is simple. "Address greenhouse gas emissions and the issues of sustainability of our economy and civilization," he says. "Build a nation, and a planet, that will last as a home for us forever." ◆

"These are problems that take decades and centuries to play out, and people don't need to jump in with solutions that may end up making it worse."

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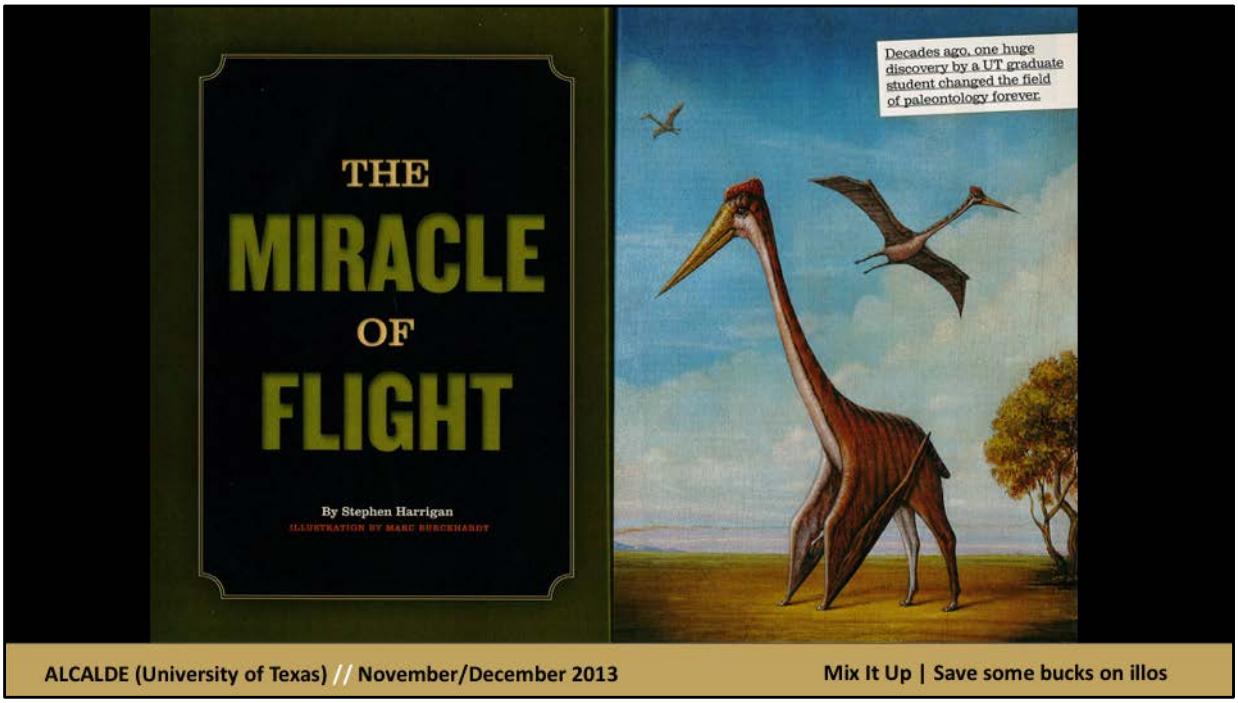
ALCALDE (University of Texas) // November/December 2015 **Mix It Up | Save some bucks on illos**



Start with an illo, then go to the archival/provided stuff.

Added some pizazz and uniformity of elements by toning archival photo.

Above: The cast of a Quetzalcoatlus that hangs in the Great Hall of UT's Texas Memorial Museum.

Lawson announced the discovery of his pterosaur in a 1975 article in *Science*. In that pre-*Jurassic Park* era, when public fascination with paleontology was at a slow burn, he encountered an unexpected micro-burst of celebrity. He was getting ready to give a lecture at UT's Thompson Conference Center on the paleoecology of the Late Cretaceous in Big Bend when he noticed something strange: reporters and TV crews were lining the walls of the conference room.

"It was a slow news day," he recalls. "The *San Angelo Times* changed its lead story from 'Man Trapped in New York Subway' to 'Largest Flying Creature Discovered in Texas.'"

The animal was still unnamed. Wann Langston warned Lawson that if he didn't call it something soon, somebody else would. So Lawson christened it *Quetzalcoatlus northropi*, after the feathered serpent god of the Aztecs and the pioneer aviation designer John Northrop. "Since it was the biggest flying wing that had ever evolved," he says, "I thought I'd name it after the guy that built the biggest flying artificial wing."

"This is the thing that Doug found," Timothy Rowe, the director of UT's Vertebrate Paleontology Lab (VPL) said on an afternoon this past August as he pulled open a wooden specimen drawer in Langston's office. Langston had died a few months earlier at the age of 92, but his expansive office still held the charge of his influential personality. There were bones everywhere, an old manual typewriter on the desk, the skull of an Albertosaurus on top of the file cabinet, and on the floor a circa-1960's "Twist Exerciser," a square of rotating plywood that looked older than any of the fossils in the room, and whose yellowed label promised "Fun and Exercise for the Whole Family!"

When Rowe pulled out the drawer, I found myself staring at the Quetzalcoatlus humerus, the big upper arm bone that Lawson and Langston had carved out of that Big Bend creek bank in 1972. It looked like a medieval war club. It was hard to imagine that an animal could have ever gotten off the ground with an arm bone this huge and dense. But Rowe picked up a pterosaur femur from another drawer so I could see the cross-section view of its broken end. The bone itself was exquisitely thin. It encircled a cavity that was filled now with fossilized sediment, but when the Quetzalcoatlus was alive would have been almost hollow.

Rowe pointed out a large bone flare at the end of the humerus. "That's the delto-pectoral crest. That's where the shoulder muscle attached. There's nothing else that has a humerus like this. You never find anything like that except on a pterosaur."

Rowe allowed me the nerdy thrill of hefting the Quetzalcoatlus arm bone in my own hand. When I set it back down in the tray on top of a paper-clipped sheaf of faded notepaper filled with Langston's pencil marks, I noticed another bone lying below it. It was substantially more slender than the humerus but at least a foot long, and tapered like a dagger or a railroad spike. This bone was a part—and only a small part—of the giant pterosaur's amazingly elongated fourth finger, which grew out and out from the hyper-articulated metacarpus, forming a kind of strut that supported the membrane of the creature's wing.

"Here's part of the face," Rowe said, carefully picking up a flattened length of bone eight or nine inches long that I could have spent a lifetime pondering without ever imagining it could have anything to do with anybody's face. Fortunately, on Langston's desk there was partially reconstructed skull of one of the smaller Quetzalcoatlus specimens that put the puzzling bone into some kind of context, though the skull was unearthly-looking itself—more alien than anything you might expect to see hidden behind a secret door in Area 51. It was long and thin and plow-shaped, with the eyes set—like a toucan's—far back at the base of the head.

Near the skull stood another curious-looking structure, a tall, wooden frame from which Quetzalcoatlus bones were suspended by string. Langston had used the apparatus, Rowe said, to try out different hypothetical configurations of the animal in flight.

"He was trying to figure out range of movement and that sort of thing," Rowe explained. "Hey, what was going on with the legs. Did they trail behind like a stork? Here he's got them out to the side. Wann was working on this thing steadily for many many years."

One of the people who first encountered Quetzalcoatlus here at the VPL was Brian Andres, BS '00, now an assistant professor in geology at the University of South Florida. Obsessed with paleontology since childhood—"I think I made my career decision when I was about three"—Andres was a freshman at UT when he met Langston in his office. "Here, hold this for a second," he remembers Langston saying as he handed him a Quetzalcoatlus neck vertebra he was in the process if casting.

"It was truly an amazing experience," Andres says. Holding a Quetzalcoatlus fossil in his own hands in Langston's office was part of the chain of inspiration that led him to become a pterosaur expert himself. In fact, when I talked to him in August, he had just published a paper in the *Earth and Environmental Science Transactions of the Royal Society of Edinburgh* called "Texas Pterosaurs" in which he named a new species, *Radiodactylus langstoni*, for his late professor.

You can still hear the excitement in Andres' voice when he talks about Quetzalcoatlus. "You name it, it does it. When it came out it pushed the boundaries of what we knew of animals, what life was capable of. There are papers written going back to the 1800s guessing what the maximum size of flying organisms could be, and Quetzalcoatlus just blew that out of the water. It really pushed the limits of biomechanics in terms of what animals could achieve. Also, pterosaurs are infamously fragmentary, but Quetzalcoatlus is amazingly complete.

"But we're still trying to figure this thing out, how it lived and breathed. It just boggles your mind. How was an animal that could look a giraffe in the eye, then take off and fly."

Exactly how it took off and flew is a matter of lively scientific conjecture. It was a very large animal—Andres' best guess is a minimum wingspan of slightly more than 32 feet—and it's harder for very large animals to get themselves into the air. To become airborne, it probably ran along on all four legs until it reached something close to take-off speed, then shoved itself upward with its front feet, gaining just enough altitude for a propulsive downward stroke of its wings to launch it into flight.

Once in the air, it probably flew with a minimum of wing flapping, gliding along on air currents and thermals. Many pterosaur species lived exclusively on coastlines. So far Quetzalcoatlus has been found only in inland environments, so it's likely it wasn't limited to coastal regions. It may have traveled long distances to ancestral nesting sites, just like many migratory birds do today. Nobody knows for sure what the creatures ate, or how exactly they ate it, but Andres thinks that a useful modern equivalent for understanding the diet of Quetzalcoatlus might be the Marabou stork of Subsaharan Africa, which is an active hunter of fish and amphibians and small mammals, as well as a canny scavenger that looks for meals where vultures congregate. Oh, and one other thing: Quetzalcoatlus was, in Andres' words, "fluffy." Its body would have been covered with a mat of bristles that a human eye—had there been a human eye back then—would have registered as hair.

"It pushed the boundaries of what we knew of animals, what life was capable of."

A visibly, flying furball is not the first thing that comes to mind as you stare up at the giant skeleton hanging from the ceiling of the Texas Memorial Museum. But Quetzalcoatlus has a way of testing the human imagination in general. Forty-two years after Doug Lawson came across its bones in Big Bend, the creature remains a landmark scientific discovery and a crucial inspiration for young paleontologists like Andres.

It also remains a mystery. Standing below the giant skeleton in the Great Hall, you can't help but wonder: Could this possibly be true? Did something like this really once live on our own earth? If so, what would it have been like to be alive back then to witness it? The first clue might have been a slight darkening of the sky, or the sound of raucous chattering—perhaps squawking, hooking, or reptilian hisses. Your attention drawn upward by the disturbance, you would have raised your eyes and seen wave after wave of giant migrating pterosaurs blocking out the sun, their wing beats making a sound like great sails filling with wind as they flew, their long necks extended and their keen eyes scanning the ground, through the Mesozoic skies. ◆

Stephen Harrigan is a faculty fellow at UT's Michener Center for Writers.

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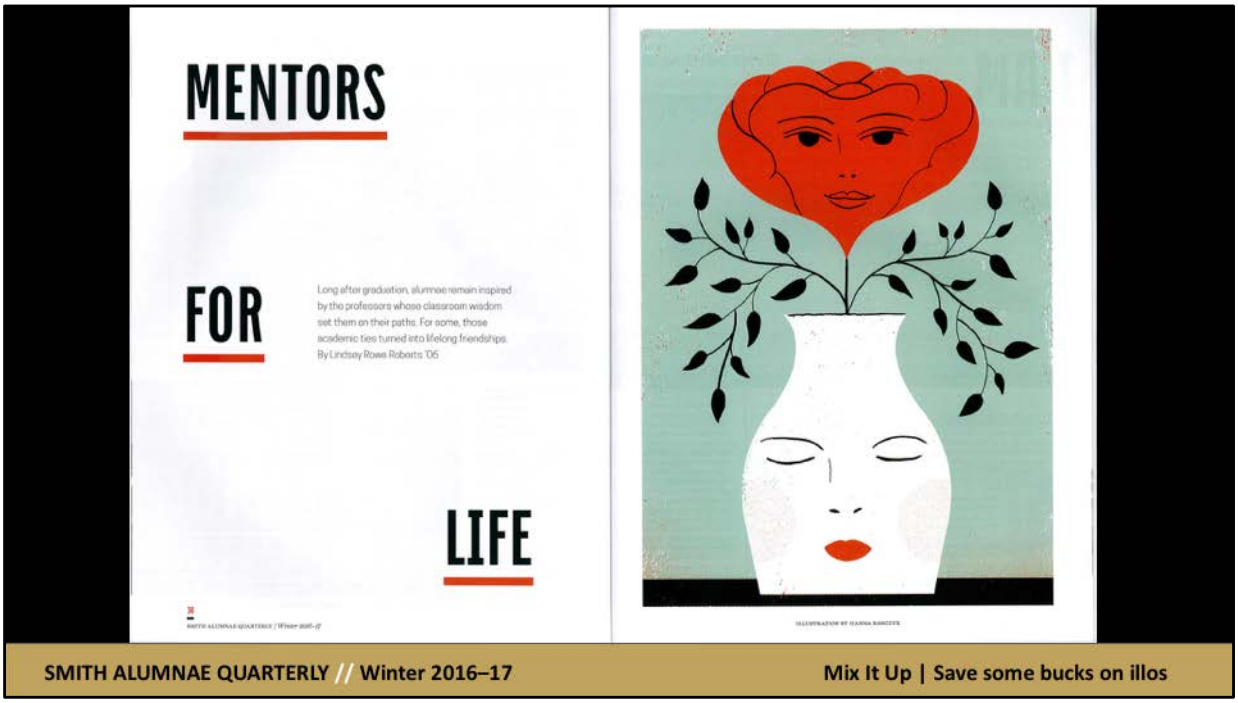

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I AM

A JOURNALIST. When I sit down to work, whether I'm pitching an idea to a new magazine or writing an article for a favorite editor, I feel that familiar fog of inadequacy settle in. Then, my mind travels back to my senior year, and I see my English professor Patricia Skarda stare me down from behind her desk in Seelye Hall (the line of students outside her door finally gone on a late midwinter afternoon), and I hear her ask: "Lindsey, what do *you* think?"

Miss Skarda, as she preferred to be called, was advising my honors thesis on the British author Thomas Hardy, and we were stuck—mainly because I kept coming back to her with ideas by other scholars. I kept trying to provide the right answer, but Professor Skarda wanted me to try out a new answer. As she pressed this question, with the twilight hours pushing pink and purple across the sky behind her corner office, I was perfectly speechless.

Over 25 years of writing since, I've found that one of the most important tools I need is a backbone soft enough to listen to criticism, and strong enough to keep on going. I need to be able to face the daily rejection of editors who don't like my story ideas or copy editors who cut my favorite words. More important than my laptop or cellphone is my belief that I have something worth saying. This is the kind of lasting gift that the best of professors can give. Pat gave it to me tied with a ribbon.

As her student, I strove to prove myself worthy of her already high estimation of me. I left my declared, half-dozen biology major to keep taking classes from her and from the other "great minds" she pointed me to. After I presented my senior thesis, she presented me with chilled Champagne at her house next to campus. A couple of years later, I moved across the country to take a shot at writing for a national publication; I ultimately became the assistant managing editor for *Architect* magazine and then the monthly shopping columnist for *The Washington Post*. She taught me how to network. She celebrated every internship and job and article I shared with her. She always knew I could do it, even when I didn't.

Our relationship grew beyond the academic and aspirational because Pat let me into her life, and I let her into mine. My friends will never forget when she came to my 21st birthday at Packards Bar wearing a feather boa—her wit, our entertainment. In 2006, after I moved back home to Seattle, she attended a fellow Smithie's wedding nearby and stayed with my family. During that visit, my grandfather fell ill for the last time and she came with us to hold his hand. At the assisted-living facility, she looked into my mom's eyes, just like she had looked into mine, and told her she needed to say goodbye.

When I attended Pat's memorial at Smith two years ago, I was surprised by how many students stood up to testify to how Pat changed their careers and lives, too. She saw the talent and the heart of students who didn't believe in themselves. I still grieve her loss—I didn't get to say goodbye—but it cheers me to know that a group of us still bear her many priceless quips in our hands.

At Smith, many relationships between professors and students become like ours, those of mentor and mentee. Some mentors become colleagues, and even friends. Read on for five stories of the life-changing connections, forged at Smith, between professor and student.

SHARED LANGUAGE OF POETRY

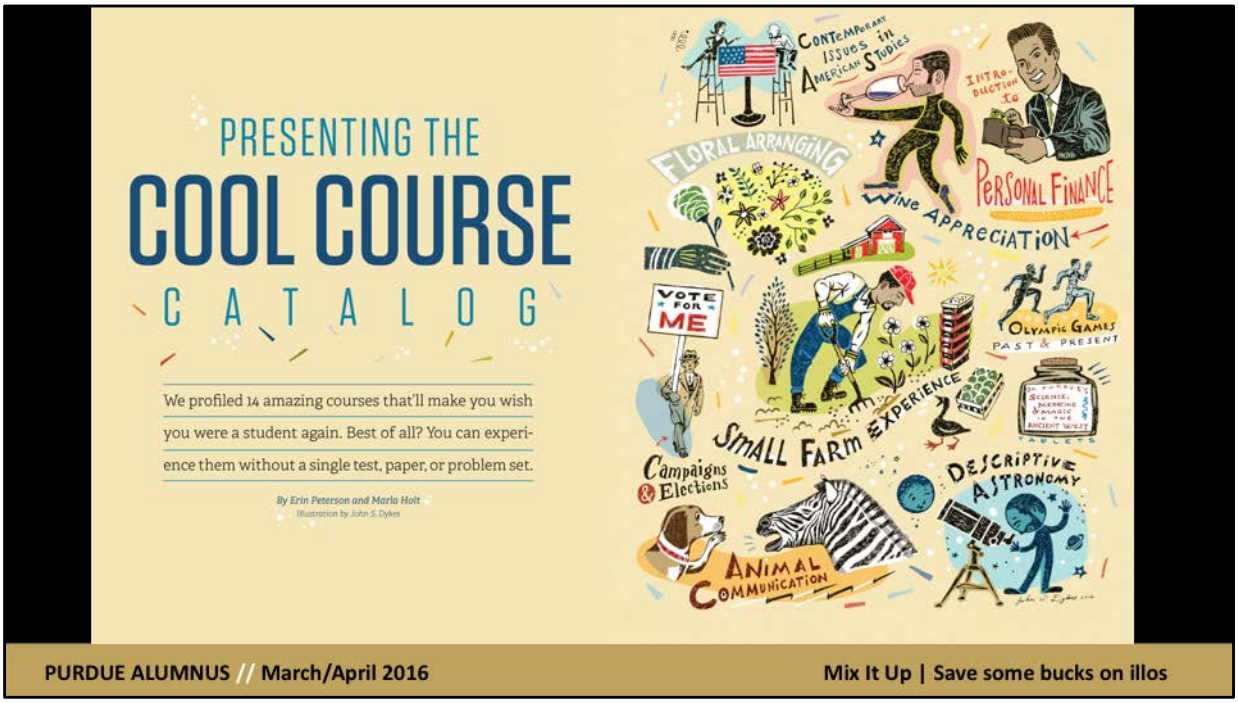
Lynne Francis AC '10, poet

Major: American studies
Floyd Cheung's influential courses: Methods in Literary Studies, Reading Contemporary Poetry
My first class at Smith: "My current was as a nonprofit fundraiser. Floyd Cheung had reinvented the Methods in Literary Studies course in his own wonderful way—it included poetry. For example, said poets' ideas on how their work should be read. That class set the whole tone at Smith for me. I remember so closely being addressed in that first class as his colleagues—that's how he referred to all of his students. I was coming back to school after about 25 years. That was huge for me."
Why I pursued his mentorship: "I think as an Ada, you're more outspoken, you're not afraid to go to the professor. You know he's a human being. I started talking with him about my love of poetry and took anything he taught because he's such a generous scholar, such an encourager."
We hold each other account-able: "After graduation, I stayed in Northampton, hoping to find a job. He suggested that we check in on each other every other day. He was writing a great deal then, and I was, too. We would check on each other's progress: 'I read six poems.' 'I wrote two terrible lines.' That kept me honest. Now, we still check in to talk about poetry or catch up. Last June he found a 30-day poetry challenge, and we both did it."
Becoming family friends: "Sometimes we would share poetry while he was waiting for his children to get out of ballet class. My daughters went to Smith, too: Lesley Johnson '04, and then Caitlin Johnson and I graduated together in 2010. Caitlin was in dance, and Cheung was the second reader for her M.F.A. thesis. That man can do anything."

PHOTOGRAPH BY CHRISTOPHER T. MARTIN

MENTOR: FLOYD CHEUNG
Associate professor of English language and literature

Two years after Lynne Francis graduated from Smith, she and Floyd Cheung submitted poems to a competition in Amherst. When Francis' poem "Pomegranate Tart" was chosen as a finalist, Cheung recited it from memory to the audience, which included his family. The audience voted by applause for her poem to be the winner. "I was neryewracking and thrilling," Cheung says. "More importantly, it was an honor." As her professor, Cheung recalls being impressed with Francis' wholehearted devotion in class and her skills as a prolific poet. "Lynne has been writing poetry for a long time, so I am actually her junior colleague in that arena," Cheung says. "She has helped me to pay greater attention to sound in my poems. She's also very encouraging about my work in general. She once said that my poems make her 'feel smart.' I like that."



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Every year, Purdue offers thousands of courses that are designed to build students' skills and hone their critical thinking abilities. But there are also many courses that seem designed to draw a crowd because of the uniquely fascinating view of the world that they offer.

And these are some of the courses we wanted to share with you. Though we couldn't possibly highlight all of the terrific classes available to students, we scoured Purdue's course catalog for some of the best.

We found more than a dozen classes in a wide variety of disciplines that cover everything from time-tested wisdom to practical life skills to up-to-the-minute news analysis. We think you'll see at least a few in the pages that follow that will make you wish you had just one more semester in the classroom.

Tell us about your own favorite course by e-mailing us at alumnus@purdue.edu.

RED, WHITE, AND BLUE

Contemporary Issues in American Studies

Taught by Rayvon Fouché, American studies

WHEN PEOPLE AROUND THE WORLD USE THE TERM 'America,' they're typically referring to the United States, even though this nation certainly isn't the only American one. The word also brings to mind a long list of issues — from gun violence to race relations — that, from a global perspective, define current American culture.

In Rayvon Fouché's graduate-level course, students grapple with the idea of America as perceived globally. They explore, through today's hottest topics, what it means to be American.

Class discussions range from the 2016 presidential election to the safety of hoverboards to the issue of trafficking human beings across the border between Mexico and the United States. No topic is off-limits, Fouché says. "I want them to think broadly about the ways in which interdisciplinary and global perspectives about American culture can be relevant to their research," she says.

It turns out that one of the best ways to understand ourselves is by examining the ways that others see us. "I'm trying to get them to develop their ideas and beliefs about American society," Fouché says. By the end of the course, students have a deeper appreciation for the country's role in a global society.

WOKE UP LIKE THIS

American Beauty

Taught by Shanta Vostral, history

MANY WOMEN GET PRAISED FOR THEIR NATURAL BEAUTY, but if there's one thing Shanta Vostral would like her students to know, it's that effortless beauty is typically anything but.

Take, for instance, our hair. Our bodies are covered with it, and many women spend hours each week shaving and plucking it, straightening it or curling it, conditioning it and coloring it. (Men, too, have their hair rituals, though they tend to be of a different order than women's.)

Then, of course, there are the countless ways women try to modify their shapes through Wonderbras, spanx, and more permanent measures. "There are so many technologies that people use to modify their bodies, from plastic surgery to the eyelash-lengthening drug Latisse," says Vostral.

The course examines everything from exercise to aging to celebrated body shapes of the day (Woe to the woman born with a Kardashian shape in an age of Twiggy, or vice versa.)

Ultimately, Vostral believes it's fine to decide to pursue (or not pursue) beauty at any level, but she also argues that having a deeper understanding of how culture shapes our ideas about appearance makes a difference. "We can't escape from the billboards and the magazines and the body types," she says. "But knowing that there are cultural assumptions [that] underpin our perceptions of beauty[] can be useful in accepting others and ourselves."

TIME TO SMELL THE FLOWERS

Flower Arrangement and Indoor Plant Management

Taught by Mary Lou Hayden, horticulture

EACH SPRING AND FALL, DOZENS OF DORM ROOMS ARE BRIGHTENED WITH GORGEOUS FLORAL displays carefully arranged by students in Mary Lou Hayden's course. The flowers look pretty — and they also probably live longer than the bouquet currently wilting on your kitchen counter. That's because the students who bring their creations home have also learned to properly care for the flowers and greenery. "Flower arrangement and care is a lifelong useful skill, whether or not you work in a flower shop," Hayden says.

Hayden's students practice their composition skills with flowers Hayden buys from a local wholesaler. Hayden emphasizes the principles of basic floral design, such as balance and proportion, but also encourages the occasional rule-breaking to add unexpected touches to an arrangement.

The course is about more than playing with stems and petals; students also learn what certain flowers mean, which can differ by culture and occasion. "We associate white flowers with purity, but in some cultures they represent death," Hayden says. The course also covers the identification and care of houseplants as well as the science involved in growing them, such as the chemistry of plant foods and fertilizers.

For those of us just hoping to keep an anniversary bouquet looking fresh, Hayden passes along two tips. Add a good floral preservative to the water for added longevity, and always cut flowers at an angle with a good clean strike. Such a cut allows the veins in the plant, called xylem cells, to stay open and continue to absorb water.

WHAT DID THEY SAY?

Course: Animal Communication

Taught by Jeff Lucas, biology

WOODPECKERS USE THEIR POWERFUL BEAKS TO BUILD NESTING sites in trees and search for food, but when you hear that distinctive drumming sound, think Don Juan, not dinner, says Jeff Lucas. "When male woodpeckers drum on hollow trees, they're sending a signal about their potential as mates," he explains. "A female will listen to the purity, the frequency, and the loudness of the drumming to decide whether or not to mate with that male."

Animal language may not be as sophisticated as Shakespeare, but it is intricate and interesting in ways we're just beginning to understand, says Lucas. From the electrical pulses that electric fish use to communicate with one another to the calls of a frog in a chorus, animals have countless unique ways to share information about everything from nearby predators to the location of the next meal.

And what animals hear can change based on the season. In frogs, birds, and mammals, for example, as a female's estrogen (and fertility) levels rise, so does her sophistication at picking out the nuances of a male's communication methods. "When the estrogen levels are high, females detect really fine-scale information from a potential mate," Lucas says.

While the class is designed to examine just about every animal but humans, Lucas acknowledges that much of what scientists have learned in the field may apply to us, too. "Communication, like lots of things in biology, incorporates a huge variety of different approaches," he says. "That's useful to animals, and it's useful to us, too."

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STAR STRUCK

Descriptive Astronomy: Stars and Galaxies

Taught by Rafael Lang, physics and astronomy

THOSE COIN DONATION FUNNELS — THE MESMERIZING ONES THAT SLOWLY SWIRL A PENNY around in circles as it's pulled to the bottom — are more than just a persuasive tool to part you from your spare change. They also elegantly illustrate Kepler's laws of planetary motion.

A group of students in Rafael Lang's course recently made that discovery when they went in search of a response to Lang's free-form "do-something-cool" astronomy assignment. "[Their findings] blew me away," Lang says. "We can see planetary orbits at work at the Tippecanoe Mall."

The do-something-cool project is just one way Lang engages his students' curiosity about the universe as they explore such topics as stellar birth and death in supernovas, black holes, and dark matter. Hands-on class experiments include building a scale-model solar eclipse and cooking a comet out of dry ice, water, iron, ammonia, carbon powder, and liquid nitrogen.

Of course, they also observe the night sky. To make sense of the cosmos, Lang and the students head to the darkest spot they can find — like an Indiana cornfield or a local elementary school — with a Purdue-owned telescope.

