“Scholarship came naturally in my youth. I observed, pondered, and absorbed the world from a distance, privileged to eschew guidelines and restraints. My single mom was a geologist, distracted by course prep and my more complex sisters. Homework was light. The joy from insights during desultory solo bike forays and voracious, indiscriminate late-night reading under the covers presaged my now decades-long obsession with seismograms and all their surprises and perks.”

JOHN VIDALE, Dean’s Professor of Earth Sciences

“When I was four years old, I contracted polio. Was it due to bad weather at the beach in Atlantic City, or maybe the greenhead flies that tormented me that summer? Whatever the cause, for the next several months I spent a lot of time in bed reading comic books, first for the pictures, then for the language. To learn to be comfortable, alone, reading, loving stories, was the gift the disease gave me.”

LEO BRAUDY, University Professor and professor of English, art history and history, and Leo S. Bing Chair in English and American Literature

“My immigrant family spoke only Spanish at home, and when I first went to school, I often felt lost. I got into trouble for not paying attention. Then later that year, I came down with pneumonia. Recovering at home, I watched endless hours of television. I started to gain a sense of the language. (I can still identify any I Love Lucy episode within five seconds!) And I discovered books — fiction, how-to, encyclopedias. Books were my gateway to all the things I was curious about. To this day, reviewing the literature is a balm for me. It opens up worlds, and everything becomes attainable.”

NATALIA MOLINA, professor of American studies and ethnicity

“We were walking through a pitch-dark summer night in the early 1990s, making our way from a train station to our weekend house in rural central Serbia. That’s when I saw my first-ever shooting star. It was beautiful. I remember a profound sense of comfort and awe, realizing I am a tiny part of this immense universe. I now study the universe for a living … this feeling still remains.”

VERA GLUSCEVIC, Gabilan Assistant Professor of Physics and Astronomy
“As a child I was diagnosed with a medical condition called Henoch-Schönlein purpura. Many of the hospitals my mother took me to had doctors who dismissed my symptoms as the flu. Finally, I was properly diagnosed and treated by a compassionate doctor who took time to figure it out. My experience with the condition as a child led to my academic passion of studying health and health care disparities.”

April Thames, associate professor of psychology and psychiatry

Message from the Dean

I’m often asked if I remember the moment when I decided to become a scientist. I know that for many, this choice was motivated by something specific — a eureka moment that pointed them down the path to their future career. But for me, there really wasn’t such a moment. What I do remember is growing up curious.

I’m often asked if I remember the moment when I decided to become a scientist. I know that for many, this choice was motivated by something specific — a eureka moment that pointed them down the path to their future career. But for me, there really wasn’t such a moment. What I do remember is growing up curious.

We tend to expect the sensational story of that moment when a perspective changed or an idea formed. But perspectives don’t always take shape in a moment. It is an accumulation of knowledge and lived experiences that influence the way we understand the world. We at USC Dornsife embrace the idea that the most valuable memories are not those of facts, but of experiences. We don’t expect our students to remember every idea or theory or experiment. Instead, we want them to remember how to explore issues broadly and deeply. We want them to remember how to approach complex problems, how to separate fact from fiction, and how to debate with civility. By the time our students graduate, we want them to leave us with the confidence that they have developed the capacity to solve a wide range of problems on their own. It is that memory that sets our students up for careers as leaders and innovators — no matter what they have chosen to study.

This issue of USC Dornsife Magazine explores a wide range of ideas related to memory. I think about what we will remember about this uncertain moment, and I hope it is the human kindness, innovation and creativity that has surfaced amid so much tragedy and frustration. And I believe it will be the memories we continue to create together through this challenging time that will keep us strong.

Amber D. Miller
Dean, USC Dornsife College of Letters, Arts and Sciences
Anna H. Bing Dean’s Chair
COVER STORY

Memories are made of this …

Memory forges who we are. It is both a bridge to our past and — if we succeed in absorbing the lessons it has to offer — a valuable resource to illuminate our path toward a better future.

But memory is tricky. A double-edged sword, it brings comfort and joy, pain and regret. “I have a terrible memory; I never forget a thing,” wrote novelist Edith Konecky in 1976.

Arguably the world’s most celebrated writer about memory, Marcel Proust may have summed it up best almost a hundred years ago: “We are able to find everything in our memory, which is like a dispensary or chemical laboratory in which chance steers our hand sometimes to a soothing drug and sometimes to a dangerous poison.” The French author and essayist made real for generations of readers the idea of involuntary memory with his unforgettable evocation of how the prosaic act of dunking a small French sponge cake known as a madeleine into his tea as an adult unleashed a flood of childhood experience in his novel A La Recherche du Temps Perdu (In Search of Lost Time).

Memory is also unreliable. “There are things I remember which may never have happened, but as I recall them so they take place,” wrote Nobel Prize-winning British playwright Harold Pinter in his Proustian play, Old Times, in 1971. Or as American novelist, essayist and poet Barbara Kingsolver put it, “Memory is a complicated thing, a relative to truth but not its twin.”

But if memory has its drawbacks, it also has the power to transport us to paradise. In a letter to a friend in 1879, Emily Dickinson wrote, “I think Heaven will not be as good as earth, unless it bring with it that sweet power to remember, which is the staple of Heaven here.”

In a letter to a friend in 1879, Emily Dickinson wrote, “I think Heaven will not be as good as earth, unless it bring with it that sweet power to remember, which is the staple of Heaven here.”

This issue of USC Dornsife Magazine explores memory from many different angles: from a history scholar’s research into the deadly floods of 1861–62 to the ways politicians and advertisers create memorable messaging, and from a profile of an alumna who, as a child, escaped the Liberian civil war to begin a new life in the United States to how new technologies are revolutionizing the ways we remember and commemorate those we love and admire.

Our cover, by graphic designer Dennis Lan, illustrates the vivid private world we all carry with us inside our heads. Dennis wrote of his inspiration, “My main idea is how digging into memory can be an inward-looking adventure. I also try to suggest our memory is not fixed or sealed but a growing, fluid thing. I try to create imagery that evokes emotions (and maybe a tad of nostalgia, as well).”

We think he has succeeded magnificently. We hope you agree. — S.B.
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Inspired by the poetry and process of Emily Dickinson, this collage on the theme of visual memory was created by Stephanie Saunders, then a junior, in the Spring 2020 course “Women Writers in Europe and America,” taught by Professor of Italian and Comparative Literature Margaret Rosenthal.
A new literary journal

USC Dornsife’s Department of English launches Air/Light, a free, online publication featuring exciting new writing from a California perspective in a wide range of narrative and multimedia formats — including video games. By Susan Bell

In Lawrence Weschler’s 1998 New Yorker essay “L.A. Glows,” a climate scientist uses the word “airlight” to describe why Southern California light is sometimes crisp and clear, so everything can be seen with clarity, and sometimes the light is diffused and hazy, so everything seems obfuscated.

From this comes the inspiration for the name of USC Dornsife’s new international literary journal, Air/Light.

“We were looking for a name that would reflect the complexity of L.A., rather than the kind of false simplicity with which people look at the place,” says David Ulin, associate professor of the practice of English and the editor of Air/Light.

“I think that’s about as great a metaphor that really represents something fundamental about the complexities of the place as I can think of, the way that it sometimes is so confounding and sometimes it’s so clear and the idea that it is always shifting.”

Launched on Oct. 5, the first issue is packed with new writing from national and international literary stars, including Victoria Chang, longlisted for the 2020 National Book Award in poetry; Natasha Deón, discussing race and policing; Wendy Ortiz, writing on pandemic TV viewing; award-winning young adult author Lilliam Rivera; alumna Susan Straight; and poet Vickie Vertiz.

Air/Light is the brainchild of Ulin, who also teaches within the progressive M.A. degree in literary editing and publishing, and University Professor David St. John, professor of English and comparative literature and chair of the Department of English.

Aaron Winslow, a postdoctoral researcher in the Department of English, is Air/Light’s managing editor.

The trio were keen to create a magazine that was not about California or the West, but would be an international publication with a sensibility firmly rooted in California and the West.

“I think we often get caught up in a navel-gazing exercise, but I'm much more interested in the California point of view and how we build a publication that grows out of, or reflects that perspective,” says Ulin, formerly the Los Angeles Times’ book editor and book critic. “I don’t think there are any literary journals that are doing that.”
LIFE IN THE UNIVERSE
Instructor: Vahe Peroomian, associate professor (teaching) of physics and astronomy

To consider the possibility of life on other planets, one must first understand how life began on Earth, says Peroomian. Students dive into the birth of the universe and the formation of life on our planet, from the Big Bang to the initial squirming of microorganisms in salty, primordial seas. Along the way, students discover that Earth’s capacity for life is, well, average. Essential ingredients for life like carbon, water and nitrogen are abundant in the universe. Space is dotted with countless planets, and likely trillions orbit stars at distances similar to that of Earth’s from the sun.

The age of the universe also ensures plenty of time for complex organisms to form. “There are planets out there that could have started their evolution of life 7 billion years ago,” says Peroomian. In other words, they had as much as a 4-billion-year head start on us.

In the final class, Peroomian takes students through a tour of UFO sightings, alien encounters and deep space signals that may (or may not) prove that intelligent, other-world civilizations exist. Some, like the infamous Roswell incident, in which a UFO crash was purportedly masked by the government as a weather balloon, seem doubtful, he says. Others, like the 1977 narrowband “Wow!” signal, remain a possible indicator of intelligent life out there, says Peroomian. But when it comes to the “little green men” of popular culture, he’s skeptical.

Regardless of the exact physical characteristics of any extraterrestrials, Peroomian feels a continued push to find life in the galaxy should be encouraged. “We want to be part of the galactic civilization,” he argues. —M.C.

The Milky Way rises over the red rocks of Sedona, Arizona, a designated International Dark Sky Place. With the building blocks of life such as carbon and nitrogen common throughout the universe, it’s not unlikely that life has formed somewhere other than Earth. But is it intelligent life?
MacArthur Fellow and distinguished medievalist Jay Rubenstein is the director of USC Dornsife’s Center for the Premodern World.

From Cushing Crude to the City of Angels
NOTHING PREDISPOSED
JAY RUBENSTEIN TO BECOME
A MEDIEVAL SCHOLAR.

The small Midwestern town of Cushing, Oklahoma, where he was born and raised, is a
refining center, best known as a trading hub for crude oil. There, his parents ran a scrap metal
and recycling company.

“In the summer, I would be in charge of the aluminum cans, machine,” Rubenstein recalls.
But when he wasn’t recycling cans, the American teen was nurturing a severe case of
adolescent Anglophilia, fueled by a deep love of the BBC sci-fi series Doctor Who and the
music of The Kinks. By the time he had joined Carleton College in Northfield, Minnesota, as
an undergraduate, Rubenstein was determined to spend a semester in England.
He focused on getting accepted into one of the only U.K. study-abroad programs available to him at Carleton —
which happened to be at the University of Oxford’s Center for Medieval and Renaissance
Studies. Realizing the program would be his golden ticket to England, Rubenstein took
a medieval history class in preparation.

“For the first three quarters of the class I just hated it,” he recalls. “But then we read The
Art of Courtly Love, a guide book from the period on how to be a good lover in the Middle
Ages.” As the class debated whether the art of courtly love had actually existed or was
just an intellectual construct, Rubenstein was captivated.
Then he got to Oxford.
The oldest buildings in Cushing date from the 1920s, so the medieval city and its
university were a revelation.
Oxford, he says “just struck me as dumbfoundingly beautiful.
All of these gorgeous medieval, Renaissance- and
Enlightenment-era buildings,
all crammed together in such a small city square. It was a
stunning place to be.”
But Rubenstein says the moment he really became hooked was when he took a
palaeography class to learn how to read medieval handwriting.
The final exam was held in an Oxford college library built in the early 17th century. The
assignment? To translate a medieval manuscript.

“That was the first time I’d worked with an actual medieval book,” Rubenstein says. “Here I
am with a pencil in hand, copying a book that somebody had copied out about 700 years
ago with a quill pen. That gave me an electrifying sense of connection to the past.
“I still get a contact high every time I get to handle an old manuscript.”

It’s an exciting opportunity because I get to build a center from the ground up and put
my own stamp on it,” says Rubenstein, whose research focuses on the Crusades,
apocalyptic thought, and religious and intellectual life in the Middle Ages.

Rubenstein says, “It also startled me, just how similar these modern conspiracy
theories are to medieval ideas, that you find the same tropes coming up — the pederasty,
the anti-Semitism.”
Next fall, the center is planning to hold a major exhibition on the Silk Road in collaboration with
Doheny Library. Other projects include establishing a summer program for scholars of the premodern
world, major outreach to the public and the wider academic community via campus-wide
events, and the creation of research symposia in conjunction with The Getty.
Rubenstein strives to present academic research in a way that remains accessible to a
wider audience.

“I want to use the center as a forum for figuring out ways to write well and with intellectual
rigor but also in a way that will enable what we’re doing to be of interest to the wider world.”
He is clearly meeting that goal with his own writing. The late Terry Jones of Monty Python
fame, himself an author of a tome on medieval history, described Rubenstein’s 2011
book Armies of Heaven: The First Crusade and the Quest for Apocalypse (Basic Books) as
“a page-turner” and “the most fascinating and readable book about the Crusades I have read.”
Rubenstein’s latest book, Nebuchadnezzar’s Dream: The Crusades, Apocalyptic Prophecy
and the End of History (Oxford University Press, 2019), explores how people in the Middle
Ages thought about the first Crusade in connection with the apocalypse. He’s now planning a
third volume on the Crusader Kingdom of Jerusalem.

