

PRINCIPIA PURPOSE

WINTER '16

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Nominating Process: Achieving
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Play, Plants, and Learning
Flourish in New Lower
School Spaces

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THE ARTS

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INITIAL LEARNING

The mission of the *Principia Purpose* is to build community among alumni and friends by sharing news, updates, accomplishments, and insights related to Principia, its alumni, and former faculty and staff. The *Principia Purpose* is published twice a year.

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Dear Reader,

Though we're months away from commencement, this issue of the *Purpose* recalls Principia founder Mary Kimball Morgan's comments to the graduating Class of 1923. She advised, "The world needs you. It needs unselfishness, honesty, friendliness, consideration, courage, endurance, patience, hope, faith, and love to work out the tangles and misery of material living" (*Education at The Principia*, p. 163). The articles collected here show Principians contributing these qualities to the world—both far afield and close to home.



The author of our cover story, Janessa Gans Wilder (C'98), brings inspiration and expertise to one of the world's long-standing "tangles"—the Middle East. I think you'll find her perspective both helpful and hopeful in the face of daunting global challenges.

You'll also read about three other alumni making a difference right here on our campuses. Upper School chemistry teacher Melanie Shedd offers an example of the impact of Christian Science in the classroom (p. 48). Dr. Chrissy McAllister, a biology professor at the College, shares her enthusiasm for teaching in this issue's faculty profile (p. 16). And political science professor Dr. Brian Roberts provides timely insight into the United States' presidential nominating process (p. 42).

Don't miss the description and photos of our new Lower School play area, which is turning recess into more than time to run around—though there's plenty of that, too! Renovations in the Lower School are just part of the progress going on across the institution as we close out the first year of Principia's five-year strategic plan. You can learn more about our progress toward each of the plan's core goals on page 36.

As always, we highlight a few awards and achievements, including the College mediation team's back-to-back wins in Team Advocacy and the Upper School boys' soccer State Championship (p. 8).

We're delighted to be sharing so much good news with you. Happy reading!

Jonathan W. Palmer (C'78)
President

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I'd like to commend Principia's students (and faculty) for incorporating community and compassion alongside learning in their overseas educational programs.

The photo essay "Tread with Love" on the India and Nepal Abroad and the article "Students Practice Global Citizenship in South Africa" highlight practical ways in which today's students can raise awareness and make a difference through hands-on contributions and by sharing stories through social media.

I look forward to reading about more such global learning in future issues of the *Purpose*.

Kurt Shillinger

From the Editor

You may have noticed a change on the address label of your copy of the *Purpose*—and in the number of magazines delivered to your home. In an effort to save paper and mailing costs, we are now sending only one copy of the magazine to each household. (Homes with more than four alums will receive two copies.)

If you would prefer to receive an individual copy of the *Purpose* in addition to the one sent to your household, please send your request to purpose@principia.edu, or call 314.275.3517. Also, if someone on the magazine mailing label has a new permanent address, please send us that information.

To submit your letters to the *Purpose*, e-mail purpose@principia.edu or write to Principia Purpose, 13201 Clayton Road, St. Louis, MO 63131.



Photo Caption Contest Winner

"That poor freshman. No clue where her dorm is."

—Dinah (Horath, C'82)
Satterwhite



For the next contest, submit your caption for the photo above to purpose@principia.edu by May 2, 2016. The winner will be announced in the Summer '16 issue.



Renovations to Performing Arts Areas Begin

Principia will soon have an expanded, updated, and rejuvenated Performing Arts Center. Though located in the Upper School, students at all levels will benefit from it. The initial work involving relocation of the library and media center began over Christmas break, and we expect the new Performing Arts Center to be ready for use in fall 2016. This expansion is made possible by donors who have a deep appreciation for Principia and for the superior quality of its arts programs, faculty, and students.

Hub Opens

A new makerspace, dubbed the Hub, opened this fall in the building that formerly housed preschool classes and the Acorn program, both of which have moved into the Lower School. The Hub brings together science, technology, engineering, art, and mathematics (STEAM) opportunities, largely driven by students' initiative.

During the day, the Hub is used for School-sponsored activities such as the award-winning robotics program. But the Hub is also open in the evenings and on weekends so that students of all ages can pursue their curiosity in a wide range of areas. For example, the fabrication room, with a 3-D printer and machine tools, can be used for woodshop and related activities, and another room offers stations for arts and crafts, such as sewing, beadwork, and even baking.



Sports Roundup

Volleyball won the District title for the second year in a row, and softball came in second in the District tournament. In addition, four runners earned medals in cross country at the District meet and qualified for State. Finally, students from a range of sports were named to the volleyball, softball, girls' tennis, and cross-country Metro League All-Conference teams. (For exciting news about the boys' soccer team, see p. 8.)



Upper School Teacher Presents at Conference

Upper School mathematics teacher Sheila Hobson presented a session on engaging activities for Algebra 1 and 2 students at the Math Educators of Greater St. Louis conference. Her presentation was later summarized in the association's winter newsletter.

Students Named to St. Louis Metro District Honor Choir and Band

Seniors Hunter Benkoski, Mesa Goebel, Olivia Halverson, and Lily Oyer, and junior Maddy Peticolas were named to the Metro District Honor Choir.

Seniors Andrew Schueler (3rd chair, tuba) and Daniel Cornell (French horn, alternate) were named to the Honor Band.



Two Seniors Attain Eagle Scout Rank

In late August, Andrew Schueler and Dylan Sheets of Principia Troop 554 both passed the Boy Scouts of America review process for attaining the highest rank of Eagle Scout. For his Eagle project, Andrew spent approximately one year working on 3-D printer training documentation and developing protocols for Principia's robotics program. Dylan constructed a wildlife observation blind near the ponds in the northwest corner of the School campus.



Upper School Reunion a Hit

Reunion 2015 brought more than 425 alumni and visitors to the Upper School campus in September, led by the 50th Reunion classes—which had 89 attendees! Arriving a day before other classes, 50th Reunioners toured the School facilities, pleased to see where their gift of just over \$107,000 will go toward creating a new media center—part of the reconfiguration of the current performing arts, library, and media lab spaces in the Upper School building.

Weekend highlights for all classes included a chapel talk by Ted Munnecke (C'57), former biology teacher, and Bill Simon (US'54), former track coach and dean of boys; a 14–2 Panther football victory; and the finale—dinner and dancing at the Art Deco-era Chase Park Plaza, overlooking Forest Park.



Photo by Steve Shedd (C'73)

Solar Car Team Ranks Sixth Internationally

Principia's solar car team recently ranked sixth in the world and third in the United States on the International Solarcar Federation's Global Championship Table. The chart shows Principia well above the University of Minnesota, the Stanford Solar Car Project, and Oregon State.

In its most recent races, Principia placed 17th among 45 teams at the 2015 World Solar Challenge (WSC) in Australia, where it was one of only 20 teams to complete the 3,000-kilometer trek from Darwin to Adelaide exclusively on solar power.

In the summer, Principia finished fifth out of 14 teams competing at the 2015 Formula Sun Grand Prix (FSGP), a three-day race at the Circuit of the Americas track in Austin, Texas. In addition, the team earned its seventh safety award—far more than any team has ever won.

Unlike road races where the lead car wins, at the FSGP the car that completes the most laps wins. Principia clocked 136 laps, ahead of the University of Texas at Austin; the University of California, Berkeley; and Georgia Tech. This race was noteworthy because Principia's newest car—Ra 9—wasn't available, having already been packed for shipment to the WSC in Australia. So team members raced in an older car they'd spent months retrofitting, bringing it into line with new regulations and rebuilding the electrical system.



Scholar-Athletes Excel Academically

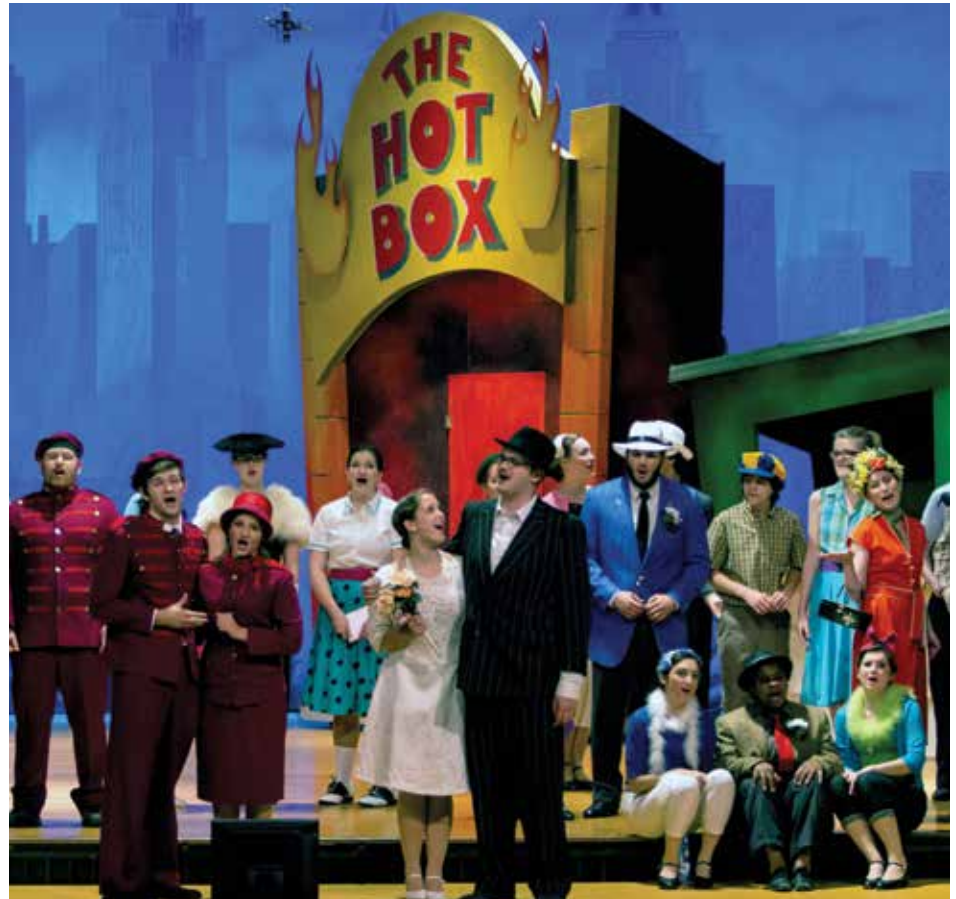
Twenty-six Principians, representing all five fall sports, earned St. Louis Intercollegiate Athletic Conference Academic All-Conference recognition. To receive this honor, student-athletes must hold at least a 3.5 cumulative grade point average, be at least a sophomore in academic standing, and have been enrolled at least one full year at their current institution. The Principians honored represented a wide range of majors spanning the natural sciences, social sciences, humanities, and arts.