Even though the universe can make us feel tiny, Lang says astronomy is a particularly accessible science. "I hope this course removes the fear some students have of science," he says.

WHAT 'PACMAN' CAN TEACH US

Writing for Games

Taught by Samantha Blackmon, English

FROM SIMPLE BOARD GAMES LIKE CANDY LAND AND LIFE TO COMPLICATED VIDEO GAMES LIKE Halo and Minecraft, games help us create and experience stories like no other media. "Games are immersive, interactive experiences," says Samantha Blackmon. "When people think about old-school games, there's often a time when players make the writing choice and die. But in today's games, there's often not a 'fail' state. Players make a choice, and the rest of the narrative changes."

The techniques of game storytelling are vast. Take the crime-fiction game *Her Story*, for example: the game interface itself is like a Windows 95 desktop, with file folders that players click on to watch videos and listen to people being questioned about missing persons. "Because it's just like a computer desktop, it's as though the game itself disappears," explains Blackmon. Another game, *Brothers: A Tale of Two Sons*, makes players "feel" the death of a character through the clever use of controllers.

Through discussions and readings on game theory, students learn how such games tick — and then they work collaboratively to create their own.

Working in teams, they write scripts, develop storyboards, and create flowcharts that can be turned into a game. "When you've got a creative writer, a computer graphics student, and an education student, they're all coming from different perspectives and have to learn what strengths and limitations the other [disciplines] bring," Blackmon says. "Working collaboratively and being able to see things from others' perspective is essential."

GAMES THEORY

Olympic Games: Ancient and Modern

Taught by Bill Harper, health and kinesiology

WHEN PIERRE DE COUBERTIN LAUNCHED THE MODERN version of the Olympic Games in 1896, he probably didn't imagine today's multimillion-dollar corporate sponsorships, the drug- and technology-fueled races to enhance athletic performance, or, for that matter, any female competitors at all.

But what he did imagine was something even larger than the Games, called the Olympic Movement. "The Movement is a bigger idea about the power of sports to inspire a better, more peaceful world," says Bill Harper.

Harper's course tracks the Olympic Games from their origins in ancient Greece to their sputtering relaunch in the late 19th century (hint: rocky wartime years, and their current incarnation as political and business powerhouse.

The class doesn't shy away from controversies that have tainted the games: Hitler famously used the Berlin Games to showcase his belief system, and Coubertin actively resisted allowing women to compete in the Games. But over time, Harper says, the Olympics often gets it right. Jesse Owens is often credited for singlehandedly crushing the myth of Aryan supremacy with his four gold medals at the Berlin Games, and by 2012, female competitors outnumbered male competitors overall.

Harper hopes his students begin to understand why the Olympics have thrived over time. "In spite of two world wars and an many other international brouhahas, the Games continue," he says. "It's the largest international effort that has peace and justice foie. That's an incredible statement."

A GROWTH INDUSTRY

Small Farm Experience

Taught by Steve Hallett, horticulture and landscape architecture

WHEN THE PURDUE STUDENT FARM WAS ESTABLISHED IN 2011, one of the very first things it needed was a farm crew. At about the same time, the university created a new degree program of sustainable food and farming systems. Starting a course that gave students hands-on experience — and adding in a few summer internships — turned out to be the perfect way to get the farm up and running.

Students in Steve Hallett's course, which is offered in both the spring and fall, work on everything that happens during a seasonal cycle of a small farm that produces vegetables and cut flowers. That includes planning for and selecting crops, greenhouse seeding and bed preparation, planting, analyzing, and treating for diseases and pests, irrigating, weeding, harvesting, and sales.

"We stop often to talk about what we're doing, but it's really an opportunity for students to do the work of farming," explains Hallett. Farmers are jacks-of-all-trades, he says, so the course taps into several different disciplines, such as entomology, plant pathology, soil science, and economics. The student farm functions like an ag college, he says, training students for careers as agronomists, entomologists, and horticulturists. The course also adds in the knowledge students need to start and run their own sustainable small farm, should they choose to do so.

Because the Purdue Student Farm is a working enterprise and produces food to sell at local farmers' markets and restaurants and through farm shares, students don't just learn on a handful of demonstration plots, but take on all of the challenges—both good and bad—associated with farming. "The farm is a living laboratory where students can see the consequences of their decisions from year to year," Hallett says. "It doesn't get more realistic than that."

THE MONSTERS WE MAKE

Introduction to 3D Animation

Taught by Ray Hassan, computer graphics technology

FROM POLAR BEARS TO EYE-POPPING ARCHITECTURAL renderings to the latest in medical imaging technologies, 3D animation has probably already made your life a little bit richer. And in his course, Ray Hassan teaches his students to start creating some of those close-to-magical experiences.

Hassan — who admits he's partial to the movie monster side of the field — teaches his students to build 3D objects, add virtual skin and bones, and make their imaginary creatures move in a believable way. "In the end, they'll create a little movie clip or a series of models that could be put in a video game," he explains.

Throughout the course, Hassan also highlights the tiny details of 3D-animated films that showcase true mastery on the part of creators.

For example, the way that light bounces off surfaces is difficult to capture accurately; done right, however, it can infuse a scene with a powerful sense of reality. When Mike Wasenski, a character in Monsters University, walks through campus as sunlight filters through the trees, the effect is viewbook-perfect. "That scene is far more than just a single computer calculation. The light is exaggerated and embellished," says Hassan. "But the way that it was done gives you an intense sense of being back on campus and getting ready to start a new semester."

In the end, Hassan wants students to gain more than a deep appreciation for animated box-office smashes. "I want them to come away with one more tool to be creative," he says.

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A MATTER OF LIFE AND DEATH

Mortuary Practices Across Cultures

Taught by Michele Buzon, anthropology

OUR CULTURE HAS LONG HAD AN UNBALANCED RELATIONSHIP with death. We love the zombies and vampires that fill our television screens, but when it comes to the deaths of people we love, we lean toward speaking in hushed tones and letting others, such as those in the mortuary sciences and medical professions, deal with the aftermath.

This hands-off approach isn't the case in other cultures, many of which lend to their dead personally. By comparing and contrasting American mortuary practices — what happens to the body after death, how and where it's buried, and what items accompany it — with those of other cultures, students see how death rituals reveal societal values, religious beliefs, and other cultural standards.

As part of the course, students complete several thought-provoking assignments, including mummifying a dead chicken according to ancient Egyptian practice, writing their own death plan, and visiting a funeral home to learn about embalming and cremation.

"I want them to think about what [mortuary practices] can tell us about a particular culture or society," Michele Buzon says. "What is the meaning behind death rituals, whether they're elaborate or simple? Why did people choose to bury their dead in such a way? Answering these questions can be eye-opening."

BEYOND THE HORSE RACE

Campaigns and Elections

Taught by Josh Scacco, communication

As his countdown to November 8 begins, politicians at every level will be toting all of their resources to persuade you to choose them when you're in the voting booth this year.

But if the only thing you know about politics is what you see in media stories or the relentless stream of radio and television attack ads, you're missing out, says Josh Scacco. "Those things are really just the tip of the iceberg," he says.

In the course, students study topics including political fundraising and interest groups, how out families and geography influence our political identification, and how political parties actually work.

For instance, says Scacco, if you've ever wondered why the Republican presidential candidates have been facing off so often in prime time, while Democratic candidates have had their debates buried on Saturday evenings, don't blame the candidates or the networks. "These rules are set by political party committees, and they're choosing those schedules because they want to create advantages for their candidates," explains Scacco. What those advantages are aren't always made explicit, but students unpack potential reasons in class.

Scacco hopes students come away with a deeper understanding of the way that the mechanics of American elections shape the world we live in. "I want them to see how elections inform democracy, and how they contribute to both the promise and pitfalls of democratic governance," he says.

WOULD YOU LIKE WINE WITH THAT?

Wine Appreciation

Taught by Christine Butzke, food science

How often have you stood before the vast array of wines at the liquor store, overwhelmed by the choices? Most likely you choose the bottle with an appealing label or an affordable price point. That process is common — but perplexing, says Christine Butzke, a wine scientist and former commercial winemaker. "Imagine if you bought shoes in a box based only on an attractive label that's not even a photograph of the shoes. That's ridiculous! But that's what we expect people to do with wine," he says.

Students learn how wine is made — from sparkling to dessert wines, from whites to reds, and everything in between — and how its production and consumption differs across time and cultures.

The class touches on microbiology, engineering, politics, history, climate change, and chemistry all while taking students on a virtual tour of the world of wine. Class sessions include wine tastings paired with information about wine etiquette and responsible consumption.

Butzke encourages students to travel to the states and countries that produce the wines that are sampled in class. "Wine can be an entrée to adventure and can foster curiosity about other cultures and ideas," Butzke says.

YOU PAY FOR WHAT YOU GET

Introduction to Personal Finance

Taught by Michael Roe, consumer science

MICHAEL ROE WANTS HIS STUDENTS TO HAVE THE SKILLS THEY NEED TO TAKE PERSONAL RESPONSIBILITY FOR THEIR FINANCES, SO THEY CAN MAKE DECISIONS THAT BENEFIT THEM FOR THE REST OF THEIR LIVES.

WHEN STUDENTS ARRIVE AT PURDUE, MONEY CAN SEEM EASY — sometimes too easy — to come by: student loan checks arrive regularly, and credit card offers are typically plentiful. Yet if students aren't prudent about managing this new influx of cash and credit, they can find themselves in a deep financial hole.

Michael Roe is laser-focused on giving students the tools they need to make smart financial decisions. For example, he says, students may not initially see anything worrisome about racking up thousands of dollars in debt on a credit card, since low monthly payments can make the debt seem painless. "The problem," says Roe, "is that the interest rate on a credit card can be as high as 21 percent." In other words, those monthly payments will add up — quickly — to far more than any of the initial charges.

Students also talk about the power of contributing to retirement accounts as early as possible, a topic that their parents may not have had to worry about when they started working. "Years ago, companies had pension plans, and a person would work for 40 years and get a pension for the rest of his or her life," Roe says. "That's just not the case now."

Roe wants his students to have the skills they need to take personal responsibility for their finances, so they can make decisions that benefit them for the rest of their lives. "These days, people just don't have the option not to pay attention to their money," he says.

GET WELL SOON

Science, Medicine, and Magic in the Ancient West

Taught by K. Dickson, classics

SUFFERING FROM THE FLU? TEA, IT'S A SMALL BOY AS GLAD you live in the 21st century. A few thousand years ago, nobody understood that microscopic viruses were the culprits — oftentimes, your very soul was at stake. "Traditionally, disease was associated with demonic possession, divine punishment, or some vaguely conceived notion of physical or moral pollution," explains K. Dickson.

Those ideas began to change in the fifth century BCE, when argumentative Athenians encouraged vigorous debates that started shifting consensus about the cause of illness to the more scientific approaches we have today.

In the course, Dickson and his students examine the ways that religion, astrology, magic, and medicine overlapped in the ancient West, and how they began to separate and change over time.

While we might scoff at some of the more outrageous ancient ideas about the way our bodies work, we may not be as evolved as we think, says Dickson. "In the ancient world, if a man sneezes, he's got a cold, but if a woman sneezes, there's something wrong with her uterus," he says. "That seems strange, but the idea of female physiology dominated by reproductive and sexual issues influenc modern Western science all the way up through Freud, and it still lurks in the background. You can see how these ideas were constructed and developed over time."

Eric Peterson is a freelance writer.

52 PURDUE ALUMNUS

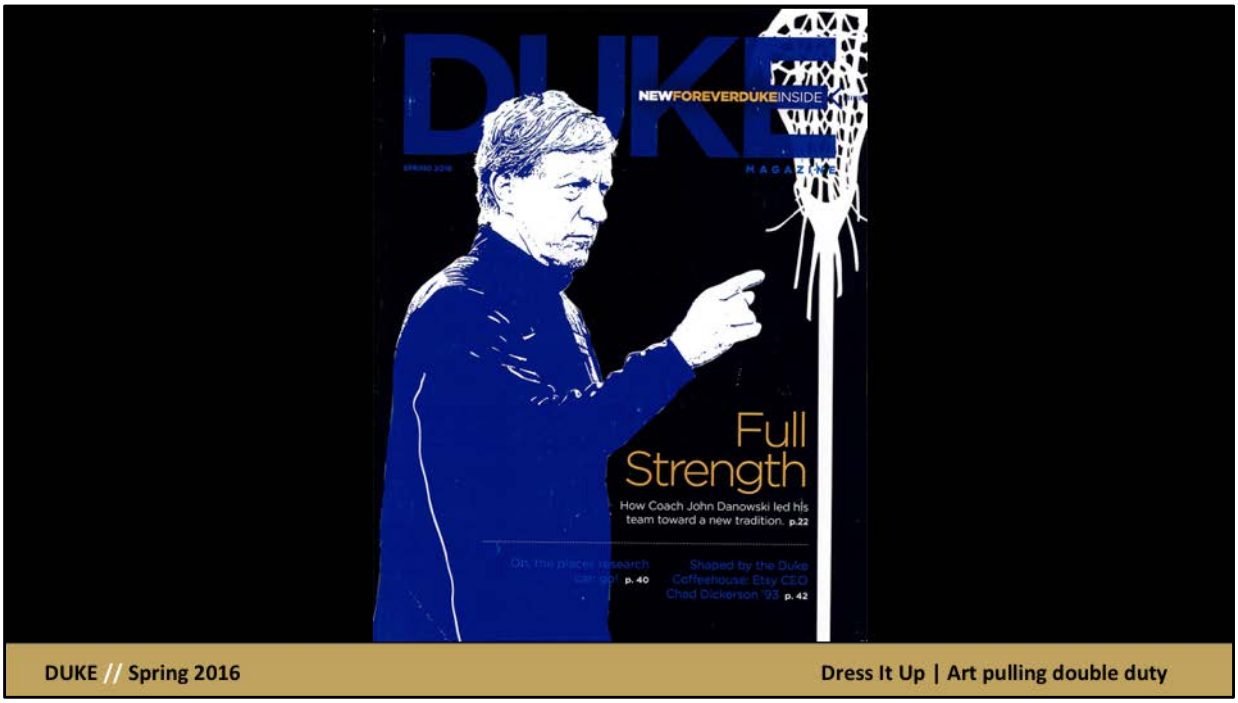
PURDUEALUMNI.ORG MARCH / APRIL 2016 53

PURDUE ALUMNUS // March/April 2016 **Mix It Up | Save some bucks on illos**

DRESS IT UP

Add a little color and some bold type, and BAM! This janky old scan makes a rocking cover statement.

This is an image that Duke has pulling double duty. Used as a photo here, turned this photo into an illo for their cover.

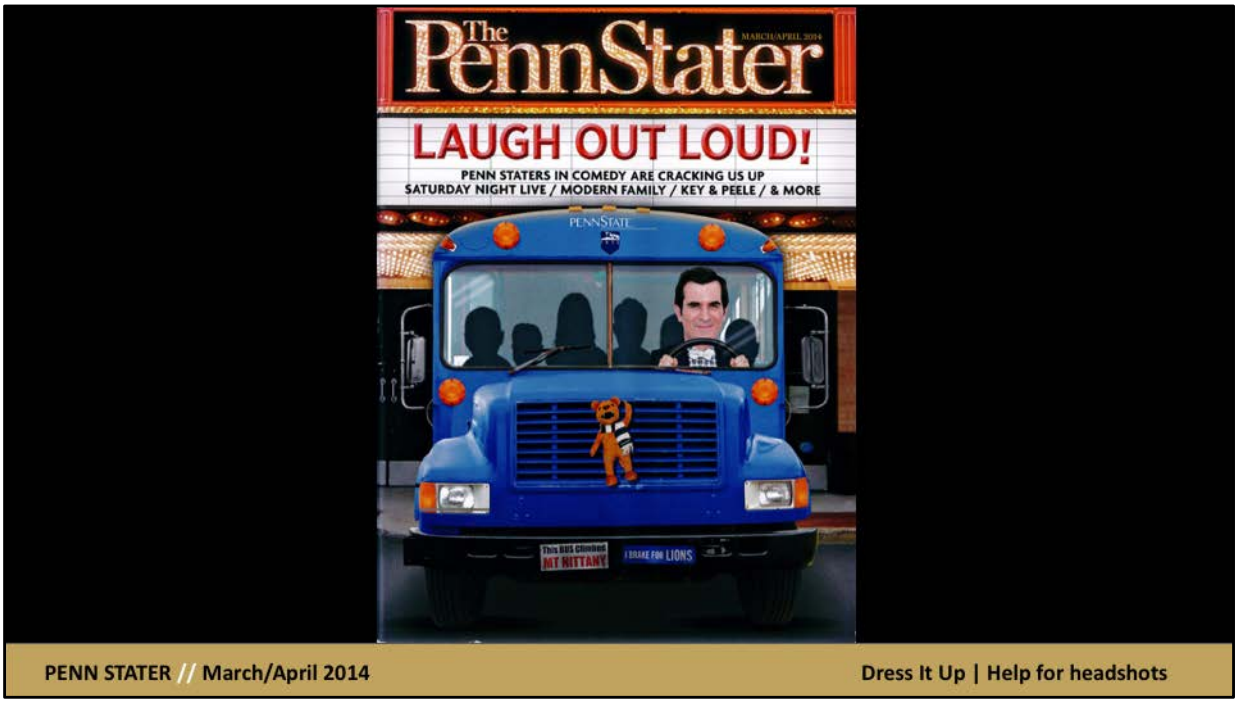


Maybe not the most exciting execution, but think about how you might be able to alter your images to reuse them in more than one place in your mag.

TERP (University of Maryland) // Spring 2014 **Dress It Up | Help for headshots**

An application like this could easy be used for a boring headshot. Could be layered with a stock image.

An application like this could easy be used for a boring headshot. Simple doodle drawing in the back.



You could totally add some fun pizazz to a collection of boring old faculty headshots. Just make them into bobble heads, Use photo illustration to create new environments. Can you imagine something like this with areas of study/expertise?

A lot of quality time with PhotoShop.

KEEGAN-MICHAEL KEY

Actor, *Key & Peele*

Lately it seems like everyone is a fan of Keegan-Michael Key. Once a standout cast member on *MadTV*, **Key '96 MFA A&A** hit it big in 2012 with *Key & Peele*, the sketch comedy show he shares with fellow *MadTV* alum Jordan Peele. Now entering its fourth season on Comedy Central, *Key & Peele* has earned rave reviews from critics and legions of die-hard fans, including President Obama—who offered praise for a sketch in which Key plays Obama's "anger translator." Next up: Key and Peele will star in and co-produce a movie with comedy heavyweight Judd Apatow—who is, yes, a really big fan.

GETTING STARTED
I was probably 10 or 11 when my mom told me, "You know, you don't need to perform in the dining room. You can do it on stage." More than likely, I was doing very hyper-exaggerated imitations of some character from *The Empire Strikes Back* at the dinner table.

FINDING INSPIRATION
The more success you have, the more you start living a new lifestyle, and the more you lose those ordinary moments that have nothing do with show business. Ordinary life is where the funny stuff happens. It's one of the weird dilemmas of this job. So, lately, I've been really insistent about taking out the recycling and bagging leaves.

FUNNIEST SHOW ON TV
The Real Housewives of Atlanta. The humor's unintentional, but it's hilarious. And it's *Always Sunny in Philadelphia*. I'll DVR it, and then sit alone in my house watching it, laughing out loud.

COMEDY HERO
It's a tie between Peter Sellers and Richard Pryor. As much as I enjoy stand-up comedy, I'm fascinated by comedic actors. They resonate with me more. There's a level of clever observation that's layered on the acting, and that requires so much skill.

FAVORITE PERSON TO IMPERSONATE
For me, the weirder a person is, the easier he is to impersonate. Like Christopher Walken—everybody does Walken because he's just odd. I do Bill Cosby, but it's partially based on Adam Sandler's impression from SNL. That's the thing about impressions: They're rarely original. Once someone finds that quality about a person, everyone goes, "Oh yeah, that *is* what he sounds like!"

/ MAD TV / KEY & PEELE / MUPPETS MOST WANTED / MODERN FAMILY / FINDING DORY / UPRIGHT CITIZENS BRIGADE / SATURDAY NIGHT LIVE / LATE NIGHT WITH CONAN O'BRIEN /

TY BURRELL

Actor, *Modern Family*

Flashback to 1997: How would then-Penn State grad student Ty Burrell have reacted to the news that he'd one day star in America's biggest sitcom? "If someone had told me I'd hold down a steady job, I would have cried tears of joy," he says, laughing. "A bathroom attendant? I would have been thrilled." Instead, **Burrell '97 MFA A&A** plays patsies/t Phil Dunphy on ABC's *Modern Family*, the comedy that's arguably the most popular TV show in the country (the series has won 16 Emmys since 2010, including an Outstanding Supporting Actor win for Burrell in 2011.) *Modern Family*'s success has also earned Burrell household-name status, and roles in two highly anticipated movies—this year's *Muppets Most Wanted* and 2015's *Finding Dory*, the Nemo sequel. "It's all been a surprise," he says. "A very pleasant one."

GETTING STARTED
I grew up improvising with my brother and my dad. My dad encouraged a lot of silliness in our house. My brother and I always had a running bit going—he was younger than me and smaller, and we'd do this Abbott and Costello thing, where he was the bossy one, and I was the oblivious, innocent one. Weird work that bit for hours, do it for the family and stuff. So when I started getting paid to perform, I just did whatever they'd pay me to do. I never thought of having the guts to go out and make my way in comedy. I was more, "Oh my God, these people are paying me to do Shakespeare!"

WHAT'S FUNNY?
I have no idea. I really don't. Deep down, there's something about it that is 60 percent irrational. To be honest, I don't want to know exactly what that is. The feeling of getting a laugh is my favorite thing in the world, and I think fully understanding it would sort of ruin it for me.

FUNNIEST MOVIE OF ALL TIME
The Jerk. Steve Martin opened my eyes to irony, and there's a lot of stuff in that movie that, while being utterly silly, is so sophisticated. It just cracks me up so much.

SIGNATURE CHARACTERS
Before *Modern Family*, I really only played the guy you were hoping would be shot or killed at some point in the movie or show. But Phil Dunphy isn't a huge stretch for me. He's oblivious, and I feel pretty oblivious sometimes. Really, I've been practicing that character since I was a kid. The "game" of my brother being smarter, and me being a little bit stupid but good-natured came easily to us. Even today, we seem to slip into those characters whenever we're together.

LAST TIME I LAUGHED REALLY HARD
A couple hours ago, actually. My 3-year-old daughter was doing her version of ballet dancing. It was pretty amazing. You can see hints of what she probably imagines ballet is. Mainly a lot of kicks and arm-swinging.

PENN STATER // March/April 2014 **Dress It Up | Help for headshots**

SARAH BURTON

Performer, Upright Citizens Brigade

Sarah Burton enrolled at Penn State as a broadcast journalism major, though she says, "I always secretly wanted to do comedy." When **Burton '10 Com/Lib, '10 MA Lib** joined campus improv group Full Ammo as a senior, her secret was out. After graduation, she began taking classes with legendary NYC comedy troupe Upright Citizens Brigade, whose members have included Amy Poehler and Aziz Ansari. In July 2012 she earned a spot on three of UCB's improv teams. When Burton's not performing, she's rehearsing—which may seem counterintuitive for a craft synonymous with spontaneity. "Improv is like a sport," she says. "You need to train certain muscles so you're ready for anything."

GETTING STARTED
I always loved comedy, but I didn't consider it a career possibility until I started going to comedy festivals with Full Ammo and saw other people doing improv for a living. I went home and told my family I wanted to pursue it, and my brother was like, "OK, do it right now.

improv." He still doesn't really get it.

MOST SURPRISING THING ABOUT IMPROV
My friends don't believe it's entirely made up. They think we plant people in the audience to say certain things, or that we've rehearsed the same skits over and over. I swear, we don't know what's going to happen.

FAVORITE PERSON TO IMPERSONATE
I can't say I'm great at impressions, but I do Sarah McLachlan. She has that dreamy, breathier voice that makes anything sound sexy. Even homeless dogs and cats.

SIGNATURE CHARACTERS
I think all comedians lean toward certain types of impersonations. I do a lot of rich, judgmental moms.

COMEDY HERO
Tina Fey. Everything she does is funny, and people say she's easy to work with and open to ideas. In comedy, that's huge.

WHEN A JOKE GOES TOO FAR
Sometimes you take a risk and then hear crickets. There's a way to save it, though. Be honest. I'll say something like, "I took that too far, didn't I?" And then you get a laugh.

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BOB CLENDENIN

Actor, *Cougar Town*

There's a good chance you've seen Bob Clendenin's face before. With more than 70 TV appearances, dozens of movie roles, and countless commercials, **Clendenin '90 MFA A&A** is used to being referred to as "that guy from that thing." His latest work isn't exactly low-profile, either. He plays Tom, Courteney Cox's overly affectionate (read: creepy) neighbor on *Cougar Town*, the TBS series, which entered its fifth season in January. Clendenin also shows off his improv chops in *Quick Draw*, a Web comedy that's mostly improvised and "completely free-form," he says. Now in its second season, *Quick Draw* is among Hulu.com's top 10 most popular shows.

GETTING STARTED
When I first realized I wasn't part of the attractive set, I thought, "OK, what other tools do I have?" As a kid, I had a pretty serious hat collection, and I'd use them to create different characters. The bowler hat was an English gentleman; this knit cap with Snoopy on it was a strange, somber moving man, who would hurl couch cushions everywhere.

My mom remembers catching me in my room, working on my material.

WHAT'S FUNNY?
Something that's always funny to me is an attempt to do something and failing. Failure can be tragic or comedic, depending on how it's set up. Like Spinal Tap—they're trying to be this great band, but they're failing. Or Michael Scott on *The Office*. We laugh hysterically at his efforts to be something he's not. We sympathize with the antihero. It goes all the way back to clowns.

COMEDY HERO
Bob Newhart. My parents used to play his comedy albums when I was a kid, and he's just so minimal and dry—the antithesis of somebody like Robin Williams. Vocally and facially, Newhart gave away nothing. I find that style so appealing. He's probably why I gravitate toward more stoic, dead-pan deliveries as an actor.

FUNNIEST MOVIE OF ALL TIME
I just saw *This is the End*. It's a comedy revelation. Absolutely genius. And I love all those guys—Jonah Hill, Seth Rogan, James Franco.

SIGNATURE CHARACTERS
I really love playing oddballs. People who are just slightly off center. And if I'm being honest, it's not a complete fabrication. I've always been the odd man out. I can behave in a cocktail setting, but the thoughts in my head aren't all that normal.

/ THE ELLEN DEGENERES SHOW / THE EARLY SHOW / THE MIKE DOUGLAS SHOW /

MIKE STILL

Actor, Performer, & Artistic Director, Upright Citizens Brigade

Improv comedy is Mike Still's thing. Just ask his family—which, on holidays, is subjected to endless rounds of "Mind Meld," a raucous Charades-like game that improv actors often use as a warmup. "They love it," he insists. "It's silly, but they love it." Still entered the improv world in 2002, when he and a group of friends formed A Week of Kindness, a sketch comedy troupe whose wacky online videos earned a cult following. **Still '02 Lib** soon got involved with Upright Citizens Brigade, which, for this improv-aholic, was a natural fit.

MOST SURPRISING THING ABOUT IMPROV
That anyone can do it, as long as you don't mind looking stupid. That's the secret. The people we think of as comedy geniuses—they're just regular people who are willing to get out there and look like idiots.

COMEDY HERO
David Letterman. Growing up, I used to tape the *Late Show* every night and watch it the next day. I had stacks of VHS tapes full of Letterman episodes. I probably still have them. I think he's the best.