“The question that will drive the narrative is, okay, you fulfilled the apocalypse, you’ve captured Jerusalem,
now what do you do with it?” he says.

“Reading about QAnon, I thought these widespread beliefs about conspiracies are going to survive the elections,
whatever the outcome,” he says.

He’s particularly excited by the fact the new center won’t be confined to Medieval Europe but will also embrace antiquity
and pre-history. He is also looking forward to working with USC Dornsife faculty in
classics, art history, history, religion and East Asian studies.

“I think job one of a center like this is to get as many people as possible from different
departments talking to one another, exchanging ideas and sharing some of their mutual
interests,” Rubenstein says.
The center has maintained a full slate of programming this year, despite the challenges
of the pandemic. Key events have included seminars on the premodern Mediterranean,
held in conjunction with the Early Modern Studies Institute; knightly culture in the Holy Land
and during the Crusades; and iconoclasm in the premodern and modern worlds, including
the destruction of monuments in the ancient world.
In the spring, the center will hold an event in partnership with USC Dornsife’s Center
for the Political Future on conspiracy theories, medieval and modern.

“Reading about QAnon, I thought these widespread beliefs about conspiracies are going to survive the elections,
whatever the outcome,” he says.
Virtual Internships

USC students conduct marine research through virtual internships with leading environmental scientists.

Nathalie Benshmuel, a junior majoring in environmental studies at USC Dornsife, spent her summer conducting behavioral analysis using hours of video in which octopi were pitted against eels in a controlled laboratory environment. She is one of 19 students who recently completed a virtual Zinsmeyer Summer Internship at the USC Wrigley Institute for Environmental Studies, headquartered at USC Dornsife.

Benshmuel hypothesized the eels would use specific strategies for hunting different sexes of the two-spot octopus, based on variation in defense mechanisms related to contrasts in their reproductive anatomy. Her research indicates that eels are able to detect certain pheromones in the females, provoking a more active hunt.

During a more traditional year, these internships would have included a fieldwork component, likely at the USC Wrigley Marine Science Center on Santa Catalina Island. When the COVID-19 pandemic compelled students to isolate themselves, plans understandably changed. While it’s easy to assume that environmental projects without the environment are missing a key component, the virtual internships proved to be engaging and memorable learning opportunities.

Under the guidance of faculty and graduate student mentors, interns worked on a wide range of projects related to marine ecosystems. From generating data on coral growth using 3D models of colonies in the Florida Keys to exploring the genes that allow “sea fireflies” to glow Santorini blue, students helped uncover new knowledge about the natural world — even while at home in their pajamas.

In addition to their research, interns participated in many of the activities that are always offered through the Zinsmeyer Internships, such as resume development, weekly seminars on marine science topics and communication workshops.

After the summer internships wrapped up, many of the students, including junior Harold Carlson, continued to monitor their projects. Carlson worked on a team that explored whether there are easier ways to assess the health of Southern California’s marine ecosystem by using biodiversity data. Reports about their findings were compiled into a draft of a scientific paper to be submitted for publication.

“I was impressed that the internship happened at all under these circumstances,” Carlson says. “But I never expected to be a co-author on a paper while sitting in my bedroom this summer.” —S.K.

DNA Replication

Unexpected glitch in a gene that supervises cell division has important implications for cancer treatment.

USC Dornsife researchers peering deep inside a living cell discovered that its system for preventing genetic damage linked to diseases can fail so badly that the cell would be better off without it.

This paradoxical finding challenges the idea that tiny protein guardians of cell division always offer protection, showing that they can at times allow bad things to happen simply by doing their job too well.

The findings have important implications for treating cancer. In addition, glitches in DNA replication lead to other genetic diseases, including birth defects, autism and neurological impairments. A cell’s ability to make new cells is also important to sustain tissues and organs.

“Generally, cells respond to errors during DNA replication by deploying monitoring proteins, called checkpoints, that serve to recognize the problem and stop cell division so that chromosome damage is prevented,” says Susan Forsburg, Distinguished Professor of Biological Sciences and the study’s senior author. “This study makes the unexpected finding that in certain forms of replication stress, an active checkpoint actually allows cells to divide, causing worse damage than if it were missing entirely.”

How can a gene that seeks to keep the cell healthy mess up so badly that it perpetuates harm to the tissue or organ?

Forsburg explains: “Our experiments examined a very specific defect in DNA replication, and it appears that this created a perfect storm. The checkpoint didn’t know what to do with it. Its best effort to protect the cells actually allowed them to slip into lethal divisions.”

The findings help advance understanding of the inner workings of cells and how cancer treatments can be improved. —G.P.
SOLASTALGIA /ˌsələˈstældʒə/ noun/
A form of homesickness experienced while still at home that is caused by environmental change and exacerbated by a sense of powerlessness or lack of control.

**Origin:** A newly coined definition derived from the combination of the Latin word sōlācium (comfort) and the Greek root -algia (pain) by Australian philosopher Glen Albrecht in 2005.

**Usage:** In 2015, the medical journal *The Lancet* included “solastalgia” as a contributing concept to the impact of climate change on human health and well-being.

“Solastalgia describes a form of emotional or existential distress caused by environmental change, whether from local impacts such as drought and wildfires; to global consequences like mass coral bleaching resulting from human-induced climate change; or even natural disasters such as volcanic eruptions or earthquakes. It can be ascribed to mourning what is already lost or to eco-anxiety linked to what may happen.”

Carly Kenkel, Gabilan Assistant Professor of Biological Sciences, studies how ecological interactions influence and are influenced by the evolutionary trajectories of populations and species. As her work largely focuses on critically endangered coral, she also has a strong interest in translational ecology — turning basic research into practical applications for reef management.
Science Kit Deliveries Enable Students to Tackle Experiments at Home

A physics professor arranged delivery of more than 1,000 lab kits to USC students around the world so they could still do experiments while studying remotely during the pandemic. By Eric Lindberg

“I want to give them a taste of what it’s like to be a real scientist. There’s a certain joy in doing something yourself,” he said. “It’s the difference between watching a surf movie and being in the ocean. There really is no comparison.”

After he secured approval — and funding — from leaders at USC Dornsife, Feinberg hunted for simple experiments that could be done at home.

Then he called Anton Skorucak.

Skorucak earned his master’s degree in physics at USC Dornsife in 1999, studying under Feinberg.

He went on to found xUmp (pronounced zump), an online science supply store.

When Feinberg asked him about putting together physics kits for at least 800 USC students, Skorucak called in every favor he could with his many overseas vendors.

“It was a little bit of twisting some people’s arms and a little bit of luck,” he said.

A container ship carrying many of the needed supplies cruised into the Port of Long Beach in mid-August. Skorucak assembled and shipped the kits in time for USC’s labs to start during the third week of the fall semester.

At last count, 1,053 shoebox-size parcels went out to students and teaching assistants across the country and beyond. Nearly 100 kits traveled abroad to places like China, Brazil, Vietnam, Costa Rica, Singapore, Canada and Hong Kong.

Zhou enjoys the troubleshooting she has to do when plans go awry in one of her experiments. She is taking Feinberg’s advanced lab this semester and hopes to pursue a doctorate in physics.

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“For those of us who want to continue to do hands-on work or applied physics, we’ll have to make that transition from theoretical proofs and diagrams we draw in our notebooks to actually implementing them and working with the materials,” she said. “It’s humbling to realize that even with basic circuits, I’m still building my intuition.”

When USC Dornsife senior Elizabeth Zhou pulled the wires, alligator clips and other electrical parts from a package that showed up at her doorstep in Dallas, she felt a jolt of excitement tinged with apprehension.

The physics and computer science major had drawn countless diagrams of electrical circuits in her class notebook. But she had much less experience connecting wires, batteries and other gadgets in real life. After some fiddling and a few moments of frustration, she flipped a dial and a tiny lightbulb on the circuit glowed. Eureka!

Zhou also glowed — with pride at her newfound knowledge and abilities.

“Even if it’s a small circuit, it feels really gratifying to know that I made this circuit,” she said.

That hands-on experience is precisely why her instructor, Jack Feinberg, devised science experiments all summer.

When the COVID-19 outbreak kept away from campus more than 1,000 USC undergraduates enrolled in physics labs, he organized kits to be shipped to their homes this fall instead.

The longtime professor of physics and astronomy and electrical engineering-electrophysics at USC Dornsife knows that often the best way to learn is to do. And he wasn’t about to let a global pandemic keep his students from that thrill of discovery.
A path to a longer life?

Research on the drug mifepristone could lead to extending lifespan in humans.

Studying a common laboratory model used in genetic research — the fruit fly *Drosophila* — John Tower, professor of biological sciences, and his team found that the drug mifepristone extends the lives of female flies that have mated.

During mating, female fruit flies receive a molecule called sex peptide from the male. Previous research has shown that sex peptide causes inflammation and reduces the health and lifespan of female flies.

Tower and his team, including Senior Research Associate Gary Landis, found that feeding mifepristone to female fruit flies that have mated blocks the effects of sex peptide, leading to longer lifespans than their counterparts who did not receive the drug.

The drug’s effects in *Drosophila* appear similar to those seen in women who take it.

“In the fly, mifepristone decreases reproduction, alters innate immune response and increases life span,” Tower explained. “In the human, we know that mifepristone decreases reproduction and alters innate immune response, so might it also increase life span?”

Similar results were found in separate research using the small roundworm *C. elegans*. The drug had the same life-extending effect on mated worms.

Because *Drosophila* fruit flies and *C. elegans* worms sit on relatively distant branches of the evolutionary tree, Tower believes the similar results in such different species suggest other organisms, including humans, might see comparable benefits to lifespan.

“In terms of evolution, *Drosophila* and *C. elegans* are equally as distant from each other as either one is distant from humans,” he said, and the fact that mifepristone can increase lifespan in both species suggests the mechanism is important to many species.

Tower emphasizes that a clearer understanding of the intricacies of mifepristone’s actions is needed before drawing any firm conclusions. — D.S.J.

Science, Stories and Yoga

USC Dornsife’s Joint Educational Project shares videos to promote fun, learning and relaxation.

Lined up in front of Angelina Crittenden, a human biology major, are a bottle of water, some vegetable oil, a drinking glass, tablets of antacid and various bottles of food coloring — everything she’ll need to teach someone how to make a lava lamp.

Crittenden fills the glass halfway with vegetable oil and then tops it off with water. After adding drops of food coloring — Trojan cardinal and gold, of course — she crumbles up the tablets of antacid, setting off a colorful bubbling effect.

As the steps are captured on video, she explains the scientific concepts viewers encounter. By the end of her demonstration, viewers have learned how to create a very cool final product.

Her step-by-step scientific tutorial is part of a video series that features students in USC Dornsife’s Joint Educational Project (JEP) bringing learning, literature and relaxation techniques to children and members of the Trojan Family during the pandemic.

Typically, JEP participants would lead these activities in the elementary school classrooms where they tutor students in the neighborhoods surrounding USC’s campuses. But, with measures to stop the spread of the coronavirus, they are taking their know-how and love of teaching to the community via video.

The series includes science experiments, led by students from JEP’s Young Scientists Program, that children and families can do at home; stories read aloud by tutors from the JEP Readers program; and short, powerful yoga routines that anyone can do for strength and relaxation, led by Tina Koneazny, director of the JEP Little Yoginis program.

Crittenden, who was born and raised in South Los Angeles, feels it’s her duty to share the knowledge she gains at USC Dornsife with members of her community.

“You get to encourage young students to pursue STEM and become more inquisitive thinkers,” she says.

The video series is available to view on USC Dornsife’s YouTube, Facebook and Instagram accounts. — M.B.
ANGELENOS AND CLIMATE CHANGE
Most Angelenos say climate change is a threat, but few act accordingly and many are unaware of opportunities to fight it.

A USC Dornsife-Union Bank LABarometer survey shows a solid majority of Los Angeles County residents believe climate change is caused by human activity and that it poses a threat to their well-being. And the more mindful they are of the threat, the more willing they are to adopt practices that benefit the environment. However, less than half of residents are aware of government incentives to help them adopt those practices, and a large majority are unprepared for the threat posed by climate change, including its ability to exacerbate wildfires.

“The majority of Angelenos want to help fight climate change, but many of them are not adopting greener practices and are unaware of the support that would allow them to do so,” said Marco Angrisani, an economist with the USC Dornsife Center for Economic and Social Research (CESR), which prepared the USC Dornsife-Union Bank LABarometer’s Sustainability and Resilience Report. “This presents a tremendous opportunity to make progress against climate change by ensuring that more people know about the options they have for leading a more sustainable life.”

MONEY MATTERS
The survey also showed that income plays a major role in how well people are able to adapt to climate change. Wealthier residents seem better equipped to deal with extreme temperatures, and report better air quality in their homes and neighborhoods.

L.A. COUNTY RESIDENTS ENGAGING IN ENVIRONMENTALLY FRIENDLY BEHAVIORS

- Recycle: 75%
- Compost food: 12%
- Limit car use: 34%
- Eat sustainable food: <19%
- Compost food: 12%
- Limit food waste: 57%
- Own electric or hybrid cars: 10%
Nearly 70 percent of respondents realize that climate change is a threat to their well-being and agree with the statement that climate change is mostly due to human activity. A slightly lower share, 64 percent, believe that their actions can make a difference in fighting climate change.

But only a minority own energy-efficient systems, such as solar panels, solar water heaters and electric vehicles. Interestingly, less than half of respondents were aware of tax credits and cash rebates to help them switch.

