COLLEGE MAGAZINE

Pomona

Fall-Winter 2020

INSIDE: THE NEW (AB)NORMAL

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- Childcare
- City Life
- Dating
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- Movies
- Elections
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- & more

Nobel Laureate

Jennifer Doudna '85

Together in Cyberspace

With the College closed for the fall semester and all instruction temporarily online, Pomona faculty have relied on a range of technologies to teach their classes and build community among their students. At top left, Chemistry Professor Jane Liu conducts a Zoom class in Biochemistry from her office in Seaver North. At bottom left, Theatre Professor Giovanni Molina Ortega accompanies students in his Musical Theatre class from a piano in Seaver Theatre. At far right, German Professor Hans Rindesbacher puts a group of beginning German students through their paces from his office in Mason Hall.

—Photos by Jeff Hing

The New Abnormal

We're shaped by the crises of our times—especially those that happen when we're young. Looking back on my parents' lives with the relative wisdom of age, I can see the currents that carried them, turning them into the people I knew.

They were both children of the Great Depression, and the marks of that experience were stamped into their psyches in ways that seem obvious to me now. Both were rural Southern educators—poor, but not as poor as others, and nowhere near the poverty they had both known in their youth. As a preteen, I helped mix the cement for the foundations of the house my dad was building with his own hands. Year after year, we mapped out summer road trips out West that never happened. I spent hours playing with armies of inverted tacks, arrayed for war in static ranks and files. I never knew plenty, but I never knew want. Maybe that's why I never really understood that we were poor.

But as I grew older, I saw how my parents always saved money from their meager incomes. Even after retirement, living on a thin thread of Social Security and my Dad's veteran's pension, they always managed somehow to put something aside. Not for some well-earned extravagance, but as a hedge against that second Great Depression that, fortunately, never came.

They were also shaped by World War II—especially my dad, who nearly died on a battlefield in eastern France. I remember the little bits of shrapnel that would well up, infrequently but painfully, through his scars, but it wasn't until much later that I came to understand why a man who, in his teens, played his guitar and sang in movie theatres as a pre-show entertainer wanted nothing more, the rest of his life, than to be left alone with his books and his thoughts.

As a whole, my generation of Americans, and others since, have lived in comparatively fortunate times. Wars, but no world wars. Recessions, but no depressions. The poor were still poor, and the disadvantaged were still disadvantaged, but there were no global catastrophes to make their load even heavier.

Until now.

For the past eight months, I've been one of the lucky ones. I have a job I can do from home. My family is safe and well—knock on wood. As a bit of a loner, I've adjusted fairly well to isolation. The internet and delivery services have partially filled the void where outside activities used to be. For me, the pandemic has brought fear and boredom and inconvenience and physical separation from friends and loved ones, but not overwhelming loneliness or inconsolable grief or the daily peril faced by first responders and essential workers.

But as my wife and I go out for our masked walks around the neighborhood, crossing the street to avoid meeting other pedestrians, I can't help but wonder what this is doing to us all on the inside. The slow remolding of our psyches, the imperceptible formation of walls and sinkholes inside our heads. The Great Depression turned my mom into a lifelong miser. World War II turned my dad into a recluse. What is this seemingly endless pandemic doing to me?

And more importantly, what is it doing to my 5-year-old grandson?

It would be nice to think that when this is over, it will really be over. But I suspect that we'll be talking about the lasting effects of 2020 for many years to come. There will be a new normal, and some of it will be good—maybe even wonderful—but some of it will definitely be abnormal in ways we can, for now, only guess.

—MW

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Screen Breakers

Have a meeting to run? When Zoom gets tiresome or you're trying to build a team online, finding a way to connect the people in the boxes is important.

Four students from the Human-Centered Design course taught last spring at The Claremont Colleges' Rick and Susan Sontag Center for Collaborative Creativity—popularly known as the Hive—spent the summer creating icebreakers for the Zoom age

The result is the Screen Breakers website at *meltbreakshatter.com*, where anyone can search for icebreakers with names like Shakedown, Fail Test and Lemonade. At Pomona, Orientation leaders introduced the activities to new students as a way to begin to create community among people who have never met in person. The site's creators hoped faculty and people beyond campus will use them as well.

"We realized that Orientation was such a big part of our first-year experience; so our idea was: What if you introduced Orientation to every class?" says Yurie Muramatsu '22, the project leader on a team with website designer Abdul Ajeigbe '22, Riley Knowles PZ '22 and Eda Topuz CMC '22.

Fulbright Winners

Eight Pomona seniors were awarded prestigious Fulbright fellowships for world travel and teaching English, though the Fulbright program also delayed the start of its fellowships until after January 1, 2021. Here are the winners from the Class of 2020.

Tyler Bunton, an English major from Hamden, Conn., has been selected to teach English in Brazil.

Jordan Carethers, an international relations and French double major from Bloomfield Hills, Mich., was selected to teach English in rural Taiwan.

Evan Chuu, a linguistics major from Arcadia, Calif., will teach English in Malaysia.

Oliver Dubon, a music major from Palmyra, Va., was selected to go to Estonia on a research award.

Netta Kaplan, a linguistics major from St. Paul, Minn., was selected to teach English in Turkey.

Daphnide Nicole, an international relations major from Portland, Ore., was selected to teach English in Senegal.

Aleksandr Thomas, an international relations major from Pasadena, Calif., was selected to teach English in Russia.

Kim Tran, a public policy analysis major from Chicago, Ill., plans to teach English in Vietnam.

Creative Passport Shelved, Not Lost

Winning a Watson Fellowship is both a creative passport and a generous provision to wander the world and do independent research for a full year after graduation. However, just as it did to best-laid plans around the world, COVID-19 interrupted those of this year's Watson winners.

But for Watson recipients Adin Becker '20 and Zed Hopkins '20, the disruption is only a delay, not a dead end. The Watson Foundation has granted each of them a two-year deferral period.

Becker, a politics and Middle Eastern studies major from Portland, Ore., learned of his big win amid the frenzy of packing up to go home due to the pandemic.

"The news of my acceptance allowed me to take a step back from the stress of the current moment and concentrate on the passion that had led to me apply in the first place. In times of crisis, it is wonderful to have something extraordinary to look forward to, especially if it happens to be a project you have dreamed of doing for over a decade," says Becker.

His dream is to explore small, isolated international Jewish settlements in Peru, Ghana, Zimbabwe, Uganda, Uzbekistan, Azerbaijan, Tunisia and Poland to gain insight into their persistence and survival despite perpetual threats to their existence.

Hopkins, a theatre major from Brisbane, Australia, has plans to travel and do research in South Africa, Uganda, Greece, India, Indonesia, Switzerland, Austria and Italy. He is grateful for the award but says, "Traveling the world seems like the last thing you want to be doing right now." However, he plans to do so as soon as it becomes feasible—hopefully by early 2021.

Hopkins' proposal is to analyze the six pillars of theatre performance and how they connect the imaginative and physical worlds of diverse cultures. The specifics of his project may evolve depending on the economic and social repercussions of the pandemic, so he has been busy brainstorming alternatives. "But if Pomona has taught me anything," he says, "it's that you have to lean into that discomfort and embrace and enjoy the challenge."

POMONA COLLEGE SAGECAST

A Few Highlights

Listen in on enlightening conversations with some of Pomona's most interesting alumni with Sagecast, the podcast of Pomona College. Here is a sampling of this season's offerings, now available at pomona.edu/sagecast:

Jennifer Doudna '85
winner of the 2020 Nobel Prize for Chemistry for her work with a gene-editing tool that has revolutionized genetic research

Mac Barnett '04
author of such beloved children's books as *Extra Yarn* and *The Wolf, the Duck and the Mouse*

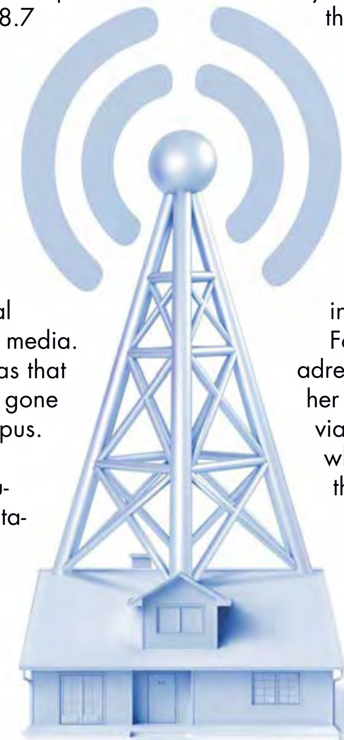
Anjali Kamat '00
award-winning investigative reporter who covered the Arab uprisings in Egypt and Libya for Al Jazeera

Lynda Obst '72
renowned film producer of such groundbreaking films as *The Fisher King*, *Sleepless in Seattle*, *Interstellar* and more

Bill Keller '70
Pulitzer Prize-winning journalist and former executive editor of *The New York Times*

Richard Preston '76
New York Times best-selling author of *The Hot Zone*, among other books, and expert on emerging viruses

Broadcasting Live From My Home to Yours



Plenty of folks consider campus radio station KSPC 88.7 FM an essential part of their daily routines.