Multimedia Artist Visits Campus

In September, students worked alongside Annenberg Visiting Scholar Oliver Herring, a multimedia artist, to organize a TASK Party—a collaborative, improvisational event that creates community while expanding the definition of what it means to make art. Participants write “tasks” on a piece of paper, adding them to the “task pool.” Others pull a task from that pool and interpret it using the materials provided—cardboard, paper, paint, cling wrap, tape, and the like. Once a task is completed, the participants add a new task to the mix.

In a TASK Party, as Herring explained, “everyone is a creative agent. The main tool is your imagination, which is limitless.”



A Classic Musical—with a Cartoon Flair

The College’s November production of *Guys and Dolls* was truly a team effort, with over 65 students representing almost every academic major on stage, in the orchestra, or on the crew. For this production, director John O’Hagan was inspired by classic Bugs Bunny-type images and the various high jinks of all the *Looney Tunes* characters. The creative team—guest set designer Cristie Johnston, costume designer Leah McFall (US’89, C’93), and guest lighting designer Piper Hillman (C’13)—fully embraced O’Hagan’s concept, creating a larger than life, brightly lit cartoonish world on the Cox Auditorium stage. Music Department chair Dr. Joe Van Riper (C’05) directed the orchestra.

Two Principians received independent recognition due to the strength of their performances in *Guys and Dolls*. Seniors Kelsey Whitney and Weston Williams were selected to audition for the Irene Ryan Scholarship, a significant national award. They also prepared audition material to present at the regional festival of the Kennedy Center American College Theater Festival at the University of Wisconsin-Milwaukee in early January 2016. (Shannon Naylor (C’15) and Jocelyne Jam (C’17), who were selected for their work in last spring’s production of *Our Country’s Good*, also prepared material for the festival.)

Awards and Achievements



School

Soccer Team Brings Home State Championship

On November 7, the varsity boys won Principia's first-ever State title in soccer in impeccable—if nail-biting—style. In the semifinal match, the Panthers went through two overtimes and into penalty kicks before clinching the victory. The championship was close as well, with the 2–1 victory over St. Paul Lutheran (Concordia, MO) coming in the second overtime. Forward **Kaleb Keller**, a junior, scored both goals. The victory was triply sweet for the Keller family, as dad **Kipp Keller** (US'84, C'91) is the team's coach, and younger brother Kippy, a freshman, also plays on the team.

Kaleb was named **Player of the Year** at the Metro, District, and State levels; and his dad, Kipp, was named **Coach of the Year** by the Missouri Soccer Coaches Association. Several other players were named to All-Conference, All-District, and State teams.

To top it off, after the State Championship game, Athletic Director **Shawn Brown** (US'00, C'04) received a phone call from the head referee, who praised Principia's sportsmanship.

Kudos to Junior Marshall Fielding

At a November AdVenture Capital student entrepreneurship event, **Marshall Fielding** pitched his idea for repurposing used plastic bottles to produce filament for 3-D printers, earning Principia a \$1,000 award to pursue the concept. In addition, Marshall placed sixth out of 75 participants in the fall Congressional Debate Tournament, a mock legislative event that requires well-researched pro and con arguments on several different topics.

Violinist Earns First Chair

This fall, junior **Haydn Jones** was selected from a group of 150 student violinists to fill the position of chair in the first violin section of the 2016 Missouri All-State Orchestra.

AP Scholar Recognition

In the spring of 2015, 54 Upper School juniors and seniors took Advanced Placement exams. Of these, 15 students qualified for the top three tiers of AP recognition:

Class of 2015

AP Scholar—**Valerie Halsey**, **Tabitha Kemnitz**, **Mia Noren**, and **Paige Pearson**

AP Scholar with Honor—**Lincoln Griswold**, **David Hanlin**, and **Jennifer Ritter**

AP Scholar with Distinction—**Josh Barthelmess**, **Blake Buxton**, and **Courtlyn Reekstin**

Class of 2016

AP Scholar—**Chrissie Fredrikson**, **Joshua Greene**, **Dylan Hanser**, **Aya Maruyama**, and **Brendan O'Hagan**

College

Back-to-Back Wins for Mediation Team

The mediation team took top honors in Team Advocacy and placed fifth in Team Mediation at the International



Intercollegiate Mediation Championship Tournament at Drake University in November, coming in first for the second year in a row.

In addition, seniors **Abigail Blatt** and **Abigail Strub** joined the ranks of All-American competitors with their showing at the tournament. The performance earned Principia an invitation to the 2016 International Law School Mediation Championships at Loyola University in Chicago in March.

Art Professor's Sculpture Honored

Danne Rhaesa (C'79), a professor in the Art and Art History Department, won second place at the 26th Cedarhurst Biennial Art Competition in Mt. Vernon, Illinois. The winning piece is a found stone and rammed earth sculpture entitled *Force*.

Student Video Wins Award

Sophomore **Kent Heckel** won the Best Daily Vlog award at this year's Buffer Festival in Toronto for his vlog about Principia's TASK Party (see p. 7). He attended a screening at the festival in October and held a Q&A session about the video.

Shontee Pant Named Lincoln Academy Student Laureate

Each year, Principia nominates one senior for the prestigious Lincoln Academy award based on overall excellence in curricular and extracurricular activities. Selected from colleges and universities across Illinois, the honorees take part in a gathering at the Old State Capitol in Springfield, Illinois. **Shontee Pant**, a political science and history double major, is Principia's 2015 Lincoln Academy Student Laureate.



Shontee has interned at the U.S. House of Representatives in Washington, DC, and *The Christian Science Monitor* in Boston, where she wrote scores of articles for both print and digital platforms. An avid runner, she has been on the cross-country and track and field teams all four years, serving as team captain for three seasons. She is also a member of the Phi Alpha Eta Honor Society. For her senior capstone, Shontee is researching education as a human right.

Alumni

Frederic Hunter (US'51, C'55)

Frederic Hunter published a new book, *A Year at the Edge of the Jungle*, in August. A memoir, it focuses on his time as a United States Information Service officer in the Congo in the 1960s.

Ben Doerr (US'00, C'04)

Seattle-based musician, storyteller, and teacher Ben Doerr and his indie folk band, St. Paul de Vence, shared their music at a TEDxSantaCruz event in

September. The band has issued two albums that were born out of stories from Doerr's grandfather who came of age under Nazi occupation and fought with the Free French Forces during World War II.


Jim Moser (C'04)

Upper School mathematics teacher Jim Moser was named a 2015 Teacher of Distinction by the Independent Schools of St. Louis. This nonprofit, professional association of 45 mem-

ber schools honored Moser for his "thoughtful and comprehensive approach" and commitment to professional development and improved teaching.

Anneke (Reed, US'10, C'14) Bentley

In October Anneke Bentley, a vocalist for the United States Air Force Band of the Midwest, performed "God Bless America" on national television during the first game of the American League Division Series in Kansas City.



“Summer Session is the perfect vacation! Where else can you find fun, friendship, inspiration, entertainment, learning, and great food all wrapped into one? I am so hooked!”

— Dee Gruenig (C'64)
2015 Summer Session attendee



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Traveling in a “Panoply of Love”

by Lisa Myles



Herb and Ann Dotterer on the PLL Mississippi River Cruise trip

Inspired by more than 20 years of attending Summer Session, and looking for an adventure, Ann Dotterer headed out with her husband, Herb, to Hadrian’s Wall in England to complete a more than 80-mile hike on the Principia Lifelong Learning (PLL) trip led by Chuck Wilcoxon, the College’s assistant athletic director and cross-country coach. They explored England’s majestic countryside, enjoying scenic vistas and quaint villages perched atop rugged English cliffs.

More recently, Ann and Herb joined Principia Lifelong Learners on a Mississippi River cruise. Former Upper School English teacher and Mark Twain scholar Clark Beim-Esche accompanied the group and presented thought-provoking lectures on Twain’s writings and life.

When asked what makes traveling with Principia so special, Herb says, “The educational aspect of the Principia tours

is a plus for us.” Ann concurs, adding, “It’s not just academic education; it’s *inspiring* education from the Principia staff and faculty who lead the trips.”

Since neither Ann nor Herb attended Principia, Summer Session and PLL travel programs allow them to have their own Principia experience and develop friendships with Principia alumni and friends of the school. To those considering travel with Principia, Ann says, “Being with the Prin group adds that sense of being wrapped in a “panoply of Love” (*Science and Health with Key to the Scriptures*, p. 571).

Ann speaks of Summer Session on the College campus with the same fondness, saying, “We feel so loved there and so comfortable that we want more of it. The trips are another way of getting what Prin has to offer.”

Lisa Myles (US’09, C’13) is the PLL program planner.

Upcoming Trips

Traveling with Principia, you’ll explore new regions, cultures, and customs; learn from Principia faculty members; and come home with inspiration to last a lifetime. Join Principia on an upcoming adventure!

Exploring Peru

May 26–June 3, 2016

Hiking West Highland Way in Scotland

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Cycling the Coast of Maine

July 23–29, 2016

Alaska Adventure Cruise 3

September 3–11, 2016

Cuban Discovery 1

September 29–October 7, 2016

Adriatic Gems of the Mediterranean

November 1–9, 2016

Ireland: Land of the Celts

June 10–17, 2017

Cuban Discovery 2

September 28–October 6, 2017

www.principia.edu/trips

618.374.5192

Getting There

by Pat Lindgren Kurtz (C'47)

We celebrated when I received my acceptance to Principia College in the summer of 1943. Hooray! I had never before traveled off our island of Hawaii. At 17, my lifetime chance had arrived.

Suddenly reality set in. How in the world would I get there? Our island was under martial law. Pearl Harbor had been attacked in 1941, and now our tiny, peaceful sugar plantation town of Hilo was overrun with newly drafted soldiers. Stringent martial laws forbade normal civilian activity. We had air raid drills, bomb shelters, gas masks, censored mail, and nightly blackouts. Schools had closed for three months and then reopened with half-day classes three times a week. Classmates of Japanese descent had disappeared into internment camps.