Scientists say climate change is helping to fuel the recent wildfires in the region. But the survey found that the vast majority of L.A. County residents are not well prepared for fires or other disasters: Just 8.5 percent report being very or extremely prepared for a disaster, and less than a third have developed an emergency response plan.

“GREEN” ACTIVITIES VARY IN POPULARITY

The LABarometer survey found that Angelenos concerned about climate change engage in a greater number of environmentally friendly behaviors, though their commitment to those behaviors varies widely: 75 percent say they recycle, 57 percent limit food waste and 34 percent limit car use but less than 19 percent say they eat sustainable foods and only 12 percent compost food. L.A. might have cleaner air if more people drove electric and hybrid cars, but only about 10 percent of residents own such vehicles. About a third of respondents say they are somewhat likely to buy or lease an electric car, with the percentage jumping to 41 percent for hybrid cars. — L.I.

Blue Jeans Footprint

**Manufacturing denim is a water-intensive process. Can it be made more eco-friendly?**

Even if they rarely see the inside of a laundromat, blue jeans have one of the largest water footprints of any clothing material.

Cotton is by nature a notoriously thirsty crop. And according to a recent study conducted by Robert Vos, assistant professor (teaching) of spatial sciences at USC Dornsife, depending on the supply chain, facilities involved in denim manufacturing may be located in “hot spots” — water-scarce areas in which a lot of water is used for textile production. Such hot spots include regions of India, Pakistan and Mexico, as well as parts of California, and the water-intensive activities range from growing the cotton for the denim to laundering the resulting fabric.

The study was originally commissioned by global blue jeans brand Guess Inc. Vos conducted a “spatially explicit” analysis of the life cycle and water footprint of Guess denim, mapping out water use and identifying hot spots in the company’s production line. Most of the water use came from producing the raw materials — mainly cotton — for the denim.

Guess has undertaken several changes as a result of Vos’ work, including an increased use of recycled and organic cotton and the development of zero-cotton denim styles that use renewable, sustainably sourced materials.

Consumers, meanwhile, can also work to minimize the effects of textile production. Vos notes that there are several nonprofit organizations, such as the Better Cotton Initiative, dedicated to informing people about the ecological footprint of a variety of clothing brands.

But education is just one part of the solution. Vos believes that people ultimately need to take a different approach, both individually and culturally, to shopping and fashion. Unfortunately, the proliferation of cheap clothing has masked the “real” cost — in terms of ecological impact and labor — of many items, he notes.

“I think our consumer culture is inherently damaging to the environment. People buying new clothes all the time and throwing out clothes after a few wears is very impactful,” Vos says.

Social media may be one of the biggest drivers of this mindset, but it ultimately could help people shed these attitudes, Vos says, citing “buy-nothing” groups and sharing circles on social media as ways people can pool their resources and find support for their decisions to make do with what they have. — M.M.

**COVID Isolation**

USC Dornsife experts explain why some people are suffering from extreme lockdown fatigue.

As politicians consider ways to stem the rising number of COVID-19 cases, public spaces have become battle-grounds for those tired of the closures.

But the controversy has roots deeper than political or economic interests.

“Isolation is not healthy for us. People have a strong need to bond with other people; it’s important for our mental health,” says Jonas Kaplan, assistant professor (research) of psychology and a cognitive neuroscientist at USC Dornsife’s Brain and Creativity Institute.

Our brains are wired to seek human interaction, including subconscious behaviors to promote bonds, Kaplan explains. And while Zoom and other social media platforms help overcome isolation, they are inadequate surrogates for real contact.

But how did we get this way? The answer lies in our ancestral past, says Craig Stanford, professor of biological sciences and anthropology.

“Being in social groups is central to us as a species,” he says. “One of the very top things that makes us human is being social. One of the worst things we can do to someone is to isolate them or exile them.”

Other cultural forces cause Americans to chafe at restrictions.

Alison Dundes Renteln, professor of political science, anthropology, public policy and law, says that the coronavirus challenges the concepts of American exceptionalism and individual liberty.

“America’s national identity is about political freedom. Our identity is we don’t stay still long, we go conquer things, like the American conquest of the wilderness. But now nature, and the coronavirus, control us when we are used to conquering nature, so it goes against the grain and is contrary to American mythology.” — G.P.
Senior Kelley Xuereb’s desire to create a better world led her to pursue a major in international relations (global business) with a minor in environmental studies. Last Spring semester, she gained not one but two internships in her field: first, in the office of House Speaker Nancy Pelosi, and then, over the summer, with the Environmental Protection Agency.

As an intern in the speaker’s office, Xuereb’s duties encompassed nearly every step of the legislative process, from tracking legislation — especially that related to the environment — for several House committees to creating voting recommendations based on her research.

Working online for the EPA, she spent most of her time reading and analyzing technical documents and evaluating data, and then translating that information in a way that is accessible to the public. She is also creating a website for public awareness about COVID-19 during wildfire season.

The EPA internship proved especially fruitful — Xuereb has accepted a full-time job with the agency starting after graduation. —M.M.

The coronavirus pandemic didn’t stop students in Julie Hopper’s ecology class from catching and studying insects from yards and fields all around the world.

Every semester, students in Julie Hopper’s ecology course get a chance to play Charles Darwin. Throughout the term, they snare insects while on class excursions, then pin and label specimens onto a board. By the conclusion of their classes, each student has a keepsake insect collection.

Forced by the pandemic to abandon her usual in-person activities for the course, like tracking down parasites from snails in wetlands or examining cricket behavior in the lab with her students, Hopper, a lecturer in environmental studies and biological sciences, got creative.

With her students scattered across the globe, she outfitted home collection kits so that they could hunt in their own backyards, allowing them to catch and study insects from yards and fields all around the world.

Pins, boxes and an aspirator (used to safely suck bugs into a jar) were packed by Hopper and handed out to those near campus.

Students farther afield, like Yunqian Hsu, an animation and digital arts major at the USC School of Cinematic Arts, received theirs in the mail. Hopper shipped Hsu’s all the way to Kaohsiung City, Taiwan.

Hsu used the kit to trap insects near her home in the city and at her grandmother’s house in the countryside, enabling her to compare the diversity of insects between rural and urban areas. —M.C.
Rather than retool her Maymester course—which originally had involved traveling to India to study death and its cultural contexts—Professor (Teaching) of Gender and Sexuality Studies Diana Blaine scrapped her syllabus and created a whole new class that did not work around the COVID-19 pandemic, but made it the core of the instruction. The resulting course, titled "Death and Gender in Urban Contexts: The Human Response to Pandemics," examined the bubonic plague, Spanish flu, HIV/AIDS and COVID-19, as well as cultural responses to each of these pandemics.

To achieve this, Blaine’s course used several interactive tools, including a virtual tour of USC Shoah Foundation – The Institute for Visual History and Education’s Visual History Archive and a virtual tour of Hart Island, part of the Bronx in New York City, which has served as a mass burial site for more than a century. During the tour of Hart Island, students clicked on grave sites to see the names (or lack thereof) of people buried there, along with any information that has been found about them.

Blaine noted that by being in their own homes scattered throughout the world, the students themselves brought a unique element to the course, comparing how COVID-19 was affecting their particular city or country. —M.M.

The loss of the travel component of Maymester courses due to the COVID-19 pandemic was disappointing, but faculty have ensured students’ educational experience has still been very rich. For example, Antónia Szabari, associate professor of French and comparative literature, didn’t back down from the challenge of providing her students with an immersive virtual Maymester experience, using music, cooking instruction, films and virtual street tours to “make the city present” for the students of her “Urban Crossroads: Budapest” Maymester course.

Szabari’s class focused on both the historical background of Budapest and the intersection of different cultures in the city — and Hungary more broadly — today.

“I wanted to show Budapest as occupied by different social groups — minorities, women, LGBTQ people, immigrants, refugees, etc. — and discuss how they are able to make their voices heard or be present in the city,” Szabari says.

To this end Szabari enlisted community organizers with Aurora, a cultural center in a working-class, minority neighborhood in Budapest, to give a virtual tour of their center and the immediately surrounding area. She also screened Hungarian films about refugees in the country. And to give her students a taste of the cultural heritage of Hungary, she hosted a cooking demonstration of a beloved national dish (chicken paprikash) and had the students listen to Hungarian music. —M.M.

Alumna Laura Loyola, lecturer in spatial sciences and director of undergraduate studies at USC Dornsife’s Spatial Sciences Institute, is using geographic information science to help preserve the habitat of Africa’s most endangered primate: Kenya’s Tana River red colobus monkey.

Only about 1,000 individuals of the species remain. They don’t survive in captivity. And, unlike their relatives the western gorilla and chimpanzee, there’s little global awareness of their existence — or their plight.

Loyola is working to change that. Using geographic information science and remote sensing technology, her research tracks the habitat changes caused by upriver dams, climate change and human conflict that are leading to the red colobus’ decline.

While a graduate student at USC Dornsife, Loyola spent a year conducting research in Kenya.

After graduating in 2015 with a Ph.D. in biological sciences and a certificate in geographic information science and technology, she chose to make the colobus the focus of her research.

Saving the Tana River colobus requires complex solutions. Loyola uses remote imagery to measure changes in land cover and forest loss to calculate how much of the remaining forest can actually feed the colobus.

Her work has contributed to the International Union for Conservation of Nature’s Red Colobus Conservation Action Plan, a comprehensive strategy for preserving the habitat and continuation of these threatened animals. The plan, Loyola says, also has the potential to save other species who share their habitat. —M.C.
WHEN THE FLOODS CAME
The day the first drops of winter rain spattered onto the parched earth, Southern California’s ranchers heaved a collective sigh of relief. It was Nov. 14, 1861, and the region was in the grip of a severe drought. The ranchers had been praying feverishly for rain for months. At long last, they thought, as they tipped their faces heavenwards to the dark clouds gathering overhead. Little did they know that they—along with the rest of the Pacific West—were about to get far, far more than they had bargained for.

From that day until March 1862, not just Southern California but the entire Pacific Coast was battered by a series of exceptionally intense storms that rolled in relentlessly, one after another, for five long months, creating one of the wettest periods the region has experienced in the past 2,000 years. The succession of cold and warm storms dumped nearly 10 feet of rain in certain parts of California and 60 to 70 inches in many other parts of the state in just 43 days, leaving much of it underwater and bringing flooding all the way down the West Coast, from British Columbia to Baja California.

The effects were devastating. Up to 1,000 people died in the floods while thousands of animals, including cows, horses and other livestock, perished in the rising waters. Towns and settlements were destroyed and buildings were swept away across California, Nevada and Oregon, as well as communities in what is now Washington, Idaho, Utah and Arizona. In California alone, estimates of property damage ranged in the tens of millions of 1860’s dollars.

In an essay he published on Zócalo Public Square based on an eyewitness account of the floods, USC Dornsife history scholar Will Cowan describes the destruction of the Southern California town of San Salvador in San Bernardino County:

Frenzied, the people fled to higher ground along the far bank, saving little more than the soaked clothes slung over their bodies. Some of the last to escape had to swim to safety… They choked in anguish as the unrelenting Santa Ana River consumed the town, crashing first through the dance hall, melting houses, flushing away cattle, sheep and fowl, the river gentle no longer.

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“Some people have boats and canoes, but people are also using doors, barrels — anything that floats — as makeshift rafts.”

**SURREAL SOUP**
Homes, barns and livestock were swept away by the floods.

**BIG WINTER**
“During those few months, these storms caused some of the most severe floods, freezes and blizzards that have ever been recorded in the history of the Pacific West,” says Cowan, a doctoral student who is writing the first academic study of what he calls “The Big Winter of 1862.”

In Los Angeles, the L.A. River overflowed and the Pueblo was underwater. L.A.’s ranches were devastated, while the many vineyards along the river were destroyed, buried in gritty sand and gravel washed down from the San Gabriel Mountains.

Sacramento was hit particularly hard, as was the Central Valley. Both were flooded four or five times that winter, while Indian mounds across the Sacramento Valley, topped by 300-year-old oaks, were completely washed away by the floods, sadly removing much of the Indigenous landscape.

Fishermen caught freshwater fish off the coast of San Francisco after flood waters flowed out into the bay, creating a black plume of fresh water mingled with soil washed out by the rain. Lakes around Puget Sound in Washington froze hard enough for ice skating.

The Santa Ana and San Gabriel rivers overflowed and intertwined. Swollen rivers and streams across the state burst their banks and the majority of the infrastructure on every river was completely washed away, from bridges to levees. People ran to high ground if they could, but many were not so lucky. Cowan notes countless accounts of houses floating down rivers with candles still burning in them and people screaming from windows for help. Others found themselves marooned on the roofs of their homes, where they had clambered to avoid the rising floodwater.

Swirling around them was a murky, surreal soup containing everything from dressers, pool tables, beds and the water-swollen carcasses of dead cattle to entire barns, lumber mills and once-towering pine and spruce trees. There is even an account of a haystack with livestock perched on it, floating past.

“Some people have boats and canoes, but people are also using doors, barrels — anything that floats — as makeshift rafts,” Cowan says. “It looks almost like a Mad Max movie set in the 1800s, where everything’s cobbled together out of broken objects.”

Among the biggest heroes in this story, Cowan says, were the steamboat pilots who plucked people off roofs and floating logs and out of trees, rescuing hundreds who otherwise wouldn’t have survived.

In this pre-FEMA era, there was a huge humanitarian response to the victims of the flooding.