When California Gov. Gavin Newsom issued a statewide stay-at-home order in March, that became official in a manner of speaking: Broadcasting was deemed an essential service along with other media.

The only problem was that all the student DJs were gone after the closing of campus. But Erica Tyron SC '92, Pomona's director of student media and KSPC station manager, kept the station going at first by patching together prerecorded or archival shows and public service announcements. Soon students and alumni began sending in prerecorded shows on MP3 files though Box or Dropbox. A few local community and alumni DJs dropped by the studio.

But one student, Hannah Avalos '21, started broadcasting her Friday show live from her home in Whittier, spanning the 25 miles to campus via a Zoom connection that gives her mouse-control access to the KSPC studio in Thatcher Music Building.

For Avalos, the high-wire adrenaline of being live sustains her in the stay-at-home era—all via technology undreamed of when KSPC first signed on to the airwaves in 1956.

"It's kind of like an outing for me," Avalos says. "It's an activity, more than another task I have to do. It's a really nuanced difference, but I think having it at a set time is more like having an appointment or a fun activity, rather than another homework assignment or a work assignment."

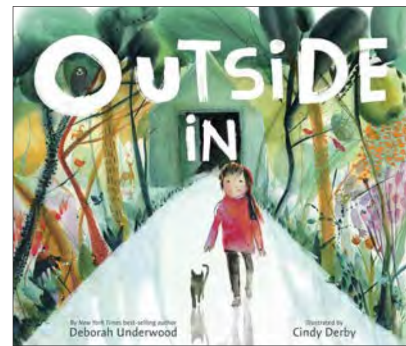
Wildlife on Campus: With the campus closed, there have been lots of wildlife sightings, including everything from owls to coyotes. Here, a family of raccoons peeks out of their hiding place in a storm drain on College Avenue, between the President's House and Carnegie Hall. —Photo by Lupe Castaneda

NEW YORK TIMES BESTSELLING CHILDREN'S AUTHOR DEBORAH UNDERWOOD '83 WRITES FOR HER INNER 6-YEAR-OLD.

Bringing the Outside In

Timing truly is everything, and the children's book *Outside In*, by Deborah Underwood '83, is arguably prescient. Released in April during a pandemic she never anticipated when she wrote the book, it is a vivid meditation on how nature affects us even when we're stuck indoors. In these strange times of sheltering in place, this book, illustrated by Cindy Derby, gives readers pause to ponder our connectedness to creation.

Underwood talked to *Pomona College Magazine's* Sneha Abraham about the world outside, social distancing, maintaining wonder and more.



Outside In

By Deborah Underwood '83

HMH Books for Young Readers

Reading Level: 4–7

40 pages | $17.99

PCM: Can you tell me a little bit about your relationship to nature, as a child and now as an adult?

Underwood: Well, that's a really interesting question. We were not a very nature-oriented family. We didn't go camping and the kind of things that a lot of people do. I remember loving to play in my backyard. I remember going back behind these bushes and digging for treasure. And of course, every time you hit a rock, you're like, "I'm either in China or it's a treasure chest." But it's funny; it's been more of a later-life interest for me. I don't go camping, although I might try that sometime, but I do love being outside. And there's the botanical garden very close to where I live, and I spend so much time there. That's really informed my writing and my process. One of the hard things about the pandemic for me was they closed it for a few months. That was a gut punch. It was just horrible. And I realized how much I had depended on being able to walk in that beautiful place and collect my thoughts for writing. So much of picture book writing is thinking, because they're short manuscripts. It's 98% thought and 2% getting it on paper.

One of the things that I've done over the pandemic is I put a garden into my apartment building backyard. I had no interest in gardening but just the knowledge that this might be the only safe place to go for a while. My landlord had been paying people to come in and chop everything down and spray the yard with Roundup. When I found out they were doing that, I thought, "You know what? If I can at least get some mulch down, maybe they'll stop putting that toxic stuff all over it." But then I started putting in plants, and I connected with people on Nextdoor, and neighbors donated pavers and plants, and I went to Home Depot a million times.

The garden has really made me more aware of the nature around me. I've always loved animals. I have a bird feeder and I have ... Edward and Elinor Pigeon, Elliot and Shadow Pigeon, Buddy the Raccoon who comes and drinks from the hummingbird feeder. All of a sudden, I feel like I have this little wild kingdom.

PCM: Your nonfiction includes so many books about animals and the planet and the universe. What are you trying to communicate to children?

Underwood: Well, interestingly, the nonfiction, that was almost all work-for-hire stuff. I was doing that when I was getting started writing for kids. I made a career change in 2000 when I got laid off from this corporate job that I was not particularly interested in. And I thought, "Well, if I'm going to do something different, this is a good time to make a change." So, I decided that I wanted to write children's books. I started doing a lot of research and dipping my toe into that field. But one of the ways that I made money when I was first starting out was doing these work-for-hire books, which traditionally do not pay well at all but are a really good way to learn about the field. And the editor actually assigns the topic. So an educational publisher will say, "We want to do a series about camouflage. We want a book about this, this, this, this. Can you write it?" And you go, "Sure, I can." But you don't know anything about the topic. One of my first moments of true panic as a writer was when I'd agreed to write a book about the Northern Lights. And I said, "Oh, yeah, that sounds so cool." And then I started doing the research and I was like, "I don't know anything about physics!" And I realized I had agreed to do this book about something that I don't have the scientific chops to understand completely. But you find good experts who help you and review things, and then it's like, "OK. I managed to do that."

PCM: With your fiction, by virtue of writing for children, you're also writing for adults who read to them, right? What are you trying to communicate to the adults?

Underwood: Honestly, I don't really think about the adults. I'm not very interested in grown-ups. It's a strange field because it's the only one I can think of where the consumer is not purchasing the product. What you have to do is entice the parent enough to buy it for the kid. But most of the time, I'm not thinking about audience at all. I keep saying that I'm essentially a 6-year-old in a grown-up's body. So if something is interesting or funny to me, I feel it will be to kids. Usually, if you set out saying, "Well, what do I want to try to teach kids?" that's a fatal error in writing for them. People come up to me and say things like, "Oh, I have this idea for a kid's book. I want to teach kids it's important to brush their teeth." And you're like, "Oh yeah, I'm sure kids are going to be really excited about that." But when I teach writing workshops, I say, "If you write from your heart, your values are going to come out in your work without you doing anything to squeeze them in there."

PCM: How do you maintain that childlike wonder? You said you're a 6-year-old at heart.

Underwood: Just—I am 6. I just am. I don't know. I think somebody once said that people who write for kids either have kids and really love kids or they *are* kids, and I fall into the latter category. If you ask any children's writer, they will probably be able to say without even thinking, "Yeah, I'm 12." My 16-year-old friends write YA. My 12-year-old friends write middle grade. And my 6-year-old friends write picture books.

PCM: What were your favorite children's books?

Underwood:: Like many Pomona students, I'm sure, I was a pretty early reader, so I don't really remember the picture books as much. What I remember is reading Beverly Cleary books and *A Wrinkle in Time* and *Harriet the Spy*.

I do remember my dad reading Dr. Seuss books to me. Those are great read-alouds, and I remember him reading *Hop on Pop* and all that. I bet if we called him up right now, he would still be able to recite the *ABC* book: If you said, "Painting pink pajamas. Policeman in a pail," he would be able to finish the line. So that's kind of a lesson in paying attention to making the adult happy enough to read the book 500 times, because you know that's going to happen if the kid likes the book.