FAVORITE PERSON TO IMPERSONATE
Bryan Cranston, from *Breaking Bad*. I love the intensity in his voice, the constantly gritted teeth. I do an Alton Brown impression, too, the guy from Food Network. Also, Bobby Flay. I think I impersonate people I secretly want to be.

FUNNIEST SHOW ON TV
Louie. There's a real artistry to the show, and Louis C.K.'s observations are amazingly intelligent.

LAST TIME I LAUGHED REALLY HARD
A couple days ago, I was reading one of those lists of autocorrect fails on BuzzFeed—the people backspeding, trying to get out of whatever ridiculous thing they said. Oh, man.

March/April 2014 THE PENN STATER 43

PENN STATER // March/April 2014 **Dress It Up | Help for headshots**

DON ROY KING

Director, *Saturday Night Live*

Don Roy King says he's always loved "putting on a show." With directing credits that include *The Early Show*, *The Mike Douglas Show*, and *Survivor*—oh, and three Emmy awards—**King '69 Lib** has been the man behind the madness at *Saturday Night Live* since 2006. As director, King (a Penn State Alumni Fellow) literally calls the shots—managing lighting elements, camera coverage, special effects, and music. How he sums it up: "I'm a symphony conductor and an air traffic controller all in one."

WHAT'S FUNNY?
Comedy is hard. It's subjective. A sketch will stutter and die in dress rehearsal, and we'll bring it back the next week, with a new host, and it kills. That can happen without anybody knowing why. It's all about the chemistry.

FAVORITE SNL SKETCH
A few years ago, Keenan [Thompson] came to me with this idea for a fake talk show, called *What's Up With That?* He's telling me how he's going to sing a song, run to the camera, discover all these bizarre characters in the audience, cut back to the stage, and there's a robot, dancing with fred [Armisen] and Jason [Sudeikis]. Really crazy stuff. I just looked at him, and said, "Do you realize that we're a live show? With only five cameras?" I figured it out, though, and we made it work. Now, that bit is one of my favorites.

BEST SNL GUEST HOST
Justin Timberlake. He's so talented and versatile, and he just enjoys being there. A remarkably sweet and giving guy.

DREAM JOB
Someday I'd like to get into acting, in either sitcoms or films. But I couldn't be happier where I am now. My job is to make people laugh and clap, and sometimes, I get a gold statue for it.

MY SENSE OF HUMOR
I'm a little wry and sarcastic. My 16-year-old daughter seems to have inherited that. She told me the other day that she wants to be a director, but "not like you. Dad. A real director." Gee, thanks.

ADAM YENSER

Stand-up comedian and writer, *The Ellen DeGeneres Show*

If you don't know Adam Yenser's name, you probably know his material. Yenser's jokes have earned big laughs on *Saturday Night Live*, *Late Night with Conan O'Brien*, and, most recently, *The Ellen DeGeneres Show*, where he's part of the eight-person writing team that nabbed a Daytime Emmy in 2011. **Yenser '05 Com/Lib** has been making the rounds as a stand-up comedian, too, performing original material at comedy clubs in New York and L.A.—including a stop at Conan in November 2013.

GETTING STARTED
My first stand-up experience went really well, which probably made me overconfident, because my second time was a disaster. That was an open mic night in the basement of a taco restaurant in New York. There were about four people in the audience. I went through 10 minutes of material and didn't get one laugh.

FUNNIEST MOVIE OF ALL TIME
It's a tie between *Anchorman* and *Monty Python and the Holy Grail*—the only two movies I can watch over and over and laugh just as hard every time.

TOUCHY SUBJECTS
Politically, I'm very conservative, which people don't expect. I like to antagonize the liberals a little bit. I talk about how I don't have to worry about the economy, because I sucked up all those Obama commemorative coins when he was elected—and those are always worth more when they have obvious mistakes on them.

DEALING WITH HECKLERS
People shout random stuff sometimes, but I've never had a really persistent heckler. The key is not to engage the drunk people.

FINDING INSPIRATION
When I sit down to write comedy, I can't write comedy. I get ideas from conversations with friends, but most of the time, I think of material while I'm driving. I guess I don't pay enough attention to the road.

LAST TIME I LAUGHED REALLY HARD
My friend [comedian] Nick Cobb was trying some new material the other day. I won't steal his joke and tell it, but he has this bit about the Dog Whisperer. It absolutely killed me.

/ SURVIVOR / COLLEGEHUMOR / BUZZFEED / COUGAR TOWN / QUICK DRAW /

JEFF RUBIN

Writer, Buzzfeed.com

Jeff Rubin was the first employee of CollegeHumor.com. In 2004, the comedy website's two founders hired **Rubin '04 Com** as a writer, and in the past nine years, he's produced hundreds of articles and videos (including viral hit *Bleep Bloop*, a Web talk show for videogamers), helping CollegeHumor grow from dorm-dweller favorite to media powerhouse. In late 2013, Rubin left CollegeHumor for Buzzfeed, where he specializes in the same brand of snarky—and endlessly shareable—comedy.

GETTING STARTED
My first semester at Penn State, I was writing silly little things and sharing them via AIM away messages when I heard there was a humor magazine. I remember thinking, "Oh, other people want to do this too?" That's when I started taking it seriously, and I guess I never stopped.

MY SENSE OF HUMOR
People who work in comedy tend to have a weird sense of humor. You hear and try so much that you build up this tolerance, and it takes a really deep cut to feel pain anymore. I like anything that's unlike everything I've seen before. At this specific moment, that means *Eastbound & Down*.

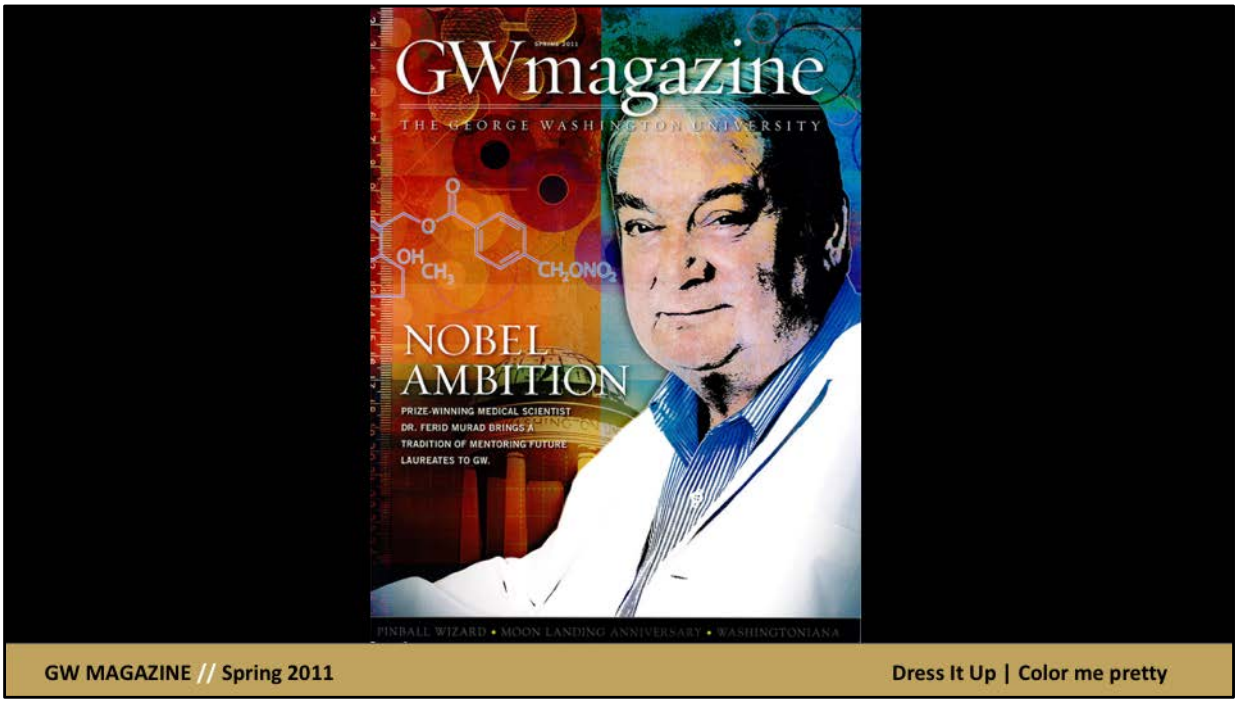
FINDING INSPIRATION
I get ideas from just living. You need to have a life so you have something to comment on. Plus, life has a ton of health benefits.

COMEDY HERO
"Weird Al" Yankovic. When I was growing up there weren't a ton of alternative voices for kids, and Weird Al made me feel like it was OK, maybe even cool, to be weird. Obviously, I didn't recognize that at the time. I just thought the video for "Like a Surgeon" was the greatest thing in the world.

FUNNIEST MOVIE OF ALL TIME
I think it might be *The Big Lebowski*, right?

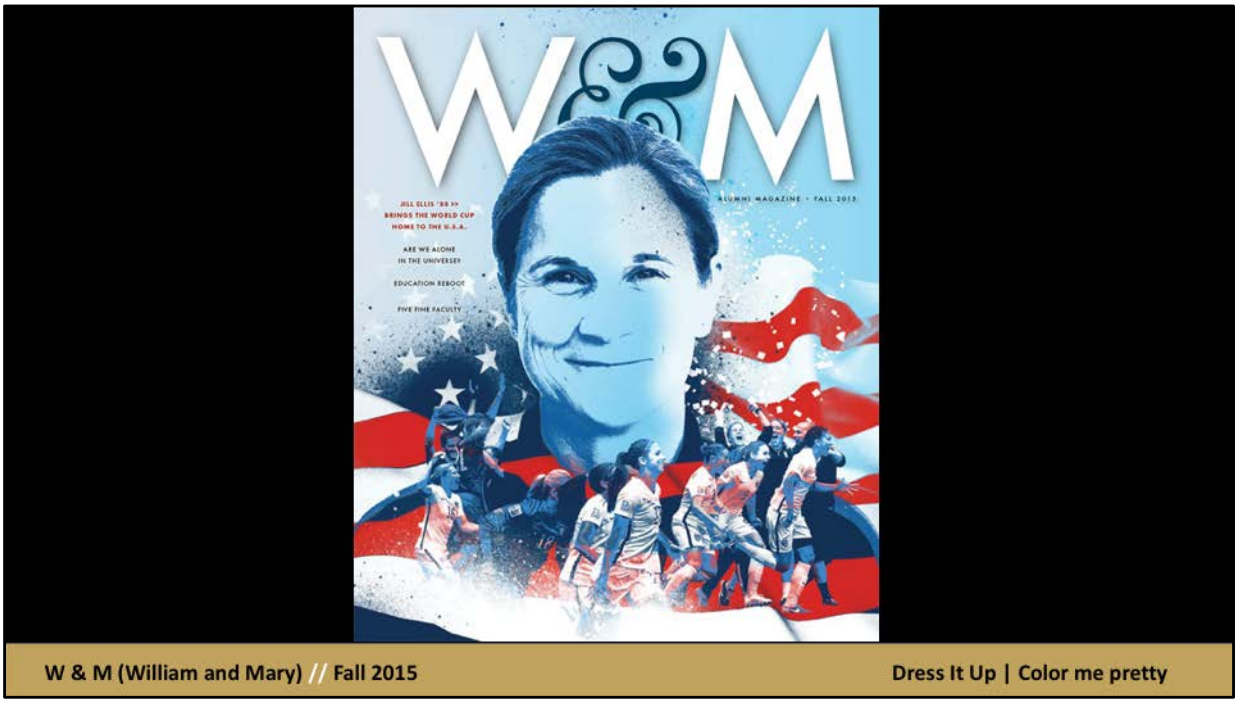
LAST TIME I LAUGHED REALLY HARD
You can actually watch it online. It's one of the last episodes of *Bleep Bloop*. It featured Pat Cassels, Dan Klein, and this M&Ms videogame for Wii. These guys are both hilarious personalities on the Internet, but they're also friends of mine, and in that video, they're making me laugh the way only friends can. ☆

PENN STATER // March/April 2014 **Dress It Up | Help for headshots**



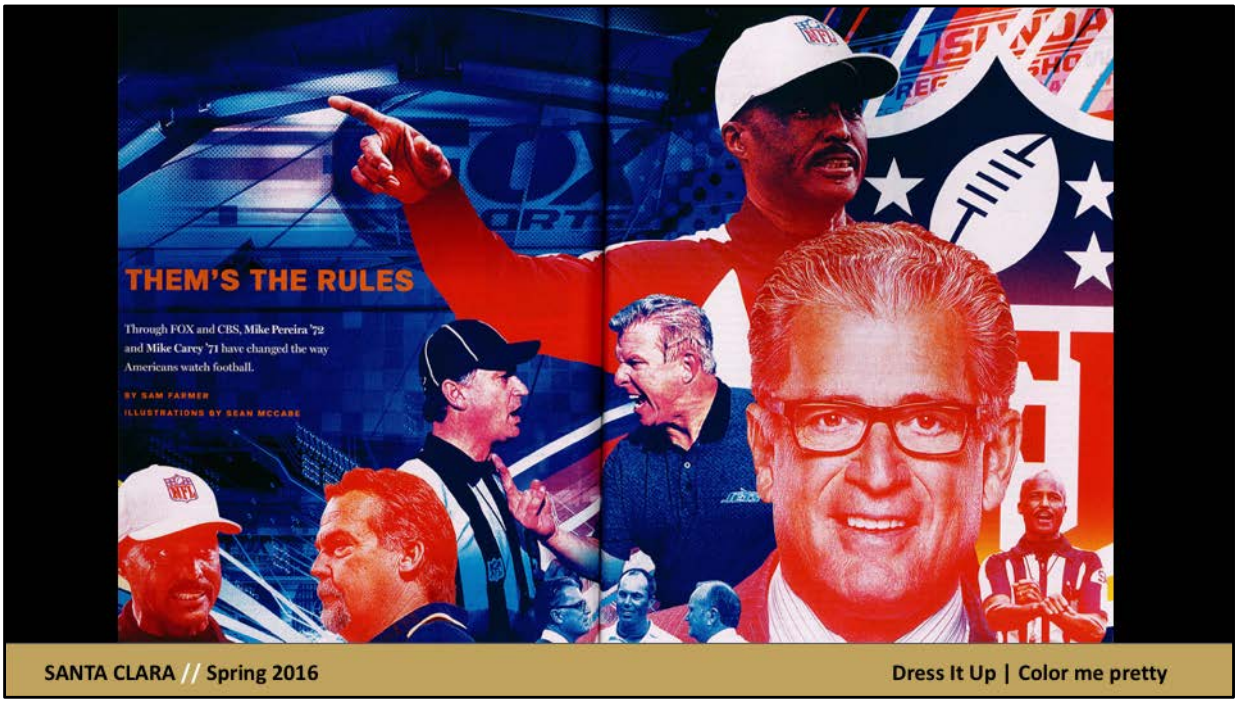
I have had this in my pile for a LONG time. The sticky note sticking out of the top has faded! Good use of visual texture, combining graphic elements, crazy colors to make something out of a provided photo.

Not sure what to do for your headshots/provided photos? Give them some color! Everyone is instantly united.

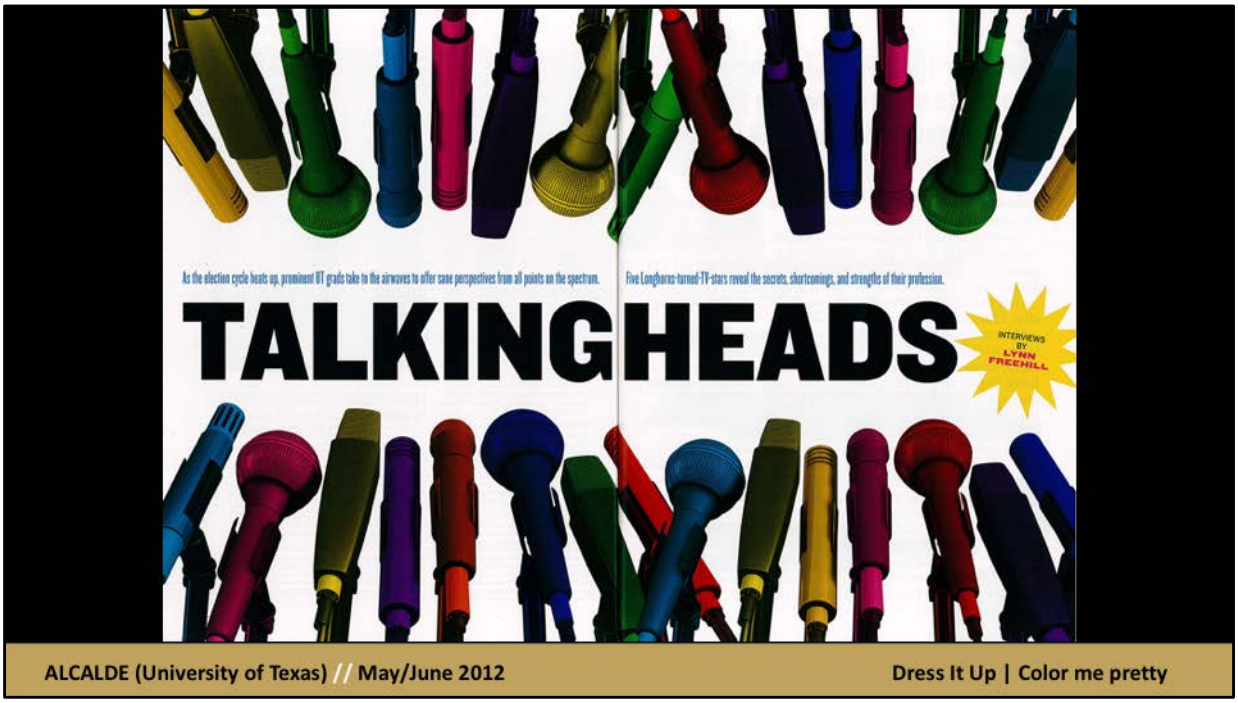


W & M (William and Mary) // Fall 2015 Dress It Up | Color me pretty

None of these elements alone is very strong, but you throw them all together, and you've got a cover. Good choice to tone down the blue so it's not so over-the-head patriotic.



Crazy colors. Visual cacophony. Totally plays up the shouting and passion around sports commentary.



Stock images colorfied

October 15, 2004. Journalism students still review the moment as a dramatic case study on the intersection of TV and politics.

Comedian JON STEWART went on CNN's *Crossfire* debate program as a guest—but quickly went off the rails.

Instead of making funny quips about his *Daily Show,* he stayed deadly serious as he criticized *Crossfire* and its black-and-white debate style. "STOP, STOP, STOP, STOP HURTING AMERICA," he begged hosts Tucker Carlson and Paul Begala.

TIME named the episode one of the top 10 TV feuds ever. Not long after, CNN canceled *Crossfire.*

At the center of that pivotal moment was a Longhorn. PAUL BEGALA is a former UT student body president turned White House aide turned on-air analyst. The tense moments with Stewart weren't funny, Begala says, but they weren't as crushing as they looked from the outside. "I LIKE CONFLICT, ESPECIALLY WHEN IT'S DIRECT," he says. "I LIKE SOMEONE WHO STABS YOU IN THE GUT. LITERALLY AS IT WAS HAPPENING, I WAS THINKING, 'THIS IS COOL.'"

The show died, but Begala endures, a television stalwart for a decade now. The TV landscape has changed since, with more analysts and viewpoints popping up, more cable networks making clear their ideological leanings, and ever more shows experimenting with different presentation styles.

Here is what CNN's BEGALA, Fox News' ARTHEL NEVILLE, MSNBC regular MARK MCKINNON, and free-roamers MARJORIE CLIFTON and KAREN TUMULTY see around them—for better and for worse—as they make the television rounds.

PAUL BEGALA

CNN

BA '83, JD '90, Life Member

[redacted]

"COMMENTARY AT ITS BEST PROVIDES INSIGHT AT A TIME OF INFORMATION OVERLOAD."

MAY/JUNE 2012 43

ALCALDE (University of Texas) // May/June 2012 — Dress It Up | Color me pretty

Bold color choices. You can't make someone PURPLE!!??!?! Yes, you can!

"BUT DOGGONE IT, I WAS THE STORY. EVERYTHING THAT IS ME DROWNED IN KATRINA."

ARTHEL NEVILLE

Fox News

BJ '86, Life Member

SEE ME ON: Fox News. I anchor *America's News Headquarters*. I also appear on the *O'Reilly Factor* most Fridays and fill in on *America's Newsroom* and *Fox & Friends First*.
CALL ME: Journalist. Broadcaster. Do not call me a pundit—I'm not that.
DOING THIS SINCE: 1984. I was a junior at UT when I started.
WHAT I BRING: Integrity, factual information, honesty, trust. And in a way that's personable.
UT PREP FOR THE PUBLIC SPHERE: I was a full-time student and full-time reporter for two years straight. As a cub reporter, my days off were Mondays and Tuesdays—so I went seven days a week. I'll never forget that.
MY MODEL: I never wanted to pattern myself after anyone. But my right-hand mentor was Ed Bradley. He gave me the best advice ever in my career. When I was at KVUE in Austin, I would send those three-quarter-inch tapes to Ed, and he would critique me. I would see the girls at the station anchoring. He said, 'No, you have the innate ability to be an anchor. You continue to hone your skills as a producer, as a reporter, as a writer, as a storyteller, as an editor.' That's why I'm still standing.
LOWLIGHTS: I've had my moments when I worked in a situation when I've thought, 'This is not why I got into this.' I don't want to be around people who are lazy or lack scruples or just want to showboat on television.
PROUDEST OF: Just in general I'm happy to have the perspective of being an African-American woman doing this on a major level. But specifically, I covered Hurricane Katrina. I'm from New Orleans. That was the most difficult assignment in my career. Because as a journalist, you're not the story. But doggone it, I was the story. My home was soaked in water for two weeks. Everything that is me drowned in Katrina.
DY PREP: We have great makeup artists and hairstylists at Fox, but I am known to do my own. I can do my makeup in 30 minutes and my hair in about 15. It's rare. But I like doing it because I don't have to sit in the chair too long.
BACKSTAGE SURPRISE: This past Saturday, as I finished all my preparation in terms of reading, I threw on the music in my office and started dancing to get myself all excited about my job.
BIGGEST DRAG: It's a visual medium and I'm female, so having to work out and be mindful of how I eat. That part's no fun. But I do not starve myself, for the record. I just eat healthy.
BEST PERK: I love what I do and am happy enough to still be doing it. That right there is perk enough for me.
O'REILLY CONFIDENTIAL: I find him to be a kind-hearted, hardworking guy. He's family-oriented, a good dad, and if he's your friend, he's a good friend. He's intense with me, too, but I just give it back to him, and I don't take it personally.
TV ANALYSIS GIVES US: Well, it gives people food for thought. It definitely changes the game—politicians have to always be on their toes because eyes are everywhere.
GET THE DISTINCTION: Our job as journalists is to report the news. Now if you want to tune into the analysis and opinion shows, you know going in that that is opinion. There's nothing wrong with that, but you're going there to hear different points of view. Don't be confused.

MARJORIE CLIFTON

CNN, Fox News, and beyond

BS '02

"YOU'RE SITTING IN A MEAT LOCKER TRYING TO TALK TO A BLACK BOX AND APPEAR ANIMATED AND ENGAGED."

SEE ME ON: CNN and Fox. *Early Start, Hannity, Lou Dobbs.* I go full circle.
I'D CALL MYSELF: An analyst. And I'm officially a political independent.
BEEN DOING THIS SINCE: It's really only this year that I started doing on-air camera punditry. What has been a consistent thing through my entire career is training women in media. The camera got turned on me.
WHAT I BRING TO THE TABLE: A woman's perspective. There is still a huge disparity in terms of guests and commentators.
HOW I GOT STARTED: I was a broadcast journalism major at UT. I left that to go to advertising and marketing because I was so turned off by the idea of having to sell media. What I've learned and what I'm trying to do is to play the game so you can get in and change it. I always get pushed to be a Republican or Democrat, because that's what sells. I try to represent both sides in a fair way that's promoting dialogue instead of polarity.
HOW UT HELPED: I came out of a private all-girls school in Houston. The diversity of UT gave me a broader perspective.
TV THAT INSPIRES ME: In terms of gumption and guts, Rachel Maddow has created a new space for women in humor and sarcasm. She infiltrated the boys club in a way that I don't think any other woman has. Fareed Zakaria is very balanced, and his work is research-based. He pushes outside the normal political drivel and focuses in on having a more global perspective.
MY FAVORITE MOMENT: Recently debating this birth control issue. Never before has my voice felt more important because of the lack of women out there speaking about it. It required me to bring a bigger part of myself into it than I'd ever had before as a woman and a Catholic.
QUOTE I'M PROUDEST OF: 'Gentlemen, don't stop opening doors—just don't forget the doors to the newsroom and the boardroom.'
THE REAL DEAL ON PREP: It means having to stay current on what's happening, up to date on what other people are saying, and doing the necessary research on a given issue. I do two or three hours the night before of general prep. Then they'll email me the topics at 6 a.m. and I'll prep until I'm on the air at 9.
BACKSTAGE SECRETS: People don't realize how much time you're spending sitting in a meat locker trying to talk to a black box and appear animated and engaged. They keep it subzero in there. I have to wear a layer of wool stockings or I'd be shivering on camera.
A SWING AND A MISS: After a really tough debate at CNN, I came out really proud that I'd come through an early morning coherent and looking alive—and then slammed right into a glass door. I looked down and saw Dunkin Donuts coffee and was so excited, and then, wham.
BRAGS OF THE JOB: The drag-queen makeup you wear out of the studio. It freaks people out sometimes. But the worst part is you always had something else that you wanted to get in.
AND PERKS: My favorite is when you can get somebody to agree with you that you'd never thought would agree.
COMMENTARY'S CONTRIBUTIONS TO DEMOCRACY: Here's the thing—it's an opportunity to change hearts and minds. The most effective people on TV force you to think outside your comfort zone.
WHAT TV COULD DO BETTER: Hire more women executives so issues are represented more equally.

ALCALDE (University of Texas) // May/June 2012 Dress It Up | Color me pretty

MARK MCKINNON

MSNBC and More

'97

[redacted]

SEE ME ON: Various television platforms. I am a regular on *Morning Joe* on MSNBC.

WHAT I CALL MYSELF: Pundit doesn't seem serious. Analyst seems too serious. I generally just refer to myself as a media guy.

WHAT I BRING TO THE TABLE: I try to bring a common sense, middle-of-the-road perspective. I am not a hyper-partisan. I worked 15 years for Democrats and 15 years for Republicans, so I understand all perspectives. I also started an organization called No Labels, which seeks to bring people from all sides together in an effort to make Washington work.

HOW I STARTED: I volunteered for Lloyd Doggett's U.S. Senate race in 1984.

HOW IT LAUNCHED ME: My first campaign was for *Daily Texan* editor in 1980. As editor of the *Texan*, I represented student views both in the paper and in public forums.

MY MODEL: Charlie Rose is terrific. He's got great guests and a longer format that allows for serious discussion on important issues.

LOWLIGHT: I don't want to name names, because I still have to work for their network, but I was on a show and when we went to a break the host said, 'Cut the bipartisan crap, McKinnon. Just give me some red meat.'

FAVORITE MOMENT: Had some fun last week when I showed up on *Morning Joe* with a beard. And they cut to a shot of me side-by-side with the guy from the Don Equis campaign. 'Stay Thirsty, My Friends.'

PROUDEST OF: I'm happy just to get through any show without totally humiliating myself. I usually sign off by saying, 'Kick it hard and carry on, regardless.'

MY PREPARATION STRATEGY: Often I don't get much advance notice. But I always try and think of at least a few things that I want to get into the conversation. Otherwise, you are totally at the mercy of the interviewer.

WHAT GOES ON BACKSTAGE: People would be surprised by how friendly it can be behind the scenes between harsh partisans who then get on camera and tear each other apart.