“People are very willing to give what they have,” Cowan says. “San Francisco takes on thousands of refugees from the Sacramento Valley and donates huge quantities of food and clothing. There are stories of women staying up day and night sewing and putting together care packages.”

But for all the heartwarming tales of heroism, generosity and self-sacrifice, there were also heartbreaking reports of human suffering.

One of the most terrifying and terrible accounts, Cowan says, concerns Long Bar, an island on the Yuba River, northeast of Sacramento. A popular mining area, the island was home to some 1,000 Chinese miners who had built a temple there with a protective drawbridge.

“When the floods came, the Chinese miners all go into their temple and raise the drawbridge, but the water eventually rises up above the walls and completely subsumes their town,” Cowan says, noting that 500 Chinese miners are believed to have perished.

Meanwhile, the rain keeps falling. From Redding to Bakersfield — a distance of 450 miles north to south — and almost 100 miles across, the Pacific West was submerged.

In all, Cowan estimates two dozen towns and settlements were lost to the floods, never to be rebuilt or relocated, among them Champoeg, Oregon; Fort Boise, on the Snake River in Idaho; and Agua Mansa, which incorporated San Salvador and was the precursor to the Southern California city of Riverside and once a key settlement on the trade route between L.A. and Santa Fe, New Mexico.

“The geographical breadth of the effects of this winter is just stunning. That’s part of why I wanted to tell this story,” Cowan says. “There’s really nothing about each one of these individual storms that was so special, although they were certainly big. It’s that they happened in such quick succession and over such a large geography — that’s what made them dangerous.”

**A POTENTIALLY LETHAL SPIGOT**
While the exact cause of these extreme weather conditions is hard to determine with absolute certainty, they probably arose from atmospheric rivers (ARs) — high-intensity, high-density channels of water vapor that funnel water across the Pacific Ocean.

When these channels of water vapor crash into the West Coast, butting up predominantly against the Sierra Nevada and Cascade mountain ranges, they can drop immense amounts of water in rain and snowfall in just a few hours, and bring winds at speeds of more than 60 miles per hour.

“We can think of ARs as the spigot that controls the water in the American West,” Cowan says.

“That winter, a series of these atmospheric river storms kept rolling in, one after the other, from the Western Pacific,” Cowan says. “This is tropical water and noticeably warmer than your standard winter storms. So, when the warm rain hits the snow, you get this double whammy of both rainfall and melted snow.”

**THE EARTH ARCHIVE**
Born in San Bernardino, California, to a teacher and a sheet-metal worker, Cowan grew up in the Mojave Desert.

“That was a living laboratory,” he says. “I’d go out and just observe, which is probably why I’m now so interested in environmental history, ecology and the human experiences of the environment.”

Cowan says his desert upbringing and his Uchinanchu background — his maternal grandmother was born in the Ryukyu Islands — encouraged him to form a deep connection with the landscape.

“I spent so much time outdoors with my parents and with my maternal grandparents, in their gardens learning about traditional foods and plant medicine,” he says. “It’s something that has been part of my life for a very long time.”

After earning a history degree from the University of California, Riverside, in 2003, Cowan worked at a variety of jobs, including teaching at a public school, playing music and driving a forklift, before historian and urban theorist Mike Davis suggested he contact USC Dornsife’s William Deverell, professor of history and spatial sciences and director of the Huntington-USC Institute on California and the West.
“Bill was one of the few folks who right away understood my vision for the project and thought it was an urgent history to tell,” says Cowan.

Describing himself as a historian first and an amateur geoscientist second, Cowan has taken courses in forest ecology, fire ecology, California vegetation and climate change.

“As an environmental historian, I hate to limit myself to only written documents but try to use any evidence that helps us get closer to knowing what happened and why,” he says. “For me, learning to read the landscape is as important as learning how to navigate the archives.”

In his research, Cowan relies on typical sources, such as letters, diaries and newspapers, but also integrates tree-ring studies and sea-floor and lake core samples, using research by USC Dornsife’s Sarah Feakins, associate professor of Earth sciences.

“Some folks will say, ‘How do you know this really happened?’ because newspapers in the 19th century did tend to exaggerate,” Cowan says. “My research shows there are not only firsthand accounts of people who experienced it, but there’s also what I like to call ‘The Earth Archive’ — data embedded in our landscape, whether in trees, riverbeds or the ocean floor, that can give us a very accurate history of wet and dry periods — and 1862 was historically, extraordinarily wet.”

AN ALTERED LANDSCAPE
The implications of the floods were far-reaching for the people, towns and settlements affected. Sacramento built levees and raised the level of the city by 10 feet. An ill-advised attempt to create a levee by building a wall down the middle of the Sacramento River was doomed to failure.

“There was a lot of hubris involved, but it was that hubris that helped them develop the flood control systems that now protect the city,” Cowan says.

“Through the major channelization and damming projects of the Army Corps of Engineers in the 1930s, we pretty much put the rivers of the West in a straitjacket. And for very good reason, when you see how damaging these floods can be.”

But flood prevention measures have also dramatically reshaped our landscape, and the consequences of that, Cowan says, are something we should think hard about.

“From Mount Shasta all the way down to Bakersfield, basically the whole Central Valley was one stretch of water,” Cowan says. “For instance, before it was drained — a project begun following the floods — the now nonexistent Lake Tulare, at one time the largest body of water west of the Great Lakes, covered 700 square miles, stretching several hundred miles long and some 50 miles wide.

“Depending on the season, one could take a steamboat from San Francisco to where Bakersfield is now,” Cowan notes. “Before the arrival of European settlers, the Central Valley was a maze of wetlands, rivers and Native villages, not at all like we see it today as this big, often dry, dusty, agricultural zone.”

LOOKING FORWARD
Could California succumb to such disastrous flooding in the future? Cowan warns that it could.

“The latest research on atmospheric rivers tells us that it’s only a matter of time,” he says. As the climate warms, air can hold more moisture, thus making ARs more potent. More powerful ARs could lead to more powerful storms, potentially compromising our flood control systems.

“Most of the Army Corps people tell us they believe that the current infrastructure will hold, that we’ll easily handle a 200-year flood event. But my fear again isn’t so much about one storm, it’s if we get several storms in a row, as occurred in 1861–62.”

As Cowan points out, if the reservoirs are filled after one or two very wet storms and then we have a third, where will that water go?

“If a rapid succession of strong storms flow through the system, it will not be able to move the water or absorb it fast enough to avoid an overflow,” he says.

“As Californians, we’re in the Ring of Fire and of course should be concerned with earthquakes, but I also think that we should be concerned about atmospheric rivers and the potential for these giant floods that would bring with them the danger of landslides, high winds and heavy snow.”

Cowan raises the possibility of an ARkStorm (Atmospheric River 1,000 Storm) — a hypothetical but scientifically realistic “megastorm” scenario developed and published by the Multi-Hazards Demonstration Project of the United States Geological Survey. Based on historical events, it describes an extreme storm that could devastate much of California, causing up to $725 billion in losses, mainly from flooding, and affecting a quarter of California’s homes.

“It’s predicted to cost three times what one big earthquake would cause in terms of infrastructure damage and economic losses,” Cowan says.

The name “ARkStorm” reflects the original projection of the storm as a 1-in-1000-year event. However, more recent data suggests that the actual frequency of the event is likely to be in the 200-year range.

Cowan notes that the 2016–17 winter was the wettest on record in 122 years. The rainfall that season was nearly equivalent to that of 1861–62, but the timing of the storms was different in critical ways. The storms of 2016–17 were spaced further apart, allowing time for runoff to infiltrate the ground or flow through the system.

After studying the history of the great storms of 1861–62, Cowan is proposing solutions to protect California from both future floods and drought.

Instead of having a water management system that flushes rainwater to the ocean as fast as possible, perhaps we can develop a more hybridized system that will still protect neighborhoods and agricultural land from overflows, but allows some flooding to remain on the land, he suggests.

“Spillways and sponge-like wetlands can become both a flood mitigator, absorbing tons of rainwater, while also helping recharge aquifers for times of drought.”

Understanding this history is clearly of vital importance, he stresses, both in grasping the climate challenges we are facing, educating the public about ARs and, as these storms bring fresh water to the West, also creating a sustainable water future.

“I don’t want to be a doom-and-gloomer,” Cowan says of his warning that California could face devastating floods in the future, “but I do feel very strongly that we need to be paying a lot more attention to this atmospheric phenomenon and its history.”

STORM EXPERT
Environmental historian Will Cowan is proposing solutions to protect California from future flooding.
In 1770, Wolfgang Amadeus Mozart, then 14 and on a European tour with his father, arrived in Rome for the week before Easter Sunday. He attended Holy Wednesday Tenebrae service at the Sistine Chapel, where he heard a performance of Gregorio Allegri’s choral hymn “Miserere mei, Deus.”

This music was considered so sacred by the Catholic Church that, other than a handful of official copies, a papal mandate forbade any transcriptions of the music on threat of excommunication.

In perhaps the first famous case of pirating music, Mozart sat down that evening and transcribed the entire piece, consisting of two different choirs singing in harmony, entirely from memory. He returned on Good Friday and listened to the piece again, to correct any errors.

Nowadays, this story feels both astonishingly impressive and charmingly quaint. A modern Mozart would have just recorded the hymn on his iPhone. In the Western world, most of us are now carrying an external hard drive connected to the cloud where our wedding photos, best friend’s phone number or the start date for World War II are easily accessible via a quick search.

This can make past feats of memorization feel outlandish. Mozart recreated 12 minutes of music after a single hearing — although he was, of course, one of the greatest musical geniuses of all time. But ancient Greeks knew the 15,693 lines of *The Iliad* by heart. Polynesian navigators sailed for thousands of years using ancestral navigation techniques passed down only by song. Until relatively recently, school children routinely memorized reams of poetry and Shakespeare’s greatest speeches. Meanwhile, today we struggle to remember how many ounces are in a pound without Google.

Has our reliance on our devices withered our capacity for memory? Do we still have the prowess of recall our ancestors once boasted?

Even if we’re no longer relying on our own memory for the retention of the past, and we no longer have an oral tradition to pass our history down through the generations, ensuring we maintain an accurate historical record remains of vital importance. Yet, modern technology — such as video recording — that we may now depend upon to do this for us has the potential for manipulation by unscrupulous actors, rendering it possibly as unreliable as our memories can sometimes prove inaccurate — or even more so.

“Memory is the seamstress, and a capricious one at that. Memory runs her needle in and out, up and down, hither and thither,” wrote Virginia Woolf.
“People are learning that the hippocampus is not just important for remembering things in the past, it’s also important for imagining things in the future.”

**THE MEMORY MACHINE**

How, exactly, do we form a memory? “If I had the answer to that, I’d be a Nobel Prize winner,” says Dave Lavond, professor of psychology at USC Dornsife. The science of memory remains elusive, and no exact blueprint has yet been drafted, he notes.

However, we do know that a process called long-term potentiation (LTP) seems to play a big role, Lavond says. If one sees a tree for the first time, for example, different nerve cells in the brain spark into activity. These neurons form a pattern hinged together by synapses, which act a bit like sockets plugging different strands of Christmas lights together. This flickering neuron pattern is the first imprint of a memory.

The more the memory is revisited, the more it is strengthened. To reproduce the image of the remembered tree, the synapses blink the neuron pattern into life and the bond between synapses is more firmly forged each time.

Much of this neuron activity takes place in the hippocampus, although research has begun to suggest that LTP may take place all over the brain. For instance, the late University Professor Emeritus Richard Thompson, William M. Keck Chair Emeritus in Psychology and Biological Sciences at USC Dornsife, discovered that Pavlovian responses, in which people are conditioned to react physically to stimuli, are stored by neurons in the cerebellum.

Memory not only retains our past experiences, it also builds the future. “People are learning that the hippocampus is not just important for remembering things in the past, it’s also important for imagining things in the future,” says Mara Mather, professor of gerontology and psychology at USC Dornsife. “There’s a patchwork of elements in your mind that you’ve learned and you’re putting them together in different ways, to create richly imagined future events.”

**THE ORAL TRADITION**

The underlying physiology of memory formation has hardly changed since the ancients, says Lavond. “We have the capability,” he says. “We’re just not using it.” Modern man could be as competent as our ancestors at memorizing the stars, provided we just put the effort in.

Of course, our vision of early society may inflate the prowess of the individual memory and overlook the power of the collective. Lavond suggests there may have been more of an emphasis on delegating tasks, rather like a colony of ants. Each person’s memory would serve a distinctive role. “One person would be responsible for remembering medicine, another where the good hunting grounds are,” he says.

Historians are undecided on the true importance of memory in ancient Greece, despite the fact it produced the celebrated oral poetry tradition of such classics as The Iliad. The civilization also had a written alphabet, although it’s hard to know to what extent writing was used.

“Anything they would have written on leather, for instance, has perished,” explains William Thalmann, professor of classics and comparative literature. “For the early periods, what we have left are basically stones and pots. But this doesn’t prove that they didn’t rely a lot on writing. We do know that later on in democratic Athens, every time they passed a law it was inscribed on stone and publicly displayed in the marketplace.”

However, one of the most enduring of ancient Greece’s cultural accomplishments remains its epic poetry, which many scholars think was transmitted orally.

There are certain advantages to retaining one’s cultural history in oral form — one being that, unlike leather or papyrus that eventually rot, the information can be passed from human to human, as long as the chain of recitation remains.

Another is that the strict meter of epic poetry also aids memorization.