As Christian Scientists we trusted God for direction and protection as my unusual journey to Elsah, Illinois, unfolded. My family's focus during the war, as at all times, was to extend the loving hand of Christian Science—fortified with aloha—to the community. My mother was our Reading Room librarian, and visitors to church, including servicemen, were invited to our home. In this loving, trusting environment, my way “off island” and to Elsah opened up.

After graduation from high school, I formally requested passage to the



mainland and signed an oath promising not to return during the war. I spent my summer painting Hawaiian flowers for an upscale gift shop; each one brought me \$30. The \$300 I earned paid for my passage to Elsah. Summer flew by. September came and went. Principia's classes had begun. October arrived.

Finally, one day, the phone rang. A voice ordered me, “Be at the airport within two hours.”

Dad came home and drove me to the airport. Excited over my first plane ride, I hardly listened when Dad shouted over the roar of the propellers, “God's guiding you.” I boarded the plane and saw blackened windows to prevent outside observations. Though disappointed that I would not enjoy the view, I thought, “At least I am on my way to Honolulu.”

Three days later, travel orders arrived for departure from Honolulu. Misty drizzles were darkening the afternoon skies as I boarded a dingy gray cement carrier. The SS *Permanente*, a converted troop ship, carried 250 women and children. Twenty-four bunks, some three high, filled my stateroom.

After we'd received our GI-issue kapok life jackets, our convoy of 10 gray ships with two Navy destroyers sailed quietly from Honolulu on a zigzag course across the Pacific. Always ready for a surprise lifeboat drill, we sat on the deck and played bridge.

On the tenth day, San Francisco welcomed us as we sailed under the awesome Golden Gate Bridge. Relatives hastened to book me on the next Pullman headed to St. Louis. As I traveled eastward, miles of unfamiliar landscapes fascinated me for three days.

Frigid weather greeted me in St. Louis. June Remington (US'41, C'45), Principia's campus shopper, helped me buy a much-needed winter wardrobe. I promptly snuggled into my first purchase, a wool tweed coat with a button-in rabbit fur lining. Mother made most of our clothes, and I had never been on such a huge shopping spree—certainly not for wool skirts, sweaters, socks, scarves, fleece-lined boots, and gloves.

Everyone on campus welcomed me, but I felt shy about being with only white people. Then I met the four



Matsukata sisters and Tori Takaki (C'43) from Japan, and I felt more comfortable. The girls in Anderson West helped me feel at home, but too many were named Pat. Obviously, I had to change. "Lindy" it was for four years.

Classes were difficult, and Miss Iolani Ingalls (US'28, C'37) wisely placed me in "dumbbell" English. As a Punahou School graduate, she understood the strengths and weaknesses of my Hawaiian background and supported me. In the end, I caught up and even excelled, becoming the first person to win the Louise Brown Rainwater Art Award two years in a row, 1946 and 1947.

These three elements were important aspects of my time at Principia:


(1) Impressed by the superior education of my Upper School dorm mates, I decided then and there that if I ever got married and had children, they would attend the Upper School—and my daughter, Kit Kurtz (US'70, C'74), did.

(2) Sunday School, taught on campus by professors, encouraged growth in my understanding of Christian Science. I joined The Mother Church and became a lifelong church worker.

(3) Classroom professors supported and nurtured creative thinking and action. Recognized in New England for his fine watercolors, Jim Green taught with demonstrations and constructive critiques. Frank Parker joyously introduced us to world cultures in art history courses. Dr. George B. Happ opened a world of living biology for me.

Now, after having lived for over 60 years in northeastern California at Lake Almanor, next to Mt. Lassen National Park, and in Kona, Hawaii, I look back at my time at Principia with love and gratitude. My career has been multifaceted—artist, educator, author, and homemaker. I've shared inspiration gained at Principia with my watercolor landscapes. Research for my master's

degree led me to write and publish books about the Mountain Maidu people. And as a family, we've traveled the world and taught in Taiwan and at Nishimachi International School in Japan, which was founded by Tané Matsukata (C'41). I credit my interest in seeing the world to the inspiration I gained from Professor Parker.

My Principia experience continues to enrich our ventures and adventures. 

Pat Kurtz is working on her memoir, "Sugar and Poi," about growing up in Hawaii.

What's *your* Principia story?

To submit a story (up to 800 words) about your Principia experience, e-mail us at purpose@principia.edu. Selected submissions will be edited with the author's permission.



Andres De Paz in the camera-equipped helmet he designed for Discovery's Innovation Award contest

Photo by Alberto Vogelmann

OFF TO A ROARING START Andres De Paz: World-Class Creativity and Innovation

by Phebe Telschow

What does it take to go from being a kid who loves art to being a leading innovator in a Fortune 100 Company with 7,000 employees on five continents? If you ask Andres De Paz (US'07, C'11), he will humbly tell you his story.

As a sophomore in high school, De Paz became the fourth of four siblings to travel from Guatemala City to study at Principia. Before long, De Paz's love of art helped him feel at home in the Upper School art room. He had a strong interest in industrial design and, at that point, thought he might like to design cars. Nurturing that interest, Jack Schlueter (US'65, C'69), De Paz's Upper School art teacher,

taught him how to use an airbrush to bring more polish and professionalism to his designs. De Paz worked hard and, in his senior year, was accepted to Savannah College of Art and Design based on the strength of his Upper School portfolio. Before committing, however, De Paz realized he had many different interests, so he opted instead to go to Principia College for a broad-based education.

The horizons of De Paz's interests continued to expand at the College. He studied graphic design with Professor Dan Kistler (C'79) and was introduced to the creative process of building a visual identity or "brand" for a business. He designed logos and other specialized graphic elements,

learning how to bring them all together in compelling promotional products and materials. As he recalls, “It was a great opportunity to learn how to communicate through design. I fell in love with it.”

In addition to art and design, De Paz had a strong interest in film. An internship in 2009 with TMC Youth at The Mother Church in Boston gave him the opportunity to put that interest into action, making short videos to illustrate spiri-

“Because of Principia, I was able to open my mind to broader ideas, cultures, and ways of looking at life.”

—Andres De Paz (US’07, C’11)

tual ideas. In the end, the transferable knowledge and skills gained through his graphic design course work and internship became the foundation of his professional career.

While in Miami during the spring break before graduation, De Paz had an informational interview with Discovery Communications. He made some excellent contacts, but there wasn’t an immediate job offer, which was just as well since he had his eye on Los Angeles and a career in film. Once in LA, however, gaining a foothold in the film industry posed all the challenges one might expect, including needing to earn a living while pursuing his passion. So de Paz turned to another practice he’d honed at Principia. “I really prayed,” he says. “When I was finally able to let go of all the worry, an e-mail arrived from Discovery asking me to come back for another interview.” That interview led to a job that allowed de Paz to extend his interest in film into television.

Today, De Paz is head creative producer of on-air promotions for Discovery en Español, a division of Discovery Communications specifically for Hispanics in the U.S. When De Paz

was hired in 2011 as an associate producer, Discovery en Español was being “refreshed,” a term that makes De Paz chuckle. “It was a very small department,” he explains. “There were only two people: my boss and I. It required long hours to produce over 100 on-air elements each month.” His hard work was recognized with an internal Discovery Communications “Stellar Award” for “exceeding beyond responsibilities.” That was the first of several awards for De Paz, who continues to be recognized for the high caliber of his creativity and accountability.

Most recently, De Paz was a finalist for the John Hendricks Innovation Award. Hendricks is the founder of Discovery, and the award that bears his name is among the highest honors at Discovery Communications. Five finalists are chosen from 300 entries. De Paz’s submission of a cinema-quality camera fastened on top of a stable but lightweight skydiving helmet in order to achieve high-quality, point-of-view footage was one of the five.

“Because of Principia,” De Paz says, “I was able to open my mind to broader ideas, cultures, and ways of looking at life. Traveling always builds awareness, understanding, and compassion.” He adds, “Another great thing that Principia gave me was financial aid. I see a lot of my friends struggling with college debts. It makes my life so much easier and more productive to be able to focus on my career rather than having to pay off school loans. My family isn’t here in the U.S. to offer that kind of [financial] support, so it’s really wonderful that Principia provided it.” ■

Nominate a Young Alum

Our Off to a Roaring Start column features young alumni who graduated in the last 20 years and have had a significant impact on and/or demonstrated significant success in their professions or communities. Share the names of alumni you know who are “off to a roaring start” at www.principiaalumni.org/youngalum.



MEET DR. CHRISSY McALLISTER

Biology Professor and Plant Geneticist

An associate professor in the Biology and Natural Resources Department at the College, Dr. Chrissy McAllister (C'93) joined the faculty in 1999. Along with teaching, she has served in a number of administrative capacities, including department chair for five years. While on the faculty, she also completed her PhD in biology at Saint Louis University. A big proponent of Principia study abroad programs, Chrissy has led three trips to New Zealand, two to Yellowstone National Park, and one to Dominica.

Q. What research are you working on right now?

A. I'm working on a three-year National Science Foundation grant with Dr. Toby Kellogg at the Danforth Plant Science Center in St. Louis. We are looking at the evolutionary history of a group of grasses that include some of the most ecologically and economically important grasses in the world (including several prairie grasses, as well as corn, sorghum, sugar cane, and several grasses used for biofuel production). I'm involving my undergraduates in this project through the College's Summer Research Assistantship program, which supports students staying on campus during the summer to work on research with Principia faculty members. This past summer, my students and I developed methodology for collecting digital imagery and measurements of the seed morphology of over 70 species of grasses.

Q. What led you to teaching?

A. I had a botany teaching assistantship in graduate school. At first, I was terrified, but as I started working with students, I discovered I really loved teaching.

Actually, when I was in high school, I took some sort of aptitude test that was supposed to tell you what sort of job would be a good fit for you in the future. My test results said that I should be either a farmer or a college professor. I recall laughing about the results because they both seemed so far

removed from what I thought I wanted to do. But here I am—a college professor who teaches about plants!

Q. What do you love about teaching?

A. It's fabulous to watch students discover that they love something they didn't realize they loved. For example, I get to guide students through explorations of plant structure and function, including the nitty-gritty biochemistry of photosynthesis and other chemical reactions. It is so fun watching the "light bulb moments" happen. We joke a lot in my classroom about how it's completely OK to embrace the geek in yourself and to love challenging academic material. Science can be really hard, really fun, and really amazing all at the same time.

“... it's completely OK to embrace the geek in yourself and to love challenging academic material.”