PCM: By virtue of being in a pandemic, what role does the outside play in this time of social distancing?

Underwood: It's made me appreciate it so much more. When the botanical garden opened again, I wanted to go in and fall down and kiss the ground. But I do think it's interesting that this book, *Outside In,* about our deep connection with nature, came out in the middle of this craziness.

I've always found outside to be a refuge in terms of going on walks and clearing my head and going to the park and all that. And then especially for the first few months, it became fraught because we didn't know much about transmission. Not knowing if a jogger breathing on you would make you sick—it just added this layer of stress and anxiety onto being outside, which I'd never experienced before.

PCM: I know you don't have an agenda per se. But one thing that came to mind when I was reading your book is the Joni Mitchell song "Big Yellow Taxi." "They paved paradise and put up a parking lot." How do you think this connects with environmental issues? Are you trying to communicate anything related to that in your book?

Underwood: I think if you write from your heart, your values do come out. I feel like *Outside In* is my environmental book. I have a book called *Ogilvy*. It's about a bunny who's wearing a garment that's either a sweater or a dress, and the community isn't sure which, and they're trying to put the bunny into a box. So that's my gender acceptance book. I just had one come out called *Every Little Letter*, which is about these letters and they all live surrounded by walls. So, the H is in the city of Hs, and they're afraid of the different letters outside. There's no metaphor there at *all*, obviously. The letters take down the walls at the end and they start making words and cooperating. Obviously, my values inform what I write.

PCM: Do you write every day?

Underwood: No.

PCM: I feel better as a writer.

Underwood: No. You know what? I don't know about you, but the last several months have been so hard for every creative person that I know. I have a really strong Facebook community, and it's very nice to be able to post, "I can't work. I can't even read," and have people go, "Me neither. Me neither. Me neither."

PCM: It happens to me that I can't read. I haven't read in months.

Underwood: No, no. That's the thing. And it's so frustrating, right? Because as soon as I heard about the shutdown, I went to the library, I checked out about 25 books. I was like, "Finally, finally, I get to read all these books." Honestly, I think I've read maybe one middle-grade novel since March. I even pulled out a book that I loved when I was a kid and told myself, "Fifteen minutes. Just try to read 15 minutes a day." And I did it for two days, and then my attention kind of fractured...

PCM: I feel really bad as a writer, but I've just been bingeing on Netflix.

Underwood: I think we have to, right? I tell myself—this might not be entirely true—we're learning about story structure, right? PCM

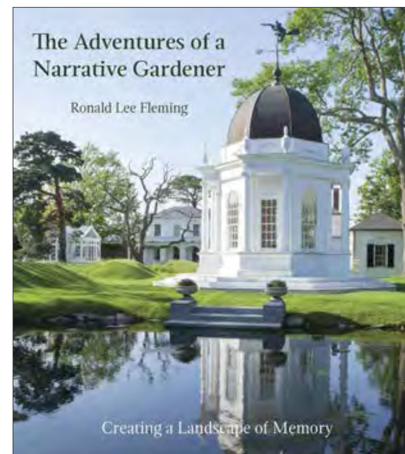
URBAN PLANNER, PRESERVATIONIST AND INNOVATOR RONALD FLEMING '63 BELIEVES HE MAY BE REMEMBERED AS A GARDENER.

Memory's Landscape

In his career, Ronald Lee Fleming '63, P'04, author of the newly published *The Adventures of a Narrative Gardener: Creating a Landscape of Memory*, worked hard as an urban planner, preservationist and innovator, doing Main Street revitalization projects in small towns even before the National Trust for Historic Preservation took them on. In fact, Fleming says, he was once told, "Well, we've copied everything you ever did."

His idea of place-making wasn't just for Main Street, though; it also extended to home sweet home, in the form of gardens. In the book, Fleming tells the story of his life, his family and friends, his 12 gardens and the gardens that inspire him. In this conversation with *Pomona College Magazine's* Sneha Abraham, he talks about why he wrote the book and, among other things, offers advice for horticulturalists who also want to be place-makers.

This interview has been condensed and edited for space and clarity.



The Adventures of a Narrative Gardener

By Ronald Lee Fleming '63

HMH Books for Young Readers

40 pages | $17.99

PCM: How did you first get involved in urban planning?

Fleming: I didn't know before college that there was such a field as planning. But I had built a little town in my backyard when I was growing up. I went to all the ghost towns in the West, and then I came back and built a little town. I called it the Ghost Town. And that's what got me involved with all the local neighborhood kids. I was a sort of Tom Sawyer, and they were painting my fence.

Then one summer just after Pomona, I won a fellowship to Deerfield, Massachusetts, where I studied history and decorative arts at Historic Deerfield. You had to write a thesis, so I studied towns. I did a comparative study of Greenfield and Deerfield.

And while I was there, I went up to see Professor Philip Gray's family who summered on Caspian Lake in Vermont. Peggy Gray motored us in her ancient Pierce Arrow to this little town nearby called Craftsbury Common, which is very beautiful. And I went to a wonderful picnic with all kinds of people of all backgrounds, but they're all enjoying each other. It was called a Strawberry Supper.

Years later, when I came back from Vietnam, a cynical reporter said to me, "What do you think you were dying for in Vietnam?" I said, "Well, I was dying for a Strawberry Supper on Craftsbury Common." That was a place where America came together. It was the idea of a common where people of various backgrounds and incomes all came together in harmony.

I still didn't know there was such a thing as getting a planning degree until I met Professor Gray's son-in-law who was teaching at MIT. He was a professor of planning, and he got me all involved in that. So when I came back to Harvard, I kind of treated that first year back as a sort of sabbatical. And then I went into planning, and that's where I got my degree. And that's what my whole story has been about—planning and place-making.

PCM: So what was your reason for writing this book?

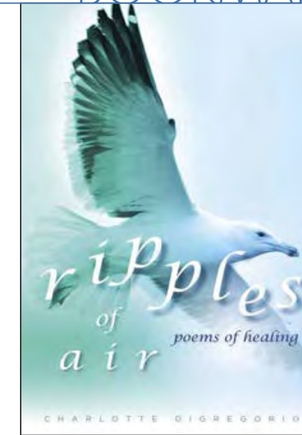
Fleming: I think I had two reasons. One was to celebrate the fact that I had been able to create these 12 gardens and tell a narrative story—through a narrative garden. But I also did it for my children, to help them understand my mentality and what I was up to. And to tell the world what I valued.

Ironically, I now understand that garden-making is something of an achievement, even though I had done all these other things. I had been a fellow at the U.S. National Committee of the International Council on Monuments and Sites. I had been a fellow of the American Institute of Certified Planners. I had received a number of distinctions in my career.

But I think, really, that people may remember me as a gardener.

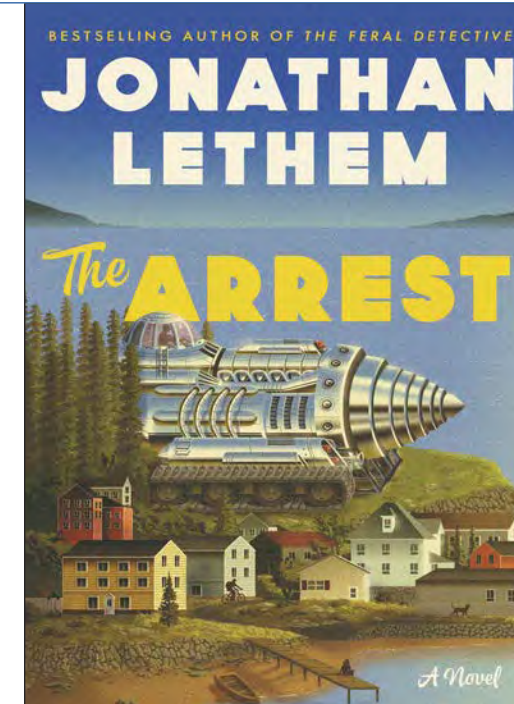
But it's not just a pretty book, as one of the writers who reviewed it has said. It's also a harrowing memoir of Vietnam. Because I was in Vietnam as an intelligence officer assigned to the Special Forces—the Green Berets. And then I was working in the embassy for a while. And then I worked for what we call "the Company." You know, you can figure that out. All of that is in the book, in Chapter 4, which is the one that is about Vietnam. It's also about my friends who died. So many of my friends died. So why did I write it? I wrote it to make more precious the memory of these people. And then I also had to talk about the commons, where we could all meet in the back of the garden.