“It’s easy to remember Homeric poetry in Greek,” says Thalmann. “When you hear it, you just kind of absorb it. I could give you the first 20 lines of The Iliad with no problem, and I’ve never sat down to memorize it. It’s rhetorical, and this almost bodily experience reinforces what’s going on in your brain.”

**FUN WITH MNEMONICS**

We might have the same physiological ability to memorize large quantities of information as our ancestors, but getting to their level feels like a challenge. Ancient Greece offers a technique. In A.D. 55, the philosopher Cicero recounted how the lyric poet Simonides invented “the method of loci” or “memory palace,” for memorization after he attended a disastrous dinner party.

In the middle of reciting poetry at the ill-fated banquet, Simonides was briefly called away. When he returned, the house had collapsed and crushed the guests beyond recognition. Fortunately, Simonides was able to identify each corpse by visualizing where everyone had been sitting in the room.

This mnemonic strategy, in which information is stored by placing it in imagined rooms for later retrieval, was famously used by Sir Arthur Conan Doyle’s fictional sleuth, Sherlock Holmes. “I consider that a man’s brain originally is like a little empty attic, and you have to stock it with such furniture as you choose,” says Holmes in A Study in Scarlet.

USC Dornsife alumnus Saud Siddiqui ’11, a biological sciences major, was inspired by the memory palace technique to create educational software for students who need to memorize large quantities of information. His educational platform, SketchyMedical, teaches medical students to store visual scenes.

“By the end of the video, they have this cohesive map in their head. When they’re out on the wards in the hospital on their own, they can reenter that mentally and retrieve the information they need,” explains Siddiqui, who earned a place on the 2019 Forbes 30 under 30 list for his innovation.

**LAND OF LOST MEMORIES**

While our memory may be unexpectedly robust, we are also learning that our brains are alarmingly fragile. Crushed by an injury, the brain ceases to cling to the same stories. Dementia renders memories irretrievable.

Alzheimer’s disease affects one in 10 people over 65 in the United States, with the odds of a person developing it doubling every five years after their mid-60s. Beta-amyloid proteins stick together to form plaques that interrupt the synapses connecting neurons and choke off nutrients. Neurons begin to die and memories are lost — from the names of close relatives to the person’s own identity.

Alzheimer’s is more widespread than we might think, as few symptoms are visible in the early stages of the disease. “Researchers have done post-mortem analyses on thousands of brains,” says Mather. “A low percentage of young adults analyzed would qualify for stage one Alzheimer’s disease. By
late adulthood, almost all adults would qualify as being at least in the very early stages of Alzheimer’s disease on the basis of the tau pathology in their brain.”

Although aging is one risk factor — alongside genetics — not all older adults develop detectable symptoms of Alzheimer’s, even if most older brains contain Alzheimer’s-related pathology.

Decades of extensive research to track down a cure or treatment have met with little success. Prevention seems to be our best weapon. Most now know that a healthy diet and weight, regular exercise and avoiding excess alcohol consumption can help prevent the disease’s advance.

However, the fate of our memories may be decided even earlier in life than we might guess. A study of nuns in the 1980s revealed that our youthful linguistic ability says much about our probability of developing the disease.

Researchers examined written autobiographies that each nun wrote and submitted to her convent when she took her vows, around age 22. Despite the sisters sharing nearly identical lifestyles, those whose earlier autobiographies showed a high density of ideas and grammatical complexity in their writing were the least likely to develop Alzheimer’s disease decades later.

**TRUSTING OUR PAST**

Memory also extends beyond the individual and into the collective. Like the ancient Egyptian scholars of Alexandria, who condensed the many versions of *The Iliad* into one authoritative version, humanity takes its billions of memories and attempts to collate them into an agreed-upon narrative of the past. Our history is constantly challenged, disputed and rewritten as new memories are dug up or others reprioritized.

The task of writing historical truth may seem easier now, with our nearly unlimited ability to capture the world for posterity through photos, video and other digital methods. Yet, we seem to trust the record less and less these days.

Videos can no longer be assumed to be true now that “deep fakes” show politicians or celebrities declaring sentences they never uttered. Photoshop can alter any version of events. With endless internet access to documents lacking important context, everything from the moon landing to planes causing the fall of the twin towers during the 9/11 attacks is questioned as a potential hoax.

**LET’S TALK IT OVER**

Perhaps this distrust in the memory of record reflects a growing desire for discourse. Videos of events, no matter how clear, still require scrutiny and context.

Discontent with recorded events and thoughts goes as far back as ancient Greece. In Plato’s *Phaedrus*, which recounts a dialogue between the philosopher Socrates and the aristocrat Phaedrus, Socrates argues that the written word makes things fixed and unalterable, leaving no opening for debate.

“What Plato’s dialogues are trying to do is give us an idea of a live conversation with Socrates, where you can be challenged for your ideas and made to give an account of them. You can qualify them, you can change them in collaboration with the person you’re talking to,” says Thalmann. “My sense is that the issue for him isn’t so much memory as the immediacy of conversation, the spontaneity of it, and the way it’s a process of collaboration in what we now call ‘real time.’”

Despite our technological advances, there may still be an advantage to using our memory to store the past. In some parts of the world, the tradition of oral storytelling has lived on. For instance, in West Africa wandering storytellers, called “griots,” act as a repository of cultural and historical information as they travel from village to village performing traditional songs.

At USC Dornsife, Brandon Bourgeois, assistant professor of classics, is not alone in believing that the oral tradition that kept *The Iliad* alive bears remarkable similarities to modern rap. Both tell tales of everyday life, hardship, violence, love lost and gained. Both are stores of communal knowledge and wisdom, and a way of relating to the past.

Bourgeois is leading a revival of the ancient Greek oral poetry tradition by transforming *The Iliad* into rap lyrics.

“The project is not just a marriage between hip hop and ancient Greek poetry,” he says, “but a marriage between Homer and I.”

As with rap, sometimes a classical Greek performer might listen to another recite a poem and decide he liked the way a certain section had been recited, and would incorporate that into his own version, Thalmann notes. Each performer could bring something fresh, allowing for an aspect of the individual in the recounting of our history, something humanity seems to long for as they forge their own renditions of the past on internet forums.

Performing it to an audience who knows the material, as the Greeks knew *The Odyssey*, also meant fact-checking was instantaneous. A performer’s memory could bend some, but certain core historical truths remained, says Thalmann.

“Odysseus always makes it home in the end.”

**ILLUSTRATIONS BY THOM SEVALRUD FOR USC DORNSIFE MAGAZINE**
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If you’ve ever wondered how marketers and politicians create memorable messages, this article could change your life.

By Stephen Koenig

You’d be wise to think that they’ve already thought what you need to think. Surely you remember that “a diamond is forever.” Who could forget that Disneyland is “the happiest place on Earth?”

Why do these messages stick? Alternatively, why can’t we unthink them? They weren’t conjured from any lived experience or scientific evidence, yet they’ve nestled somewhere deep within our memories. We know full well that pawn shops are filled with diamond rings. And how do you really feel while waiting under the blistering sun to sit inside a teacup?

Messages bombard us from every angle, competing for our attention. Most go in one ear and out the other. But the most effective marketers and politicians can skillfully communicate in ways that skirt the mind’s defenses. Though we humans are, in our own estimation, rational creatures of free will and self-determination, we often find ourselves pulled toward a certain brand or repeating a leader’s message. Looking back on many of our choices, it’s fair to wonder whether we were shepherds or sheep.

So, what tactics are at work? What happens behind the curtain on Madison Avenue? What makes a message memorable?

Offering insights spanning the fields of psychology, history and practical politics, USC Dornsife’s experts can help make sense of these questions — with no risk, no obligation and no hidden fees.

In the end, we may not be wide-eyed victims of manipulation. With so many demands on our capacity to think critically and so many inner desires to satisfy, we may, in fact, be willing participants.

An Easy Sell

The old marketing maxim, “say it seven times,” suggests that consumers need to hear a message repeatedly before it starts to stick. But frequency alone is usually not enough. The content of the message counts. We want to feel good about our choices — smart decisions based on evidence and perceived value. The more features and benefits, statistics and rankings, or comparative data points we can weigh, the better. Right?

Unfortunately, our big brains are also a little lazy.

“Every mental activity, whether it’s reading, pronouncing or remembering something, can be more or less easy or difficult,” says USC Dornsife’s Norbert Schwarz, Provost Professor of Psychology and Marketing. “People pay attention to that experience, and that has consequences.” One consequence, he says, is that a memory is qualified by the very experience of remembering. If it takes more effort, we are less inclined to rely on what we remember.

For instance, researchers asked participants to relay two wonderful things about their partner. This was easy for everyone to accomplish. But when the researcher asked them to relay 10 wonderful things, the added difficulty changed their perception. It’s not that the participants couldn’t recall 10 things, the activity just required more brain power.

“As the request gets harder, you see a paradoxical effect,” says Schwarz, who also serves as co-director of the USC Dornsife Mind and Society Center. “You remembered more. That should seem like a good thing. But because it was difficult, you start to think that there must not be so many wonderful things — and you end up less pleased with your partner.”

Ease or difficulty is not just about the quantity of information we have to recall. Novelty often has an advantage over the familiar, particularly for episodic memory. If you park your car on a street where you’ve never parked before, you’re likely to remember that spot. But if you park in the same structure every day, you’ve probably found yourself wandering up and down the floors, scratching your head.

But nothing trumps emotion. Universal feelings, such as happiness, fear, love and nostalgia, are experienced at a primal level, one that requires little in the way of critical thinking. As the late advertising whiz Leo Burnett said, “Don’t tell me how good you make it; tell me how good it makes me when I use it.”

This may explain the success of a Budweiser beer commercial that aired during the 2015 Super Bowl. The ad follows a puppy and a horse that go to great lengths to sustain their interspecies friendship. Thanks to a big-hearted farmer, they’re able to stay together forever. We get smothered by feelings of empathy, courage and a sense of belonging. No beverage ever appears in the spot — but it remains among the most shared ads of all time on social media.

“If I can tap your memory, it elicits not only that knowledge, but also the feelings and bodily sensations that went with that memory,” says Schwarz. “That’s much more powerful than a statistic.”

“Heartwashing”

Emotional marketing wasn’t always considered best practice. During the modern industry’s early days, many campaigns were built largely on meticulously worded claims of a product’s (purported) qualities. Around the start of the 20th century, for example, one could trust Joy’s Cigarettes as

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a remedy for asthma and bronchitis, since they were “successfully tested and recommended by the medical profession for many years.”

But at least one savvy marketing executive recognized that appeals to reason weren’t necessarily the most effective way to hook an important customer base. Jean Wade Rindlaub built her storied career creating sentimental messages targeting women. Earning her chops at the renowned advertising agency, Batten, Barton, Durstine & Osborn (BBDO), she led campaigns in the post-World War II era for high-profile clients, including General Mills, Campbell’s Soup, United Fruit Company and Betty Crocker.

“We Hold These Truths to Be Self-Evident”

“Women were repeatedly sold the idea that their role as housewives was more powerful and more patriotic than any outside the home,” says Associate Professor (Teaching) of Writing Ellen Wayland-Smith, who explores Rindlaub’s cultural influence in her latest book, *The Angel in the Marketplace: Adwoman Jean Wade Rindlaub and the Selling of America* (University of Chicago Press, 2020). “[Rindlaub’s] success largely came from embracing, rather than subverting, the cultural expectations of women.”

Rindlaub understood that women of the time were most likely to be making the decisions about which products would feed and comfort their families. Sadly, many housewives were dissatisfied or unfulfilled in their roles as homemakers, a dilemma that Rindlaub discovered through her pioneering focus groups.

“Rindlaub’s idea was to give women something to hang on to,” says Wayland-Smith. “She was very candid about selling a feeling, selling the idea that women’s roles at home mattered and that someone would notice.”

Using “heart-tug” ads, Rindlaub convinced women to think of consumption as a patriotic act of love that would strengthen families, communities — even the nation.

**WE HOLD THESE TRUTHS TO BE SELF-EVIDENT**

As the nation’s collective head continues to throb from the 2020 election cycle, one in which a record-shattering $11 billion had been spent on advertising as of the time of writing, we’ve seen the great extent to which politicians sell their brand much like Rindlaub sold bananas and cheese knives.

Bob Shrum, Carmen H. and Louis Warschaw Chair in Practical Politics and professor of the practice of political science, has himself crafted some of these messages in the past. A veteran political strategist who has worked on eight presidential campaigns, Shrum is often credited for popularizing a tactic that has since become a staple of political rhetoric. In leading the composition of Sen. Ted Kennedy’s famous 1980 concession speech, “The Dream Shall Never Die,” Shrum incorporated stories of everyday Americans whom Kennedy met along the campaign trail.

For example, Kennedy mentions a grandmother who no longer has a phone to call her grandchildren because she gave it up to afford rent.

“It’s so much more powerful than saying the unemployment rate is this or that percent,” says Shrum, director of the USC Dornsife Center for the Political Future.

Unfortunately, just as political messages can drive action or build coalitions, they can also be used to misinform and divide. Fake news has become so prevalent in the political arena that one could understand why even the most reputable, mainstream sources have their skeptics. In fact, a 2016 study from BuzzFeed News found that top fake election news stories generated more total engagement on Facebook than top election stories from 19 major news outlets combined.

Fake news is so memorable because it tends to be sensationalist, purposely designed to arouse fear and spread like wildfire.

Criticizing someone for buying into fake news is like criticizing them for popping bubble wrap. They simply can’t help it. Schwarz says that the metacognitive experience has a huge place in fake news, since the process of analyzing why it shouldn’t be trusted could actually make you trust it more.