—Dr. Chrissy McAllister

Q. What do you find most challenging about teaching?

A. Perhaps the most challenging situations are when you encounter a student who actively resists your offers of assistance either in or out of the classroom. At the college level, there is an expectation that the students will meet you halfway and have a desire to grow, learn, work, and push themselves. I find it challenging when a student pushes back against those expectations. These are usually opportunities for character education rather than academic growth. >>



Q. Can you share a character education moment you've had at Principia that particularly stands out to you?

A. Students at Principia are generally very open to the type of growth that results from character education moments, even when they know that growth will be difficult or “messy.” For example, on one of the New Zealand abroad programs I led, a student began having interpersonal difficulties with others in the group. Students were required to keep a journal focused primarily on academic topics. However, one of the times I reviewed this student's journal, I found that she had saved several blank pages in the middle of the journal with a note indicating that, while she didn't yet know what lessons she was meant to learn, she wanted to save pages in her journal to document them when the growth became clear to her.

Sure enough, several weeks later, the student joyfully filled those pages with evidence of huge progress she had made both within herself and within the group. I loved the fact that this student—in the midst of a difficult situation (and far from home and family!)—acknowledged in advance that a) good was going to happen and b) she was prepared to be grateful for it.

Q. What work would you pursue if you weren't a professor?

A. Wow, tough question, because I love my job! I guess I would get more involved in research somehow. There's a whole lot of really exciting plant research going on in St. Louis that I'd love to get more involved in.

Q. What would people be surprised to learn about you?

A. A “fun fact” about me is that I grew up in the Air Force, and my family moved every two years. I've lived all over the U.S., as well as the Azores Islands (where I was born) and Germany. In fact, Principia now feels like home to me because I've lived and worked here longer than anywhere I lived while I was growing up!

Q. If you had a day off and weren't allowed to use it to catch up on work, what would you do?

A. I'd love to plan a fun family hiking day with my husband and daughter. I hear there are scorpions and tarantulas in the glades in the Ozarks—we would love to see them!

Q. If you could give students only one piece of advice, what would it be?

A. Keep a VERY open mind about where you'll go and what you'll do in the future. You have no idea what sorts of opportunities may present themselves to you. Try not to shut down those opportunities just because they don't look like what you imagined for your life after college. *Listen* humbly and deeply, and follow the direction you receive as a result of this prayer—even if it's not what you'd planned for yourself. The perfect networking opportunity or the perfect unexpected job may be hiding within a situation that doesn't look perfect to you on the surface. ■

PRINCIPIA

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ISIS AND ISLAMIC EXTREMISM:

WHERE DID IT COME FROM AND HOW DO WE RESPOND?

by Janessa Gans Wilder

I can vividly recall the horrific sight of children's toys and shoes jumbled amidst the skeletal remains of a mass grave I visited in northern Iraq in October 2004. These were innocent victims of Saddam Hussein's ruthless campaign against Iraq's Kurdish population in the late 1980s, in which thousands of men, women, and children were executed.

It's tough to contemplate the fact that, today, this area is under the control of an even more sadistic and terrorizing regime, the so-called Islamic State (IS) or ISIS, also sometimes referred to as ISIL or Daesh, its Arabic acronym. The group consists of over 30,000 foreign fighters, according to the United States' National Counterterrorism Center,¹ and takes in about \$500 million a year in revenue, largely from oil smuggling.

ISIS's medieval practices of beheadings, destruction of ancient cultural sites, sexual slavery, and wholesale elimination of villages have upstaged even its parent organization, al-Qa'ida, and have contributed to the largest refugee crisis in a generation. Unlike al-Qa'ida, ISIS controls territory and has a governing structure in place. It has even called itself an Islamic caliphate, the first such occurrence in centuries. (A caliphate is an >>



Photo by Nathaniel Wilder (C'04)

About the Author

Soon after 9/11, Janessa Gans Wilder (C'98), a CIA analyst at the time, volunteered for a special assignment in Iraq. After 21 months there, one of her key takeaways was an acute awareness of Americans' lack of understanding of the situation in Iraq, and even more so of the Iraqi people.

Once back in the U.S., Wilder left the CIA in 2005 to found the Euphrates Institute, a nonprofit organization whose mission is "to prepare for peace, where the world needs it most—in, and with, the Middle East." The Institute fulfills this mission by cultivating informed and engaged global citizens with a focus on the Middle East.

The year after founding Euphrates, Wilder joined the faculty at Principia College as a visiting professor, teaching primarily Middle Eastern studies courses. This was also a time of rapid growth and development for the Institute, which was headquartered at the College. Over the next few years, Euphrates sponsored programs on campus, launched a student fellowship program, and hosted an international conference.

Principia College continues to have an active Euphrates chapter (one of a dozen chapters around the world), but in 2014, the Institute's headquarters moved to California, where Wilder lives with her husband and two children and serves as Euphrates' CEO. She maintains a special connection, however, with the College's chapter. In November, for example, she gave a metaphysical talk on campus that included background on ISIS and time for those in attendance to pray for peace in the region.

Islamic state governed by Islamic law and led by a supreme leader—a caliph, who is believed to be a political and religious successor to Muhammad, the founder of Islam.)

Americans are trying to come to grips with this latest phenomenon of extremism and understand the role, if any, we should play in countering it. It's a question I deal with every day, against the backdrop of my time in Iraq (largely focused on counterterrorism and counterinsurgency), on the one hand, and my current efforts to engage everyday Americans with the Middle East, on the other.

While I was in Iraq, the approach we took to fighting terrorism felt to me too much like catching drops of water from a leaky faucet. We expended our personnel, resources, and energy on catching bad guys, not on fixing the leaky faucet—i.e., fixing the problems that create terrorism and insurgencies to begin with. The experts with whom I spoke for this article agree that it's not in the American strategic culture to focus on long-term, non-military solutions, and yet—there is no military solution to the problem of ISIS. More importantly, they agree that even if ISIS's acclaim subsides and its views moderate, the next iteration of extremism is likely to be all the more brutal and outrageous.

This sounds bleak, and the world is still reeling from ISIS's horrific attacks on Paris, but I am not hopeless. I have experienced the impact of healing the divide between the Middle East and West through the power of personal relationships and understanding the "Other." As we widen the reach and

strengthen the efforts of those working for peace, inclusivity, and empowerment, we marginalize extremists and curtail the creation of would-be terrorists. I am confident that there need not be an all-out war between the Middle East and West—such as ISIS is trying to precipitate—but that, instead, the vast majority of people on both sides, who are committed to peace, can unite to root out extremism.

WHAT IS ISIS?

In the simplest terms, ISIS is an Islamic “state” for those who feel stateless, mainly Sunnis who were cut out of power sharing in Iraq and Syria. In essence, ISIS is so successful because it offers Sunnis a “home.”

The U.S. invasion of Iraq in 2003 precipitated an unprecedented shift of power from the minority Sunnis, who had historically led the country, to the Shias. Iraqi Prime Minister Nuri al-Maliki, a highly divisive, sectarian-minded Shia whom I met several times, presided over a reign of terror against Sunnis from 2006 to 2014, including mass arrests and targeting by state-sponsored militias.

In neighboring Syria, on the other hand, Sunnis are the majority, but the ruling elite is Alawite, an offshoot of the Shia sect. Both the current Syrian President Bashar al-Assad and his father, Hafez al-Assad, promoted Alawites to positions of power and oppressed Sunnis, killing thousands in response to Islamist uprisings in the early 1980s and the Arab Spring protests of 2011.



The Fertile Crescent. Image by “N-Mesopotamia and Syria english” by Goran tek-en/Licensed under CC BY-SA 3.0 via Wikimedia Commons

In addition, climate factors have exacerbated Sunnis’ plight and economic woes. Starting in 2006, the Fertile Crescent of Syria and Iraq—where farming first got its start 12,000 years ago—faced the worst three-year drought on record. Researchers have determined that the drought, which caused Sunni farmers to lose their livelihoods and flee to the cities looking for work, was a factor in the violent uprisings that led to the current civil war in Syria, in which 200,000 people have died. “You had a lot of angry, unemployed men helping to trigger a revolution,” explains Aaron Wolf, a water management expert at Oregon State University who frequently visits the Middle East.² Capitalizing on the area’s ongoing need for water, ISIS has seized several strategic dams along the Euphrates River and cut water flow to less than 50 percent of normal.³

These factors, in combination, turned the Fertile Crescent into fertile ground for an insurgency. Joshua Landis, author of the popular *Syria Comment* blog and director of the Center for Middle East Studies at the University of Oklahoma, summed up the situation this way when we spoke recently: “This giant Sunni sea [of people in the Fertile Crescent] is caught between two very Shiite regimes—feeling bereft, unrepresented, unjustly treated, and badly governed. Plus they have no water or resources. It’s a very skimpy environment to be fending for yourself in. It’s no wonder ISIS conquered the whole thing in one summer.”

What is ISIS, then? ISIS is the entity that is giving Sunnis power, influence, dignity, and a “state” during a time many of them feel abandoned by their own nations. >>

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**IF ISIS AROSE
BECAUSE
PEOPLE FELT
DISEMPOWERED, THEN
THE BEST WAY
TO DEFEAT ISIS
IS TO EMPOWER
PEOPLE.**

”

HISTORY OF ISIS

ISIS, with its theology of violent jihad, is the latest in a line of Islamist groups that began with Sayyid Qutb and the Muslim Brotherhood in the 1950s in Egypt. As Landis put it, “Qutb espoused violent jihad as the answer to the security state in the Middle East, and it caught on and became a dominant radical theology.” ISIS is the current incarnation of that theology.

The Islamic State’s leader and self-appointed caliph is Abu Bakr al-Baghdadi, an Iraqi from the city of Samarra, who got his start as a low-level religious figure in Al-Qa’ida in Iraq (AQI), part of the broader al-Qa’ida network. AQI was dealt a large blow in 2006, when its leader, Abu Musab al-Zarqawi, was killed and Sunni tribes, fed up with AQI’s brutal tactics and extremist views, teamed up with an amped-up U.S. military presence (known as “the Surge”) to fight against them.

But as American troops were winding down in Iraq in 2010, AQI resurged under new leadership and with grander ambitions forged in the neighboring fight in Syria. Al-Baghdadi changed the group’s name from Al-Qa’ida in Iraq to the Islamic State and proclaimed himself its caliph after the group first conquered territory in both Syria and Iraq.⁴ ISIS’s stated aim is to establish an Islamic caliphate across the Middle East,⁵ but it will almost certainly never achieve that goal.