KUDOS: Cable TV provides an astonishingly vast array of opinions and ideas. There is something for everyone.

CONSTRUCTIVE CRITICISM: Increasingly, in an effort to attract niche audiences, cable TV is pushing further and further to extremes. It would be good for all outlets to work diligently to make certain they are providing a balanced perspective.

"WHEN WE WENT TO BREAK, THE HOST SAID, 'CUT THE BIPARTISAN CRAP, MCKINNON. JUST GIVE ME SOME RED MEAT.'"

KAREN TUMULTY

The *Washington Post* and Elsewhere

BJ '77

[redacted]

SEE ME ON: *Washington Week*, *Face the Nation*, Rachel Maddow on MSNBC, *Red Eye* on Fox.

I AM... Basically a reporter. Everything I deal with, whether it's the stories I write for the newspaper, Twitter, or programs I do on TV, really does grow out of my body of work, which is reporting.

WHAT I DITTO: There's a real value to having watched the political and governing process for as many years as I have. It gives me the ability to take a look at what's going on now and get a sense of what it means.

DOING THIS SINCE: The television stuff starting in the mid-'90s. The Clinton impeachment coincided with an explosion in cable news. *TIME*, where I was before the *Post*, was very eager to see us on the air.

GETTING MY START: Part of it is really just doing it. There's no substitute for that. *TIME* put us through media training as well.

HOW IT HELPED: The business was so different when I was in school in the late '70s. It was very much a print-focused curriculum. But the writing and analysis skills translate pretty easily.

THE TRICK: The thing you have to be willing to do is say, 'I don't know.' There are things you can't predict or can't know, but there is a great deal of pressure to act like you know things.

"PEOPLE WHO FIGHT ON THE AIR GENERALLY LIKE EACH OTHER OFF THE AIR."

MY INSPIRATION: I so admire Gwen Ifill. On her show, she will only have real reporters. You have to have covered the actual thing you're talking about. Nobody can be an expert on everything. Gwen has a way of keeping people on point and to the facts.

MOST DISCOURAGING MOMENT: I was once on with a so-called analyst at Fox News who was asked about something going on on the Democratic side of the ledger. She said, 'I don't follow Democrats. I only follow Republicans.'

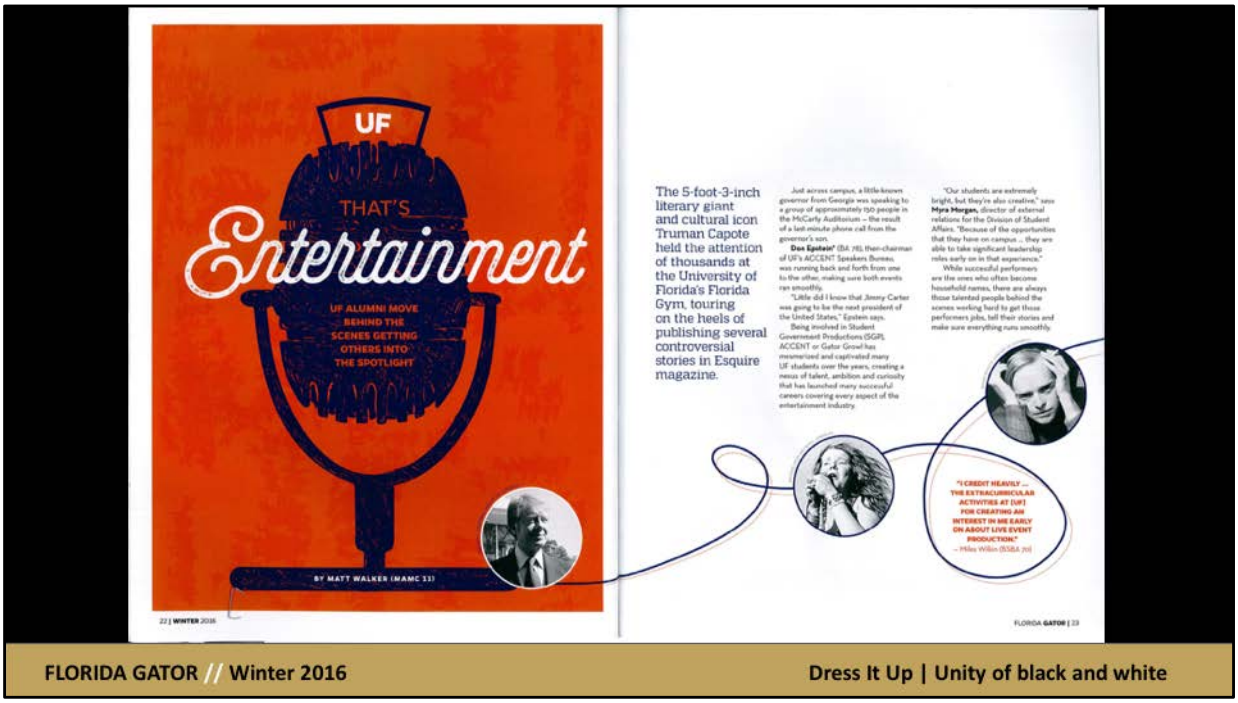
FAVORITE ON-AIR MOMENT: One of the most thrilling things I've done is moderate one of the Republican presidential debates at Dartmouth.

BACKSTAGE SURPRISE: People who fight on the air generally like each other off the air.

WHAT COMMENTARY CONTRIBUTES TO DEMOCRACY: It gives us immediacy. People invest a lot in it.

WHAT TV COULD DO BETTER: It could always use additional depth, but just an acknowledgment that some things are unknowable. That's my problem increasingly on the cable channels—an acknowledgment that there's any validity to some other point of view. ■

ALCALDE (University of Texas) // May/June 2012 **Dress It Up | Color me pretty**



FLORIDA GATOR // Winter 2016 Dress It Up | Unity of black and white

Simple repeated graphic, headshots all uniformly black and white.

Crazy duotone image way more interesting than black and white.

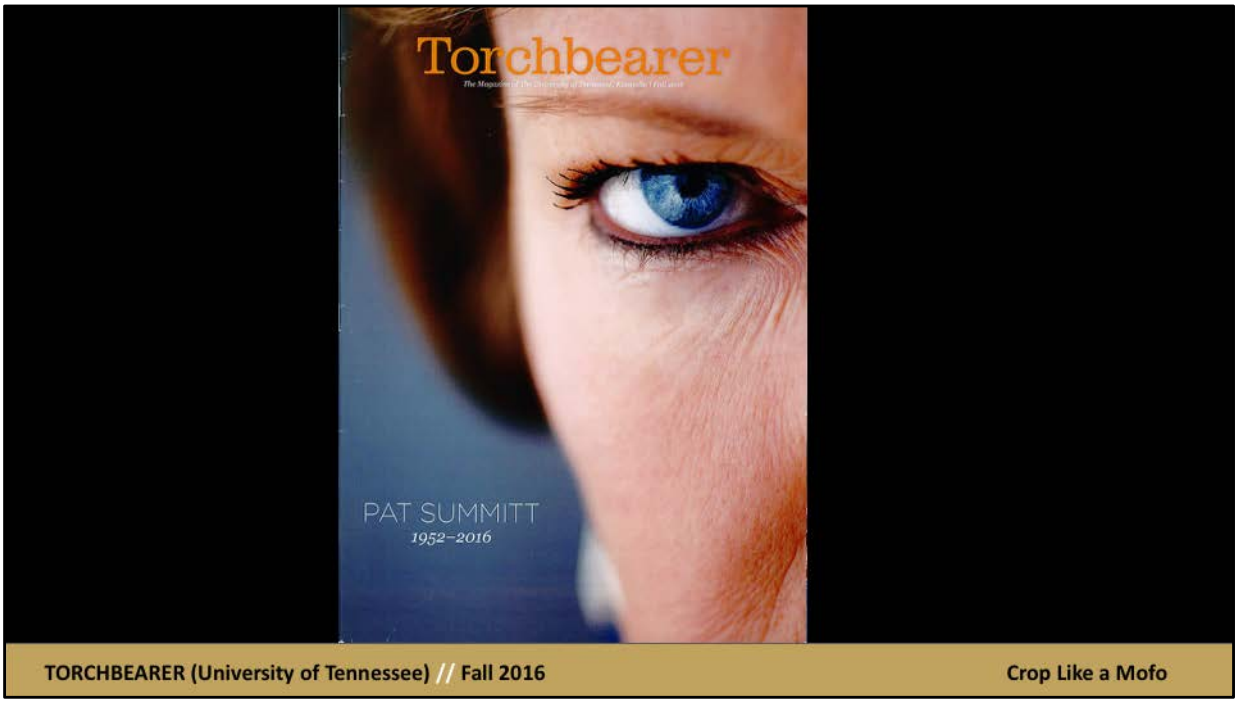
If you HAVE to have ads in your feature well, this is the way to do it. A nice full pager at the end of the story. Compromise.

Don't have a great headshot? Or don't have one at all? Make an illo out of it. This one is stylized.

Loose watercolor approach

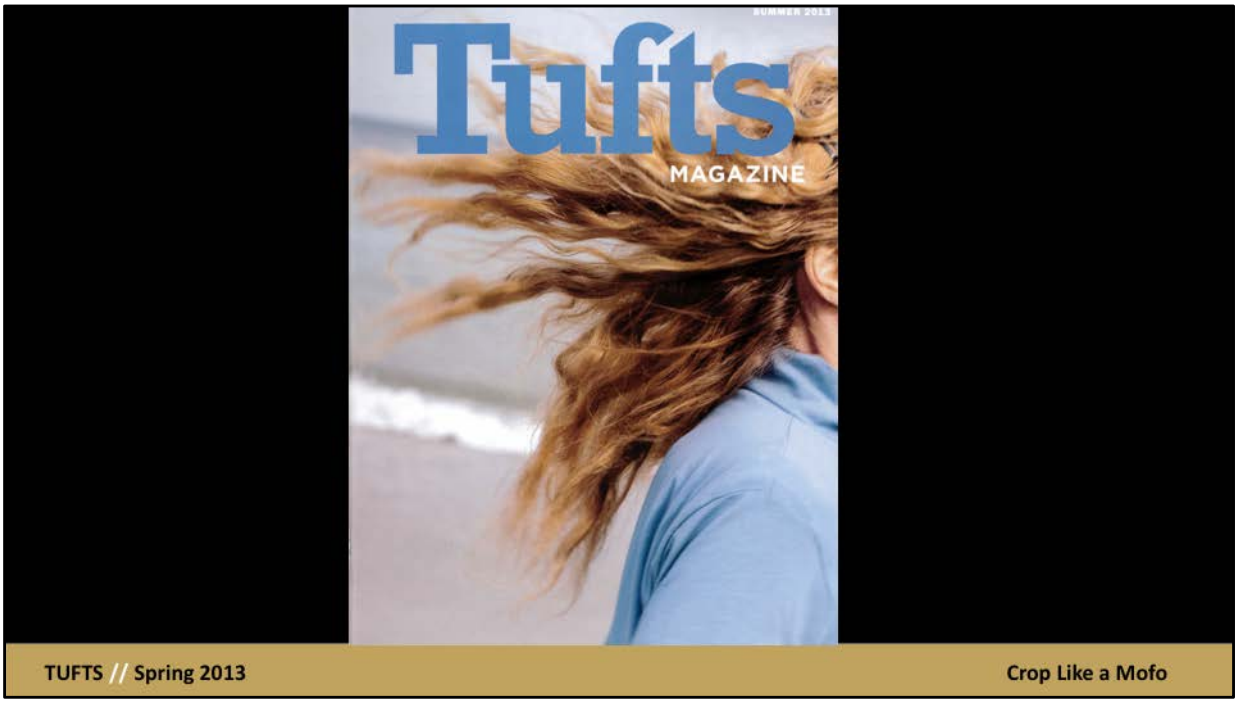
Crazy artistic

Okay photos can become good, and sometimes great, depending on how you crop them. Is there a piece of the image that on its own is more interesting than the entire thing? Focus on that!

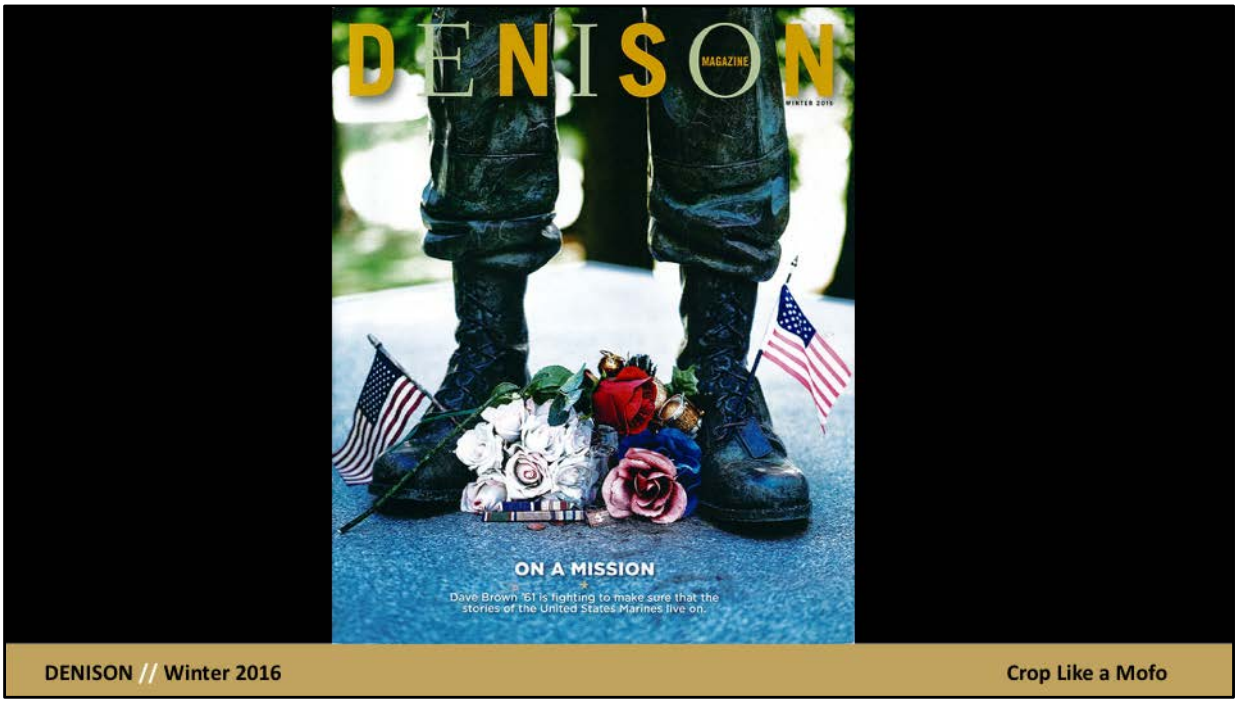


BAM. The photographer actually shot her whole face. What a great choice to crop in. Think of the HUNDREDS of photos they had of this long time coach. Cutting down nets, yelling from the sidelines, in a huddle with players … all the images you'd expect to see. But on the cover, with a smart crop choice, they deliver something totally unexpected.

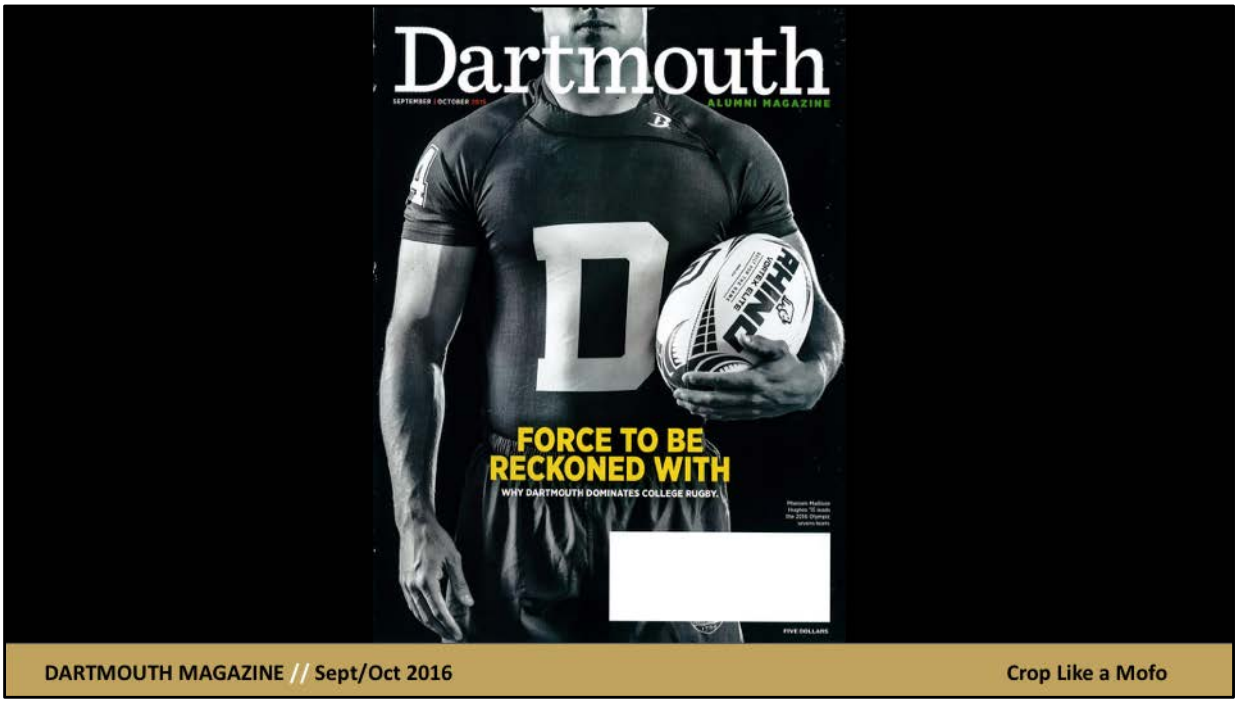
Mother Teresa is sitting in a chair, but the photog crops to the lap. Dramatic.



What the living hell is this? Running off the page? No coverlines! The full photo is just some chic running on a boring gray street. This crop is so compelling. Who is she? Where is she going? I want to know.

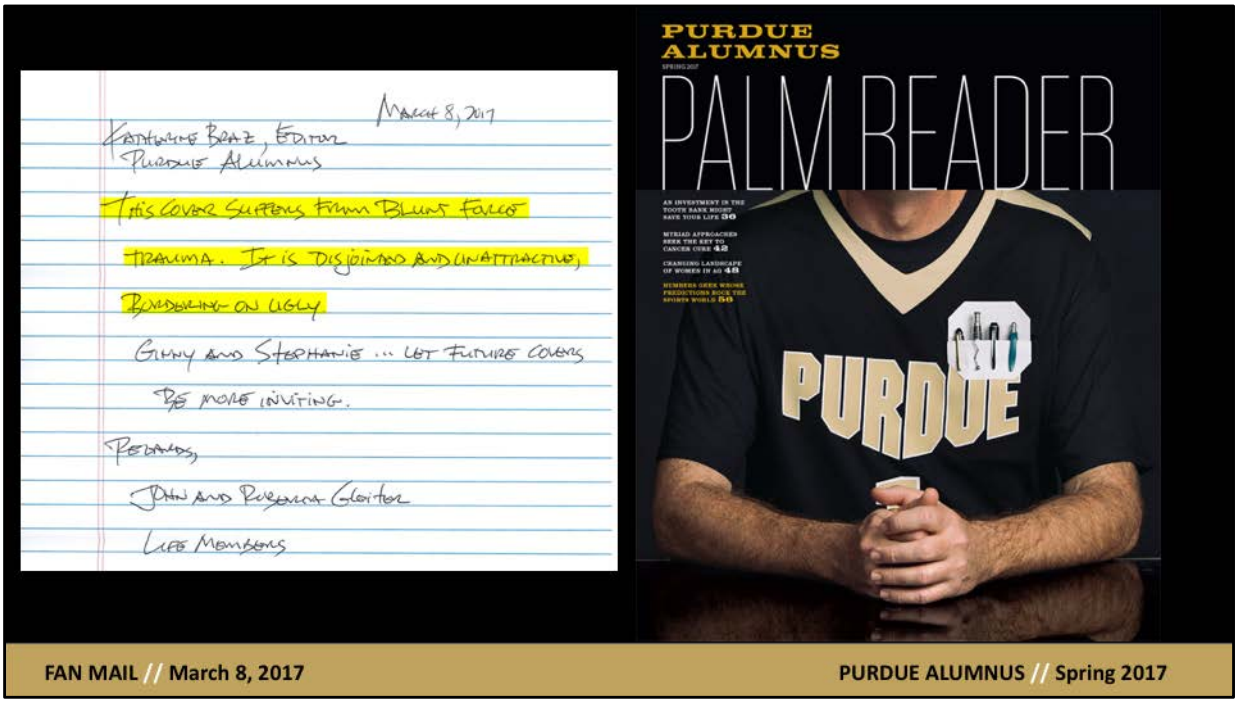


I think we should show more feet. Feet can be more interesting and more indicative of personality/emotion than faces, especially when a subject is not comfortable in front of a camera.



Off with their heads? It's can be really interesting when you don't show a face.

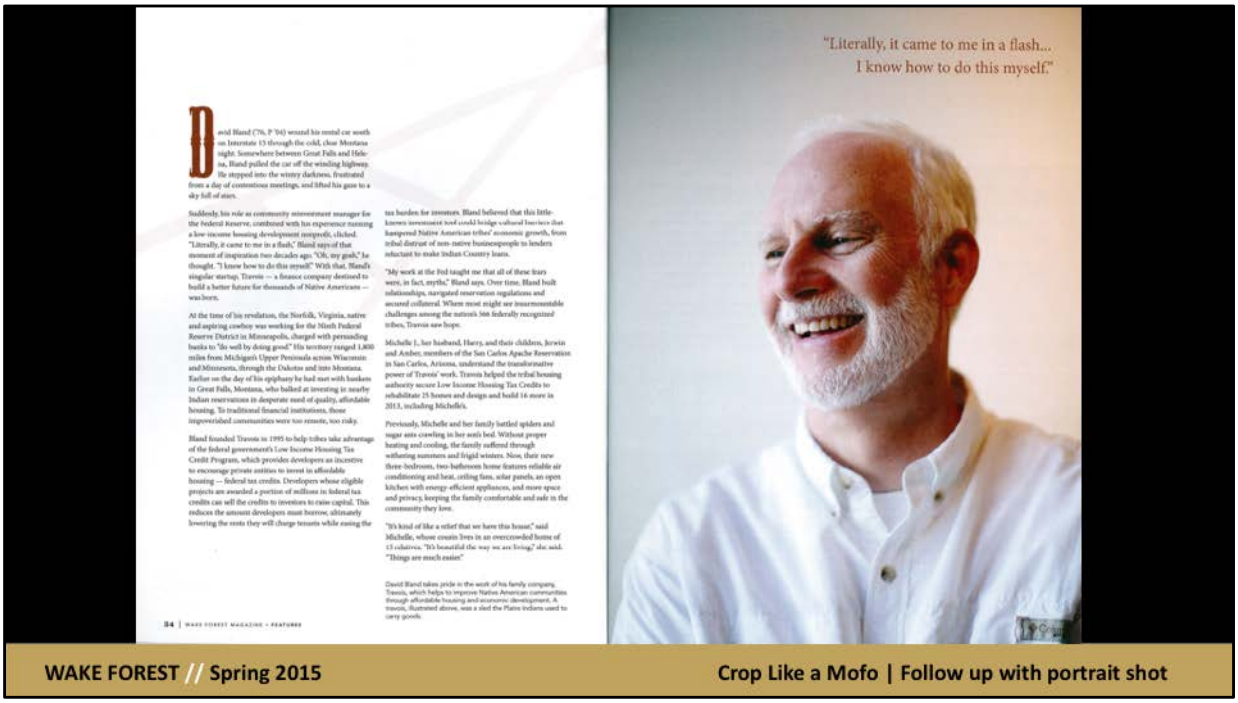
But is it okay to cut off someone's head? We think so! One of our recent covers. This alum tweeted that we got his best angle — decapitated!



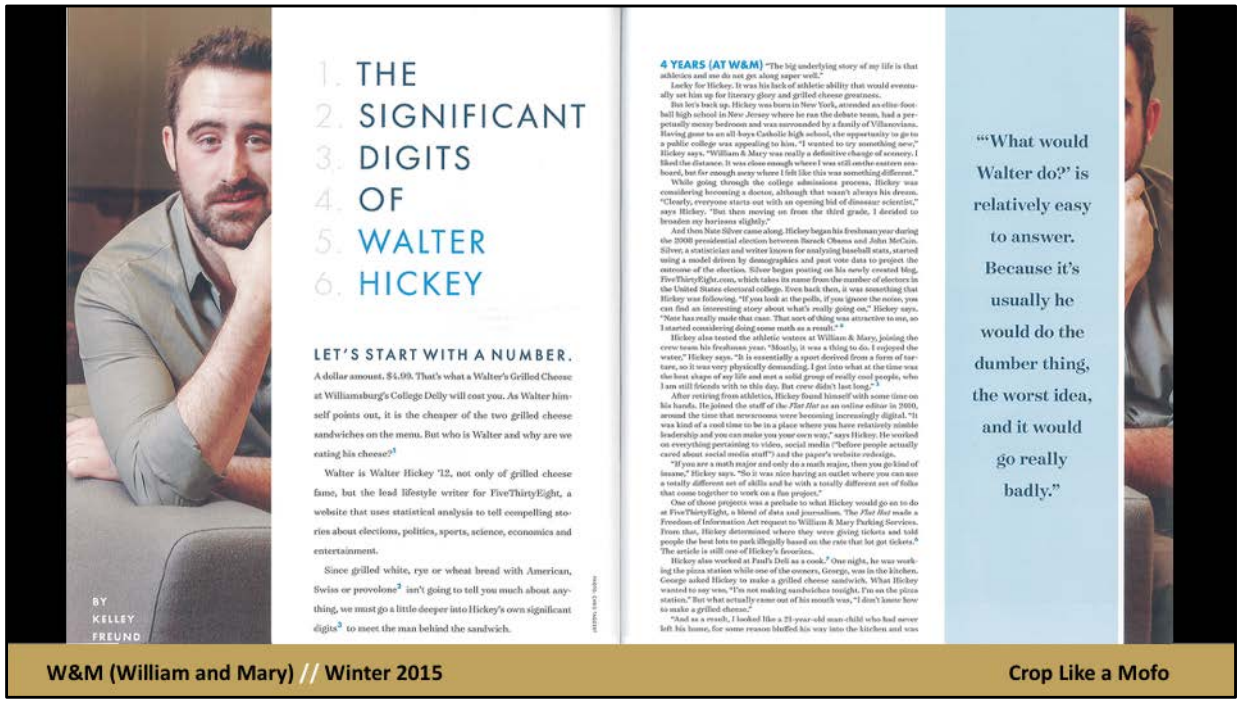
I thought this was a bold choice. But you know who didn't? John and Roberta Gleiter, life members. Who tore their cover off and MAILED IT BACK TO ME. The bolder the choices you make, the more fan mail like this you get. But hey, they're looking at it. They're engaging with the publication. You cannot let one complainer hold you back. That happens all the time in academia. You can't please everybody! No one was hurt in the making of this cover.

Blah photo made more interesting with strong crop. And it plays well with the headline. Excellent example of design and editorial working together to enhance the spread.

Feet! So much more interesting than the run-of-the-mill portrait on the next spread.



Meh. At least he's not looking directly at the camera.



What's that? Cropping across the spread? Is that even allowed? W&M says so.

Mind blown. Can't tell if he's coming or going. So great. Such a simple, but important choice. Push yourself! Don’t go with the obvious choice.

NON PEOPLE COVERS

We didn’t set out to do this, but we have definitely been running fewer people on our covers. And this seems to be a trend throughout the alumni editorial mag world.