“If someone gives you one reason against your thinking, that’s easy to consider, and it helps you correct your belief,” he says. “But when someone gives you many reasons, you’re more likely to be convinced that your initial judgment was correct — because if you were clearly wrong, it shouldn’t be so hard to understand why.”

**FOUR STARS OUT OF FIVE**

While fake news has plenty of historical precedent, it has proliferated exponentially in the digital age. Democratized communication of every kind, made possible by the internet and social media, has had a profound impact on the ways that brands and politicians fight to stay memorable.

“In the past, it was a ‘push’ message,” says brand consultant Francesca Romana Puggelli, a lecturer in the Master of Science in Applied Psychology program at USC Dornsife. “Now with new media, we have a ‘pull’ strategy.”

Brands no longer enjoy exclusive access to the media outlets that control — or push — what customers see or hear about products. Instead, they promote a conversation, one that pulls an audience to affiliate with a community of like-minded buyers. Before the digital era, we would only get firsthand accounts of a shop or restaurant through friends and family who had already been there.

Now, we can consider experiences and reviews from strangers all over the world. A bad rating or comment from a customer can have a strong emotional impact, as we’re more easily affected by the “worst-case scenario” than the expected experience. It gives the consumer tremendous influence; and brands know this has flipped the power dynamic.

Moreover, since we aren’t interrupted as often by push marketing, we get to choose what kind of messages we engage with. “We get bored now if the advertisement isn’t personally relevant,” says Puggelli. Marketers still have to tell a story, use emotion and be human. But they also have to be more strategic and targeted, she says.

And there’s the irony. It wasn’t long ago when brands would essentially scream through a megaphone in the middle of the street, “Remember me!” Now, as we have become more involved in the creation of message — as we assume a greater degree of power — we, the consumers, are the ones imploring marketers and politicians to remember *us.*
WHY IS IT IMPORTANT TO REMEMBER WHAT CAME BEFORE?

Memory lies at the heart of many academic disciplines.

By Meredith McGroarty and Susan Bell

Nearly every living thing on the planet has memory. Beyond the reach of our individual memories, fossils “remember” long-ago landscapes, while groups of people use folklore to pass down a collective memory dating back centuries — or even millennia. But for all its utility, memory can be misused, too. Even today, wars are fought over conflicting accounts of the “true” versions of historical events dating back thousands of years. Whatever its function, memory is everywhere. Here, four USC Dornsife scholars discuss how it is expressed in diverse disciplines, from Earth sciences to history and from anthropology to American studies and ethnicity.

EARTH SCIENCES: MEMORIES PRESERVED IN LEAF WAX

Sarah Feakins, associate professor of Earth sciences, and her team study changing water availability and plant life, key components of the habitability of our environment. By studying ecosystems past and present, they advance knowledge of how the climate system works and how plants respond and interact with climate.

In her Leaf Wax Lab at USC Dornsife, Feakins studies climate and plant life through the waxy coating on plant leaves. Not only do these remarkable molecules have important functions for living plants, they are preserved over geological time. As Feakins says, “Leaf wax is the molecular legacy of past forests and grasslands. This waxy memory paints pictures of the landscapes in which our human ancestors evolved.”

Her work is not a historical curiosity. “The past illuminates what we can expect as we dial up the planetary thermostat,” she says. “It helps us to wrap our heads around the transformative change of ecosystem disruption ahead.”

Feakins and her team reconstruct evidence for how climate patterns and plant life have changed over tens of millions of years by studying the material that has been eroded from land and preserved in sediments offshore. To access these sea-floor sediments, she participates in the International Ocean Discovery Program.

“My research is driven by a need to understand environments in which we evolved and warm times of the past that are relevant to our future trajectory,” she says. “Warm periods of the past provide lessons for future climate states, beyond the range of historical witness.”

ANTHROPOLOGY: SHAPING OUR CULTURAL MEMORY

Our cultural and collective memory is shaped through folk stories like mythology and legends, notes Tok Thompson, professor (teaching) of anthropology.

Myths, for example, are universal. They are found in biblical passages, Greek epics and creation tales. They provide a road map for those seeking order in the world or a guide to daily self-conduct. But this aura of universality can be inherently dangerous, leading people to believe their culturally inscribed behaviors are “natural” rather than habitual, Thompson argues.

“ Mythology is not about history, but it uses history. It uses the idea of the past to make sense of our current condition,” Thompson says. Not all myths are problematic — some are simple entertainment, some provide a record of ecological events from hundreds or thousands of years ago, some convey general knowledge — but we also need to be aware of their potential for exploitation.

“Mythology naturalizes culture,” Thompson says. “Usually when people say something is natural, they mean it is mythologically set in stone, which is very different from saying that something occurs in nature.”

But while myths are often shaped by those in power, legends can be a more organic way of passing on information, one that often presents stories of those who have been left out of official accounts, Thompson says.
He cites ghost stories as one example. Many such tales concern injustice — the ghost was wronged in life and returns for a reason.

“Often folk memories will remember what official memories don’t want to,” he says.

Folklore may or may not be factual, Thompson notes, but it provides an important counterbalance to some of the more dominant political mythologies and narratives put forth by different groups.

“History is written by the victors. Folklore is written by everybody,” he concludes.

HISTORY: REMEMBERING ROME

If history is about preserving, understanding and interpreting our memories, then Rome is a singular touchstone of memory, says Assistant Professor of History Maya Maskarinec.

“What fascinates me is the way there have always been competing claims to Rome, which has fed into the city’s prestige and mystique,” she says. “And Rome is malleable; it can be remembered and misremembered in different ways.”

The legacy of Rome — as a city, an ideal, an empire — has been forged, forgotten, rediscovered and repurposed by people in a nearly ceaseless cycle for centuries.

To Christians of the Middle Ages, it was a testament to the endurance of their faith. To Renaissance artists and Enlightenment thinkers, it was the ideal model for aesthetics and rational thought. To many countries, past and present, it has symbolized the rule of law.

“All of these different constellations make up what we imagine Rome to be,” Maskarinec says.

But these competing claims were not always compatible, she notes. The idea of having “rediscovered” the ideas of Rome was central to the foundational concepts of the Holy Roman Empire, the Renaissance, the Enlightenment and many other groups or people that claimed to be rescuing Roman ideals from the darkness of the preceding era. But for Rome to be rediscovered, it first had to be “forgotten.”

After the sack of Rome in 410 A.D., the memory of the “eternal city” and all its glories was supposed to have faded, only to be recovered centuries later.

“Part of why we have these narratives of loss is this desire to claim an authentic rediscovery of Rome,” Maskarinec says. Central to claiming this authority was the argument that those who came before never truly understood Rome or what it stood for.

But as Rome is conceived, so is it misremembered, Maskarinec argues. The city of marvels was also a place of cramped tenement blocks, high infant mortality rates and disease for its poor inhabitants.

“As historians, we must tread very carefully on the topic of Rome and keep in mind how it has been misused and misremembered when we study the process of memory,” she says.

AMERICAN STUDIES AND ETHNICITY: MEMORY AND RACE

For scholars of American studies and ethnicity, memory — whether individual or collective — occupies a central role.

Natalia Molina, professor of American studies and ethnicity and a 2020 MacArthur Fellow, researches how historical narratives of racial difference shape modern views of race.

“Race is not made in just one moment or by just one powerful person or group,” she notes.

Molina studies the concept of “racial scripts,” social constructions of racialized groups that cross time and space as well as groups. A kind of shorthand — composed of attitudes, practices, customs, policies and laws — she says that once racial scripts are directed at one group, they can be easily repurposed and applied to others.

“By looking at connections between the scripts in the arc of history, we can see that they are always available for use in new rounds of dehumanization and demonization down the road,” Molina says.

“Racial scripts ‘work’ in large part because they are not new,” she notes. Their familiarity generates credibility, making racist ideas seem normal.

For example, we’ve seen renewed anti-Asian and anti-Asian American sentiments and even hate crimes since the onset of the pandemic.

“We can trace these stereotypes back 150 years to see how the Chinese were discriminated against when working in the gold rush, or on the railroad,” Molina says. “These racial scripts were also redirected and perpetuated against Latinx immigrants today, and widened the possibilities for mistreatment of other racialized groups.”

The powerful reality about race and racism, she argues, is that it succeeds by repetition.
Alumna Wayétu Moore’s world split apart one afternoon when she was five years old, as her family sat around their television in Monrovia, Liberia’s capital city. Over the twinkling soundtrack of *The Sound of Music*, she heard the crack of gunshots and the shattering of glass. Neighbors ran past the house and one shouted out to her father, “Mr. Moore, you need to leave, the war is coming!”

The little girl’s family hastily grabbed a few essentials and ran from their back door into the forest. The sound of gunfire followed closely behind them as they made their escape.

“The popping grew louder, and so close it sounded like the roses in Mam’s bush were exploding at the other end of the house,” writes Moore in her memoir. It was April 1989, and up until that moment, Moore had enjoyed an idyllic childhood in the West African country. Her father, Augustus, was an engineer, and her mother, Mam, short for Mamawa, was an English professor at the University of Liberia. That year, Mam was away at Columbia University in New York City on a Fulbright scholarship but, like many Liberians abroad at the time, planned to return home after her studies.

“Liberia for decades was very peaceful and close-knit,” says Moore. It was the birthplace of the Pan-African movement, which aimed to unify and uplift Africans both on the continent and those displaced by diaspora and the slave trade. Liberia’s profound optimism is expressed in its national motto: “The love of liberty brought us here.”

The country was then an ascendant nation on a continent still grappling with the legacy of colonialism. It was the first African republic to declare independence from colonizers in 1847 and was a founding member of the United Nations. In the late 1970s, however, political tensions between various political and ethnic groups began to emerge.

In 1980, Samuel Doe, a member of the marginalized Kahn ethnic group, seized power in a military coup and executed the president, William Tolbert Jr. Nine years later, Charles Taylor, a former member of Doe’s administration, led a rebel army in an attempted power grab. The country erupted into civil war. Eight years of violence and unrest followed, resulting in more than 250,000 deaths. Millions fled to refugee camps or, like Moore’s family, to other countries.

Moore’s memoir, *The Dragons, The Giant, The Women* (Graywolf Press, 2020), documents her family’s escape from their fracturing country to America. However, Moore was keen to write a book that transcends the traditional immigrant memoir — a genre that often ends with the triumphant arrival in a new land — and her book also explores the challenges of her immigrant experience in America.

**ESCAPE FROM LIBERTY**

On the day war came to Monrovia, Moore’s family made their way on foot to Lai, the village of Moore’s maternal grandmother — a journey that took several weeks. To survive, they foraged for mangoes and sugarcane in the lush countryside, sleeping in houses hastily abandoned by other fleeing families.

Once the group reached the relative safety of Lai, they anxiously awaited word from Moore’s mother in America. Rebel armies had cut telephone and electricity lines and contact with the outside world was now nearly impossible.

Fortunately, a lucky encounter on the road facilitated their reunion. The family had come across a man held at gunpoint by rebel soldiers. Moore’s father recognized him and persuaded the soldiers to free the man. The former captive returned to Monrovia, where he got word to Moore’s mother about her family’s predicament.

Mam flew from New York to Liberia’s northern neighbor Sierra Leone where she hired a rebel woman soldier, Satta,
to smuggle the family over the border to safety. Satta ferried the Moores across Lake Piso from Lai via canoe, the whole village gathering at the shore to see them off. At the border, Satta managed to successfully blend them into a rebel caravan in order to cross undetected into Sierra Leone and reunite with Mam. From there, the family headed to the United States.

“Among the dragons,” Moore writes of Satta, “there will always be heroes.”

A CHERISHED HERITAGE

The Moores spent their first months in America crammed into Mam’s dorm room at Columbia, then bounced between cities before landing in Spring, Texas, just north of Houston. There, Moore encountered a new form of adversity.

Liberia was a majority Black nation. Her new home was 63 percent white. Only a few decades earlier, Texas’ Jim Crow laws had banned Blacks from such basic activities as sharing the local public pool with whites. Moore found her identity as a Liberian immigrant quickly subsumed by her identity as a Black woman, like a nesting doll disappearing into its larger companion.

“I did not talk about the war or Liberia beyond my classmates’ general knowledge that I was ‘African.’ I did not have the time to give while I was trying to understand that in this new place that Mam and Papa had told us was home, skin color was king,” writes Moore in her memoir.

Her family retained pride in their heritage, however. The home resounded with the joyous sounds of recordings by African musicians Nimba Burr and Fela and Femi Kuta. “We ate Liberian food, listened to Liberian music,” says Moore. “[My family] spoke about the really beautiful things in Liberia and [the country] was thought of as a place to return to, a place of love and forgiveness.”

Moore enrolled at New York University after high school to study theatre but dropped out after her second year when a play she had produced closed early due to low attendance. Demoralized, she took a break from school and returned to Texas, where she started volunteering to fill her time. There, she became energized to give back to her community. She switched to Howard University, a historically Black university in Washington, D.C., eager to find a way to uplift her homeland of Liberia.

It was at Howard that she acquired a fuller appreciation for Black identity, both as an African and as an American. “Howard showed me the beauty and vastness of what it means to be Black,” says Moore. She switched to a journalism degree and decided to pursue creative writing.

FINDING THE WRITER’S WAY

After Howard, Moore enrolled in the Master of Professional Writing (MPW) program at USC Dornsife, drawn to a multidisciplinary program that would allow her to study art, poetry and film while pursuing her growing interest in writing and publishing.