ISIS’S FOREIGN APPEAL

Just as Sunni marginalization in Iraq and Syria explains the rise and success of ISIS in those areas, a sense of

disempowerment may partly explain its broader international appeal as well. Estimates indicate that nearly 30,000 foreigners have traveled to Syria from more than 100 different countries to support ISIS. Most are from Middle Eastern countries, but at least 4,500 are from Western countries, including over 250 from the United States.

To some of those on the fringes of Western society, ISIS appears to offer all they lack—the glitz and glamour of guns, women, and glory, and the feeling of being part of something big, utopian, and apocalyptic. In recreating the caliphate and portending the end times, replete with battles against the West, ISIS claims paradise on earth and paradise to come.

ISIS’s adept use of social media to peddle its promises also contributes to its success in recruiting disenfranchised foreigners. There’s the violence—horrible images in which hostages have been murdered or ISIS’s adversaries on the battlefield, executed—which sells particularly to those steeped in the jihadist narrative. But ISIS also propagates images of a family-friendly, welcoming life under its rule, hoping to entice those seeking religious and personal fulfillment. And it uses popular culture—referencing trending video games, for example—to connect with disaffected youth and young thrill seekers.

IS ISLAM THE PROBLEM?

The proliferation of militant groups that profess the Muslim faith has left many wondering if the problem lies with the religion of Islam itself. In response, experts point to non-Muslim movements that have utilized equally medieval tactics to accomplish their goals. “There >>



is little that is novel about ISIS,” writes Stephen M. Walt in *Foreign Affairs*, noting other revolutionary states that espoused violence, such as the Khmer Rouge in Cambodia, the Maoists in China, and the French during their 1789 Revolution.⁶

As with any religion, the question is one of interpretation—whether one looks through an extremist or moderate lens. Within Islam itself, we find a full range of practices and expressions of belief. On the one side is the mystical and tolerant Sufism, expressed famously in the poetry of Rumi and Hafiz, which emphasizes healing the heart and turning it wholly to God. On the other are the unequivocal Salafis, called Wahhabis in Saudi Arabia, whose traditional interpretation finds expression in a regime that reportedly beheaded nearly twice as many people as ISIS⁷ last year and whose policies abroad labor to wipe out more moderate interpretations of Islam.

To call ISIS “not Islamic,” as President Obama did in 2014,⁸ is inaccurate. Yet ISIS is not representative of “true Islam” either. Like other fundamentalist movements, ISIS purports to be the original, authentic purveyor of the faith, but it interprets the religious texts through its selective, modern worldview and goals. It cherry-picks ideas and practices from Islam’s texts, focusing on the violent parts and leaving out the more peaceable ones.

The Quran forbids aggression, for example: “And fight in the cause of God those who fight against you, and do not commit aggression. Indeed God does not love those who are aggressors” (Quran, 2:190). But elsewhere,

it seems to sanction violence: “And slay them wherever ye find them, and drive them out of the places whence they drove you out, for persecution [of Muslims] is worse than slaughter [of non-believers] . . . and fight them until persecution is no more, and religion is for Allah” (Quran, 2:191–193).

Clearly, ISIS discounts the former directive and relies heavily on the latter. Similarly, while ISIS claims to have recreated the caliphate in its original form and says it eschews “moderns,” it does so extremely selectively. For example, ISIS embraces the very modern tool of social media, even though such media clearly had no part in the caliphates of the seventh century.

DEFEATING ISIS—FORCE IS INSUFFICIENT

If ISIS arose because people felt disempowered, then the best way to defeat ISIS is to empower people. Landis told me, “The only way to defeat ISIS is to provide good governance. We can bomb the heck out of these people and destroy the oil and refineries, but they don’t have any choices because they’re facing a very brutal political structure. The only way [ISIS] will stop is by having a better system of government that actually represents the people.”

Yet, the U.S. is continuing its strategy of catching the drops of water from the leaky faucet—i.e., confronting the group with force. “Regarding ISIS, we have shied away from commitment beyond a military solution,” Dr. Kirklin Bateman, a retired colonel and professor at the College of International Security Affairs at the National Defense University in Washington,

DC, told me recently. “We’re not going to call ISIS what it really is—an ‘insurgency’—because then you need a counterinsurgency, which would require state-building and addressing those deeper grievances. It’s safer to stick with drone strikes and targeted operations. We like quick victories with metrics that we can measure and demonstrate success for.”

This might be the safer course of action for our troops and personnel in the short term, but Bateman, and many others, believe it will be ineffective in the long run. Bateman attributes this penchant for “quick victories” to the “American strategic culture,” which, he noted, “is not about investing for the long term in creating functioning societies to address the economic, political, [and] social grievances that are impacting these individuals.”

In Bateman’s view, the time has come for a change to the way we approach foreign entanglements, from halting to fully committed—when that’s what’s called for. “It’s time for average Americans to find our voice and press our leaders to quit piecemealing our response to these groups,” he said. “We either have an obligation as the sole remaining superpower to be a force for good when there is injustice, or we don’t. There is no middle ground.”

Dave Jesmer, a Middle East intelligence expert and former military attaché in several Middle Eastern countries, agrees that a more comprehensive role by the U.S. is critical. “It’s dangerous for Americans to be isolationist,” he said during our interview. “The oceans don’t protect us any longer. 9/11 should have proven that. If we don’t address Arabs’



Each year, on the International Day of Peace (September 21), Principia College's Euphrates Institute chapter invites students to place prayers in the holes of this representation of Jerusalem's Western Wall, where people wedge prayers into chinks in the wall.

basic needs, we're going to be facing this problem for generations. There are rising expectations from the world's greater connectivity through the Internet. They see the opportunities they're kept out of."

BEYOND MILITARY MIGHT

Across the region—for far more than Sunnis—the Arab world's yearning for better governance is fueling upheaval and unrest, from the Arab Spring to the current Palestinian protests to the allure of the Islamic State's utopian promises. The kind of governance the majority seeks is not an Islamic

caliphate but democracy. Eighty-six percent of Muslims believe democracy is the best form of government, and majorities of Arabs admire the West's political freedoms, democracy, work ethic, and economic progress, according to a study published in the January 2008 issue of the *Journal of Democracy*.⁹

Democracy. Basic needs. Good governance. Empowering the disempowered. These are the only real solutions to ISIS, but they won't be fostered by any drone strike or quick military victory. The military element is critical, especially having enough of a military presence to hamper the capabilities of

militant groups and degrade their operating capacities and ability to expand. But that is just one piece of the puzzle.

We must do more to build fertile ground so that the principles of democracy and accountable government can take root. This will likely mean nation-building—anathema to most Americans, especially after the failed attempt in Iraq. To me, though, it means even more—a wholesale shift in how we approach our foreign relations and the role we play in the world.

I think it's time for a "second front" of widespread citizen involvement to >>



Zuhal Sultan speaking in Wanamaker Hall

Euphrates Institute 2015 Visionary of the Year Visits Principia

When Zuhal Sultan spoke on both Principia campuses this past fall, students were excited to hear how she founded the National Youth Orchestra of Iraq when she was just a teenager. A pianist, Sultan also gave a concert during Music at Davis at the College.

Prior to her talk on the School campus, Sultan dined with about a dozen Upper School students who peppered her with questions about her life and dreams—and also freely responded to her inquiries about Principia and Christian Science.

Both College and School students were inspired by Sultan's indomitable spirit and message of hope. "A lot of students found it to be a valuable talk," observed one Upper School senior. "Everyone was very engaged . . . it was one of the best required talks yet!"

Just before visiting Principia, Sultan spoke at the United Nations on the International Day of Peace and at the National Defense Institute in Washington, DC. Following her stops at the College and School, Sultan went on to Stanford University, where she spoke in both English and Arabic, and to the Seattle area, where she gave a talk and a concert.

eliminate terrorism and assuage fear. I like the way Benjamin Barber, author of *Jihad vs. McWorld* (Random House, 1996) describes it: "The second front . . . engages every citizen with a stake in democracy and social justice, both within nation-states and in the relations between them. It transforms anxious and passive spectators into resolute and engaged participants . . ." (p. xiv).

In the age of online interconnectedness, the world's citizens no longer need to sit on the sidelines, and truthfully, they can no longer afford to. We must each step up and do our part to support moderates and marginalize extremists. Not all of us can go over to Syria and Iraq and fight terrorists, but we can each amplify the voices of reason that are countering the voices of hate.

For example, the organization I founded, Euphrates Institute, recently honored Zuhal Sultan (pictured on the left), founder and director of the National Youth Orchestra of Iraq, as 2015 Visionary of the Year. Starting the orchestra when she was just 17, Zuhal brought together young people from every religion and ethnic group in Iraq to build bridges through music. The orchestra members overcame incredible obstacles of war, violence, and lack of resources to perform successfully throughout Europe and Iraq, giving people a symbol of hope and accomplishing what no Iraqi politician has been able to do—unite the disparate groups of an Iraq that threatens to splinter apart.

I call Zuhal the "anti-ISIS": whereas that group is recruiting young people from all over the world to divide, terrorize, and sow fear and violence, she

is recruiting young people from all over Iraq to unite, harmonize, and promote tolerance and cooperation.

The Iraqi youth orchestra had to cancel its 2014 tour to the U.S. because of ISIS's takeover and the inability of the U.S. Embassy in Baghdad to issue their visas. At that point, Zuhail was ready to disband the orchestra. But following Euphrates' recognition of her and the support she felt during her U.S. tour as Visionary of the Year, she is rededicating herself full time to getting the orchestra back up and running. Zuhail says the more groups like hers that provide culture and beauty, the fewer people who will be swallowed up by ISIS. "We need to be human," says Zuhail. "Music fosters humanity and creativity."

INVESTING IN EFFECTIVE PEACEMAKING

Zuhail gets no funding from the U.S. government for her work, even though the amount to sustain her orchestra would be miniscule compared to what we're spending on fighting ISIS. The cost of U.S. military operations against ISIS amounts to \$9.4 million per day, according to Pentagon estimates in the summer of 2015, whereas the amount to fund the whole orchestra's music lessons, rehearsals, administration, and tour costs for an entire season is just \$500,000. I long for the days when we match our national pocketbook to funding policies that will achieve the foundational, "second-front" results we desire. We need to press our leaders to focus less on military victories and more on funding grassroots efforts that will bear fruit over the long term.

I'm encouraged by the increasing ability of ordinary citizens to help support

moderate groups on the ground, like Zuhail's orchestra and the dozens of other grassroots organizations and visionary individuals in the region (see sidebar on p. 31). In today's age of connectivity, we can share their stories, spread the word, amplify their voices, and support them directly as donors. And for the intrepid travelers among us, we can volunteer and help on the ground.