PCM: What is a narrative garden? ▷



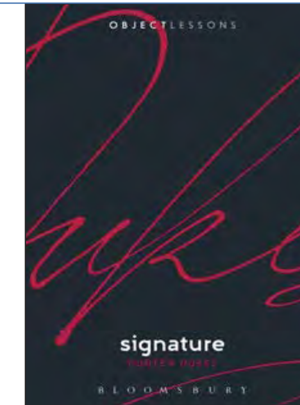
Ripples of Air: Poems of Healing

Charlotte Digregorio '75 offers hundreds of her award-winning poems, along with her essays on poetry.



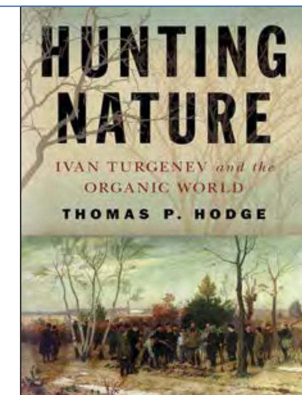
The Arrest

Professor and noted author **Jonathan Lethem**'s most recent novel is speculative fiction about societal collapse, two siblings, a man who came between them and a nuclear-powered supercar.



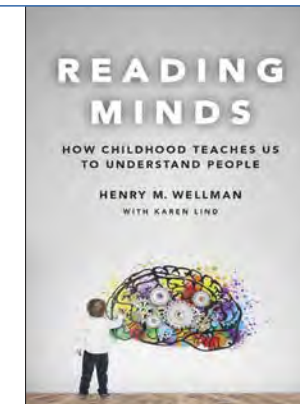
Signature

Hunter Dukes '13 explores the cultural history of autographs through first-person recollections from his travels through California, England, Greece, Finland and Russia.



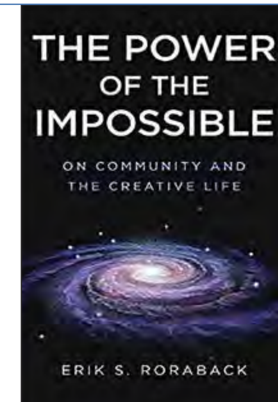
Hunting Nature: Ivan Turgenev and the Organic World

Thomas P. Hodge '84 explores Ivan Turgenev's relationship to nature through hunting—his life's passion.



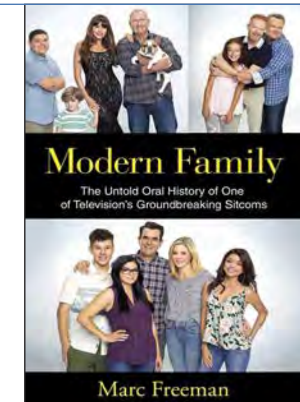
Reading Minds: *How Childhood Teaches Us to Understand People*

Henry M. Wellman '70, professor of psychology at the University of Michigan, presents research on theory of mind and examines ideas about the frontiers of research, from robots to religion.



The Power of the Impossible: *On Community and the Creative Life*

Erik S. Roraback '89 surveys cultural figures and icons like Spinoza and Ivan Lendl and examines global community formation and creativity.

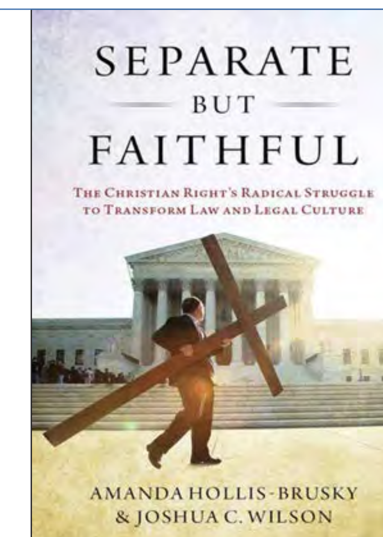


Modern Family: *The Untold Oral History of One of Television's Groundbreaking Sitcoms*

Marc Freeman '89 tells the history of the popular TV show through the eyes of the cast, creators and crew.

Separate but Faithful: *The Christian Right's Radical Struggle to Transform Law and Legal Culture*

Politics Professor **Amanda Hollis-Brusky** co-authors with Joshua C. Wilson the first book-length treatment of "Christian worldview" law schools and their impacts on law and politics, based on fieldwork and interviews with leaders of the Christian Right legal movement.



The Phantom Pattern Problem: The Mirage of Big Data

Economics Professor **Gary Smith** and **Jay Cordes** '93 pose the question as to whether data patterns are worth believing—and posit that the "evidence" is ultimately meaningless.

Fleming: A narrative garden tells a story. It tells a story about a place. So what I wanted to do was to use the 12 different gardens here at Bellevue House, in Newport, Rhode Island. It's three and a half acres with a wall around it, so it's very private, but it's right next to the downtown. That's the marvelous thing about it—it's so urban. I can walk to the club, I can walk to the art museum, I can walk to the Redwood Library, America's first athenaeum. They're all within a half-mile. That's wonderful. Because I'm at the cusp of the residencial part of Bellevue Avenue where the great mansions are located. Have you ever been to Newport?

PCM: No, I haven't.

Fleming: Newport was this great playground for America's wealthy people in the Gilded Age. We're living in a new Gilded Age right now, but that was a time of enormous wealth in America, after the Civil War. Before that time, it was a place of artists, and it was a place of Southerners. Southerners came up in the summertime, and they had houses here. Some of the leading families of Charleston and Savannah had houses right here, including the George Noble Jones family of Savannah who lived across Bellevue Avenue and the Middletons of Charleston who owned my land.

So first, it was a place where Southerners and Northerners got together. After that, it became an artistic retreat, and it became very wealthy. And it became, intellectually, a very powerful place. You had a whole amount of energy here, intellectual and artistic energy. Which created this district of great houses, which I'm still fighting to save on the local level. Trying to save the houses and the character of the place.

PCM: A narrative garden also tells the story of a person. In this case, you. What is it in your life that inspired you to build these gardens?

Fleming: I've had an extraordinary life experience. As you know, I worked hard as a planner and innovator. I did all these Main Street projects in small cities and towns. I've seen lots of gardens. I survived all kinds of misadventures depicted in the cascade of the years of living dangerously, all the different adventures I've had where I was almost killed. I almost skidded off a cliff in a Volkswagen on the edge of the Adriatic Sea 300 feet below. I survived Vietnam, where a sniper missed me by three inches. And you know, and I was almost killed by a village mob near Casablanca, when I was driving my XKE at night and they thought I had clipped a bicyclist, a Third World death sentence. I had a minute to show what happened. Later in life, I had three strokes and a kidney transplant, so with immune deficiencies, I've used up my nine lives and am living on borrowed time.

And so even though I've had years of some tranquility, all these things inspired the idea of a narrative garden that would tell the story and would relate to all these different gardens that I had seen.

PCM: You write that programming a garden can invoke a spirit. Can you give an example?

Fleming: There's a muscle memory that comes out of animating a garden space and doing activities in the garden. So the idea of constantly using the garden imprints on the mind the nature of the spirit of the place. I had 35 artists and artisans involved in this thing. So, I was very interested in how you involve the arts and how you make it special. And I didn't want just the arts to be the single use zoning that we have now in cultural districts in America, where you have an art park and all the artists plopped around on the park. I'm interested in place-making, not plop art. I wanted to have the art relate to the spirit of the place.

PCM: You've written—I'm quoting—"Before attempting to transform the built environment, we need training in how to make visual choices and how to understand the visual language." How do we get that kind of training?

Fleming: I think it's hard. For instance, I think the visual environment at Pomona has not evolved so well because Pomona has made a lot of mistakes in terms of building choices. Some of the earlier architecture, site plans and buildings by Myron Hunt and Sumner Spalding were beautiful, but they haven't respected that architecture in terms of a lot of the changes that were made. Until Robert Stern came around, that is—the new student union is quite successful in terms of relating to that vocabulary, so that was a really good choice. I think some of the other choices were not as good, and I've told the president about that from time to time.

PCM: You also said you've made some mistakes along the way.