Image on the left carries through in more cookies inside. Bolder choice than portrait shot, and more newsstand worthy. Image on the right could be stock art!

GA Tech does a lot of nonpeople covers. Could be stock art on left, could be taken with an iPhone on right.

TERP does nonpeople covers all the time. These both could have very easily cost nothing extra from the art budget.

Tufts does nonpeople covers frequently and quite successfully. These are both simple executions, but the conceptualization is epic. And communicates everything you need to know about the story without any coverlines.

Doodles. So simple! So dramatic! So much white space? Not a draw-er? You could draw that!

The cover we all love to hate.

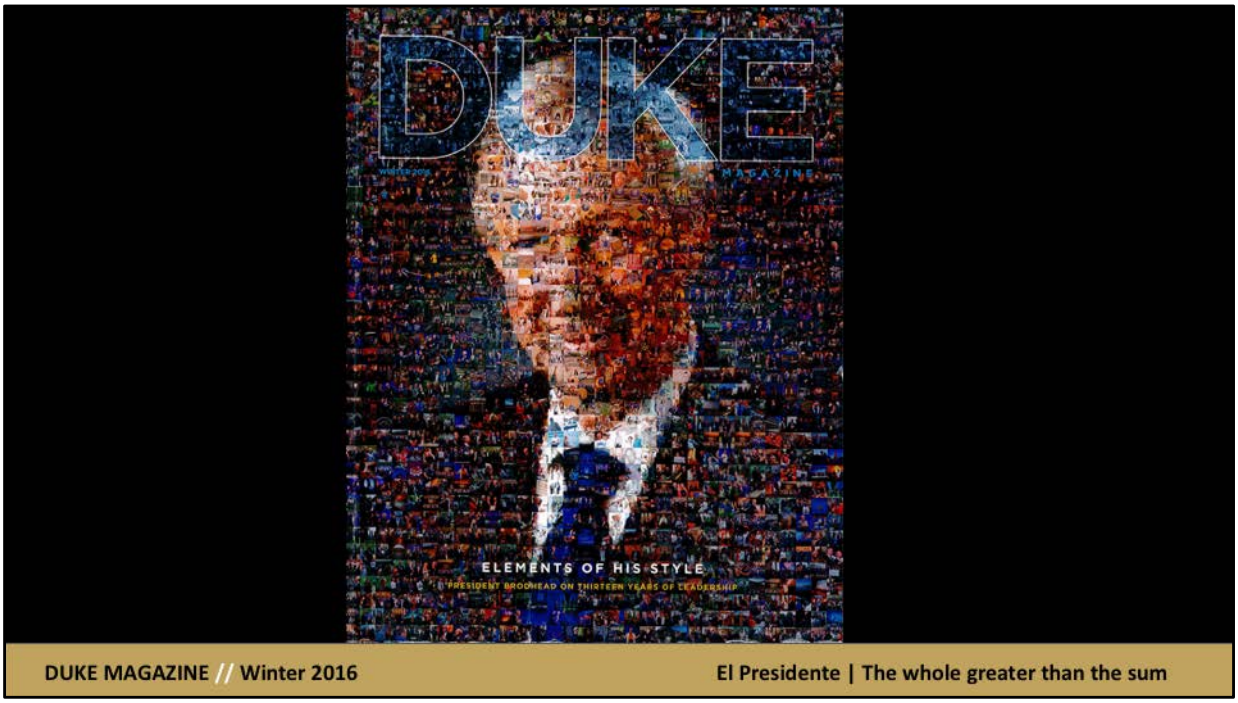
K-STATER (Kansas State) // Spring 2017 PURDUE ALUMNUS // January/February 2013

Sorry, K-Stater, this one just happened to land on my desk when I was pulling together this presentation. Definitely not the only offender. This is sadly, not an unusual type of presidential photo shoot gracing an alumni mag cover. PLEASE DON'T LET THIS BE YOU!

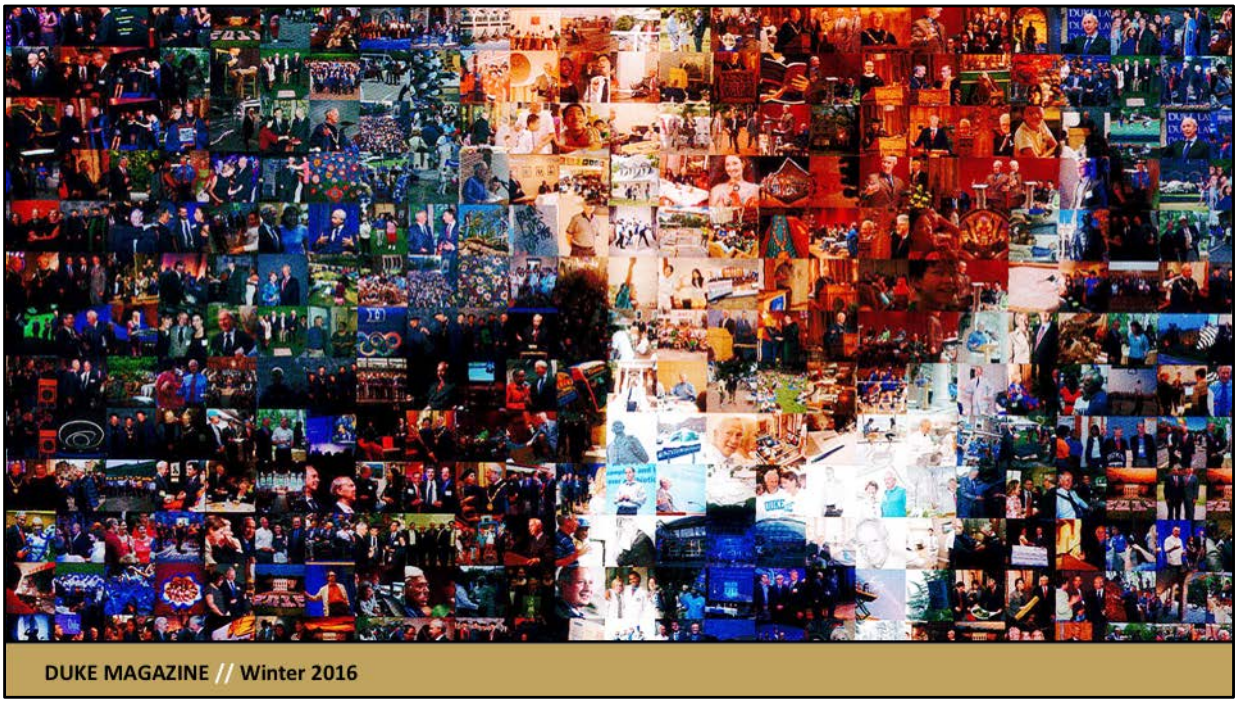
We didn't do much better, with a white guy in a white shirt staring down camera. Expected.

Nebraska gets up close and personal. So close I can see his pores! Help an old guy out, if you are going to do something like this, give him a little airbrushing.

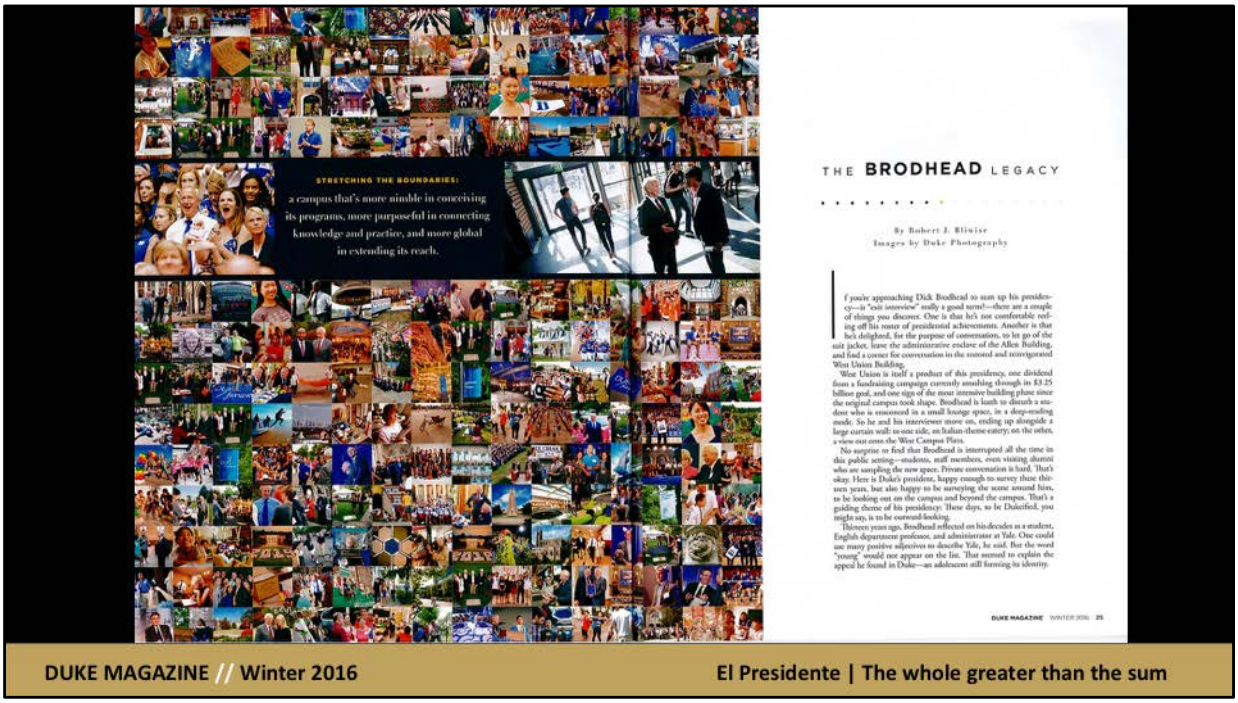
Penn State fares only slightly better with an off-camera glance. Hardly groundbreaking.



This would take FOREVER. But it certainly is more interesting.



A closer look at this grid of pics.



Here's a look at the inside spread. Sometimes more is more. A lot of times a bunch of photos on a page ends up looking cluttered and disjointed. But I think this actually works because it almost becomes a visual pattern. Great use of mediocre pics, none of which would be terribly interesting standing alone at a full page.

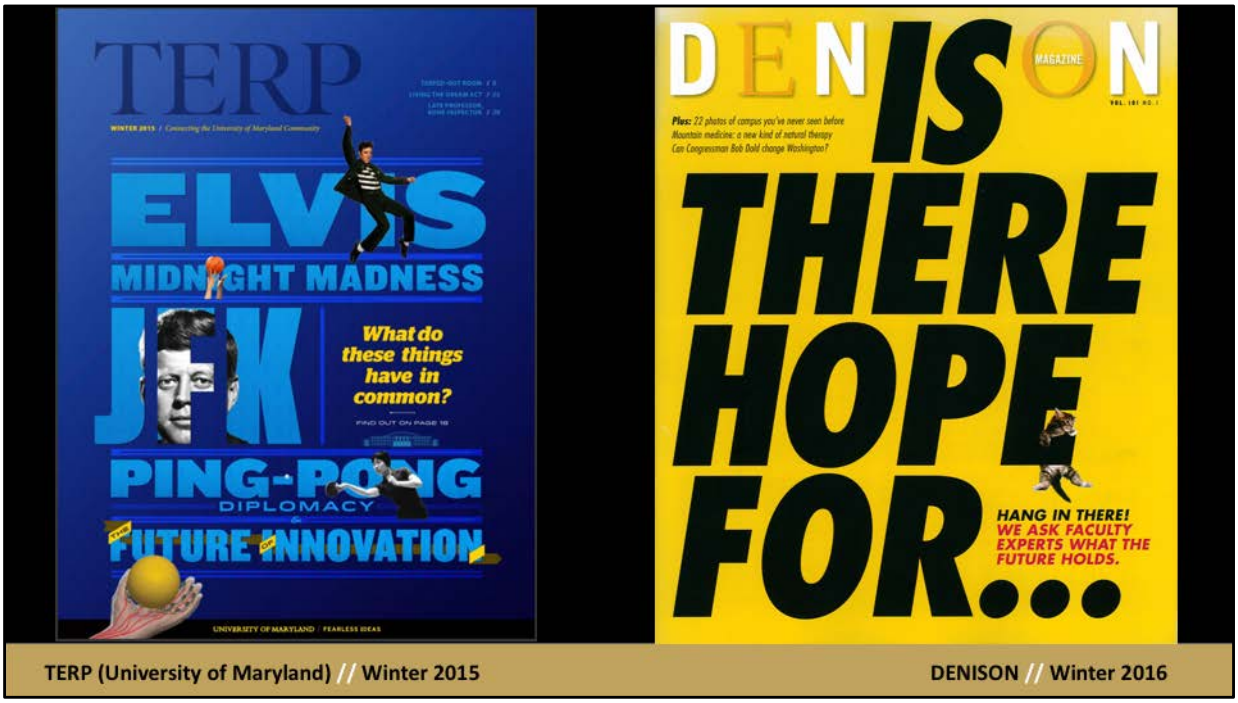
This cover has EVERYTHING. It won a gold in the 2016 CASE Circle of Excellence Awards. From the CASE Awards website:

“This cover photograph accompanies a feature on the arrival of the institution's new president. The approach offers a fresh take to this common subject, using details to introduce the story of who this person is. The photograph conveys a formality that is part of his personal style but is still warm. The photograph invites the viewer to engage with the subject and take a closer look, while preparing readers for what they will learn about him in the feature story inside the issue.”

Look at everything this cover tells us about this man. He’s African-American, he’s married, he’s fun (bowtie), he’s bold (mixed patterns), he’s a musician (that reads cultured), and he’s the type of institutional head whose ego isn’t so big that you’re required to show his face. He’s a man of the people. He’s a collaborator.

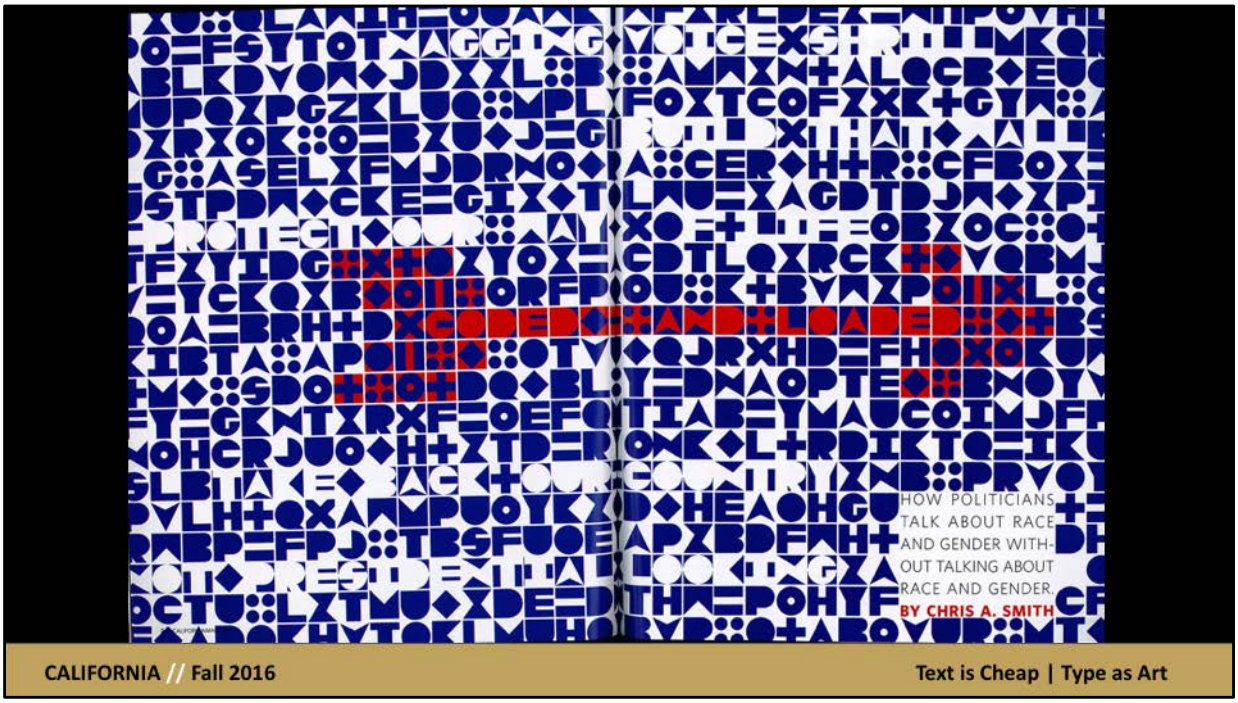
I hear you, THIS WOULD NEVER WORK at XXXXX. I know. I know. But could you at least photograph them in an environment or with a prop that speaks to your excellency’s interests, hobbies, or personality?


TEXT
IS CHEAP

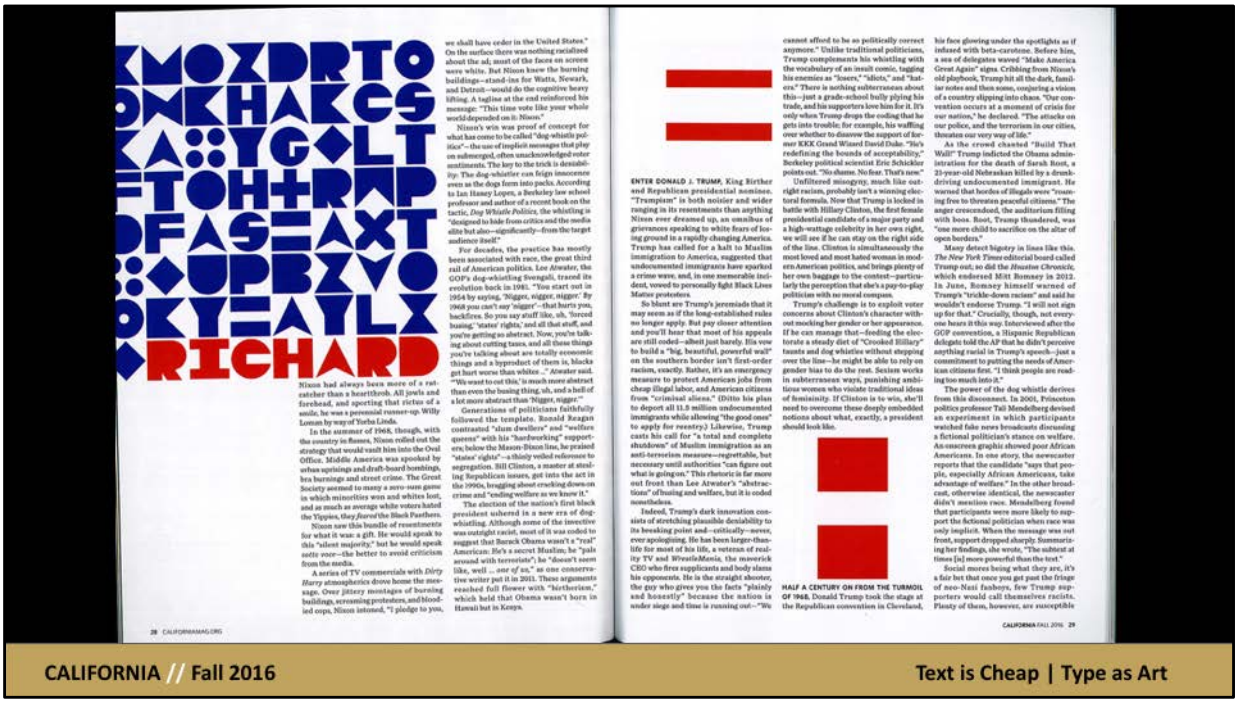


TERP (University of Maryland) // Winter 2015 DENISON // Winter 2016

Nothing but text (and a few stock art images)

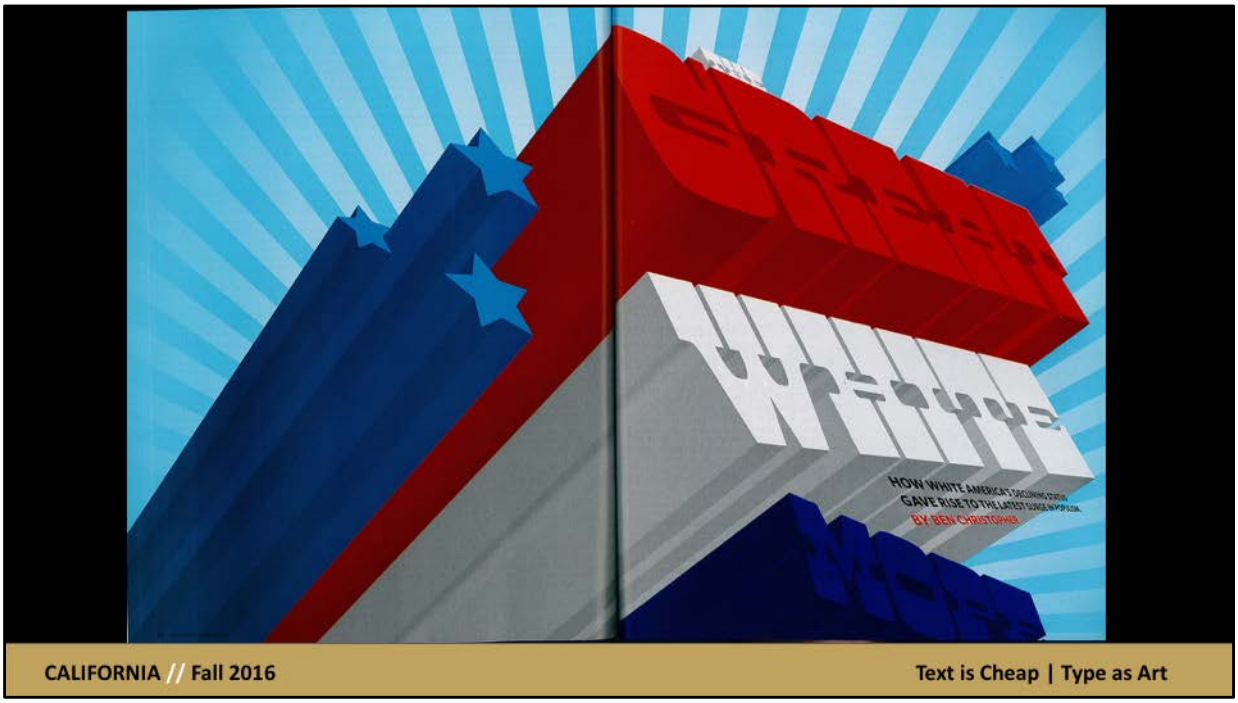


Bold and blocky! And fonts are free. Love how they changed it just a bit and can read hidden messages within the type.



CALIFORNIA // Fall 2016

Text is Cheap | Type as Art



Same issue of California mag. Extruded text as art. They must have really killed their budget on the cover illustration.

HITE AMERICA SEEMS TO BE IN A FUNK THESE DAYS.

The economy may be growing, the unemployment rate may be down, the Bureau of Labor Statistics may assure us—no, really, disbelieve your lyin' eyes—that the recession is long over, but according to the 2015 American Values Survey conducted by the Public Religion Research Institute, less than half of white Americans believe that the country's best days lie ahead. Most blacks and Hispanics, noting a marked improvement in the nation's culture since the 1950s, do not share this pessimism. The despondency is race specific.

That may go a long way to explaining the populist insurgencies on both sides of the political divide, as exemplified by Donald Trump's capture of his party's nomination, and Bernie Sanders's earlier challenge to Hillary Clinton's seemingly inviolable position as the Democratic nominee. Trump and Sanders supporters may not share much beyond a mutual despondency and pervasive whiteness (American National Election Studies data shows 91 percent of Trump's early supporters and 75 percent of Sanders's were

Caucasian), but the disproportionate racial makeup of the populist vote is telling, says Henry Brady, dean at Berkeley's Goldman School of Public Policy.

"From the perspective of many folks out there who are Bernie Sanders and Donald Trump supporters, basically the society has passed them by," Brady says. "What's interesting is that historically, that's a group that has been treated pretty well in America and now ... it's really a gap between what they knew and what they're now getting—the worker who used to work in a steel mill for $40 per hour now has trouble getting a job at minimum wage."

That gap has grown wider for some segments of white America than for others. Last fall, Nobel laureate Angus Deaton, and his wife and fellow economist Anne Case, published research showing that morbidity and mortality rates for middle-aged white Americans have been on the rise in the past two decades, bucking a long trend of gradually improving health and longevity for all Americans. The spike was most pronounced among those with little education, and the list of chief causes tells a grim story: "drug and alcohol poisonings, suicide, and chronic liver diseases and cirrhosis."

Some members of the conservative commentariat have diagnosed the problem as a moral one. In 2012, Charles Murray bemoaned the birth of a "new lower class" which, having abandoned the nation's "founding virtues" of industriousness, marriage, honesty, and religion, now finds itself living at the economic, cultural, and spiritual margins of American society. Mustering all of Murray's condescension and none of his subtlety, *National Review*'s Kevin Williamson came to a similar conclusion last March when he sneered at the impoverished and benighted knuckle-draggers that make up Trump's base, as members of a "vicious, selfish culture whose main products are misery and used heroin needles." Trumplandia, Williamson nobly concluded, is made of "dysfunctional, downscale communities ... [that] deserve to die."

Commenters on the left have been more inclined to view Trump supporters and other populists of 2016 as globalization's discontents. This was one of the reigning interpretations of the Brexit vote last June, when English voters chose to unceremoniously leave the EU. Writing on the day that the results were announced, English political economist Will Davies tried to make sense of the self-destructive decision of so many lower- and middle-income Brits to wrench their country from one of the largest economic and cultural engines in the world. "Amongst people who have utterly given up on the future, political movements don't need to promise any desirable and realistic change," he wrote. "If anything, they are more comforting and trustworthy if predicated on the notion that the future

MOST OF THE WORLD IS NOW RICHER, BUT THE "BIGGEST LOSERS" OF THE 21ST-CENTURY ECONOMY INCLUDE THE WORKING CLASSES OF RICH COUNTRIES, WHOSE INCOMES HAVE STAGNATED OR ACTUALLY FALLEN.

is beyond rescue, for that chimes more closely with people's private experiences."

Along similar lines, many American journalists have paired the Deaton and Case findings with the work of CUNY economist Branko Milanovic in trying to make sense of this year's election. "This may be the most important chart for understanding politics today," was the title of a piece Matt O'Brien wrote in *The Washington Post* last January. In it, he explains one of Milanovic's graphs, which shows how various segments of the world population have seen their incomes rise (or not) since the end of the Cold War. The takeaway: Most of the world is now richer, but the "biggest losers" of the 21st-century economy include the working classes of rich countries, whose incomes have stagnated or actually fallen.

That so many of these "losers" are now voting ought to teach us a lesson, says Berkeley's Brady: "Elites have to come to grips with the fact that all the stuff that's going on in the new economy—with free trade, with global expansion, and so forth—that there's a group that really gets hurt by that."