Regardless of the avenue, as we focus more on the positive efforts at work and throw our weight behind them, their capacity, success, and sustainability increase. Imagine if there were not just one youth orchestra but many throughout Iraq and Syria, uplifting and inspiring and empowering even more youth in the region.

Maybe defeating extremists means beating them at their own game. While al-Qa'ida and ISIS create cells to terrorize, we can help create cells to harmonize. >>

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¹ <http://www.bbc.com/news/world-middle-east-29052144>.

² <http://www.smithsonianmag.com/innovation/is-a-lack-of-water-to-blame-for-the-conflict-in-syria-72513729/?no-ist>.

³ <http://www.businessinsider.com/isis-is-waging-a-water-war-in-southern-iraq-2015-6>.

⁴ http://www.nytimes.com/2014/08/11/world/middleeast/us-actions-in-iraq-fueled-rise-of-a-rebel.html?_r=2.

⁵ <http://www.theatlantic.com/magazine/archive/2015/03/what-isis-really-wants/384980/>.

⁶ <https://www.foreignaffairs.com/articles/middle-east/isis-revolutionary-state>.

⁷ <http://www.mintpressnews.com/saudi-arabia-beheads-nearly-twice-as-many-people-as-isis-so-far-this-year/208894/>.


⁸ <https://www.whitehouse.gov/the-press-office/2014/09/10/statement-president-isis-1>.

⁹ Amany Jamal and Mark Tessler, "Attitudes in the Arab World," *Journal of Democracy* 19, No. 1 (2008): 97-110.

One of the many messages of peace promoted by the Euphrates Institute chapter on the College campus

Photo by Nathaniel Wilder (C'04)





Grassroots Peacemaking in the Middle East

Want to know more about how to support peacekeeping efforts in the Middle East? Here's a sampling of the dozens of organizations making a difference on the ground in Iraq and Syria, in particular.

Iraqi Al Amal Association

www.iraqi-alamal.org

Led by Hanaa Edwar, Arab Woman of the Year in 2013, Iraqi Al Amal is a non-political, non-sectarian association of volunteers actively engaged in projects for the benefit and well being of the Iraqi population—regardless of race, gender, or political or religious affiliation.

United Religions Initiative (URI)

www.uri.org

The largest global grassroots interfaith network in the world, URI's mission is "to cultivate peace and justice by engaging people to bridge religious and cultural differences and work together for the good of their communities and the world." URI has 744 local groups—called cooperation circles—in over 92 countries, including Iraq and Syria, that are promoting peace through religious cooperation. (The Euphrates Institute is one of URI's cooperation circles in North America.)

White Helmets

www.whitehelmets.org

This organization includes more than 2,200 volunteers in Syria, including a growing number of women, who risk their lives to go into the most dangerous

places and environments in the country to save their fellow Syrian citizens from the rubble of bombings and civil war.

They are known by their white helmets—construction helmets that serve as their only protection in what is sometimes still an active bombing zone. The group has saved over 12,000 people, and more than 80 of their members have been killed in the line of duty, according to a *New York Times* Opinion piece (Nicholas Kristof, "Unpaid, Unarmed Lifesavers in Syria," Feb. 15, 2015). Since its members are not paid, armed, or politically aligned, the organization has been able to work across lines of government forces and militias, including ISIS.

Organization of Women's Freedom in Iraq (OWFI)

www.owfi.info/EN

Led by Yanar Mohammed, OWFI sets up safe houses and shelters for women in a conflict environment and parochial, abusive society. Focused in the Kurdistan region, the organization is building a shelter in northern Iraq to house Yazidi women who are fleeing from or were abused by ISIS. Services include armed protection, safe dwellings, and legal services. More recently, the organization has extended its influence to international locations that have attracted masses of Iraqi refugees. ■



Play, Plants, and Learning

Flourish

in New Lower School Spaces

by Armin Sethna

With its flowing creek, hobbit holes, tree trunks, boulders, and newly planted native vegetation, Principia Lower School's new playground is much more than a place for students to take a break from schoolwork.

As pre-kindergarten teacher Rissa Arens (US'91, C'95) puts it, "The playground is no longer just a place to run around and get your wiggles out. It is an extension of our classroom!"



“Having a natural playground allows you to figure out how you're going to use what's available.”

—Mary Jane Hoff, Lower and Middle School science teacher

And the pre-K classroom itself is an entirely new space for three- and four-year-olds with brand new fittings and furnishings for learning, playtime, and even naptime. Its folding walls allow the teachers to extend the classroom space in order to collaborate and mingle with the kindergarten/first grade students, who are also enjoying a beautifully remodeled classroom.

The range of renovations throughout the Lower School stem from a concerted effort to provide more integrated and creative learning environments and to support the transition of the former “preschool” classes into the main academic building. The pre-kindergarten and K/1 groups are not the only ones in new classrooms; the Acorn program also moved

into a brand new space, equipped with activity stations, space for parents during play-ins, and its own outdoor play area. Other classrooms received a fresh look but not a full-scale renovation.

Of course, the most visible and—from the children's point of view—most exciting renovation was the playground, which all Lower School grades enjoy. It is a daily reminder of the School's commitment to incorporating existing natural resources into the curriculum and to operating in an environmentally friendly and sustainable manner.

When learning and recess meet

Adventure and fun are high on the list for any playground—and there is plenty of evidence of the sheer joy of childhood during daily recess. Students clamber over trunks and boulders, dart in and out of wooden playhouses, and get messy in the mud pit.

“Having a natural playground allows you to figure out how you're going to use what's available,” notes Mary Jane Hoff, the Lower and Middle School science teacher. “Children are having to physically do something different and also intelligently create and imagine . . .” >>

Hoff worked closely with Upper School science teacher Lynne Scott in coordinating faculty input into the playground design. “From all the different ideas shared,” Hoff says, “it became really clear that teachers wanted to have more than a typical playground with lots of [prefabricated] equipment that ‘tells’ children how to play.” What they wanted was a place that combined fun and a sense of adventure with the development and practice of inquiry, risk-taking, and problem-solving—crucial intellectual skills.

Families and Friends Add the Finishing Touches

One Saturday in early October, all Lower School families—and members of the community—were invited to a playground planting session. Armed with trowels and spattered with dirt, parents, toddlers, teachers, and students planted several hundred native species seedlings in class gardens and in the centerpiece “Welcome Garden.” This concentration of native species not only reduces maintenance costs but also attracts animal, bird, and insect life and serves as a corridor for migrating species. Even a vexing drainage issue was turned to advantage through an attractive and practical solution—two sunken rain gardens lined with rocks and pebbles and with plants that will soak up run-off and reduce soil erosion.

The rain gardens—and much of the playground—serve as additional science labs that always have something new to teach. “As the weather and seasons change, we will be observing what happens to nature,” says a delighted Arens. “I can envision children discovering caterpillars, worms, praying mantises . . . scooping them up and observing them. We might build a habitat for them and, after some research, even write an informative book about these creatures.”

The possibilities are endless—both for play and learning! 📖



The pre-K class in their bright, fully renovated classroom



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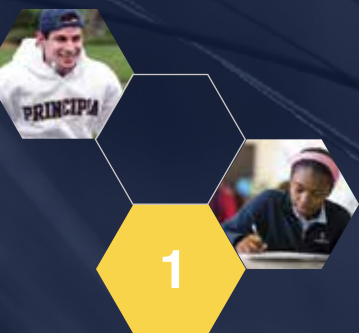
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Harrison, ME
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www.Newfound-Owatonna.com

YEAR ONE:

A STRATEGIC PLAN PROGRESS REPORT

We've accomplished a great deal since the Trustees approved "Vision 2020: Principia's Strategic Plan" just over a year ago. By focusing efforts and resources on key priorities, we've made measurable progress on each of the plan's five core goals.



STRENGTHEN EDUCATIONAL EXCELLENCE

SCHOOL

- Enhanced in-house weekly professional development and the adoption of a school-wide planning framework have improved teaching and learning across all 12 grades.
- The new Learning Engagement Center supports students needing help with time management, study skills, or specific academic subjects.

COLLEGE

- An on-campus engineering dual-degree program was launched and has 20 students in the pipeline.
- The Center for Teaching and Learning is now fully staffed and is sponsoring learning communities for faculty and students and providing individual academic support to students.



PROMOTE CHRISTIAN SCIENCE-BASED CHARACTER EDUCATION

SCHOOL

- Bible literacy instruction is now being provided at all levels of the School.
- New fall character education trips were launched to enable Upper School students to develop and strengthen their spiritual understanding and practice by experiencing the challenges of the outdoors.

COLLEGE

- The new Dilemmas and Decisions program—an expanded moral reasoning seminar—is challenging students to think deeply from a moral perspective for their own benefit and that of our community and world.
- Measurable outcomes have been developed to support assessment of character education.



3

NURTURE SUCCESS BEYOND PRINCIPIA

SCHOOL

- Integrated, experiential approaches to learning have been expanded to foster deeper student engagement and understanding and to develop students' ability to transfer skills across a variety of contexts and content areas.
- The CWRA+ testing process was introduced to assess and track critical thinking and other 21st-century skills essential to success in college and careers.

COLLEGE

- A new program awards financial support to current students accepted to unpaid (or low-paying), career-related internships.
- Another new program sponsors student research assistants who work alongside professors on research projects during the summer.

4

GROW ENROLLMENT

SCHOOL / COLLEGE

- A director of recruiting was hired to develop and oversee new approaches to student recruitment.
- Across the country, Principia Today Tours—featuring faculty, administrators, and students—are sharing the value of a Principia education.
- Program offerings for infants and toddlers have been expanded and enrollment has increased. (School)
- A Middle School boarding program was reinstituted and has since expanded from the use of one dorm to two. (School)
- Becoming a Common Application school has made applying easier. (College)
- Students may now receive financial aid for 10 semesters, instead of eight. (College)

5

STEWARD RESOURCES RESPONSIBLY

SCHOOL / COLLEGE

- Instituting free tuition for full-time faculty and staff is attracting more qualified candidates to job searches on both campuses.
- Strong faculty and administrative hires, including several with terminal degrees, have brought valuable experience in subject-matter expertise, pedagogical best practices, and assessment to both the School and College.
- Hiring faculty members with expertise in more than one field has filled teaching gaps across departments in an efficient manner, enhanced collaboration across disciplines, and strengthened interdisciplinary instruction. (College)
- The move to tray-free dining is saving time, money, and water while also reducing food waste. (School)
- Finalizing an institution-wide "green" purchasing standard for cleaning products has set the stage for considerable savings through reduced product redundancies, increased bulk purchasing, and a streamlined ordering process. In addition, Principia's cleaning procedures will become safer and more environmentally friendly. ■


WINNING CODERS COMPETE IN SILICON VALLEY

by Heather Shotwell

Competing against 20 teams, Principians won first place at the MasterCard Masters of Code event in St. Louis in early October. After 24 hours of round-the-clock coding, the team presented its mobile app prototype FanFare to a panel of judges, becoming the youngest team to win a regional event.