Fleming: Yeah, I've made mistakes. My biggest mistake is this one garden, which is at the back of the property. What I liked about it was the plane of water and then the diagonal edge—a crisp line—and then beveled grass going up to a tempietto. So my failure was working with landscape architects with no cultural memory. Most people who are living in our age do not have the historical context — they haven't seen it. I was away when they installed the rocks. And they put in little stones—kind of rough stones, rusticated stones—rather than understanding that what they should have done is a crisp wall edge. I've been to Studley Royal in Yorkshire, which is the model for my own garden folly.

PCM: What would be your advice for people building their own gardens?

Fleming: A garden should empower a person. In other words, what I'm trying to do with a narrative garden is to show that other people can tell stories in their gardens. And everybody has a story to tell. And I think our lives are richer if we can tell a story. I want to go beyond the abstraction of just doing drifts of flowers and things like that. I want to empower people to put more meaning into their places. It's about place-making; it's about layers of meaning in your life and for your family. And so that's what I hope we have achieved.

PCM: When you were a student at Pomona, was there a space that you particularly loved?

Fleming: Yes, there was. In fact, that's where I kissed my first girl. I was a late bloomer. And there was a little courtyard, Lyon Court, next to Little Bridges. That little area there. That bench in the back, that's where I kissed my first girlfriend. PCM

CHEMISTRY PROFESSOR ROBERTO GARZA-LÓPEZ IS USING HIS COMPUTATIONAL TECHNIQUES TO TAKE ON THE CORONAVIRUS.

A Clue to Blocking the Virus

Understanding how to stop the novel coronavirus from attacking cells and the immune system is a challenge that scientists around the world are facing as they race against the clock to create treatments and vaccines to fight the pandemic. According to new research from Pomona College, Caltech and DePaul University, one key to unlocking that puzzle may have been found in the effect of metal ions on a pair of the novel coronavirus's proteins—the virus's main protease, known as 6LU7, and the protein in the virus's spikes, known as 6VXX.

In an article published in the *Journal of Inorganic Biochemistry*, Pomona College Professor of Chemistry Roberto Garza-López, DePaul University Professor of Chemical Physics John Kozak and Caltech Professor of Chemistry Harry B. Gray have shared their findings in order to contribute to the worldwide effort to end the pandemic. Titled "Structural stability of the SARS-CoV-2 main protease: Can metal ions affect function?" the article was picked by the journal's editor to be part of a special issue to celebrate the publication's 50th anniversary.

Using computational techniques employed in Garza-López's lab and experimental results obtained in Gray's lab, the team began working in February on the properties of these two pieces of the novel coronavirus. The virus uses its spike protein, 6VXX, to attach itself to human cells. Then, like a pair of molecular scissors, the protease, 6LU7, activates the virus by cutting its large polyproteins into smaller segments that can attack human cells. Both proteins are key to the virus's ability to replicate.

Through almost daily research via Zoom discussions, computational modeling and experiments, the researchers have discovered that several metals—including certain ions of zinc, copper and cobalt—could inhibit the normal functioning of those two vital pieces of the virus's protein. Inhibiting either the attachment of the virus or the catalytic action that activates it could prevent the virus from wreaking havoc on individual cells and, ultimately, the immune system.

"The purpose of knowing the mechanism to inhibit the SARS-CoVid-2 virus is to guide the design of COVID-19-specific therapeutics and vaccines suitable for mass immunization," says Garza-López. "Drug design will focus on the ability to stop the novel coronavirus before it attaches to human cells or reproduces itself. That's why we believe the contribution of our last two papers and this one that was just accepted will be able to say something about this mechanism."

A computer model of protein 6LU7

The research team had already been studying the family of coronaviruses for a while before the global pandemic caused by the new coronavirus began. Then, in early February, a team of Chinese scientists shared the crystal structure of protein 6LU7 in the Protein Data Bank, an open-access digital data resource available to scientists around the world, with the aim of promoting scientific discovery. One day after 6LU7 was deposited by the Chinese team, Garza-López pulled the data to begin his work.

"I visualize the protein, and we go piece by piece and identify different pockets in which we can stop either the attachment of the virus or the catalyzation that is responsible for the polyprotein that will inject the machinery into the cell to replicate and destroy the immune system," he explains. "Many simulations are performed daily to get the right inhibiting mechanism."

As COVID-19 swept the world and turned into a global pandemic, Garza-López and Gray took to Zoom to conduct daily research meetings. Garza-López also oversaw 13 student researchers during the summer, including both students at Pomona College and high school students in Pomona's summer enrichment program, known as PAYS. "Computational research has not slowed down, in spite of spending considerable time at improving my teaching online and having five PAYS students and eight Pomona College undergraduates this summer," he says, adding that the students have had all the means necessary to continue their work uninterrupted without having to meet in person or put each other at risk.

"The new coronavirus that causes the COVID-19 illness is very unique. It's very easy to transmit, which makes it more dangerous than the other coronaviruses, especially when it mutates and improves its efficiency," says Garza-López. "We are interested in how its protein structure behaves and its points of weakness as well as the recent D614G mutation that has increased its efficiency of transmission 10 times."

Garza-López, Gray and Kozak have a long history of studying proteins, how they interact, how they fold and unfold, how they react with certain metallic elements. Prior to their interest in coronaviruses, the team was working on the folding and unfolding of the proteins azurin and cytochrome C′ and energy transfer in special molecules called dendrimers. The improper unfolding of proteins has been linked to cancers and other diseases such as Alzheimer's and Parkinson's. PCM

Never Stop Running: The National Champion Sagehens Are Keeping the Faith

Still, they run.

The defending national champions in men's cross country from Sagehen Athletics will not get a chance to repeat this year after NCAA Division III championships in all fall sports were canceled because of the pandemic.

But the Pomona and Pitzer College runners still train, and many of them lived together for the fall semester in several pods across the West.

In Keystone, Colorado, Dante Paszkeicz '22 and three teammates found a place together.

"Surprisingly enough, it's a ski resort town but it was the cheapest housing we could find for such a short lease," he says. "Because of COVID, no one's traveling all that much, and it's not ski season right now. We got really lucky with it."

In Park City, Utah, Ethan Ashby '21 and Owen Woo PZ '21 were among a group that converged on another high-altitude training spot.

And in Bend, Oregon, eight first-year runners found two houses they could rent. Despite being new to a team that had just seen its season canceled, Lucas Florsheim '24 was one of the leaders of the plans to live and train together.

"We were talking in our meeting about what it meant for our season, for our team, and then afterwards, I was like, we have to do something," Florsheim says. "For me, it was freshman fall. I wanted to get at least some sort of new experience. Being on campus obviously couldn't happen. But I definitely wanted to move out and study with people and train with people. I just sent out an email that same afternoon asking if people would be interested."

The responses came back rapidly.

"A lot of people were like, 'I was literally about to send the same email,'" Florsheim says.

The runners' search for a place that a couple of dozen college guys could live together proved challenging, says Head Coach Jordan Carpenter.

"I think trying to find that much housing right by each other and places that were willing to rent to 18- to 21-year-olds fell through a little bit," says Carpenter, who was chosen the Division III national coach of the year by the U.S. Track & Field and Cross Country Coaches Association after the 2019 title.

Still, the runners persisted, creating their own pods—living, running, studying and usually eating together.

"We've just been splitting up the bill for groceries, cooking mostly shared meals," says Paszkeicz, a 2019 All-American who admits his training diet is not so strict that it doesn't include the doughnuts regularly found in the discount aisle at the local grocery store. "We've been doing surprisingly well for four guys living on their own out here," he says. "But, yeah, definitely missing Frary [Dining Hall]."

Things got rough for the group of first-years in Bend after the Oregon wildfires in September resulted in poor air quality and no opportunity to run. But a group of senior teammates in Utah who had never met them welcomed them for a quick road trip to Park City.

"Some of us wanted to go find some clean air," Florsheim says. "So we drove to Utah and met some of the guys and got to go on a couple of runs."

Training Remotely

For Carpenter, the situation has created opportunities for innovation, though under NCAA rules he can design workout plans only for runners enrolled full time—some were in school part time for the fall semester—and those who were able to secure required physicals.

"One of the silver linings of everything going on is it's forced us as coaches to look for new ways to do what we do," he says. "For me, it's meant using some new technologies that we hadn't used in the past."