She and three other MPW students won scholarships to the New York State Summer Writers Institute program at Skidmore College in Saratoga Springs, where attendees have an opportunity to study under such celebrated writers as Jamaica Kincaid and Joyce Carol Oates.

While at USC Dornsife, Moore began to work on her first book, _She Would Be King_, writing most of it at the USC Norris Medical Library. By the time she graduated in 2009, she knew that this was her future.

“Myth-maker

In 2014, a quarter of a century after fleeing Liberia, Moore returned to the country of her birth to make better sense of the memories that had blurred over time, interviewing “the oldest Liberians I knew.”

“For me, I knew that at some point I’d find myself back in Liberia. As someone who is cross-cultural, it’s part of my identity,” says Moore. “In order to feel whole, I have to make peace with my first home.”

After returning from Liberia, Moore kept the first several drafts of her memoir private from family, wanting to preserve the qualities of magical realism inherent in her childhood memory — qualities that transformed the rebel army into the titular “dragons.” Later, she wove her mother’s memories of the events into the writing, as a sort

“I realized that I wanted writing to be more than a hobby or something I did on the periphery. I needed to make it a career. This was the gift of being at USC Dornsife, to understand I needed to take it seriously,” says Moore.


Moore realized her long-standing desire to help her homeland through her nonprofit publishing house, One Moore Book, founded with her sisters, Wiande and Kula, in 2011. The trio write and publish books specifically for Liberian children, providing them with the kind of representation that foreign children’s books generally lack. In 2015, One Moore Book opened a bookstore in Monrovia. The sisters have since expanded their publishing scope to include books written for Haitian and Ghanaian children.

Looking Back, Giving Back

Clockwise from left: Wayétu Moore (far left in photo) celebrates her fifth birthday in Monrovia, Liberia; the educational initiative One Moore Book, founded by Moore and her sisters, brings books to Johnson Elementary School in Monrovia; a before and after shot of One Moore Book’s first bookstore in Monrovia in 2014 and 2015.

Photos courtesy of Wayétu Moore
Moore’s next book continues her work on immigrant identity woven with mythology, telling the story of a Liberian-American woman who discovers she has the ability to breathe underwater. *Melanctha* — the title is a nod to Gertrude Stein’s experimental novella about a Black woman’s search for purpose — is due to be published by Viking Press in 2021.

When Moore isn’t writing, she tries to get away from the computer screen by reading (one of her favorite authors is Octavia Butler) and continuing her multidisciplinary practice. “I watch great films like *The Last Black Man in San Francisco*, which I saw recently and can’t get out of my head. I go to museums and seek the inspiration to write,” she says. “I do everything I can to make my experience in the world thoughtful. That thoughtfulness inspires me. I want my being in the world to contextualize my writing.”
Remember Me

From virtual memorials and digital keepsakes to Zoom ceremonies and online gravestone archives, technology allows us to reimagine and innovate ways to remember and celebrate the dearly departed. By Michelle Boston

As technology advances and our ways of connecting with one another evolve, so have the ways we memorialize people we’ve lost.

When Willard “Mac” McConnell, an American military veteran, passed away at 91, his daughters honored his wishes to forgo a funeral service and instead celebrate his life online. On the memorial website Never Gone, they shared his life story and posted cherished photographs. Relatives and friends shared their memories and signed the virtual guest book.

And because of the nature of social media, where people broadcast their passing thoughts, sometimes comfort comes directly from the ones we’ve lost. Just days before her death, poet, author and activist Maya Angelou, who had been ailing for some time, posted her final tweet: “Listen to yourself and in that quietude you might hear the voice of God.”

The ways we preserve our memories of the deceased have taken countless forms over time and across cultures. But, the sentiment remains the same: They are always in our thoughts.

FINAL NOTICE
Perhaps there’s no greater disruption in our lives than when we lose someone close to us. In that instance, rituals help us find comfort and bring order, explains Diana Blaine, professor (teaching) of gender and sexuality studies, who is an expert on death in American culture.

“Death is a rip in the fabric of a community, and mourning rituals are a way we humans sew the torn pieces back together,” she says.

“The creation of memorials is one such ritual behavior — an attempt to produce continuity and provide permanent memories in the face of abject loss.”

The ways we choose to remember and honor people we’ve lost are as personal as the options to memorialize them are countless. And, technology has only augmented the possibilities.

It all starts with a notification — whether it be a phone call, a funeral announcement or an obituary. Legacy.com provides the last online. The site is one of the largest web presences for online obituaries, publishing features from 1,500 newspapers and 3,500 funeral homes, and reporting more than 40 million unique visitors each month.

Next comes the tribute. We need only browse the web to find countless services to host a memorial website, with names like Forever Missed, GatheringUs and Remembered. And, with the current coronavirus pandemic, memorial services themselves have gone online. Many are being livestreamed to uphold physical distancing measures for safety.

Genealogy sites like Ancestry.com and Archives.gov offer ways to trace our family histories online. We can even visit the graves of those who have passed by surfing Findagrave.com.

Make a digital stop at actor and comedian Rodney Dangerfield’s burial site in Los Angeles, and we can read the epitaph on his tombstone: “There goes the neighborhood.”

THE DIGITAL YOU
While epitaphs etched in stone once served as a final memorial, these days we leave a far wider imprint as we commit to posterity our daily chronicles via social media.

Our Facebook posts, tweets, Instagram selfies and Pinterest boards dedicated to cooking, nature or obscure Italian films leave behind a digital trail of our lives — some carefully curated, others fragments that when pieced together create a mosaic portrait.

In death, social profiles often evolve into memorials where mourners can visit posts on loved ones’ profiles, share their own memories or post messages to the deceased. Facebook even offers a service where members can designate a legacy contact who can turn their page into a memorial after they have passed and maintain it in their honor.

And there are even options for connecting from beyond the grave.

“There are companies that will scour the internet after you die to create a virtual version of you that friends and family can continue to correspond with via email,” says Blaine. Replies are based on a personality algorithm formed from the internet footprint you leave behind.

Add to that holographic avatars — think of Michael Jackson or Tupac Shakur’s posthumous stage performances.

“Such attempts at virtual resurrection are bound to advance and amaze,” Blaine says.

PLANNED OBSOLESCENCE
Although we might think of digital technology as “the future,” like us, it has an expiration date.

Our computers, smartphones and other devices are, for the most part, iterations in a series intended to be upgraded and replaced. Companies discontinue updating older operating systems or supporting software, while for some technology, time is the culprit, degrading the quality of video and cassette tapes, for instance.

But more concerning is that many of us are sitting on stockpiles of precious home videos, digital photographs or audio recordings cataloguing our lives. What happens when the hardware they are stored on is phased out? That thumb drive, compact disc or external hard drive could easily go the way of floppy discs and LaserDiscs.

Since the inception of digital technology, there has been a crisis around preservation, explains Mark Marino, professor (teaching) of writing at USC Dornsife.

“These cutting-edge technologies get left behind by the planned obsolescence that is built into the capitalist version of technological progress,” he says.

Marino is a writer and scholar of digital literature. He directs the Humanities and Critical Code Studies Lab at USC and directs communication for the Electronic Literature Organization, which dedicates much of its work to preserving digital art.

So, how can we save those treasured videos of little ones’ first steps or digitized photographs of great-grandparents? One solution is to archive your content in different formats and keep them in different places, says Marino.

That’s just what USC Shoah Foundation — The Institute for Visual History and Education at USC Dornsife did with the testimonies it had originally collected on videotape.

In the 1990s, the institute, founded by director Steven Spielberg, dispatched thousands of volunteers around the world to interview survivors and witnesses of the Holocaust and other genocides to preserve their experiences in perpetuity. But video has a lifespan of just a couple of decades before the quality begins to degrade, and wear and tear was setting in.

So, the institute digitized more than 50,000 interviews in multiple formats.

Those testimonies, indexed and catalogued, form the basis of the Visual History Archive, a powerful database that allows scholars and students to learn directly from the people who experienced atrocities. Passing on their stories — to remember them as individuals and empathize with their experiences — advances the institute’s mission to prevent similar events from taking place in the future.

BEYOND THE FUTURE
As new technologies emerge, undoubtedly the push to memorialize in new ways will emerge right along with them, says Blaine. But, as with all attempts to maintain that impossible connection between the living and the dead, even the most cutting-edge invention will fall short of actually closing the gap, she says. “The most enduring memorial will fade. Just ask Ozymandias.”

The shrine to ancient Egyptian ruler Ramesses II — Ozymandias to the ancient Greeks — may have crumbled, but perhaps ironically his name is still uttered with every reading of Percy Bysshe Shelley’s eponymous poem. Though the monument crumbles, the memory finds a way to live on.
PRESERVING MEMORY — A TIMELINE
Since the dawn of time, people have found innumerable ways to preserve their cherished memories. Immortalizing marriages, births, battles and beyond around a fire or in clay, tapestry or other art forms led to recording memories in books, or on film, tape or computers with one goal: Keep them alive.

BEFORE THE WRITTEN WORD

ORAL TRADITION / Worldwide
A method of passing down and preserving history, culture and shared values through talking and storytelling.

3RD MILLENNIUM B.C.

CLAY TABLETS / Mesopotamia
Using a stylus, ancient Sumerians documented business records, history, laws and literature by writing in cuneiform on wet clay.

C. 500 - C. 1600

ILLUMINATED MANUSCRIPT / Western Europe
Mostly produced in monasteries in the early Middle Ages, by the late 14th century, production of manuscripts had become commercialized. Their portability made them a means of transmission of ideas across regions and time.

Oral History / Worldwide
Oral history is a field of study and method of gathering, preserving and interpreting voices and memories of people, communities and participants in past events. Both the oldest type of historical inquiry, predating the written word, and one of the most modern, oral histories are now captured using 21st-century digital technologies.

450 B.C.

POtTERY / Worldwide
The pottery decorations of ancient cultures were instrumental in preserving valuable historical details about daily life, cultural perceptions, myths and deeper spiritual beliefs.

11TH-CENTURY

PUNCH CARD / France
First used in the 1700s to program textile looms, punch cards were employed in various capacities over the centuries, and eventually in early computers.

1750

TAPESTRY / England

1948

VINYL LP RECORD (33 1/3 RPM) / United States

1963

CASSETTE TAPE / Belgium

1971

8 MM FILM / United States
No product may have done as much for capturing precious memories as the 8 mm film created by Eastman Kodak and used in Super 8 home movie cameras.

1976

VHS / Japan

1993

MP3 / Germany

1996

DVD / Japan

1999

DIGITAL PHOTOGRAPH / United States
The first digital photograph appeared on the cover of Electronics magazine, featuring Margaret Tompsett, whose husband, Michael Tompsett, a British-born physicist, engineer and inventor, pioneered the technology at AT&T Bell Telephone Laboratories in New Jersey. It is now at the fingertips of anyone with a smart device.

1992

THE CLOUD / United States
Cloud computing is a means of storing and accessing data over the internet instead of on a hard drive. Although it wasn’t popularized until Amazon.com released its Elastic Compute Cloud platform in 2006, the cloud’s gradual evolution stretches back to the 1950s with mainframe computing.

2006
When you first pick up the 15th-century book of hours, it may feel heavy. The pages are delicate, but the illuminated scenes are far more vibrant and meticulous than anything in a coffee table book. Looking up, you find yourself in a small, spare, sunlit room, or maybe a dim stone chapel. You may be surrounded by background voices or standing in complete silence.

The opportunity to handle a Renaissance-era manuscript and visually explore the world in which it was originally used is one most people rarely get. But a new project by two scholars at USC Dornsife is harnessing virtual reality technology to give users the chance to not only hold and page through such a book, but also to experience a digital re-creation of the room in which its 16th-century owner might have used it. The technology also provides users with information on the context and daily experience of that owner at the beguinage — a community of religious laywomen — where she lived.

The endeavor began when Sabina Zonno — visiting postdoctoral scholar at the USC-Huntington Early Modern Studies Institute — found an illuminated book of hours in a box in the USC Libraries Special Collections. This particular item interested Zonno because its owner wrote her name and where she lived — Saint-Elisabeth Beguinage in Ghent, Belgium — at the end of the manuscript. With this information, Zonno and Lynn Dodd, associate professor of the practice of religion and spatial sciences, were able to draw a rough outline of the book’s former owner and her surroundings.

The pair then went to Eric Hanson, associate professor of cinematic practice at the USC School of Cinematic Arts, for help in constructing a virtual world that incorporated the historical material they uncovered. Photos of the manuscript and the beguinage will be used to build 3D models, which will be rendered so they are ready to use in a virtual reality headset, Hanson says. The headset will both shift the user’s perspective as they move and deliver feedback regarding how they are handling the manuscript, alerting them if they move in a way that would damage the virtual book’s real-life counterpart.

Dodd noted that by learning to handle rare or fragile materials in the way their original owners did, not only can users connect more deeply with the past, but they also gain skills to help preserve such items so they will last several more centuries.

—M.M.

Virtual reality allows users the opportunity to handle a 15th-century manuscript while looking at a reconstruction of the space in which its owner likely used it. Such tangible links to the past encourage users to more fully explore an object’s historical context and give them a greater sense of the need for historic preservation.
Faculty News

**Professor Emerita of History LOIS BANNER** was awarded the Berlin Prize by the American Academy in Berlin. She will use the fellowship to work on her book *Ideal Beauty: The Life and Times of Greta Garbo.*

**RICHARD BRUTCHEY,** professor of chemistry, was awarded a Cottrell Plus SEED Award by the Research Corporation for Science Advancement.