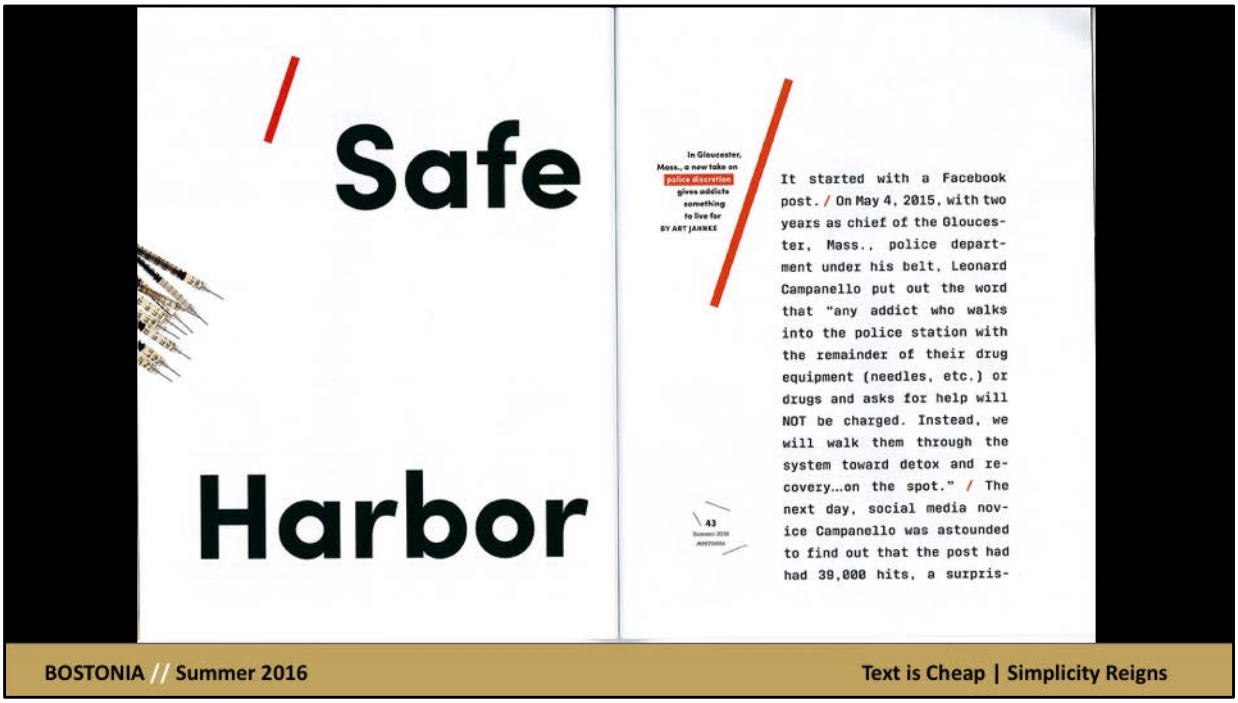
But while economic hardship certainly helps to explain the appeal of the democratic socialist from Vermont, it's harder to see how it engenders support for a racebaiting, maybe-billionaire from New York.

Some liberals argue that the white working class simply fails to comprehend its own economic interest. But when Trump supporters cheer loudest for his proposed wall (and not, say, his tax plan), we should take the response at face value.

Matt Grossmann, a Berkeley Ph.D., is now director of the Institute for Public Policy and Social Research, an associate professor at Michigan State University, and the author of *Asymmetric Politics: Ideological Republicans and Group Interest Democrats*. Grossman does not see economics at the heart of the success of either the Trump or the Sanders campaign—based, for one thing, on the primary results. Despite *National Review*'s caricatures of the pill-popping hillbillies living in squalor, the typical Trump voter's household income appears to be over $70,000, nearly $20,000 over the national average. Sanders's supporters were a bit poorer, but they were also younger and not yet at their full earning potential.

Furthermore, says Grossmann, although both Trump and Sanders may play to a widespread economic anxiety and an "undifferentiated anger" directed at political elites, the similarities stop there. In fact, the supporters of the two candidates are demographic mirror images of one

CALIFORNIA // Fall 2016 **Text is Cheap | Type as Art**



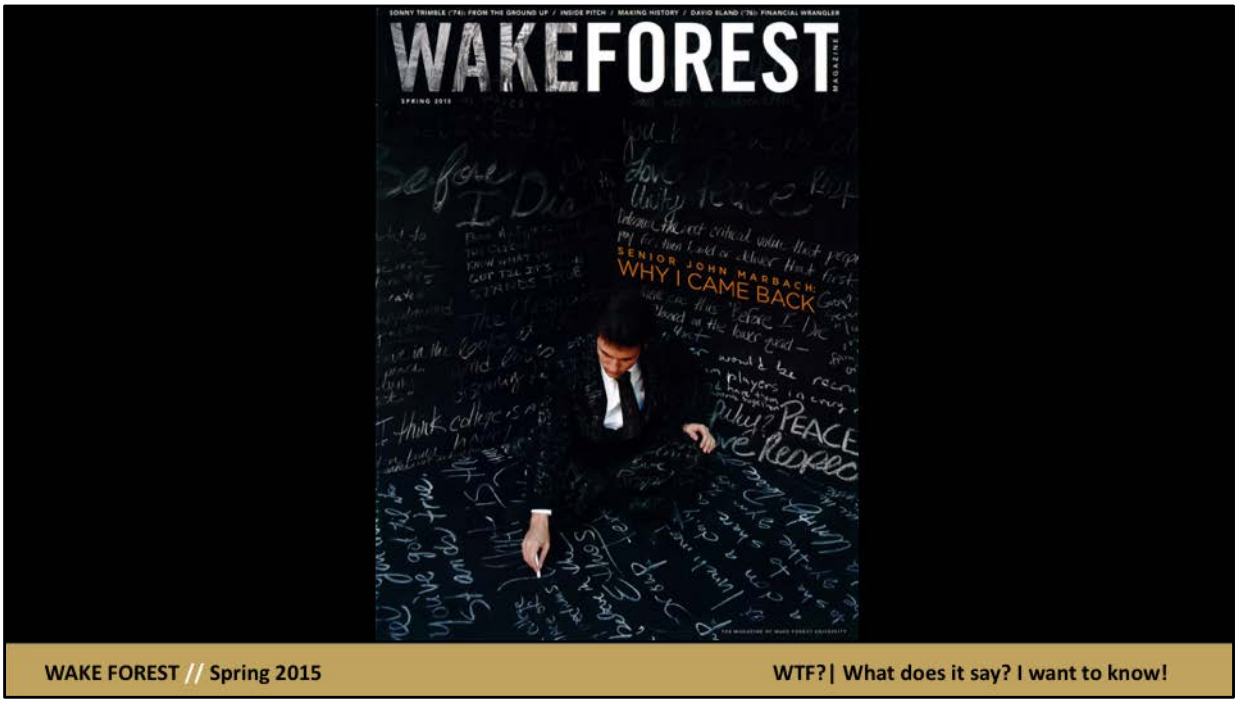
Simplicity reigns. So much white space. Elements beautifully placed. Such balance.

All words all the time.

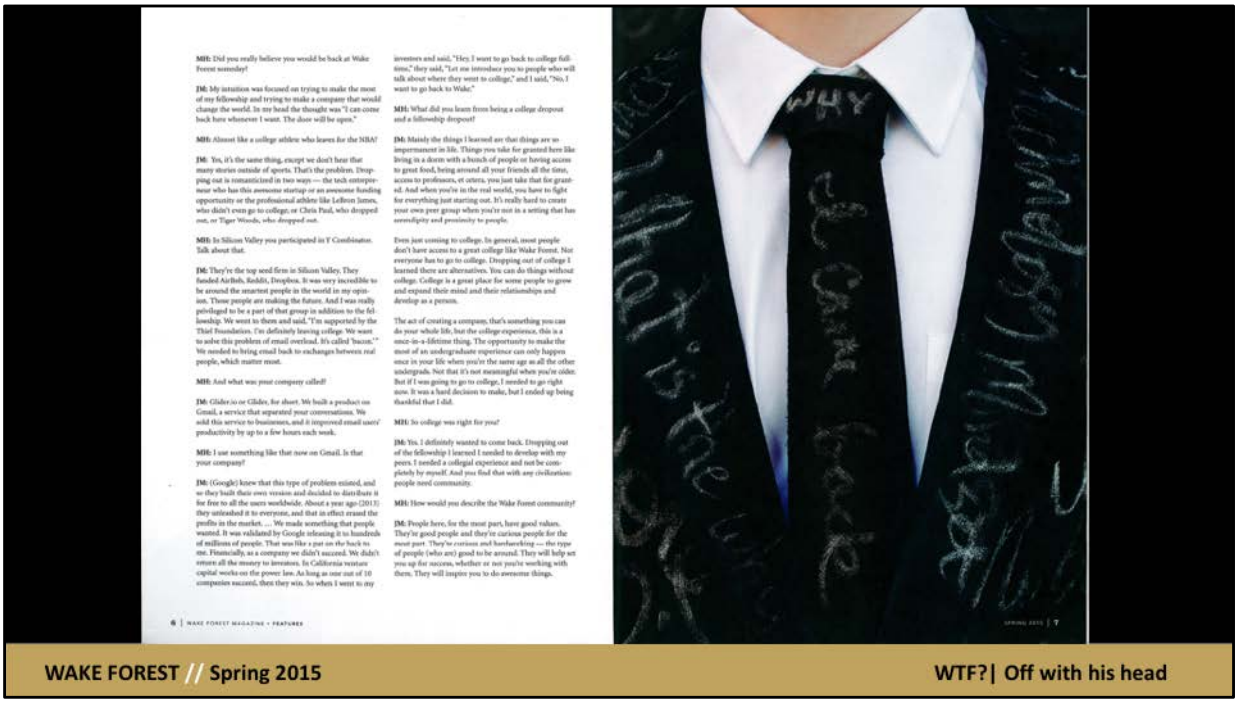
Indiana University Magazine // Spring 2013 Text is Cheap | Text from icons

Words out of icons.

One way to elevate your art direction is to push yourself to be bolder. Do something that doesn't make sense. Do something that will have readers going, WHAT?

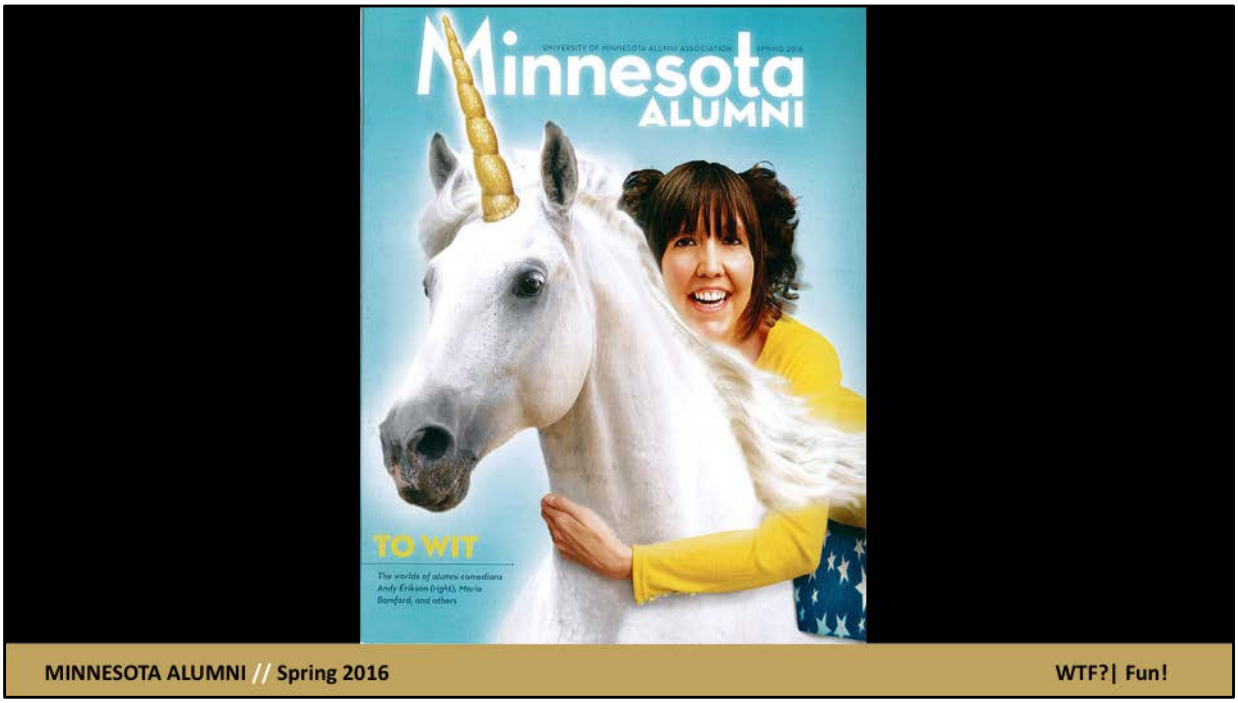


Crazy cool idea to turn a portrait on its head. How can you do portraits differently. Do you always need to show a subject's face? What are those words? Why did he come back? I am intrigued.



Carried through to the inside. So much more interesting than showing his head. Save that for another spread.

Minnesota has been doing some really interesting covers since redesign. What a heroic image. Cool cool cool.



I have no idea what this means. But don't you want to open that? This is like joy delivered to your mailbox. This cover just makes you smile. Imagine delivering JOY to your constituents.

Great tie in to the sense of place. Totally unexpected way of representing drugs. Surprising and delightful.

It has to stop.

Five people a day ages 15 to 24 die of opioid overdose in this country. Their drug habits start even younger. Pediatricians must help confront the crisis, says Pamela Gonzalez.

By Tara Haelle
Photo by Sara Rubinstein

EVEN BEFORE SHE WENT to medical school, Pamela Gonzalez's experiences as an undergraduate were already laying the groundwork for her work as a pediatrician. As a volunteer at an emergency shelter for teens, she saw firsthand the destruction that addiction wreaked on families and individual lives.

She met a 17-year-old boy who likely had mania, as his dad did, and who struggled with addiction—as his dad did. When he died by self-inflicted hanging, she was haunted by how society had failed him.

"I think of how many ways we fell short systematically in taking care of that kid and that dad and taking care of people as families," says Gonzalez, an assistant professor in the University of Minnesota Medical School's Department of Psychiatry. "And to see it that young really reinforced early on that it's a life cycle issue."

Today in the midst of an opioid epidemic that the nation is only starting to grasp, Gonzalez is on a mission to stem it at its source. Pediatricians, she believes, need to understand that they have a key role to play in interrupting that cycle. And society needs to understand it has a role in addressing the social conditions that increase the risk of addiction.

Five adolescents and young adults ages 15 to 24 die every single day in the United States from a heroin overdose, according to the federal Centers for Disease Control. Their drug habits start when they're even younger, often from prescription opioids. A recent study in *JAMA Pediatrics* found that from 1997 to 2012, hospitalization rates from opioid poisonings among youth ages 1 to 19 jumped from 1.4 to 3.71 per 100,000. As Gonzalez pointed out in a talk about opioid misuse as the "highway to heroin" at the American Academy of Pediatrics conference last October, heroin poisonings increased from 1 to 2.5 per 100,000 children over those 15 years. Any use of opioids to treat pain before 12th grade triples the risk of nonmedical opioid use in early adulthood. The risk is even greater for youth with mental health conditions.

Part of the problem, Gonzales says, is that people have become inured to the toll opioids are taking, due in

Continued inside. Some nice photoshop work.

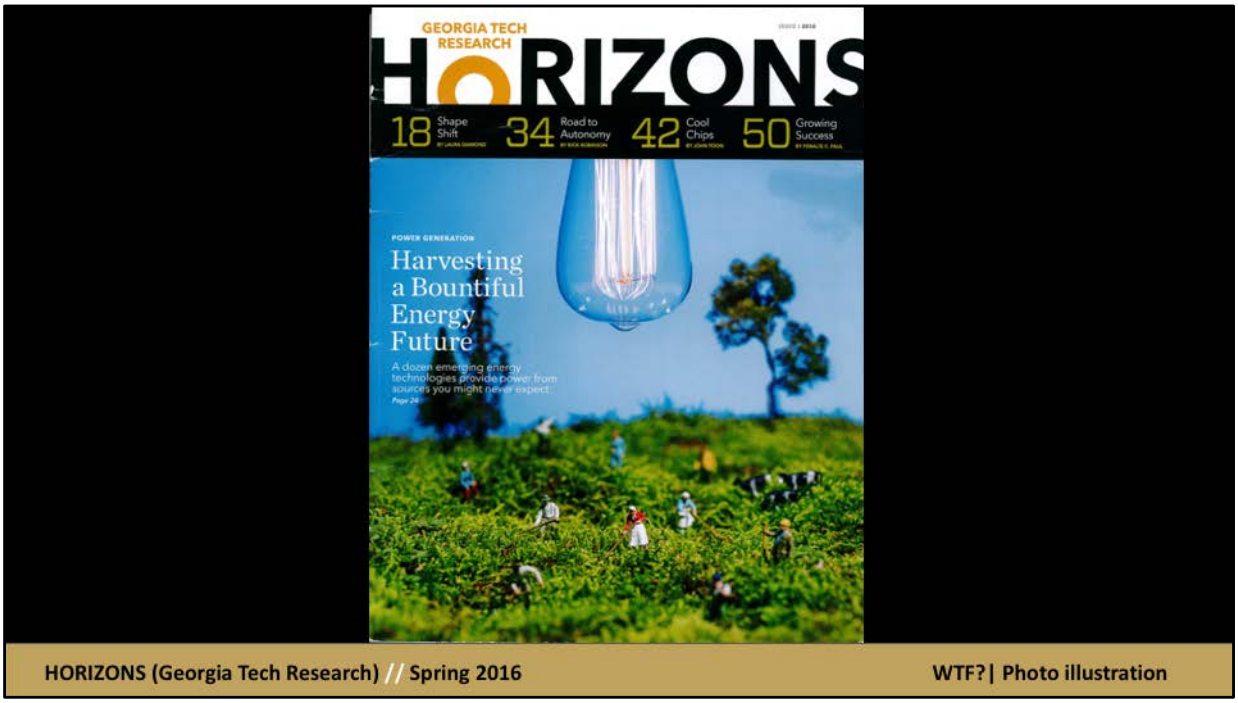


Photo illustration. Super cool idea.

HORIZONS (Georgia Tech Research) // Spring 2016 WTF?| Photo illustration

Photo illos only continue to second spread, then moves into faculty shots.

All in one set up, minimize photo time. Conceptual. Don't always have to show photos of the people who are quoted.

UNIVERSITY OF RICHMOND // Winter 2016 WTF?| Conceptualize it

PTSD, but ultimately, mindfulness practices were the only approach that worked for him. "I learned to be aware of myself and my body," he says. "It was a huge paradigm shift in my life."

Calming the Brain

Shannon Roner speaks rapidly as she lists a terrifying she's dealt with in recent years. Caring for her father through a terminal illness. Divorce from her husband of 20 years. Breast cancer. Medication that left her cloudy and unfocused. A diagnosis of ADD in her late 30s. Early retirement from her career as a high-level business executive. Moving from Washington, D.C., to Richmond. Returning to school in the University's School of Professional and Continuing Studies.

Any one could pose a distraction, but combined? It's no wonder Roner has difficulties with concentration. Not usually one to ask for help, she was apprehensive when she went to the Academic Skills Center and met with Mancuso-oppa.

His questions about her history and understanding of her experiences established Roner's trust. When he suggested she try mindful meditation, she set aside her hesitation.

Roner wasn't sure Mancuso-oppa's own practice, which comprises up to an hour of meditation every day, was possible. "My first thought," she says, "was I don't want to have to set aside an hour to do that."

She started with shorter guided meditations, but as she felt more in control, she let the practice slip. That's when she found the benefits of her brain running start to slip away — much like any other exercise — and she realized a regular practice wasn't only possible, but necessary. Roner now tries to incorporate 30-to-45 minutes of guided meditation a day.

"I always want to be going, and if I'm not that stuff start swirling around in my mind. I'm doing things but I'm not prioritizing any of them," she says. "Now I know it's OK to just sit there and think about this one."

"I tell myself, 'You have lots of good ideas, but you need to calm your brain.' It's not a magic cure. But a half hour, 45 minutes — that's a small price to pay for the rest of my day to be great."

Philosophy, Psychology, Religion, or All of the Above?

Are meditation and yoga religious practices? Can opening the mind a bit make one receptive to negative influences? Questions like these have led some to think that mindful practices are in conflict with their religious beliefs or their desire to not subscribe to any faith tradition.

As scientific research continues to back the benefits, though, mindfulness is gaining more attention, and many who previously avoided the practices out of religious concerns are now reconsidering. Lucy Graham, '15, president of UR Zen, a student organization that supports the exploration of meditation, says the practices can offer a neutral middle ground for those who aren't looking for a religious practice.

"People who trust science as a way of getting at truth can look at meditation, and it's proven and they can trust it," Graham says. "They find it as a happy medium and a stepping-stone where they can be spiritual without making conceptual commitments that they're not ready to make."

But as more students explore meditation for non-religious reasons, Kevin Hoffeman, the University's Buddhist campus minister, has had to expand his role beyond serving the campus Bud-dhist population. In his weekdays and at the weekly gathering of the UR Zen student group, he works primarily on teaching the physical practices. He says these techniques are concrete and have nothing to do with beliefs — at least, nothing beyond the belief that it will help.

"I just hope that they find skillful ways of living that lead to more wakefulness, more compassion, more self-compassion, more loving kindness," he says. "And I think you can achieve that through a lot of different ways. Buddha himself said, 'If this doesn't work for you, try something else.'"

A Culture of Mindfulness

When asked what a campus culture of mindfulness could look like, CAPS psychologist Kris Day describes people walking around without phone in hand, noticing the beauty that surrounds them, and engaging in meaningful in-person conversations.

Day, Roger Mancuso-oppa, and law professor Shari Motro are working with other faculty and staff to question what a campuswide culture might be — and what it could take to get there.

For starters, they hope that instilling a mindful mindset in faculty could create a trickle-down effect where faculty acknowledge student commitments outside their classes and assign workloads with that in mind.

"It's not to get them to slack off on their students," Day says. "It's getting them to understand that they need to give these students, and themselves, permission to slow down."

They also hope that by incorporating meditation techniques in class, students can learn to not only manage stress and stress but also explore other potential benefits.

For instance, all students in Motro's class are spending their first semester at Richmond looking at the intersection of mindfulness with sex and relationships, specifically when it comes to consent.

"The issues that come up in texts of relationships parallel issues that come up in other types of relationships," Motro says. "We're asking, 'Can we be really honest about our own meaning of yes, no, and maybe and articulate that clearly? Can we listen to someone else whose desires might be different from our own?'"

"Mindfulness practices can help us do this. They help us be more conscious, more deliberate about our actions and the state of our mind and heart."

The outcome of these experiments remains to be seen. If we're focusing on the present moment, only a few things are certain. In a high-performing academic environment in a fast-paced world, some students, faculty, and staff are searching for stillness, and a handful of instructors are teaching them to pause, breathe, and experience the world around them.

"In the beginning, it doesn't matter if it's two minutes," Mancuso-oppa says. "And that moves to three and then to five, and if I can get them to do 10 minutes a day after one week, they come back and talk about the transformation in their life."

And maybe, just ma-ybe, this one writer can quiet her thoughts just long enough to finish this one story. ❧

Kim Carney is a writer at the University of Richmond and a registered yoga teacher. One day, she'll figure out how to quiet her mind.

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UNIVERSITY OF RICHMOND // Winter 2016 **WTF?| Conceptualize it**

So incredibly elegant.

What is going on here? I have no idea, but I want to know.

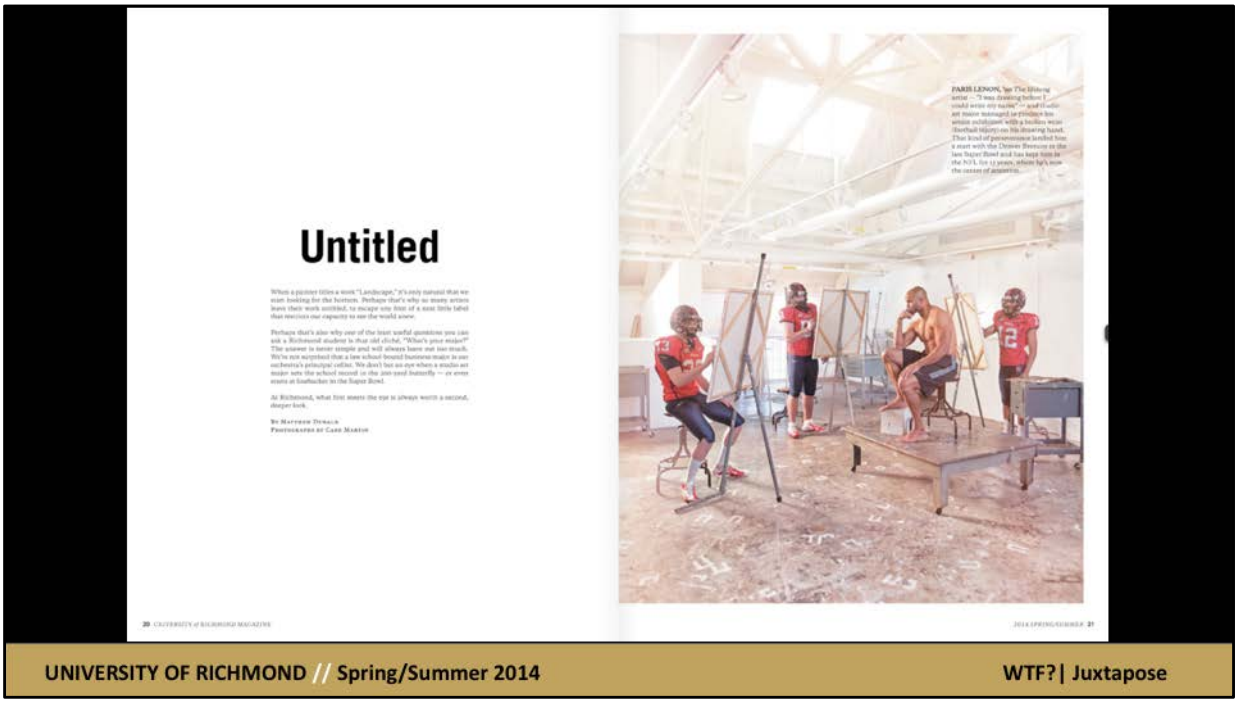
How is she holding her breath?

Why are there no bubbles coming from her mouth and nose?

What is coming out of her hands?

What does it mean? What am I supposed to think without any coverline copy telling me what is happening?

So many unanswered questions and I am dying to flip inside to find out …



And this is where that cover leads. To football players in an art studio. WHAT IS GOING ON???

If you're going to do a shoot, don't just phone it in.

How fun to put athletes all decked out in unexpected settings.

What a great tie in to her talents as a dancer and her biology major.

This took some scouting. Scouting is necessary to plan and execute the shots you want, rather than showing up and seeing what happens. There is artificial or natural light, or both! Either way, it took planning to make that happen. All that stuff on those shelves, they might have put it there. Even the Einstein poster could have been planted for this shoot. Don't be afraid to create your environment.

More cool mashups with clearly curated shots.

Turns out that cover student is a swimmer and an art teacher major. Neat.