An online training platform allows Carpenter to send out individualized plans for each runner and adjust for the high altitudes where they're training. "Most of them have GPS-enabled watches. The platform will actually pull that data when they finish a run and upload it on my end so that I can analyze it.

"If they have a GPS-enabled watch, it will show me the cadence, so their steps per minute throughout the run, and graph that. It will graph their pace that they're running, a graph over time. I'll see elevation changes from the route they ran. If they hit a big hill, that might explain why they slowed down."

Jake Ballantine '24, Duncan Speirs PZ '24, Sasha Picciotto PZ '24, Ian Horsburgh '24, Lucas Florsheim '24 and Evan Villano PZ '24 pause after a workout at a nature reserve in Oregon. The new team members decided to live together while studying remotely.
—Photo by Dashiell Lipsey '24

Other Sagehen teams are trying to continue whatever training they can and hold regular Zoom meetings to maintain their sense of community. Still, the nature of cross country means the team could continue to train in ways other teams can't. There have even been virtual time trials, not only within the team, but also against Occidental at a virtual meet in October. Among the top finishers was Hugo Ward '21—who ran his race at home in Sweden.

"It's not like football or basketball or a team sport where you work on certain parts of your game, but you can't participate in the actual sport of it," Carpenter says.

What they can't do is defend their 2019 title until 2021.

It's a loss that for seniors is irretrievable unless they take advantage of the NCAA's grant of an additional year of eligibility. But realistically, Pomona and Pitzer students would be more likely to graduate and take the year of eligibility to a university to begin graduate school, perhaps with an admissions edge or possibly athletic scholarship assistance.

By now, most of the runners have made a sort of peace with the season that wasn't.

A Chance to Explore

Ethan Widlansky '22, who earned All-American honors after finishing seventh nationally at the NCAA championship meet, found it somewhat freeing once the decision was made.

"As soon as I found out, I actually went on a bike trip," he says. "I went with some friends and we all biked the Olympic Peninsula. It was a lot of fun and something I wouldn't have been able to do if I had been training full time. So, yeah, it's been hard, and realizing that we weren't going to have a season was really tough. But it's also afforded me flexibility in training that has also been kind of valuable."

Widlansky, who is also from Seattle, went up to Blaine, Washington, where he did some backcountry running with some members of the Sagehen women's cross country team. Back in Seattle, he is living at home, where he has run with recent alumni Dan Hill '19, now working in the wealth management field, Danny Rosen '20, a member of the NCAA championship team who is working as a software development engineer for Amazon Web Services, and Andy Reisching '19, who is working remotely for PBS in its documentary division after returning home from New York during the pandemic.

Widlansky also has been involved in progressive causes related to the election and racial justice, both formally and informally.

"On a more micro level, I think the discussions I've been having with my mom and my family and some of my more conservative friends have been more important," he says.

"While it's a bummer that we don't get to compete in nationals, it feels like there's been a hell of a lot more going on than just D-III NCAA competition."

—Robyn Norwood

HOW TO BECOME AN INTERNATIONAL **YO-YO STAR**

Through fire and pandemic, **Nathan Dailey** '23 persists in his quest to be the world's best artist with a yo-yo. To understand the challenges he's faced, you have to put yourself in his shoes.

1 GROW UP IN PARADISE. Before it was largely destroyed by the deadliest and most destructive wildfire in state history, Paradise, California, was a town steeped in the yo-yo culture of nearby Chico, home of the National Yo-Yo Museum.

2 LIKE KIDS EVERYWHERE, try your hand at spinning two disks attached to an axle on a string, but take it further. "I just picked it up and learned from people and from YouTube videos. It went from there."

3 LEAVE "WALK THE DOG" in your dust. Discover the world of hops, mounts, slacks and horizontal tricks. Once you know the standards, create your own. Practice. Practice some more.

4 START ENTERING CONTESTS. "My first time competing, I was 12, and I've been doing it for probably eight years now. I definitely grew up with it."

5 BREAK THROUGH. Finish third in the 2015 National Yo-Yo Contest at just 14, becoming one of the youngest top-three finishers ever in the premier 1-A division.

6 SNAP A STRING onstage during the 2017 National Yo-Yo Contest. Recover. Learn about letting go and moving on.

7 WITH STRING-BLURRING, mind-bending tricks, have an awesome 2018 season, winning the Bay Area Classic, the Pacific Northwest Regional and grabbing third at nationals and sixth in the World Yo-Yo Contest.

8 Get a sponsorship deal and your own custom yo-yo: The "ND" Nate Dailey signature model by Yo-Yo Factory features two concave aluminum disks and retails for $49.95.

9 Endure the fire and the traumatizing loss of your family's home. Like a yo-yo, climb back up the string and give an uplifting address as one of Paradise High's valedictorians.

10 Become a showman and create a style of your own after years of watching world champion Gentry Stein of Chico. Finish fourth in the 2019 World Yo-Yo Contest before heading to Pomona College for your freshman year.

Photo by Jeff Hing

JENNIFER DOUDNA '85 WINS THE 2020 NOBEL PRIZE IN CHEMISTRY.

THE PRIZE

BY MARK WOOD

—Photo by Robert Durell

As word spread

around the globe in the early hours of Oct. 7, 2020, that biochemist Jennifer Doudna '85 had just been awarded a Nobel Prize in chemistry, the honoree herself was sound asleep.

"It's a little bit embarrassing," she admitted at a press conference later that morning from the University of California, Berkeley, where she is a professor of biochemistry. Even though—or perhaps because—she had been short-listed for the award by various prognosticators for several years, Doudna hadn't given the impending announcement so much as a thought when she'd gone to bed that evening. She had even silenced her phone.

"I was awakened just before 3 a.m.," she added. "My phone was buzzing, and for some reason, it finally woke me up because it turns out it had been buzzing before that, and I hadn't heard it. But anyway, I picked up the phone and it was Heidi Ledford from *Nature* magazine, who is a reporter who I know, and she wanted to know if I could comment on the Nobel. And I said, 'Well, who won it?'"

The answer to that question may have surprised Doudna, but it came as a shock to just about no one else in the world of science. In the eight years since she and her research collaborator, Emmanuelle Charpentier—with whom she shares the 2020 award—first described the gene-editing tool known as CRISPR-Cas9, their discovery has taken the world of biological, agricultural and medical research by storm. It has transformed genome editing from a complex, costly, time-consuming and imprecise endeavor into something that can be done with speed, economy and relative precision in just about any modestly equipped research lab in the world. By giving scientists everywhere—in the words of the Nobel committee—"a tool for rewriting the code of life," Doudna and Charpentier have unleashed a flood of promising new science in everything from agriculture to cancer research, from faster COVID-19 tests to potential cures for such genetic diseases as sickle cell anemia.

By that day in early October, the two chemists had already received just about every other international science award possible, including the $3 million Breakthrough Prize for Life Sciences, the Canada Gairdner International Award, the Heineken Prize for Biochemistry and Biophysics, the Princess of Asturias Technical and Scientific Research Award, the Gruber Prize in Genetics, the Tang Prize, the Japan Prize, the NAS Award in Chemical Sciences, the Kavli Prize in Nanoscience, the Harvey Prize in Human Health and the Wolf Prize in Medicine.

The Nobel Prize came as a giant exclamation point on the end of that list, ensuring that the discovery of CRISPR-Cas9 will be remembered as one of the most significant in the history of science.

And if that sounds like hyperbole, check out this statement from the Royal Swedish Academy of Sciences: "Since Charpentier and Doudna discovered the CRISPR-Cas9 genetic scissors in 2012, their use has exploded. This tool has contributed to many important discoveries in basic research, and plant researchers have been able to develop crops that withstand mould, pests and drought. In medicine, clinical trials of new cancer therapies are underway, and the dream of being able to cure inherited diseases is about to come true. These genetic scissors have taken the life sciences into a new epoch and, in many ways, are bringing the greatest benefit to humankind."

Jennifer Doudna (right) and Emmanuelle Charpentier receive the Princess of Asturias Award for Technical and Scientific Research from Spain's King Felipe VI at a ceremony in Oviedo, Spain, in 2015. —AP Photo/Jose Vicente

The Formation of a Nobel Laureate

Growing up on Hawaii's Big Island, where her father was a professor of English literature at the University of Hawaii at Hilo, Doudna fell in love with nature early on. But hers wasn't the poetic love of a romantic—it was the analytical love of a budding scientist.