Principia College coders, from left: Lee Tarnow (US'14, C'18), Cameron Dutro (C'10), Annika Erickson (US'13, C'17), and Nick Flanders (C'18).





The assignment was to create an ultimate fan experience, using a platform chosen by the team. Principia's team programmed a web application optimized for mobile. "The word *ultimate* stood out to us from the start," team member Annika Erickson, a junior, explains. "We approached the project from the standpoint of community building—enabling users to build an interest profile and connect with others who share similar interests, from sports and music to art and favorite television shows. Users could share rides with other St. Louis Cardinals or Blues fans or attend a concert together, for example."

Team members attribute their success to a strong collaborative dynamic. Computer science visiting professor Cameron Dutro (C'10), also a member of the team, noted the significance of this. "Sometimes teams don't really gel, but this one truly did," he says. A last-minute addition to the team was also integral to the first-place finish. Saint Louis University business student Austin Smith arrived at the competition without a team, after learning that he might be able to join one on the spot. During a brief networking phase of the event prior to the coding competition, solo competitors like Austin introduced themselves to the groups, hoping to join a team with fewer than five people, the maximum allowed. Recognizing Austin's potential on the business side, Principia's team recruited him even though he had no coding background. Austin spent most of the 24 hours researching and developing ideas to highlight FanFare's path toward profitability. He also brought much-needed snacks, power cords, and other supplies to the programmers.

Regrouping after Hitting a Technical Wall

"We coded in small, manageable chunks," Dutro explains. "We faced major challenges and hit a technical wall at one point, but we regrouped and changed the programming language we used—from Ember Javascript to the open-source web framework Ruby on Rails—and moved forward. Throughout the night, we drew on what we learn in Christian Science—that God provides all the energy we need."

Since the competition took place just as the St. Louis Cardinals were making a run toward a spot in the World Series, the team got creative with the prototype and included a fictitious 27–3 winning score for the Cardinals over their longtime rivals the Chicago Cubs to illustrate how the app builds excitement and civic pride. Meanwhile, through the night, Austin was developing and carefully rehearsing a highly effective project pitch that clinched the team's win.

Silicon Valley Grand Finale

The team's success qualified them for the Grand Finale competition December 5–7 in Silicon Valley, where the winners of regional events around the world competed. The Grand Finale also included tours of technology companies and networking opportunities with pro-

"Throughout the night, we drew on what we learn in Christian Science—that God provides all the energy we need."

—Cameron Dutro, visiting professor

grammers, executives, the competition judges, and Silicon Valley investors.

Principia's team did not win the grand prize, but they learned a great deal in the course of the competition. "Key takeaways," Dutro says, "include having a backup plan when your pitch runs into technical difficulties and not biting off more than you can chew."

Without a doubt, the team's project was ambitious! "We tried to build a marketplace and app to buy and control household items like light bulbs and dead bolts—all the devices in your home," Dutro explains. "We were the only team to go for something really big, and I'm very proud of what we were able to accomplish in just 24 hours." >>

Cameron Dutro: A Mentor to Principia's Masters of Code



A few years ago, over lunch with his friend James Koval (C'11) and Steve Shedd, a Principia development officer, Cameron Dutro (C'10) asked Shedd, "What are some other ways I can give back to Prin?" He'd been contributing financially on a regular basis but wanted to do more. Right there, on the roof deck of Twitter's headquarters (where Koval works), a seed was sown. After a long pause, Shedd responded that sharing his knowledge of web programming with current Principia College students would be of great value, should Dutro ever have the opportunity.

This past fall, that seed came to fruition when Dutro served as a visiting faculty member in the Computer Science Department. On leave from tech company Lumosity, he brought a wealth of experience to Principia—particularly in the area of open source software development. Dutro taught Introduction to Programming, alongside his former professor and mentor Dr. Tom Fuller. And during the weeks that instructor John Broere (C'02) was in Australia with the solar car team to compete in the World Solar Challenge, Dutro covered his Programming Languages class.

Shortly after graduating, Dutro joined Fluther, an online question-and-answer site based in San Francisco. There, he quickly discovered the fast pace of change in tech companies when Twitter acquired Fluther after he had been there for only three months. Finding his niche on Twitter's international team, Dutro focused on programming that allows individuals to translate Twitter's website user interface into multiple languages. Along with other programmers, he authored the TwitterCLDR gem, an open-source attempt to bring ICU-level internationalization capabilities to the Ruby programming

language. Then, in the summer of 2014, Dutro joined Lumosity to develop web and mobile programs designed to train core cognitive abilities such as memory and attention. (He returned to his post at Lumosity in December following his semester at the College.)

"Serving as visiting faculty brought a whole new level of appreciation for Principia," Dutro says. "I've gained a new perspective on all the work that goes on behind the scenes. In addition, the last few years of work experience have brought a clearer understanding of the value of the liberal arts, especially the importance of the humanities. You can't run a company in a tech vacuum. Studying subjects like English literature and a foreign language make you a better team member. I value experiences like traveling on the Peru Abroad, too, because I developed a cultural understanding that has been helpful professionally and personally."

Jumping right back into campus life, Dutro played saxophone in the pit orchestra for last fall's musical, *Guys and Dolls*, and he relished the opportunity to attend hymn sings, CSO testimony meetings, campus talks, and Buck Breakfast—a favorite activity from his time on the Buck House board.

Of course, the Masters of Code regional win was a huge part of fall semester for Dutro, providing exactly the opportunity to give back to Principia in a hands-on way that he had been seeking. "Mentoring the team was such a unique opportunity to 'pay it forward,'" he says. "I am eternally grateful for the opportunity to express God and work with such an inspiring, hard-working group of students." ■

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The Presidential Nominating Process:

Achieving Intended Outcomes?

by Dr. Brian Roberts



Unlike elections in parliamentary democracies, and even other presidential democracies, U.S. presidential elections are very protracted processes. Rather than a sprint that lasts months, they are multi-year marathons. Almost from the moment a U.S. president is elected, the jockeying for the next election four years later begins. Aspiring candidates and their surrogates start popping up in diners, pizza joints, and living rooms in cities and towns across the important early caucus and primary states of Iowa and New Hampshire.

Shortly after the dust settles from the intervening midterm elections, the intensity picks up as candidates start making their official announcements. This election cycle, Republican Senator Ted Cruz (TX) declared on March 23, 2015, roughly 10 months ahead of the Iowa caucus and New Hampshire primary, and just a few weeks later, on April 12, former Secretary of State Hillary Clinton formally launched her bid for the White House.

The length of the campaign also requires a commitment of increasingly astronomical financial resources. According to the Center for Responsive Politics, the entire field of Democratic and Republican presidential candidates spent more than \$2.6 billion dollars over the course of the 2012 campaign, a figure that does not even account for expenditures by outside groups, including Super PACs. And in this election cycle, even prior to the December 31, 2015, Federal Election Committee filing deadline, the Center reported that candidates had already raised \$263 million, and presidential candidate Super PACs had collected \$208 million!¹

Given the length and price tag, it is worthwhile asking whether the presidential nominating process is achieving intended outcomes. That's an especially good question right now, since a crowded field of candidates, such as we have on the Republican side, can make the process feel overwhelming.

Particularly for citizens in states that don't hold caucuses and primaries until March or April, it may even be tempting to think there's little point in paying close attention until the field winnows itself. But an engaged citizenry is always preferable to an indifferent one, and better understanding the intended outcomes of the nominating process can help keep voters engaged.

There is no universally agreed upon set of outcomes, but when I teach courses on presidential elections, I frequently reference a set of criteria utilized by University of Texas political science professor Dr. Bruce Buchanan. He argues that for the nominating process to be "both democratic and able to produce effective presidential leadership,"² it must accomplish these five tasks:

1. Provide three important forms of nomination democracy
2. Prepare voters to make well-grounded choices
3. Produce two or more well-qualified nominees
4. Set the stage for a consensus-building general election campaign
5. Contribute to effective presidential leadership

Clearly, no nomination process could accomplish all of that overnight, but assessing the current process according to this framework helps determine whether its length is justifiable. >>



Provide three important forms of nomination democracy:

- a) voters choose the nominees**
- b) voters above moneyed interests**
- c) nomination by ballot petition**

Giving Voters Final Say

While the point of presidential caucuses and primaries is to allow voters, collectively, to determine which candidates wind up on the ballot in presidential elections, that selection process doesn't always go according to plan. In fact, the crowded field of Republican candidates, combined with new party rules about the allocation of delegates (a mixture of proportional and winner-take-all contests depending on the date of the state's caucus/primary), raises the faint specter of a GOP convention this summer in Cleveland where no candidate has attained the requisite number of pledged delegates to secure the nomination. A brokered convention would be newsworthy and would undoubtedly excite journalists who have been less than thrilled with the highly staged, infomercial feel of recent conventions. But it would not be likely to reflect the preferences of rank-and-file Republican voters.

By contrast, in Democratic contests, voters will almost certainly feel as if the process meets Buchanan's standard of voters, rather than delegates, choosing their nominee.

Money's Role in the Nomination Process

The influence of moneyed interests, however, is a whole different story. There is broad consensus that the historic Citizens United Supreme Court decision in 2010 has increased the influence of wealthy donors. The decision ushered in the

era of Super PACs that can raise unlimited contributions from donors and advocate on behalf of or against candidates. These organizations have made their full imprint on the nomination process by providing an independent source of financial support for a candidate, enabling even a campaign that is struggling financially to remain in the nomination fight longer than would have been possible otherwise. Many analysts would argue that Buchanan's ideal of "voters above moneyed interests" is not being met.