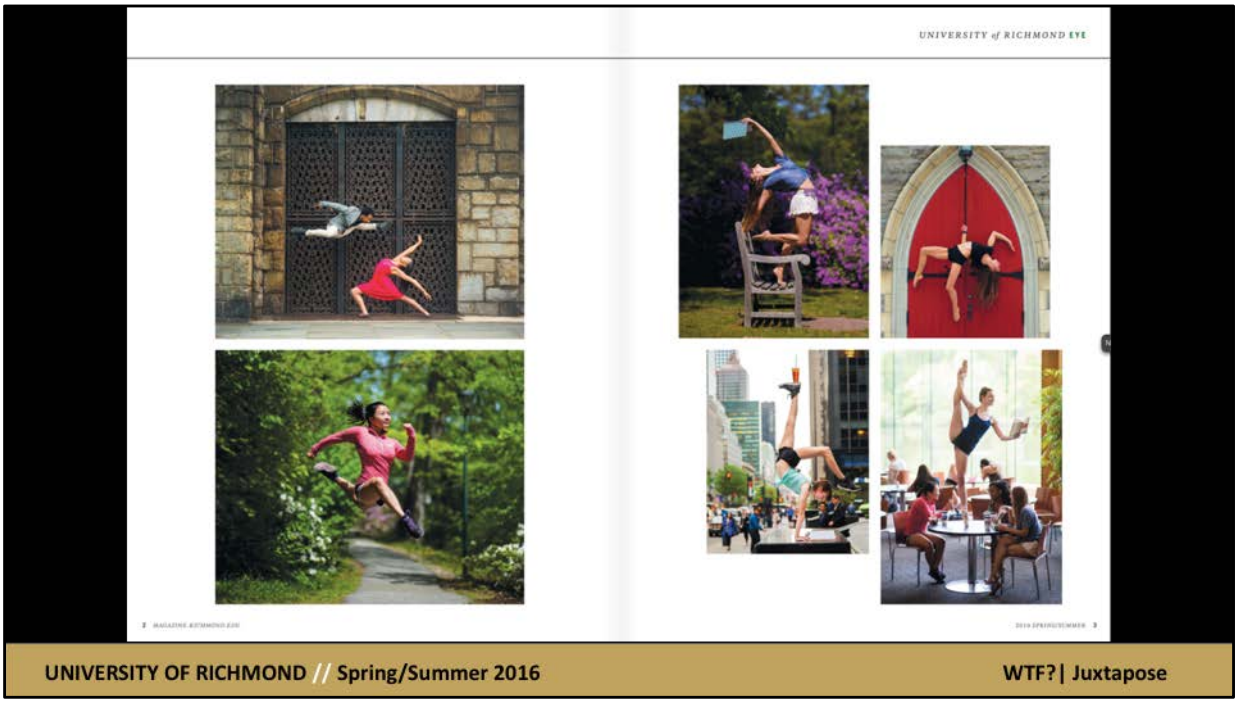
Football players in art room? Why not a musician in the locker room.

This is nuts! She appears to be levitating. I am intrigued.

In the rain? In the MIDDLE OF THE STREET? With a GREEN LIGHT? Aren't there cars coming?

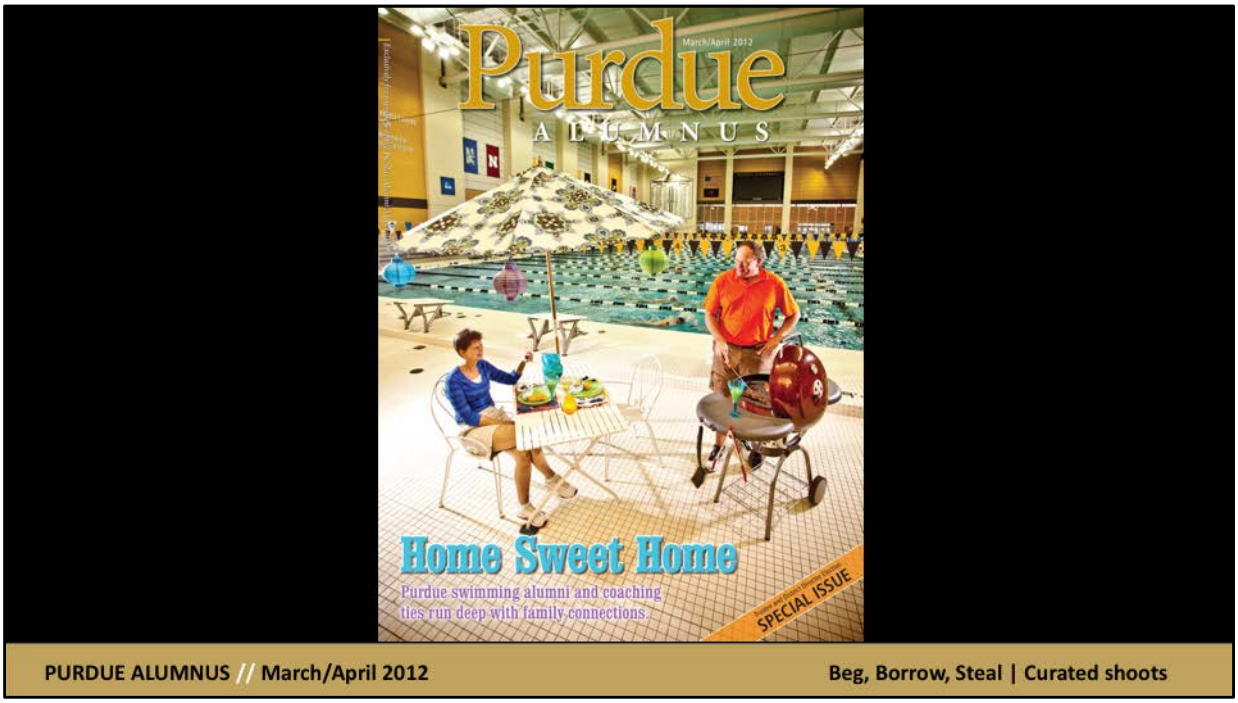
Completely unexpected. Completely exciting.

And it's an alum shooting, to boot. I wonder if they got these pics for free?



More interesting juxtaposition. This was their cover story and it's not a feature article, just a four-page photo story in the front of the book. Are you allowed to do that? Richmond says so.

We've been trying to pull off more curated, epic photos shoots over the years. Here, I will walk you through some of our early flops to our recent successes.



Our first attempt at an epic photo shoot. That's my grill. That's my friend's patio set. We loaded it all up into a truck and carried it onto the pool deck on a freezing cold February morning.

The story was about how a bunch of the swimming and diving coaches were also on the competitive swimming and diving teams as students. So we wanted to show how they were a family. Hence the familial scenes on the pool deck.

My rug. My lamp. My coffee table book. My remote control. Graphic designer's couch. Coffee table from our office.

Graphic designer's bistro table.

This was pre-redesign, so ignore everything else! You're only looking at the photos!

Dan & Sally

ROSS Years married: 25

Who does the cooking at home?
Sally: Dan is a great cook and loves to grill.

If Dan was an exotic animal, what would he be?
Sally: Dan would be a lamb. He panders everything before making his next move.

What is your favorite restaurant to eat at as a couple?
Dan: We love B.T. Ricky's.

What does Dan like on his hot dog?
Sally: Everything from ice cream to peppers to cream.

almost anyone in there. Twice named team captain, she won two Big Ten titles in the 200-yard butterfly in 1988 and 1990. She became Purdue's first female individual All-American in 1989 after a fifth-place finish in the event at the 1989 NCAA Championships. She repeated those same All-America honors in 1990 and was part of an honorable mention 400-medley relay team.

Rensi, whose husband Jeff (A91) swam for Ross in 1986–87, believes a dedication to an often-grueling training regime could put swimming athletes on course for matrimony. "Swimming is such a mental sport," she says. "You have to be strong willed to get through some of the challenges you face. No one really likes jumping into the water at 5:30 a.m. Especially when it's cold outside."

Rensi jumped at the chance to return to her alma mater in 1997 and assist Cathy Wright-Eget, her former head coach. For the 2011–12 season, she transitioned to the supervisor position for both the men's and women's teams. In that administrative role, she's focused on the business of swimming, running the camps, and keeping coaches in compliance with the NCAA.

She's thrilled with the changes she's witnessed in Purdue swimming since her return, especially with the Boilermaker Aquatics Center. "Not a day goes by where I don't walk out on the deck and think, 'Wow, this is Purdue.' There's so much space to swim and train in. I'm grateful every day that I'm in this pool," she says.

Klinge, according to Ross, his former coach, wanted to do nothing but train in the pool. The civil engineering student qualified for the 1992 US Olympic Trials and placed 15th in the 200 backstroke. A team captain himself, Klinge earned All-America honors in 1991 with a fifth-place finish in the same event. His collegiate career is bookended by All-Big Ten honors in 1990 and 1994.

Klinge met his eventual wife, then swimmer Chris Anderson (L'04), on their first day on campus, but they didn't start dating until they reconnected in California a few years later. A former US Marine, Klinge helped build a successful high school and club program in Bozeman, Montana, before becoming an assistant at Ohio State for the men's program.

It's all been part of a fortuitous path that has seemingly brought him home. Now in his fourth year at the helm of Purdue's women's program, Klinge has already earned one Big Ten Coach of the Year honor for 2009–10, a year that saw historic breakthroughs for the program.

"When I was a student-athlete, I would have never guessed that I would be back in this role," Klinge says. "To work alongside Dan, who was my coach, is a dream job. Having a wife who understands the sport, the school, and the area is also huge."

Swimmers grow up competing in cool meets, so proximity could also lead to promise rings. "In swimming, the training is so demanding that it limits your time away from the pool," Klinge says. "Your whole social structure revolves around the program. Both as an athlete and a coach."

In fact, those connections are a selling point for his budding program. "We promote the family atmosphere," says Klinge. "We're fortunate because we have that on both the swimming and diving side since we try not to separate those things. We take care of our kids outside of the pool, and I think we do that better than anyone else."

But any road to romance is likely to have its rocky spots. "Every graduating class seems to have a couple of swimmers who get married," Ross says. "But as kids start dating, we have to tell them that we're here for them if they break up, too."

Turning Big Ten tides

Despite the new world-class facilities, which now include revitalized training areas in the renovated Mackey Arena, it cannot be easy to recruit swimmers and divers to a wintry Midwestern campus. But Purdue seems to be doing that better and better on both the men's and women's fronts. Klinge believes the recruiting class that's committed to Purdue for 2012–13 is their best ever. And Ross credits men's assistant coach J. Agnew (coincidentally the grandson of a Purdue swim coach, Dutch Agnew) with bringing in recruits from all over the nation and world.

For Ross, the recruiting success has to do with the type of athlete Purdue is looking for. "You hear from a lot of former athletes in all sports that they picked Purdue because it was the right fit for what they needed to grow up at the time," Ross says. "We take student athletes and develop them into young men and women."

That may have been most evident when David Boudia, a 2008 Olympic diver, decided to become a Boilermaker. Perhaps the school's most celebrated and accomplished individual athlete, Boudia won six national championships before turning professional in his senior year to concentrate on training for the 2012 Games. Recruited by diving coach Adam Soldati, Boudia chose Purdue for the college experience, Ross says, and he was the consummate team player in an individual sport.

"When Adam recruited David, he committed on a partial scholarship," Ross says. "He had to show him that not only is Adam a good coach, but he could make him better. And that shows because he's still training with Adam for this summer's Olympics."

Diving has become a big part of the women's team, as well. This year, three Purdue women divers — Michelle Cabassol and Mary Beth Dunnichay, both freshman, and Casey Matthews, a junior — are all taking Olympic redshirt years to train with Soldati and a chance to compete in the US Olympic Trials.

So in a sport won by the best swimming times and the highest diving scores, the timing could be right for Purdue swimming and diving. In January, the Indiana–Purdue cool swimming and diving dual meet became the first live dual meet televised on the Big Ten Network. Purdue's men and women were each ranked in the top 20, but they faced Indiana squads with a pair of top 10 rankings. The Hoosiers won both sides of the rivalry.

"We're trying to catch up with Minnesota and Indiana," Ross says. "The knock against me is that we haven't won a championship. Everyone has a facility now and it's tough, but the heck with excuses. I'm 52 and might have 10 to 15 years left, but I want to win."

If and when either team wins its first Big Ten Championship, the accomplishment will be all the more sweet because of all the family ties to Purdue swimming.

William Skinner is a senior project editor in Purdue's Office of Marketing and Media. He's also the founding editor of Sport Literate magazine (www.sportliterate.org). Photos by Dave Mason.

PURDUE ALUMNUS // March/April 2012 **Beg, Borrow, Steal | Curated shoots**

This one looked SOOOOO much better in my head. It was a SWELTERING August night. Everything went wrong. Clothes picked out at costume rental shop were given to someone else, fog machine didn't work in the humidity, I tried out a new photographer (WHAT WAS I THINKING?) and to top it all off, both the magazine editor AND the graphic designer were both on maternity leave that summer. So I was literally doing EVERYTHING myself.

And it totally showed. Not the best execution. Le sigh. But you get where I was going with it, right?

This prof studies popular media and the obsession with ghosts, vampires, zombies, supernatural. So we thought we'd shoot him in the oldest graveyard in town like he's hunting a specter. Faculty can be fun! Be brave enough to pitch your crazy ideas. They might go for it.

become more difficult as the availability of content has increased, as has children's capacity for immediate access to violent clips online or in video games.

"It is often presumed that older children are less affected with scary images, but most children typically lack the sophisticated emotional coping skills required to deal with gruesome images," he says. "The images that Hollywood produces have become more compelling, more vivid, and certainly more threatening in terms of their ability to trigger these kinds of reactions.

"Because the media landscape today is filled with frightening fare, this topic is even more relevant than when we started the research three decades ago."

THE OTHER DIMENSION

During the 1988 writers' strike in Hollywood, Sparks expanded his research on children viewing frightening images to study how media images influence belief in the paranormal.

"Hollywood started churning out easily produce-able content to maintain ratings, and one of the common themes was reality TV and the paranormal. The shows focused on people who claimed they had been abducted by space aliens, saw flying saucers, or spent time in haunted houses. It's really easy stuff to produce — get people to talk about being scared, shoot some footage, and then you have an entertaining program."

Part of the entertainment factor is the scare, and the paranormal world is scary because it represents the unknown. Even its definition is broad, covering haunted houses and ghosts, devils, spirits, astrology, and unidentified flying objects.

"What does it say about us in this technological age of science that people are fascinated by this stuff?" asks Dr. Will Miller, a pop culture analyst and the former television host of *NBC's The Other Side*. "We are interested in what cannot be explained and curiosity moves us beyond our capacity to understand and explain the supernatural."

Miller and Sparks, who are co-authors of the book *Refrigerator Rights: Creating Connections and Restoring Relationships*, "met" about 20 years ago when they were both quoted in a *TIME Magazine* article about the popularity of such themes. Back then, especially when Miller hosted *The Other Side* in 1994 and 1995, there was more of an optimistic and positive tone to people's beliefs in the unknown.

Pop culture analyst Dr. Will Miller hosted NBC's The Other Side for two seasons in the 1990s. The former stand-up comedian says it was easy to connect with the show's guests, despite his skepticism. "As a minister, I have many beliefs science can't explain. And as a therapist, I could never demean anyone's experience."

"If someone said, 'I spoke to your father who is in heaven and everything is going to be OK,' it can be reassuring in a time when people are losing hope," Miller says. "People are going to cling to something beyond us and the media fuels that.

"The newer, mean stuff today — well that's a question for Glenn about why people have a fascination for the more unsettling content. But as he will tell you, the filmmakers today depict those images in a way that is visually astounding."

And in some cases, just the minimal special effects can have a chilling effect. Hollywood has hashed on a minimalist approach with films such as *Paranormal Activity* and *The Blair Witch Project*, using subtle special effects or documentary style to create and build on a realistic unknown.

"It is a successful formula because people are entertained by and enjoy stories of the paranormal, and that is obvious with today's current trend of vampires from *Twilight* to *True Blood* and to *Abraham Lincoln: Vampire Slayer*," he says. "Even talk shows and news shows cover the supernatural because of the entertainment factor. It is not going away any time soon."

THE SCIENCE BEHIND A GOOD SCARE

According to American Movie Classics' filmsite.org,

"Horror films are unsettling films designed to frighten and panic, cause dread and alarm, and to invoke our hidden worst fears, often in a terrifying, shocking finale, while captivating and entertaining us at the same time in a cathartic experience. Horror films effectively center on the dark side of life, the forbidden, and strange and alarming events. They deal with our most primal nature and its fears: our nightmares, our vulnerability, our alienation, our revulsions, our terror of the unknown, our fear of death and dismemberment, loss of identity, or fear of sexuality."

Over the years, Sparks has interviewed hundreds of people to better understand what it means to be scared. While many people — about a third of the population — say they enjoy a good scare, it isn't the fear they necessarily enjoy, but the relief of making it through the experience or the satisfaction of conquering a threat. He also says some people report being scared as an adrenaline rush.

But just like children, adults too can experience deep disturbances or anxiety for the short term. In comparison, others may still be holding on to vivid memories of being scared, and that is not healthy, Sparks says.

Another third of those polled report that frightening images scare them, and that can be measured in a study when a person's heart rate increases, muscles tense, or they begin sweating. Some people's minds are etched with lasting memories of frightening scenes.

Sparks has talked to people who didn't want to shower after watching Alfred Hitchcock's *Psycho* or didn't want to eat meat after viewing *The Silence of the Lambs*.

"If people are still haunted by the experience years later, that is not a good thing," he says. "Take your apprehension seriously."

WILL THERE BE A SEQUEL?

Spoiler Alert: Media effects research dedicated to vampires, ghosts, and things that go bump in the night has its own entertainment value. But, media effects research can be incredibly influential in other topics.

Sparks' recent work with his former doctoral student Susan Surapin (MA LA'09, PhD LA'12) focuses on what he calls the "CSI Effect." One study indicates that people who watch popular crime shows such as *CSI: Crime Scene Investigation*, *Law & Order*, and *Cold Case* might have unrealistic perceptions of crime and the judicial system. The adults who watched these shows estimated murders occur two-and-a-half times more than they actually do in the real world, as well as other serious crimes.

This type of TV programming also may affect those sitting in the juror's box. After Sparks' CSI Effect study went public, dozens of attorneys, law enforcement officers, and other judicial representatives sought information about the study. And of course, it can affect how people look out their window.

Consistent with the early research by renowned media scholar George Gerbner, Sparks' studies show that this kind of television viewing can lead to "mean world syndrome," where people start to think about the world as a scary place.

"Some people develop a fear of victimization, and this belief can affect their feelings of comfort and security. A similar thing happens when a person is constantly consuming images that are dark, scary, frightening, and violent that depict things outside of one's ability to control," says Sparks. "People who view the world as scary and don't engage in it ... I think this is a real problem for society."

Sparks is also studying how the frightening images of television, such as those from 9/11 and the Iraq War, can affect people. Sparks has a colleague in the Brian Lamb School of Communication, Susan Morgan, whose research shows that people who watch television that portrays organ donation negatively are less likely to sign up as organ donors.

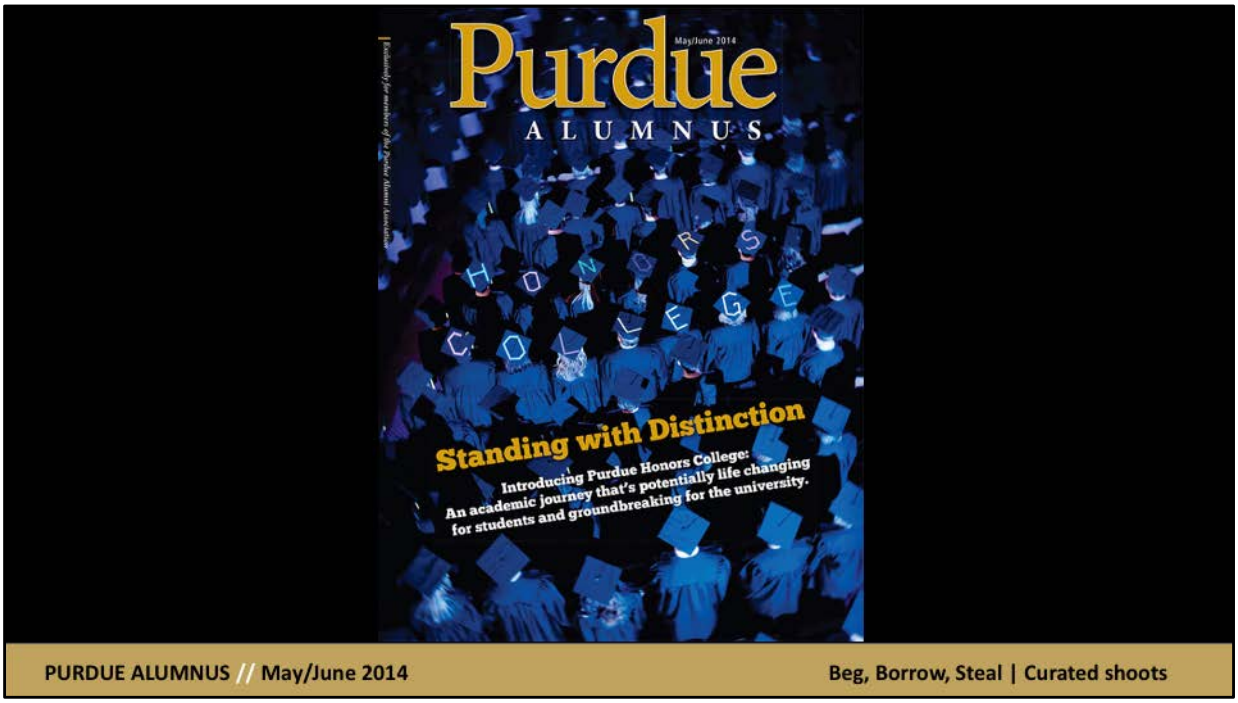
"Media effects can be powerful," Sparks says. "The way media depict life does seem to make a difference in what people walk away with in terms of their thoughts, feelings, beliefs, and intended behaviors."

Next, Sparks would like to build on his work to see how media images affect what people believe about science.

"I think the flip side of belief in the paranormal is how media depictions influence perceptions of science, knowledge of scientific principles, and the way people think about what's going on in the world around them. These are incredibly important considerations today. There is a diversity of media voices and channels, and depending on what people are consuming, they may have different impressions. The study of media effects may have a real relevance on how society determines what is true and what isn't true."

P *Amy Patterson Neubaum (LA'09, MA LA'08) is a health reporter and news writer for the Purdue Office of Marketing and Media. Photos by Michael Mickle.*

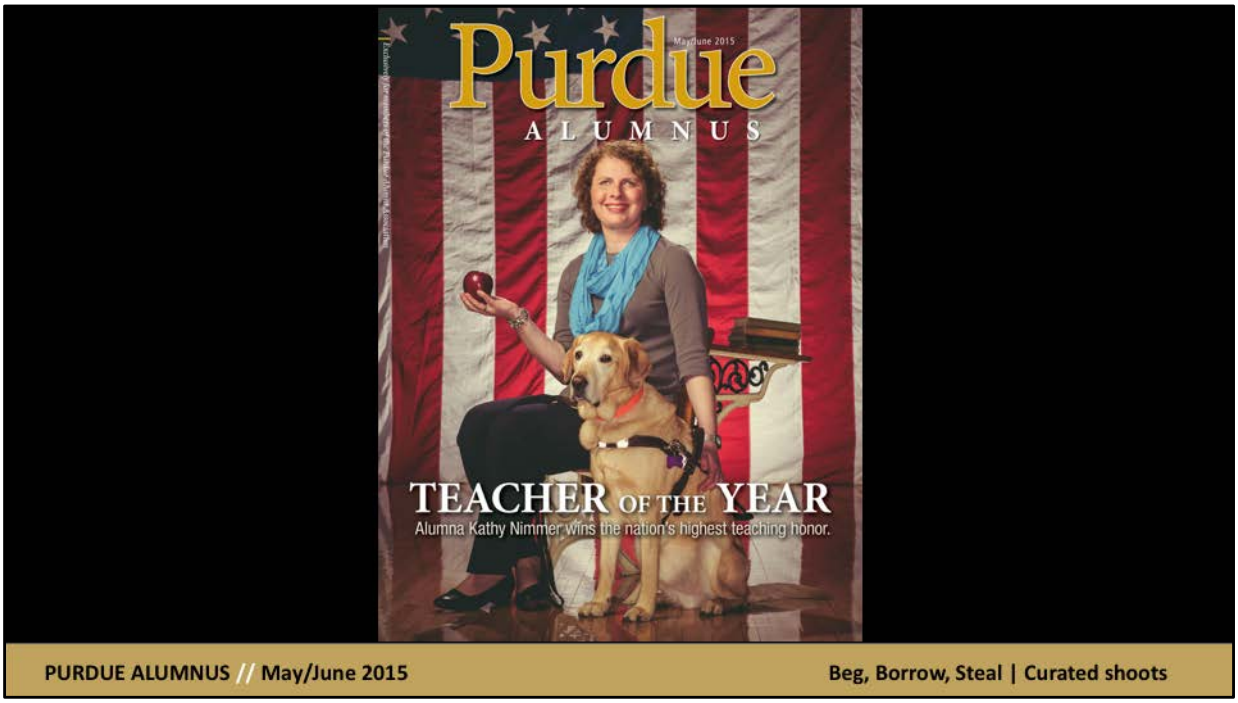
Meh. Not as epic as I hoped it would turn out.



Get crafty! We washi taped these mortarboards, and had about 20 members of our staff dress up in caps and gowns. Set the camera on a tripod and just kept moving everybody into new rows and comped the whole thing together. Not the exactly vision I had, but it worked.

Borrowed the flag from the committee that puts on our community Fourth of July celebration. Shot on a weekend in a high school gym.

The old school desk and vintage school books are mine. I live in a veritable prop house. I have all kinds of cool old stuff in my house. That might not be you, but you know that person. Make friends with them, inventory their living room when you go over, and ask to borrow their stuff.

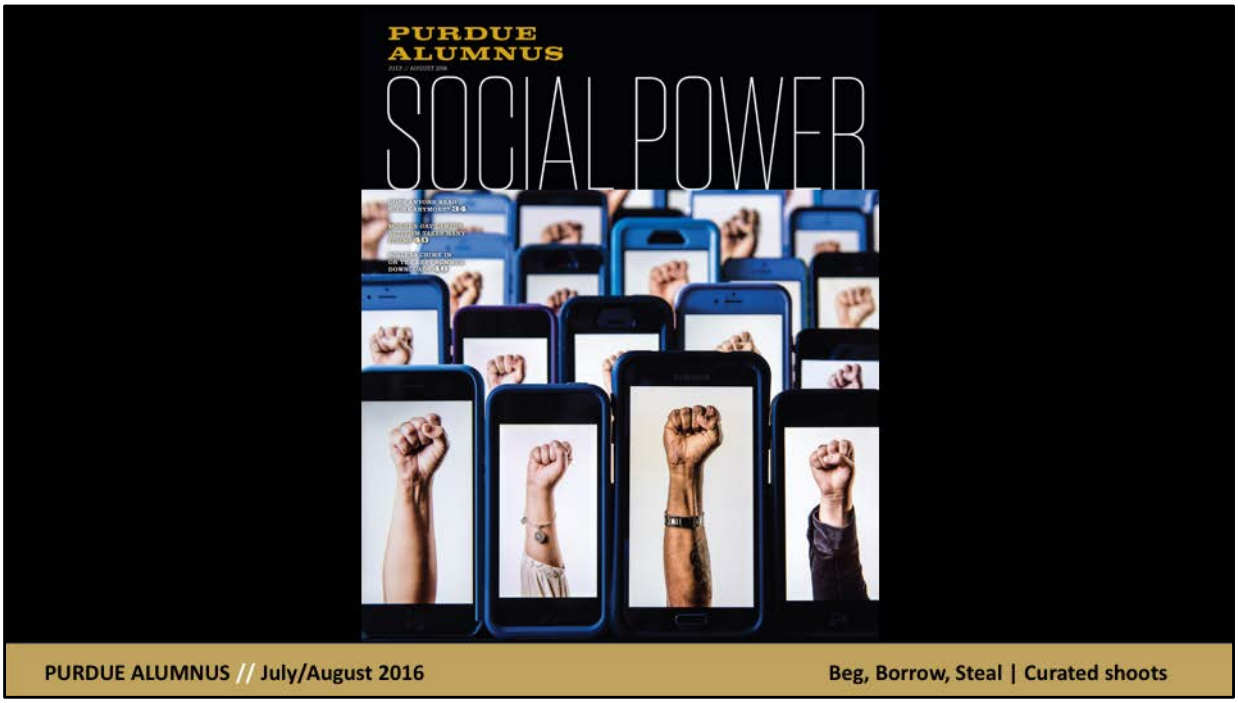


The Indiana Teacher of the year, an education grad, who is blind and uses a guide dog, was one of four finalists for National Teacher of the Year.

The magazine was going to mail right around the time of the announcement, so we had to be ready with a cover in case she got it. The cover art turned out GREAT.