"Father's big disappointment was I didn't become a literature guru of some kind," she said with a laugh. "It's one of those funny things. It's just who I am."

For instance, during the energy crisis of the 1970s, Doudna spent long hours in the school library researching alternative forms of energy, such as geothermal. "I was just always fascinated by science and technology solutions to problems that we face in the world—and never imagined that I would become a scientist until I think I was maybe in 10th grade in high school, when we had a lecture series by people around the state of Hawaii who were professional scientists. A number of really fascinating people came through—marine biologists, volcanologists, astronomers—but the one that really caught my attention was somebody who was working on cancer biology."

As the researcher talked about her path to becoming a biochemist, Doudna says she felt a light go on. "I thought, 'That is exactly what I want to do. That sounds so interesting and so fun. I can't imagine anything more interesting than that.' That's why I actually went to Pomona, right? I started thinking, 'I want to be a biochemist.' In those days—this is in the late '70s, I guess, early '80s, right around 1980—there were not very many undergraduate colleges that had a focus or even a class in biochemistry, much less a major."

At Pomona, professors like Fred Grieman, who taught the yearlong physical chemistry sequence for seniors, and Sharon Panasenko, who had just been hired to teach biochemistry, would become the ▷

first of a series of key mentors who would help shape Doudna's career. "Mentors are critical," Doudna told UC Berkeley's *California Magazine*. "And fortunately for me, I've worked with absolutely outstanding scientists at every stage of my career."

What set Doudna apart, Grieman recalled, "was her excitement and joy about learning everything." At times, he said, students can be put off by the challenging nature of chemistry. Not Doudna. "She really enjoyed the rigor and the excitement of learning something that was that difficult—but also something that she could apply later."

Panasenko—now Sharon Muldoon—has long since retired, but she retains fond memories of Doudna as a junior in her biochemistry class, preparing to enter what was then an intimidatingly male-dominated field. "Most of the students were going to medical school," she said in a 2017 interview. "Jennifer was one of the few who were interested in a research career, so we talked a lot about it."Muldoon was so impressed by the young Doudna that she invited her to work in her research lab, studying the bacterial communication systems that permit organisms like *Myxococcus xanthus* to self-organize into colonial forms. "She really showed a tremendous amount of aptitude and talent for lab work, which certainly helps if you're going into a research career."

Doudna remembers being astounded to have been chosen to work in Muldoon's lab in the first place. "I got this opportunity to work with her over the summer, and really work with her," she recalled. It wasn't just that she threw something over the fence and said, 'Come back in 10 weeks when you're done.' It was every day, going in and planning out experiments with her, and it was just the most amazing thing."

Doudna still cites her Pomona education as a key ingredient in her success. "I am grateful to Pomona every day, honestly," she said, "because it was a liberal arts education that exposed me to so many ideas that I would never have come in contact with, probably, without having attended Pomona."

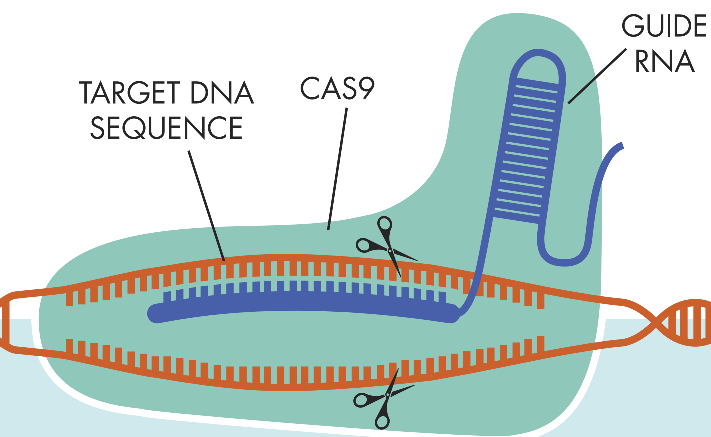
After Pomona, she earned her doctorate at Harvard under the supervision of geneticist Jack Szostak, who later won the Nobel Prize in medicine. It was under his tutelage that she began working with ribonucleic acid (RNA), the biochemical cousin of DNA, which she has continued to study throughout her career. She then did a postgraduate fellowship with another Nobel laureate, chemist Thomas Cech of the University of Colorado, Boulder, and went on to teach at Yale University. In 2002 she returned to California as a professor at UC Berkeley, where she now holds the titles of professor of chemistry, professor of biochemistry and molecular biology, and the Li Ka Shing Chancellor's Chair in Biomedical and Health Sciences.

A former member of the Pomona College Board of Trustees, Doudna has been back to campus many times since graduating. Most notably, she returned in 2009 as the featured speaker for the Robbins Lectureship, which has brought to campus a veritable who's-who of the world's preeminent chemists, including a number of Nobel winners. The news that Doudna would be joining that exalted group of laureates—becoming the first graduate of Pomona College ever to receive a Nobel Prize—was met throughout the college community with an outpouring of Sagehen pride.

"Jennifer Doudna's revolutionary research in gene editing and her thoughtful consideration of its implications hold the potential to change the lives of countless people around the globe," said Pomona College President G. Gabrielle Starr. "We are so proud that she ▷

How CRISPR-Cas9 Works

The CRISPR-Cas9 genetic scissors consists of two parts: a short piece of RNA (a molecule that can read the genetic information in a cell's DNA) and an enzyme (a protein that acts as a biological catalyst, causing or speeding up a chemical reaction in a cell). The RNA contains a "guide" sequence that binds to a specific target area on the strand of DNA. The enzyme, known as Cas9, then cuts the DNA at the designated location. Once the DNA has been cut, the cell's own natural repair machinery goes into action. Researchers can use that repair process to add, delete, replace or deactivate pieces of genetic material at that precise spot, resulting in a rewritten section of DNA code.



CRISPR on Campus

by Robyn Norwood

Decades after 2020 Nobel Prize winner Jennifer Doudna '85 roamed the halls of Seaver North or paused under a sycamore on Marston Quad, Pomona College students working in campus labs use the CRISPR/Cas9 gene-editing techniques she has pioneered.

They've worked with CRISPR on such organisms as the tiny worm *C. elegans*, the fruit fly *Drosophila melanogaster* and the brewer's yeast *S. cerevisiae* as they conducted research in the labs of molecular biology professors Sara Olson, Cris Cheney and Tina Negritto or in the neuroscience labs of professors Karl Johnson and Elizabeth Glater.

Though revolutionary, CRISPR doesn't involve a lot of expensive equipment. Mainly, it is nature's own—what the Nobel committee called "one of gene technology's sharpest tools: the CRISPR/Cas9 genetic scissors."

The fact that undergraduates can use it "speaks to just how amazing and accessible CRISPR is as a tool," says Ellen Wang '20, who worked in Cheney's lab as a student and is now a post-bac researcher at the Buck Institute in Northern California as she prepares to apply to M.D./Ph.D. programs. "Generally, how it works is that it uses an enzyme from bacteria, and this particular enzyme can basically just cut out or edit parts of the genome. I think CRISPR to a non-science person is probably super crazy to think about, like something straight out of science fiction, right? The fact that you're just able to edit genes? But in reality, in the molecular biology field, it's actually a super common technique now. People use it to figure out what certain genes do. For example, someone can use CRISPR to delete a certain gene and see what effects it has on their model organism."

Like any experiment, attempts to use CRISPR don't always succeed. But Giselle De La Torre Pinedo '19, who remained at Pomona for an additional year to work as a post-bac researcher in Olson's lab, had great success as she helped implement the CRISPR-based lab Olson uses in her Advanced Cell Biology course.

"We must have made about 20 worm strains in the year that I was there," says De La Torre Pinedo, now a Ph.D. student at Baylor College of Medicine in Houston. "We had a bunch of genes that we wanted to look at and to characterize a little more—genes that we didn't know anything about. We took CRISPR and added some fluorescent proteins to all of those. And we also used CRISPR to get rid of those proteins and to get rid of parts of those proteins."

An Example for New Generations

Doudna has become an inspiration to many Pomona students. De La Torre Pinedo was studying abroad at University College London her junior year when classmate Gurkaran Singh '19 told her he was going to hear a certain Pomona alumna speak at King's College.