Ballot Access for Third-Party Candidates

Buchanan's third subcategory, nomination by ballot petition, references the ability of individuals outside of the two major parties to gain ballot access according to the requirements established by each state. If you are looking for choices beyond the Democratic and Republican tickets, you will likely have one or more options in your state (perhaps even someone named Trump if he does not win the GOP nomination), but ballot access laws and inattention from mainstream media sources stack the deck against third-party candidates—despite the fact that a 2015 Gallup poll found that 60 percent of respondents believe the two major parties do such a poor job of representing citizens that a third party is needed.³ Again, Buchanan's criteria is access rather than viability, and access, while more difficult in some places than others, is still attainable in our democratic electoral process.

A History of Voters' Influence on Nominee Selection

Earlier approaches to candidate selection largely ignored ordinary citizens:

- Under the King Caucus system of the early 1800s, members of Congress chose their party's nominee.
- In the late 1800s–early 1900s, party bosses controlled the process at nominating conventions.

- Even as recently as the tumultuous 1968 Democratic National Convention in Chicago, the voices of the rank-and-file were largely ignored by party elites.

Fortunately, implementation of the McGovern-Fraser Commission recommendations (written in response to the 1968 Democratic National Convention)

and subsequent developments have generated a more open and transparent system of caucuses and primaries where voters have more direct influence on the selection of delegates to the national conventions and, consequently, on the determination of the nominees.



Prepare voters to make well-grounded choices



Carter and Clinton— Little-Known Names Who Became President

A historical review of primary election polling data reveals several examples of candidates with initial low name recognition who eventually captured the nomination and, in some cases, the presidency. Two notable examples are Jimmy Carter and Bill Clinton. Based on an average of polls between January and June 1975, only 30 percent of those surveyed knew who Jimmy Carter was, and he enjoyed the support of just over 1 percent of respondents—exactly the same percentages Bill Clinton enjoyed in a national average of polls conducted between January and June 1991. But 16 months later, Carter and Clinton were sufficiently well known not only to be elected president but to win against incumbents (Gerald Ford and George H.W. Bush, respectively) who had the advantage of being household names.

While there are criticisms that the primary election period is too lengthy, Buchanan notes that the long period actually helps voters become more familiar with lesser-known candidates whom they might overlook if the season were truncated to a few short months. In particular, the dynamics in Iowa and New Hampshire, where personal connections between candidates and voters are more readily forged, work to the benefit of the lesser-known candidates. In the current election, this is a partial explanation for Republican presidential candidate Ben Carson's rise in the polls during the late summer and early fall.

Part of preparing voters to make well-grounded choices is providing them with information about candidates and policies. Research demonstrates that even citizens who are less politically engaged are more likely to absorb information if given sufficient time before they vote. Studies have shown, for instance, that candidate debates, despite the occasional odd questioning by moderators and posturing by candidates, act as an important source of information for voters. Indeed, one such study noted that these events help voters learn more about candidates with whom they are less familiar.⁴ >>





Produce two or more well-qualified nominees

In presenting this criterion, Buchanan's definition of qualified is "to be electable and to be both professionally and personally capable of fulfilling the demands of the presidency."⁵ The current dilemma voters in upcoming GOP primaries and caucuses will have to confront is whether the conventional definition of relevant experience—higher positions of government such as cabinet secretary, senator, or governor—is requisite or whether notable accomplishments in the private sector (real estate developer, CEO of a Fortune 500 company, neurosurgeon) are sufficient training grounds for the presidency. Here again, the length of the nominating season and all of the rigors of campaigning in settings ranging from state fairs and backyard barbecues to formal dinners

and nationally televised debates arguably help reveal the personal qualities and relevant professional capabilities of the candidates. As Buchanan notes, the lengthy process not only winnows out candidates who cannot consistently demonstrate the ability to comprehend complex policies, effectively articulate policy positions, engage voters, and respond to the barrage of media questioning, but also builds a fitness for meeting these same demands that are placed upon whoever occupies the Oval Office. Just as a four-year term is more like a long-distance race than a sprint, a marathon nominating process may well be better preparation for the presidency than a 100-meter dash.



Set the stage for a consensus-building general election campaign

In addition to well-qualified candidates, the nominating process should help the electorate draw clear distinctions between political parties and delineate the most salient issues in the minds of the voters. Particularly in elections that do not include an incumbent seeking reelection, as is currently the case, the parties need sufficient time and space to deliberate internally before articulating a vision for the future at their national nominating conventions in the summer. This is especially important when more than a dozen candidates are vying for a party's nomination!

The time and space afforded by a protracted primary season is also increasingly important to parties adapting to rapid changes in the demographics of the American electorate. For instance, according to a 2013 Pew Research Center report, the number of eligible Latino voters increased from 19.5 to 23.3 million between the 2008 and 2012 elections, a 19 percent increase.⁶ While Latinos have a lower voter registration



and turnout rate than Caucasians or African Americans, the growing number of Latinos in the U.S. population as a whole has an impact on party positions on issues, messaging, and outreach.



Contribute to effective presidential leadership

While there is no consensus on the exact character traits required for effective presidential leadership, Buchanan notes that the lengthy and tumultuous nominating process tends to “select” for “intensely ambitious people who have great energy, stamina and resilience . . . [and] who are willing to endure setbacks and other trials, to sacrifice private life and to take big risks”—all traits needed in the exercise of the duties and expectations of the office.⁷

In addition to the candidates themselves, the people who will support the eventual victor through a wide range of official duties also need sufficient proving grounds to hone the requisite skills. Campaign communication directors, press secretaries, policy directors, and senior advisors are among the many individuals who wind up in equivalent positions in the White House. A primary election season that lasted only a few months would hardly allow the candidate and staffers to test operational structures and processes before going about the management of the country’s business, not merely the campaign’s.

Conclusion

There is no question that the current nominating process is both lengthy and expensive. To shorten the time frame, proposals such as a single national primary day or a regional primary (where the country is broken into four regions and, on a rotating basis, each region votes on a single day over a four-month period) have been tossed around for years. However, none of these proposals have gained any remotely serious traction within either the political parties or the state governments, who ultimately set the dates for the nominating elections.

A public financing system could certainly reduce the overall cost of the nominating campaign. But this seems improbable without, on the one hand, a commitment from candidates to adhere to such limits or, on the other, the imposition of mandatory limits, which raises questions about the infringement of First Amendment rights and seems unlikely given recent judicial decisions.

So, while I can’t provide much optimism when it comes to the cost and duration, hopefully I’ve provided, with the aid of Buchanan’s criteria, a perspective that highlights some of the beneficial aspects of the current system for voters and the eventual nominees—a perspective that will help you make it across the finish line with a new respect and appreciation for the nominating process. ■

Dr. Brian Roberts (C’88) is a professor of political science at Principia College, where he has taught since 1997. In early January, Dr. Roberts led an academic field program for 10 College students to Iowa and New Hampshire, where they studied the presidential nominating process. They shared their findings and experiences in real time on Principia College’s Facebook page, Twitter account, and field program blog.

¹ Center for Responsive Politics. “Behind the Candidates: Campaign Committee and Outside Groups.” https://www.opensecrets.org/pres16/raised_summ.php (accessed December 12, 2015). Contributions reported are from the September 2015 FEC filing deadline, the most recent deadline prior to submission of this article.

² Bruce Buchanan. “The Presidency and the Nominating Process,” in *The Presidency and the Political System*, 4th ed. Michael Nelson, ed. (Washington: CQ Press, 1995), 227.

³ Justin McCarthy. “Majority in U.S. Maintain Need for Third Major Party.” Gallup. September 25, 2015. <http://www.gallup.com/poll/185891/majority-maintain-need-third-major-party.aspx?version=print> (accessed October 26, 2015).

⁴ Thomas Holbrook. 1999. “Political Learning from Presidential Debates.” *Political Behavior* 21 (1): 67–89.

⁵ Buchanan, 236.

⁶ Mark Hugo Lopez and Ana Gonzales-Barrera. “Inside the 2012 Latino Electorate.” Pew Research Center. June 3, 2013. <http://www.pewhispanic.org/2013/06/03/inside-the-2012-latino-electorate/> (accessed October 27, 2015).

⁷ Buchanan, 241.



Playing with Fire . . . While Focusing on What's Right

by Melanie Shedd

Teaching chemistry to curious high school students is not for the faint of heart! We play with fire and use lots of chemicals. However, chemistry is also loaded with mathematical and theoretical concepts; it is not just about blowing things up—much to the dismay of some students.

Principia's founder, Mary Kimball Morgan, did not mince words when she told parents, "Our objects in education should be to bring out the highest possible results with the material at hand; to lead the girl or boy by appealing to the highest and best qualities he manifests; to arouse what seem to be dormant possibilities and encourage him to put forth his strongest efforts to free himself from limitation; to show him that his divine right is to manifest physical, mental, moral, and spiritual freedom" (*Education at The Principia*, p. 44).

As an educator, I strive daily to see only the good in each student and to look for opportunities for each student to manifest freedom. Instead of focusing on what students aren't doing, I focus on what they are doing. In other words, I focus on the things they are doing right and gently nudge them to do more.

Several years ago, one student in particular—let's call him Sam—regularly

came to class unprepared. He rarely did his homework, never studied for a quiz or test, and would not pay attention in class. The only item that held his interest was performing labs with fire. Thankfully, this was a place to start.

"I kept the bar high and continued to expect he would overcome limitations."

Every time Sam failed to complete yet another assignment, I would not dwell on this. Instead, I would expect progress and encourage him to do better. And I would focus on what he was enjoying and the insightful questions he would ask—about fire. We even talked after class about his interest in smoke bombs and the like. (He never realized we were talking about chemistry!) I kept the bar high and continued to expect he would overcome any limitations, including self-imposed ones.

Fast forward two years. I was looking at the roster for my advanced dual-credit chemistry course—a Principia College chemistry course taught at the Upper

School. Needless to say, it is a demanding course, so I was surprised to see Sam on the roster.

On the first day of class, though, I could tell that Sam was a changed student. He was alert, engaged, on task, and not afraid to work hard. One thing was the same, though—he still loved fire!

Sam went on to have a successful year, and I even served as his mentor on his month-long, independent project, which incorporated chemistry. He did an excellent job, and it was clear that his "dormant possibilities" had been awakened. I do not pretend to take credit alone for this transition, but one of his parents told me at the end of the year that my methods had helped their son become a different type of student.

Sam's transformation—and others like it—are constant reminders to me to keep looking for those dormant possibilities in myself, my students, my family, my community, my church family. Instead of getting caught up in what we're not doing right, we can look for ways to improve on what we *are* doing right. That's a place to start breaking free of limitations. ■

Melanie Shedd (C'98) has been teaching chemistry at the Upper School since 2005.

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