**ENRIQUE MARTÍNEZ CELAYA,** Provost Professor of Humanities and Arts, received a Doctor of Fine Arts honoris causa from Otis College of Art and Design. He also delivered the college’s 2020 commencement address to graduates.

**KARL CHRISTE,** professor (research) of chemistry, was awarded the M. Frederick Hawthorne Award in Main Group Inorganic Chemistry by the American Chemical Society.

**GERALD DAVISON,** professor of psychology and gerontology, was awarded the 2020 Clinical Science Visionary Award by the Society for a Science of Clinical Psychology, which described him as “a hero of clinical science.”

**STEVEN FLEMING,** professor of spatial sciences and creative technologies, received the 2020 Distinguished Academic Service Award from the United States Geospatial Intelligence Foundation. The award honors Fleming’s outstanding contribution to geospatial intelligence education and tradecraft.

**SUSAN FORSBURG,** professor of biological sciences, was named Distinguished Professor of Biological Sciences.

**SHERMAN JACKSON,** King Faisal Chair of Islamic Thought and Culture, and professor of religion and American studies and ethnicity, was named Distinguished Professor of Religion.

**STEVE KAY,** Provost Professor of Neurology, Biomedical Engineering and Biological Sciences, was awarded the Director’s Award for Research by the Society for Research on Biological Rhythms. The honor recognizes his trailblazing research and his broad contributions to the field of chronobiology. He was also named a University Professor.

**SMARANDA MARINESCU,** associate professor of chemistry, received the 2021 Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator from the American Chemical Society. The award recognizes creative and impactful work by a young investigator in a forefront area of inorganic chemistry.

**MARK MARINO,** professor (teaching) of writing, was awarded the N. Katherine Hayles Award for Criticism of Electronic Literature by the Electronic Literature Organization.

**JILL MCMITT-GRAY,** professor of biological sciences and biomedical engineering, is the inaugural winner of the American Society of Biomechanics Jean Landa Pytel Award for diversity mentorship in biomechanics.

**NATANIA MEEKER,** associate professor of French and comparative literature, won the 2019 Science Fiction and Technoculture Studies book prize from the Speculative Fiction and Cultures of Science program at the University of California, Riverside.

**MARK THOMPSON,** Ray R. Irani, Chairman of Occidental Petroleum Corporation, Chair in Chemistry and professor of chemistry and chemical engineering and materials science, won the Stephanie L. Kwolek Award from the Royal Society of Chemistry for his discovery and development of inorganic molecular materials for flat panel displays and lighting.

**ANTÓNIA SZABARI,** associate professor of French and comparative literature, won the 2019 Science Fiction and Technoculture Studies book prize from the Speculative Fiction and Cultures of Science program at the University of California, Riverside.

**PROFESSOR EMERITUS OF EARTH SCIENCES KENNETH NEALSON,** received the 2020 Jim Tiedje Award from the International Society of Microbial Ecology in recognition of his outstanding lifetime contribution to microbial ecology.

**VIET THANH NGUYEN,** University Professor, Aerol Arnold Chair of English and professor of English, American studies and ethnicity and comparative literature, has been elected to the Pulitzer Prize Board. He is the first Asian American and Vietnamese American member of the Pulitzer board.

**GRETA PANOVA,** associate professor of mathematics, has been awarded the 2020 Institute of Mathematics and Informatics Prize.

Natalia Molina, professor of American studies and ethnicity, was named a 2020 MacArthur Foundation Fellow. Often called a “Genius Grant,” the fellowship includes $625,000 in funding she can use as she sees fit.

Molina was recognized for her work on race and citizenship in the United States and the way historical narratives of racial difference have been applied to immigrant groups. Her research reveals how various factors shape modern views of race by exploring how policies and attitudes toward one group affect others.

She says the fellowship will help her find new ways of reaching the public. “You think about what you need to make your humanities work more public facing,” she said. “I feel an award like this allows you to be bolder and take chances.”

Kate Flint, Provost Professor of Art History and English, received a Guggenheim Fellowship. She plans to complete a book that connects Victorian-era interest in the natural world with contemporary visual treatments of environmental crises.

Aiming to show the relevance of Victorian studies to current times, she is examining the work of contemporary artists and poets that highlight seemingly trivial details in 19th-century paintings, essays and novels.

“I use the work of contemporaries to show how many Victorian works in fact contain, unwittingly, the seeds of the ecological future,” she said. —D.S.J.
A Fabled Diamond

Illuminating the unsolved theft of one of the world’s most storied gems.

Despite having all the elements of a juicy historical mystery — a stolen jewel, the flight of an emperor into exile and even possible links between the gem and Marie Antoinette — the Florentine Diamond has received scant attention in popular culture. For Amy Meyerson, associate professor (teaching) of writing, this made it the perfect tale on which to base her new novel, The Imperfects (Park Row Books, 2020).

Meyerson sketches a possible fate for the diamond, intertwining it with the story of a fictional American family. When the family matriarch dies, leaving her granddaughter a large yellow diamond, her descendants trace the jewel’s history, hopping from Los Angeles to Philadelphia to Austria.

“I wanted to write about what we can tell about the past based on artifacts, and also what is lost about that past,” Meyerson says of her novel.

At 137.27 metric carats, the Florentine Diamond was enormous. Its story begins with the legend that Charles the Bold, Duke of Burgundy, was wearing the diamond when he was killed in battle in 1467. A commoner is said to have filched it from the dead duke and, assuming it was a fake, sold it for a pittance.

After passing from the powerful Medici family to the future parents of Marie Antoinette, by 1743 the diamond had become part of the Austrian crown jewels. In 1918, former Austrian Emperor Charles I sent the stone to Switzerland, where he was going into exile; however, the diamond was stolen and its fate remains unknown, although Meyerson’s research suggests some likely possibilities — most probably that it has been recut.

Her research also led her to visit an Austrian museum that displayed empty cases to signify the country’s missing crown jewels. That prompted her to reflect on how loss can shape history, and beneath the novel’s tale of the diamond lies a deeper exploration of the past and how its stories should be told. —M.M.
WALDER PHOTO COURTESY OF TRACY WALDER

**Births**

**BEAUMONT Shapiro (B.A., religion, ’66)** and Ashley Shapiro welcomed a boy, Simon Harris.

**In Memoriam**

**DAMON BAME (B.A., history, ’67)** of Riverside, CA (6/26/2020) at age 77, two-time All-American and member of USC’s 1962 national championship football team; taught history; coached high school and college level football; worked in precious metal recycling.

**LESLIE GEYER** (B.A., English, ’61) of Carmel, CA (5/18/2020) at age 97; awarded a purple heart for his service in the 272nd Infantry during World War II; owned and operated the Nolex Corporation, which he created by merging Noland Paper Company with Xepex Industries; avid golfer.

**MARTIN KING** (B.A., history, ’48) of Thousand Oaks, CA (8/15/2020) at age 96; cryptographic technician in the U.S. Army Air Forces; served in Iwo Jima and Guam; worked in the Los Angeles Unified School District for more than 40 years as an English teacher, vice principal and principal.

Tracy Walder ‘00 has to be America’s most unlikely spy. Born a second-generation Trojan in Southern California’s San Fernando Valley, Walder grew up in nearby Orange County surrounded by USC memorabilia and Trojan football. She was a sorority girl majoring in history when she attended a USC careers fair and decided to apply to the CIA on a whim.

She had never imagined herself as a spy or secret agent, but the former homecoming princess with a fondness for pink did have a secret she kept from her sorority sisters: She was a poli-sci nerd obsessed with keeping the world safe from the threat of global terrorism.

Walder discovered that, far from being a disadvantage as she had feared, her major had supplied her with the very skills that enabled her to succeed in her new profession.

“USC Dornsife made me successful in my career,” she says. “USC Dornsife made me who I am.”

As a CIA special operative in counterterrorism, she traveled extensively in the Middle East, Europe and Africa, bringing down two plots involving weapons of mass destruction and identifying and charting key leaders of terrorist cells planning poison attacks around the globe.


Her most exciting mission, she says, was spent in a war zone questioning suspected terrorists in an undisclosed location she describes as being “as stark as the surface of the moon.”

“It was just the total polar opposite from the life that I lived and the place that I was from,” she said. —S.B.
port's former executive director, brings alive its vibrant history with the help of more than 200 maps and images.

PORT OF LOS ANGELES: CONFLICT, COMMERCE, AND THE FIGHT FOR CONTROL
Angel City Press / Geraldine Knatz
Ph.D., biological sciences, ’79, recounts how his transformation from a child of Holocaust survivors in post-war Europe to an American lawyer, academic and activist associated with famed political leaders.

NET ASSESSMENT AND MILITARY STRATEGY: RETROSPECTIVE AND PROSPECTIVE
Essays Cambria Press / Thomas Mahnken
B.A., international relations, ’06, provides school counselors, educators and leadership teams with relevant research on brain and human development to help them lend effective support to students struggling with potential trauma.

ENDLESS CROSSINGS, REFLECTIONS ON ARMENIAN ART AND CULTURE IN LOS ANGELES
Tekeyan Cultural Association / Arpi Sarafian
Ph.D., English, ’91, explores the complexities of the immigrant experience in a wide-ranging and diverse array of essays published over 30 years.

IN THE COUNTRY OF WOMEN: A MEMOIR
Catapult / Susan Straight
B.A., English and journalism, ’82, creates a lyrical social history in this memoir about her multiracial family, the indomitable spirit of its women members and the bonds of love and survival that bind them.

THE RAIN GOD’S REBELLION: THE CULTURAL BASIS OF A NAHUÁ INSURGENCY
University Press of Colorado / James Taggart
B.A., sociology, ’64, explores the Nahua oral narratives to illuminate the cultural basis of the 1977-84 rebellion against the Hispanic elite in Huiztilan de Serrán, Mexico.

MODERN IN THE MAKING
Bloomsbury / Sandra Zalman
M.A., art history, ’04; Ph.D., art history, ’08, explores the early experimental years of the Museum of Modern Art and the ways in which it acted as a laboratory to set an agenda for the exhibition of a multidisciplinary idea of modern art.

SUBMIT ALUMNI NEWS FOR CONSIDERATION ONLINE AT dornsife.usc.edu/alumni-news. Information may be edited for space.
Emeritus Associate Professor of English David Eggenschwiler, who served for more than 40 years at USC Dornsife, died on June 17 in Pasadena, California, following a long struggle with Alzheimer’s disease that eventually robbed him of the words that so enriched his life. He was 83.

Born in Canton, Ohio, to a secretary and a machinist at Ford Motor Company, Eggenschwiler majored in psychology at Harvard University before earning an M.A. in English literature from Arizona State University and a Ph.D. from Stanford University.

He joined USC Dornsife in 1966, serving as director of undergraduate studies for the Department of English. Devoted to his students, he was a gifted mentor and was recognized with awards for teaching excellence, including the Raubenheimer Outstanding Faculty Award in 1986.

“He graced his classroom with such brio that he was fondly dubbed ‘Excited Eggenschwiler’ (and ‘the Eggman’) by admiring students,” wrote his friend Tom Wolfe, a former colleague in USC Dornsife’s Department of English.

A scholar of the Romantic through Modern periods, Eggenschwiler published numerous articles on topics ranging from the poetry of William Wordsworth to the fiction of Vladimir Nabokov.


A keen and witty commentator on politics and culture, Eggenschwiler was rumored to be the most prolific contributor of his generation to the *Los Angeles Times*’ “Letters to the Editor.”

Following his retirement in 2003, he continued to teach as an Emeritus Professor for the Thematic Option program until 2008.

A talented potter and enthusiastic traveler, he also enjoyed playing tennis, swimming and cooking, but his great love remained USC Trojans football. —S.B.

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**The Eggman**

Affectionately dubbed “the Eggman,” David Eggenschwiler was admired for his talent, enthusiasm and wit.

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TROJAN COMMUNITY

A TRIP DOWN MEMORY LANE
By column, from left to right: College of Liberal Arts, 1890s; class of 1890; dormitory room, 1907; giant cash register in front of Bovard publicizes a USC fundraising drive, 1923; in the library, 1923; experimenting with a radio microphone, ca. 1928; Tommy Trojan, ca. 1945-55, “a favorite place to meet one’s best girl and arrange for a date”; Fight On! Homecoming celebration, ca. 1959; up to their necks in sand, a USC professor and his students enjoy a day at the beach, May 1889; smog protection experiment, ca. 1947; cheering on the Trojan football team, 1977.

PHOTOS COURTESY OF UNIVERSITY OF SOUTHERN CALIFORNIA HISTORY COLLECTION; WIDNEY ALUMNI HOUSE PHOTO BY MARC MERHEJ
As the university celebrates its 140th anniversary, cardinal and gold flowers grace the Widney Alumni House, USC’s first building. The cornerstone was laid on Sept. 4, 1880, and one-tenth of the population of Los Angeles turned out to watch and to witness history in the making. When the university opened its doors to the inaugural class of 53 students, the building hosted religious services and housed classrooms and a library. More recently it has been home to the USC Thornton School of Music and served as the headquarters of the USC Alumni Association. Once the only structure in an empty field and now a state historical landmark, the Widney Alumni House has moved four times across the University Park campus, finally taking up its current position on Childs Way in 1997. There, the house remains a beloved monument to USC’s storied past and a powerful reminder of its resilience.
Life Moment

STAR TRAILS AND COMET NEOWISE
(SEE CURRICULUM PAGE 5)