… And she didn't get National Teacher of the Year. So we never used it.

And we ended up with this wanna be GQ cover instead. Our final cover before the redesign.



Lot of time to put together, but really cheap. Stalked people in the student union and asked to take pictures of their fists. Then had to send out an all building e-mail to ask to borrow about 40 phones. No small feat! People are hesitant to be parted from their phones, even for an hour. Texted each phone a fist.

Then the screens kept going dark with screen savers, so we had to keep waking them without toppling the entire display down. Ugh.

Propped them all up on a spice rack type thing, and bam! Got a lot of letters over this one. Created a lot of hoopla. And you have to consider the source. We're a land grant school in a Midwestern state with members that are mostly old white guys.

It's one of the proudest things I've ever done. We effectively communicated the role social media plays in the activism of current students.

Story about all the family heirloom crap Boomers have collected that Millennials don't want.

All of that came out of my house except for the sampler. Bought that on etsy for $40. Now hangs on my office wall.

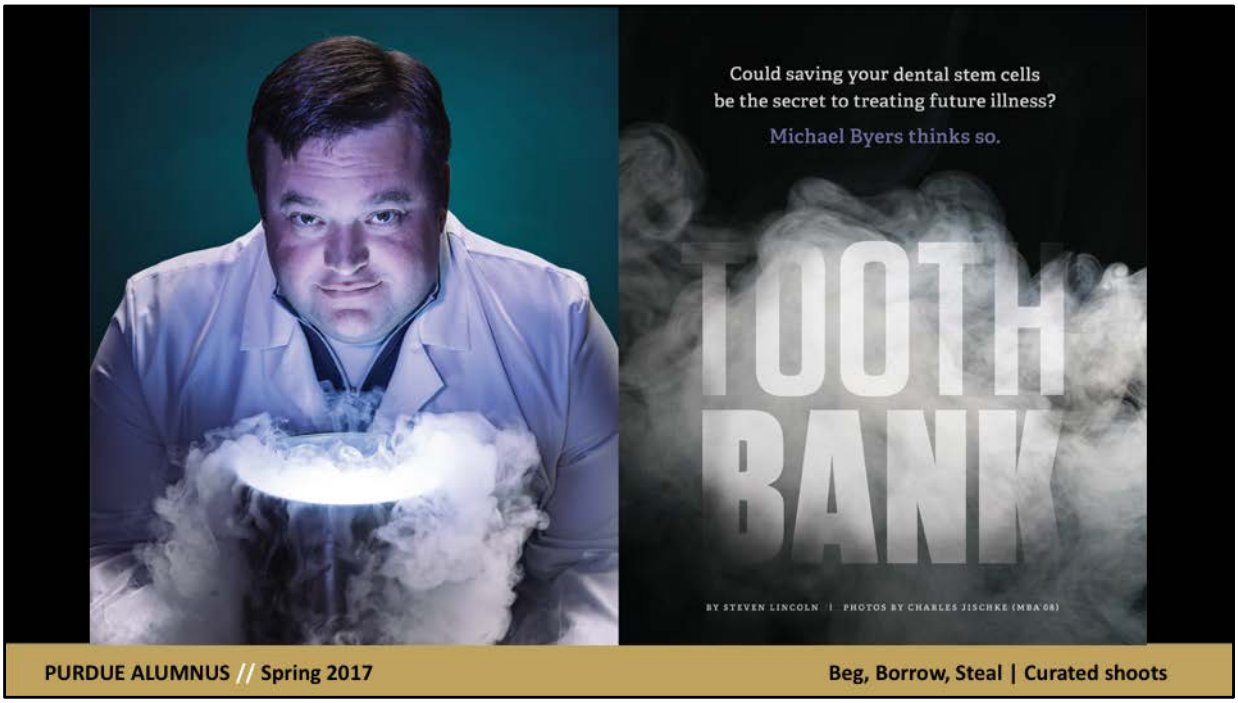
Here's a little secret. Sometimes if I have to buy a prop, but we don't really "use" it, I will return it for a refund. Like that shiny aluminum trash can. Shhhh! That is our little secret.

One of the most epic shoots we ever did. Required a lot of coordination. Grinching to all these households to pile up toys. But all that stuff came from friends and colleagues. That book shelf is from my attic. The work bench is my husband's. That's my pound puppy on the shelf. I drove to a farm a few miles south of town to borrow those old apple crates. We wrapped up extra boxes laying around the office to serve as presents.

One carload full of stuff I grinched. Imagine this from about a dozen different households.

Shot upstairs at a bar. In the corner. Wanted the cool worn wood floors.

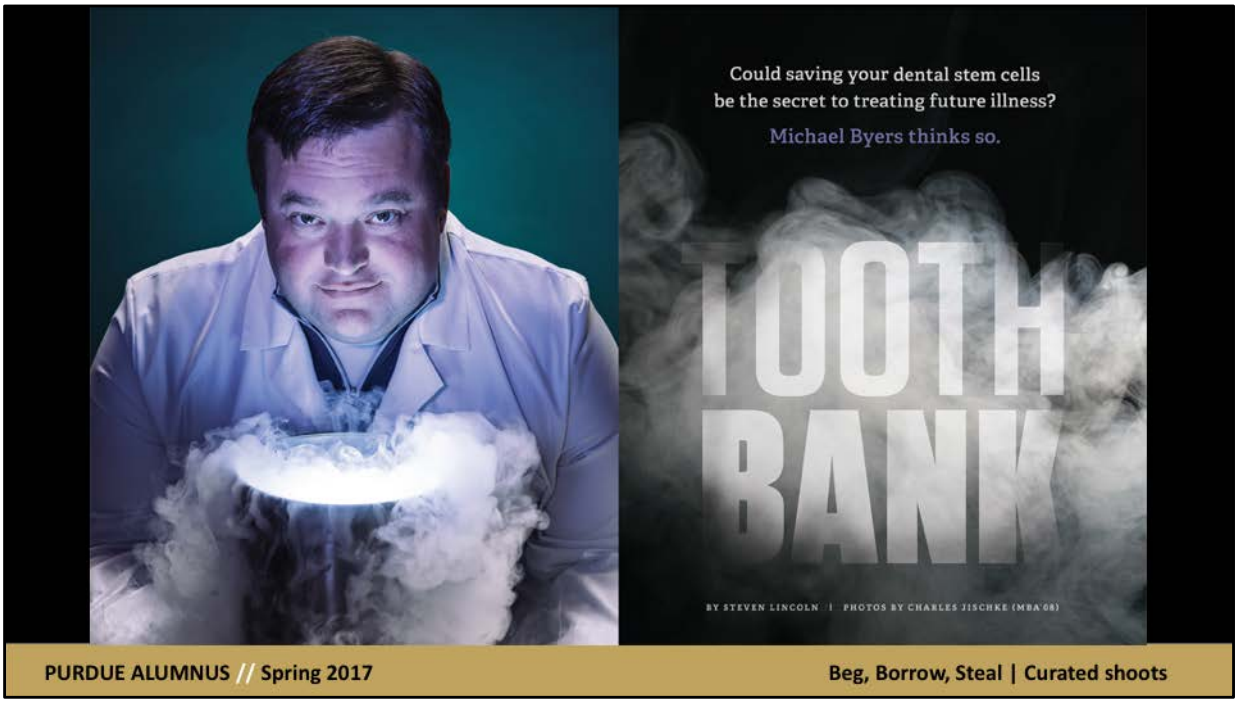
Final result. Did have to rent the Santa for $125. But that was the only additional expense.



Cryo guy. Trash can, dry ice, cut a piece of screen fencing to create a grate to place over the bowl of dry ice so we could have a light down in trash can.

Set up in Cryo guy's freezing cold warehouse on a December day.

He’d blow on it and it would smoke up.



Final result.

I make a lot of stuff for photoshoots. Whenever possible we try to make something ”real” but when that doesn’t pan out, we have a saying. “Fix it in post!”

Same story about Millennials not wanting their parents' stuff. That includes photos. Boomers have all these family photos on their walls, and younger people save everything digitally. So we wanted a conceptual way to illustrate that transition of personal family archiving.

I wall-papered that wall. It's just an MDF board with wall-paper on two sides.

I originally planned to tea-stain the wall with an interesting frame shape, but we ended up having to do it in photoshop, because …

It was a total pintrest fail.

Good thing I wallpapered both sides.

Handpainted this ball for a photo we didn't even end up running on international athletes.

Beat up two apple boxes with chisels, hammer, and chains, then stained them to use for many photo shoots. Much more interesting vintage look. I've done this with pallets, too.

Spray-painted this bad boy gold for a Rally Line shoot.

This was for a story on stuff made by Boilermakers. Piled all this stuff on a white sweep and recruited a few coworkers to serve as hand models. If only I had noticed that the shopped in bees don't have consistent shadows. Grrr.

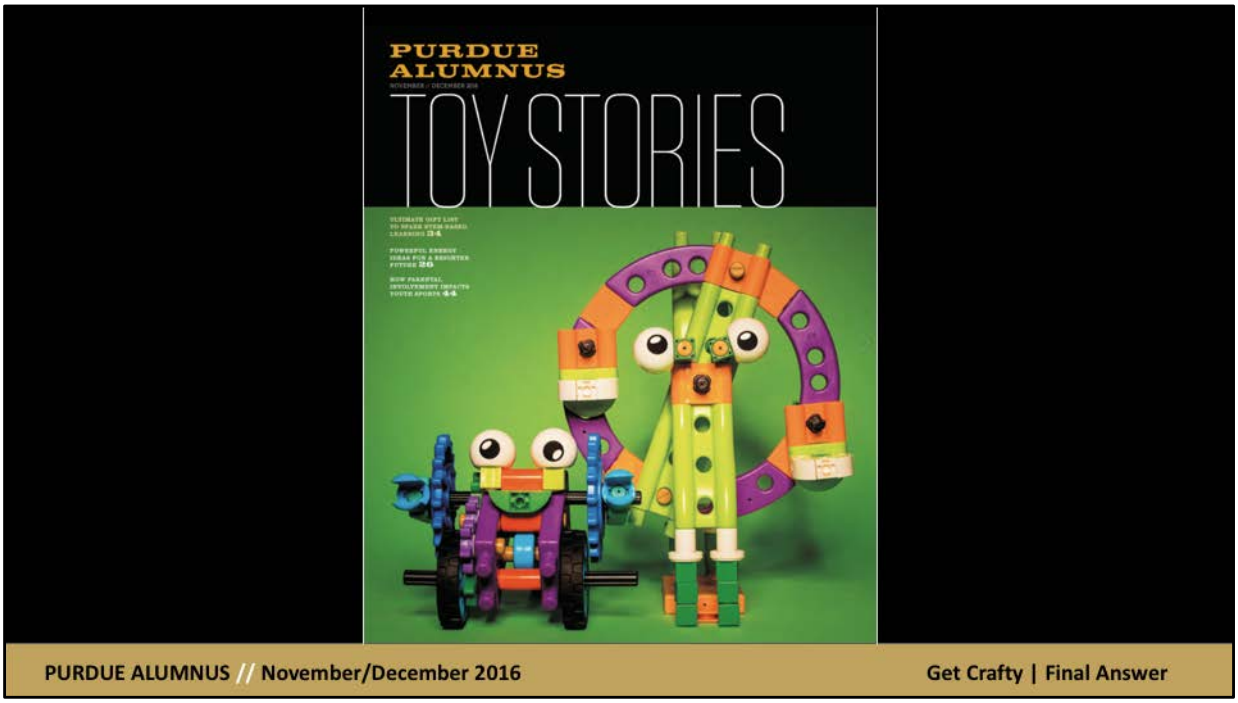
This was our cover shot plan for the STEM toy story. SLAM DUNK! Until the CEO saw it. Santa wasn't relatable and would disenfranchise readers. So … plan b.

I was amused to have this arrive in my inbox! Mississippi State believes in Santa Claus, but Purdue doesn't.

So then we tried having this high tech STEM toy crawling out of the present, looking like it busted through the edge of the box. Shredded up tissue and paper. Wasn't working.

Maybe just the toy? Maybe we weren't looking at the right toy? It doesn't really read like its active or a robotic animal. Was I too focused on the gecko?

Red is tough for us because of our neighbors to the south. I'm forbidden to do a Crimson cover, but this red looks too much like blood.

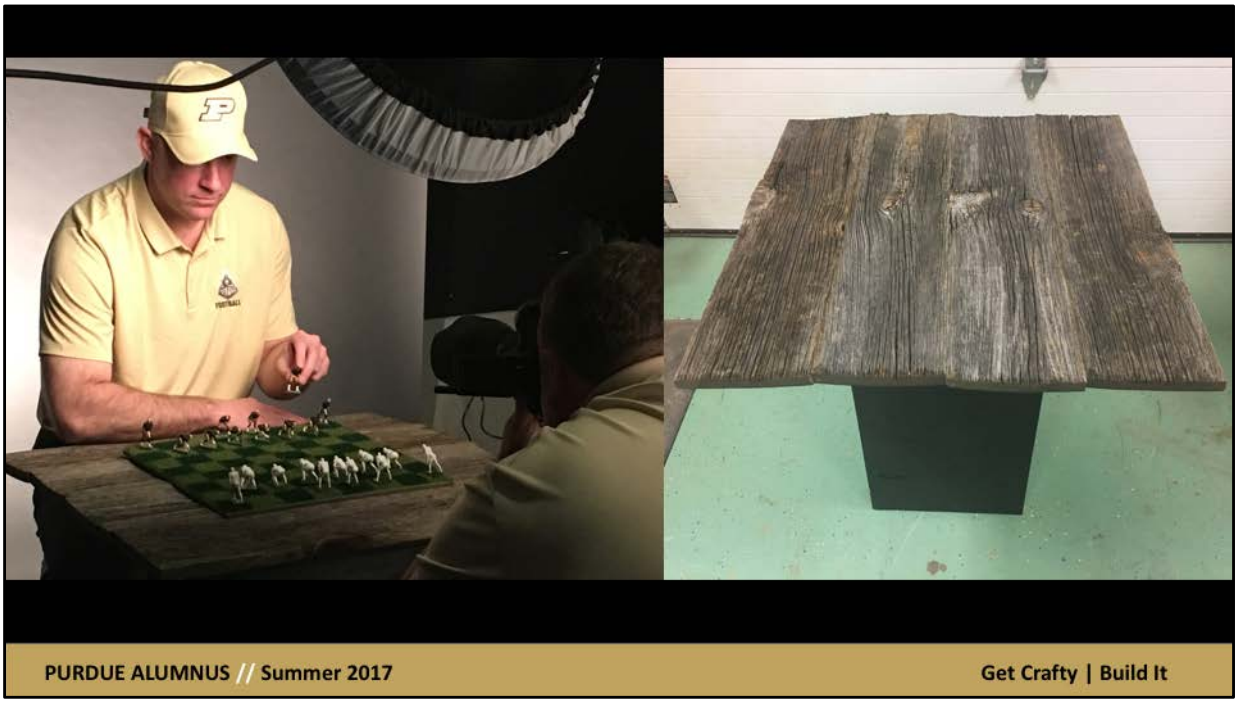


This was the cover we ended up with. The eyes gave it some personality. In the end, it's a more interesting cover than the Santa idea. Sometimes it's about letting go of things you really love to make way for something better.

Did a paint and stencil job on this cute little thing (setting type in illustrator and then cutting it out with an X-acto knife to use as a stencil) it was going to have the numbers 48 on little pieces of wood on hooks below, because that was about the number of days before Christmas when these issues would hit mailboxes. But … we got to the shoot and COULD NOT find my stupid hand-painted sign ANYWHERE.

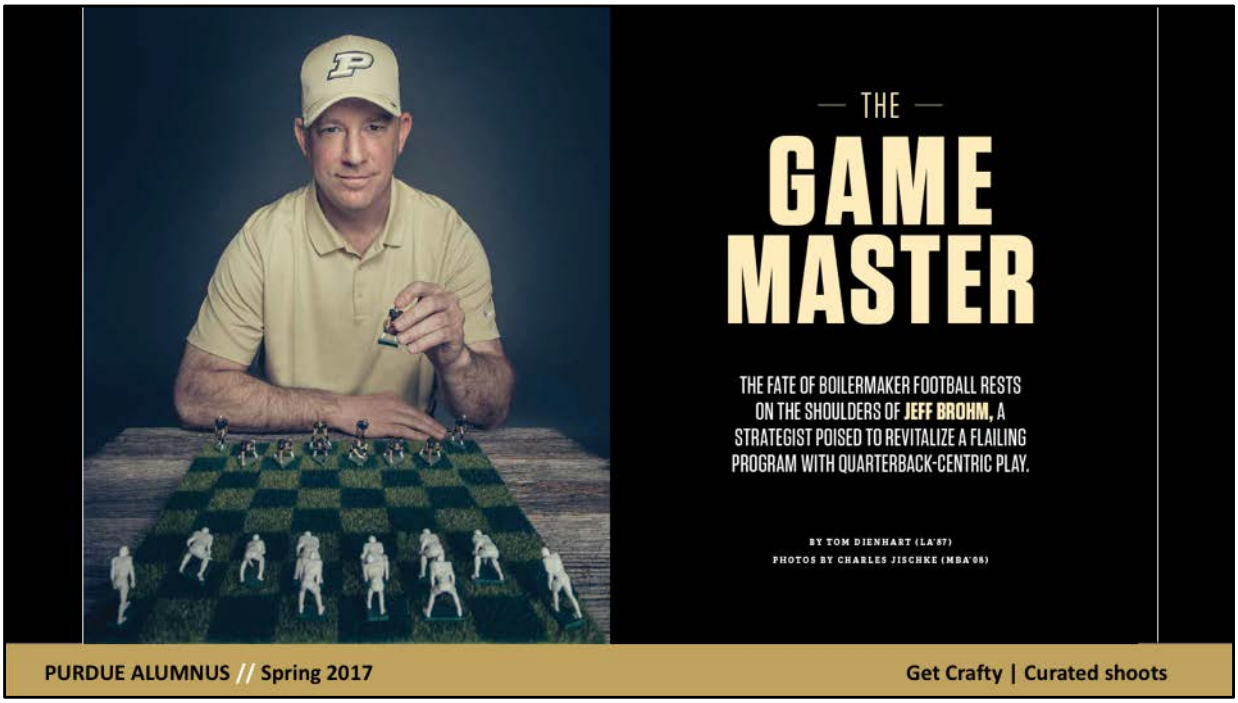
Turns out I put it on top of my truck and it it blew off and never made it to the photo shoot. It was found by colleagues a few days later on a bridge. Now hangs on my wall all muddy and covered with tire tracks. Le sigh.

That pocket square was made out of a piece of vinyl and we had a mom sew a fake pocket slit in the jersey. Moms are often willing to help! And moms don't charge a thing!



Behind the scenes pic shows the set up for our new football coach cover. We built the table out of barnwood and a simple plywood base

My team hand-painting the little football figurines. There was a sale on the San Diego Chargers cause they were moving cities. We cut out a square grid of paper to use as a stencil to spraypaint the grass, which is model railroad scenery grass.



How the final shot turned out. Epic. I was so excited to not have a football coach holding a football or standing on the football field.

This cover was for a story about researchers hopes' for the future. One of which is living on Mars, so we built a fun photo illustration for the cover.

Turned this MatchBox car into a Martian rover.

Set up in the library area in our office … no fancy studio.

The Mars landscape is just three pieces of cut construction paper. Punched a bunch of holes in the black sweep, put the camera on a tripod, and had a staffer move a light behind the sweep shining through all the holes, which we then comped together to get the final.

Another look at how the final shot turned out. Epic.

We carried the photo illustration theme inside.

Printed an airline tag for a bag headed to Mars. Split a little table, stained one half and rejoined it with staples and “thread” to show conflicting parties coming together around a table.

4

We're generating more renewable energy than ever before.

Jeffrey Dukes is a professor in the Department of Biological Sciences.

CARBON DIOXIDE EMISSIONS ARE ONE OF THE BIGGEST DRIVERS of climate change, and much of that is created by the burning of fossil fuels, like coal.

But in many places, the use of coal is dwindling — including in some of the most populous countries on the planet. For example, in China, coal use is on the decline, according to a study in *Nature Geoscience*. The country is also making major investments in renewable energy. India, too, is in the midst of a transformation. In 2016, India installed twice as much wind and solar capacity as coal.

And despite the political conversations we're having nationally, renewable energy is taking hold in the United States in a major way in cities, states, and the corporate world. In America, new solar electric generating facilities added more capacity to the grid in 2016 than any other resource — including natural gas, nuclear energy, and petroleum combined.

The great part is that what once drove this momentum — politics and economic incentives — is no longer the primary driver of this change.

Instead, the costs have plummeted. The price of solar panels and installation has dropped by more than half in the past decade.

There are all sorts of other benefits, too: Renewables can be a mechanism for countries to be a little bit more independent in their energy supply. In developing countries, it's often much easier to use renewables than depending on massive and often unreliable grids.

There is still much work to do, but these are promising trends, and they're really helping us start to address climate change.

5

A tiny portion of web users are helping make the world a better place.

Sorin Adam Matei is director of the Purdue Data Storytelling Network.

ONE OF THE THINGS THAT GOT PEOPLE REALLY EXCITED ABOUT the Internet was the idea that there would be a wide variety of participation. Sites like Wikipedia and Twitter, for example, provide a platform for anyone who wants to contribute. There was reason to believe far more voices would be heard.

Yet the actual statistics seem somewhat troubling. One study found that more than 50 percent of all Wikipedia edits are done by 117 percent of the users. More troubling still, they tend to fit a very specific profile as a white-collar male from a developed nation. Another study found that 10 percent of Twitter users contribute 90 percent of the content. This isn't nearly as inclusive as it could be, and we might reasonably be concerned that people with their own specific agendas are controlling what we know.

But I don't think we need to be troubled yet. I would argue that you actually want to have a relatively small group of people who are really invested to show leadership in this work. These leaders can help us do these jobs a little bit better and more efficiently. And the reality is the people who contribute most aren't "bragging" resources. They're performing a service. We can't — and we shouldn't — expect everyone to contribute equally. Nothing would get done!

To be clear: I do think it is important to try to pull everybody in and not to deny anyone who is talented the right to be part of and participants in these groups. There are certainly costs that come along with the benefits of a tiny fraction of people doing most of the work. But is the glass half full? Do these resources provide a net benefit to the world? I think yes.

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Made those pinwheels, used railroad grass leftover from our football coach shoot. That little house was a model railroad house that we returned.

6 We're continuing to invest heavily in lifesaving scientific research.

Pamela Aaltonen *is associate head of the School of Nursing, College of Health and Human Sciences.*

THERE HAD BEEN A LOT OF POLITICAL TALK ABOUT CUTTING the National Institutes of Health budget over the past year — in one proposal, the suggested cuts were almost $6 billion. In the end, though, Congress ultimately authorized a $3 billion increase.

Why does that matter? The NIH provides funding to scientists who do everything from bench research, which advances fundamental knowledge about the world, to clinical research, which is science that tests the safety and effectiveness of treatments for diseases and other conditions.

In the bill, much of the funding was allocated to clearly pressing issues: cancer, Alzheimer's, and "precision medicine" that custom-tailors treatment to a patient's genetic makeup, for example.

Of course, there are lots of different ways that scientists can get funding, including private philanthropy and corporations. But there can be conflicts of interests in these funding sources, and the findings of these studies can stay private.

Government funding is often viewed as more neutral. Also, the outcomes of the research have to become available to the public, which means we all can benefit from the progress that NIH-funded scientists make.

More money to do research in healthcare will lead to progress in our approach to disease and healthcare.

7 We're finding ways to use online education to help America maintain its edge.

Jon Harbor *is director of digital education at Purdue. In April, Purdue acquired the assets of Kaplan University, an online college.*

SOME NATIONAL ANALYSES SUGGEST THAT FOR America to continue to be economically secure and at the forefront of development, about 60 percent of the population should have some type of higher education credential. Unfortunately, we're currently stuck at about 40 percent.

One of the biggest areas for improvement is people in their 20s, 30s, and 40s who didn't get a higher education credential but could significantly improve their lives and careers if they did.

Online education may be a powerful way to do that. For example, if you're living and working on a farm in rural Indiana, you're unlikely to relocate to West Lafayette or one of Purdue's other campuses. But online education might be a way for that person to get certain kinds of agricultural education that can benefit them.

There are also ways that online education can effectively serve more people than a traditional class format. When I first started teaching, I came up with a great writing assignment — but then I realized I had 180 students. Grading that many papers wasn't really practical. But with a digital format, I can give every student a writing assignment and then follow it up with sample answers and a grading rubric. I can have each student read the answers of three other students — which have been anonymized — and evaluate that writing. They can also self-evaluate. The result? This past spring, I had seven writing assignments and 720 students. In some ways, they learned in ways that were more useful, because they were doing the work of evaluating the work of themselves and of others.

Online education will never replace brick-and-mortar campuses. But it can complement what traditional colleges and universities are already doing and provide an effective way to reach out to the working adult population.

8 There's a secret stress reliever: sounds of the natural world.

Bryan Pijanowski *is a professor in the Department of Forestry and Natural Resources.*

MANY OF US SPEND OUR DAYS IN ENVIRONMENTS FULL OF noisy man-made sounds: machines, sirens, cars on the highway outside our windows. Studies on human psychology show that this kind of noise stresses us out, even if we don't consciously realize it.

But if we add birdsong — even from just one bird — people will suddenly feel more relaxed. In a Citizens for Science project called Record the Earth, we discovered that water is a universally pleasing sound.

Scientists have shown that hearing sounds from nature reduces hypertension. It has a positive influence on our behavior, our psychology, and our physiology. In some ways, it makes intuitive sense: We're all connected to nature. But we often don't pay as much attention to the natural sounds around us as much as we should or in ways that can really benefit us.

I often encourage people to go outside in nature and listen to the rhythms of sounds around them: the crickets, the frogs, the cicadas, the katydids. If you can tap your foot to the sounds of nature, it almost guarantees that you're living in a healthy environment. Those sounds are the base of the food chain making their presence known.

And these sounds benefit us on an individual level quite a bit. Natural sounds make us happy. All we need to do is notice them.

Erin Peterson is a freelance writer.

PURDUE ALUMNUS // Fall 2017 **Get Crafty | Curated shoots**

Made ”penny juice” out of beer components (our multimedia guy is a home brewer). Put out a call on Facebook for a Victrola and some friends had this modern replica, so we stuffed it with $15 worth of greenery from Hobby Lobby to show ”sounds of the natural world.”

We use photo illustrations for research a lot, because often times the process of research is not visually interesting and so much of it is done on computers. It was really hard to break these lightbulbs artfully without destroying them completely.

Carried the photo illustration theme throughout, lining up with the faculty photos.

PURDUE ALUMNUS // Fall 2018 Get Crafty | Curated shoots

We shot the dog and the researcher separately, both facing to the right so that we had a consistent background to comp together. And we elected to crop in tight!

PURDUE ALUMNUS // Fall 2018 **Get Crafty | Curated shoots**

And for the cover, we built shelving brackets out of crap lumber, found a plastics place in town to purchase some acrylic shelves, borrowed 60 flasks from the chemistry department and mixed up food coloring. Could we have just taken a photo of one flask and photo shopped it? Sure. But there is something special about the integrity of an actual photo and it ads some interest with the alignment of the flasks not being quite perfect and the shadows cast in different ways between the flasks.

Here I am posing for a lighting test for a photo that appears in our Spring 2017 issue. Makes good use of my RBF.

If you use any of these suggestions, hit me up @purdue.edu. I'd love to see how they turn out!

If you need help conceiving of ideas, or executing photo illustrations, me and a couple of buddies have a consulting side hustle where we do mag critiques, photo illustration, portrait photography, writing/editing, and redesigns. Hit me up at The ESC Plan — skatbraz@gmail.com. Website coming soon … too busy doing work for other people to get our own act together.