"It was super cool," De La Torre Pinedo says. "Afterwards people were going up to talk to her, but we were able to have a special little interaction because we were Pomona students. So we took a picture with the Cecil."

Other ties endure. Fred Grieman, the Roscoe Moss Professor of Chemistry, came to Pomona in 1982 when Doudna was a student. They played on the Chemistry Department's intramural softball team together—"She played second base and I played first," he says—and now he tells his current students about her.

"You know, she was a really good student, but she wasn't like, 'Oh, that one's going to win the Nobel Prize, and the rest of you aren't,'" he tells them. "Many, many of our students are really good students, and she was one that was a really good student. So this could happen to them as well, or at least they could be doing that level of work. That's an exciting thing for them to contemplate."

It also might be comforting that even a future Nobel winner did not sail through all her coursework, says Grieman, who taught Doudna in physical chemistry.

"She had her difficulties with the material too, but she was the type of person that would just work through it and—you could tell—just loved working through that kind of stuff," he says. "It was that kind of realization that if you find this joy in whatever work it is that you do, it just propels you to go to greater lengths that can lead to things like this."

Pomona professors also carry Doudna's legacy into the community. Grieman and Chemistry Professor Jane Liu have spoken to a local retirement group about Doudna and CRISPR. Olson has even taken the knowledge to area high school students through the Draper Center's PAYS program (Pomona College Academy for Youth Success).

"It's accessible technology for all ranges of students, not only undergrads," Olson says.

Research on Campus and Beyond

Pomona students write senior theses incorporating CRISPR, including the recent work of Norani Abilo '20 and Julián Prieto '20 on vitelline-layer proteins within the *C. elegans* eggshell at fertilization. Several of Johnson's neuroscience students have made CRISPR a central part of their thesis work, most recently using the technique to knock out a family of genes in the fruit fly responsible for synthesizing a sugar called chondroitin sulfate that is important for nervous system development and regeneration. And Christopher Song '16 used CRISPR to remove a gene involved in olfactory behavior from *C. elegans* for his neuroscience senior thesis in Glater's lab. Among current students, Nikita Kormshchikov '23 undertook a research project related to CRISPR last summer as part of RAISE, the funded independent research program that has replaced on-campus research during the pandemic.

As students go forth after graduating, some are finding their experience and awareness of CRISPR to be a major positive.

"It was cool because in my interviews for grad school, that was one of the things that came up," De La Torre Pinedo says. "A lot of them were really excited that I had experience doing CRISPR because for a lot of the labs, it's still fairly new."

Just as important, De La Torre Pinedo says, she takes inspiration from Doudna as a woman. Being a female role model is something Doudna is aware of, as she noted in her remarks during her UC Berkeley news conference the day of the Nobel announcement. The award marked the first time two women have shared the Nobel Prize in chemistry.

"I think it's great for especially younger women to see this and to see that women's work can be recognized as much as men's," Doudna said that morning. "I think for many women, there's a feeling that no matter what they do, their work will never be recognized as it might be if they were men. And I'd like to see that change, of course. And I think this is a step in the right direction."

It was around the time she met Doudna in London, De La Torre Pinedo says, that she realized her calling might be research.

"For the longest time, I wanted to be a doctor," she says. "I come from a pretty traditional Mexican household, and I moved to the States when I was 6, low-income, all that stuff. It was an 'if you're interested in science, you're gonna be a doctor' kind of mentality, because that's going to get you the money and get you ahead in life.

"But then realizing more about all the options and doing research and then seeing powerful women like Doudna up there, doing crazy things—revolutionary, science-changing things—it was 'Oh, we can do all of these things.' That was definitely a moment where I had a chance to take a step back and tell myself that just because everyone was telling me that I should be a doctor, there are actually other ways that I could really contribute to the scientific world. And hopefully maybe have as big an impact one day, with whatever research I end up doing." PCM

Photo by Kristopher Vargas

received her undergraduate education at Pomona College and that she continues to engage in the life of our community. Her sense of discovery, her commitment to rigorous work and her willingness to reflect on its meaning embody some of the highest values of the College."

The Aha Moment

It's hard to say where the road to discovery begins, but a conference of the American Society of Microbiology in Puerto Rico in the spring of 2011 is as good a starting point as any. That's where Doudna, a biochemist specializing in the study of RNA, met Charpentier, a French microbiologist studying how bacteria cause disease.

Both, as it turned out, were intrigued by a type of genetic sequence in bacteria known as CRISPR—which stands for "clustered, regularly interspaced, short palindromic repeat." These odd DNA sequences play a key role in a bacterium's first line of defense against viruses by allowing it to recognize and cut up viral DNA. Charpentier had already demonstrated that RNA played a key role in that process, so it made sense for her to ask RNA expert Doudna if she'd like to team up. Doudna, impressed by Charpentier's passion for her work, immediately said yes.

"We decided there to start working together on one particular element in the CRISPR pathway, a protein called CRISPR-Cas9 that, at the time, was clearly important for protecting bacteria from virus infection, but nobody knew how it worked," Doudna explained. "And so that was the question we set out to investigate."

Working with Doudna's postdoctoral researcher at UC Berkeley, Martin Jinek, and Charpentier's research student, Krzys Chylinski, they began to do experiments. One discovery led to another, and Doudna still remembers the aha moment when she realized how important CRISPR-Cas9 could be.

"Martin Jinek in the lab had done experiments showing that not only could we control the DNA sequence where Cas9 would make its cut in the double helix, but also that we could engineer it to be a simpler system than what has been done in nature," she recalled. "And I think—you know, I remember that moment very, very clearly—that Martin Jinek was in my office, and we were talking about his data. And we looked at each other, and we realized that this could be an extraordinary tool in other kinds of cells because of its ability to trigger DNA repair, and thereby to trigger genome editing. And that really set us on a course that has been just amazing over the last eight years after publishing that original work in 2012."

That first article, published in the summer of 2012 in the journal *Science,* one of the world's foremost scientific publications, exploded onto the scientific scene like a Fourth of July rocket. Within a year and a half, labs around the world had confirmed that CRISPR-Cas9 was a truly revolutionary discovery. As Adam Rogers '92 wrote in his 2015 article about Doudna and her discovery for *PCM*, "Not only was CRISPR a quick-and-easy way to edit a genome as easily as Word edits a magazine article, but it worked in just about every living thing—yeast, zebrafish, mice, stem cells, in-vitro tissue cultures and even cells from human beings."

That's what you call revolutionary. But as Doudna would soon discover, it can be just as hard to rein in a revolution as it is to start one.

The Accidental Ethicist

It's easy to see the almost infinite possibilities for important and beneficial science embodied in the CRISPR revolution. The most compelling of these for Doudna is the potential for curing a range of terrible genetic diseases.

"When I was in graduate school in the 1980s, my lab was located at the Massachusetts General Hospital, where a professor named Jim Gusella was mapping the gene that causes Huntington's disease, which is a terrible neurodegenerative disease that people get usually in their 20s, 30s, 40s, and then they suffer from it for many years with sort of progressive loss of neurological function," she recalled in an interview for *PCM*. "And so being aware of that gene-mapping experiment that was done in the '80s, and then fast-forwarding a couple of decades and realizing that now there was this technology that, in principle, will allow correction of that kind of mutation is really a profound thought."

Early on Nov. 7, Jennifer Doudna sits on her patio, taking congratulatory calls. —Photo by Brittany Hosea-Small

However, there's another side to the CRISPR revolution that Doudna hadn't anticipated.

Previously, the two preferred techniques for gene editing—"zinc-finger nucleases" and "TALEN"—required the creation of custom-engineered proteins that were challenging to make and difficult to use. Buying one could set you back $25,000. Quite simply, the state of the art acted as a brake on the ambitions of aspiring gene editors everywhere.

Enter CRISPR. Today, a starter kit for using this relatively simple and precise technique costs about $65, plus shipping. Suddenly scientists all over the world have the tools in their hands to rewrite any gene they wish, pretty much at will.

What could possibly go wrong?

Later that morning, Doudna sits in a studio at UC Berkeley taking Zoom questions from reporters around the world. —Photo by Brittany Hosea-Small

"People are people," Doudna said in a recent interview. "If you have a powerful tool, there is some type of person that wants to use it for whatever—anything, right? Anything that can be done should be done. I think that CRISPR's been no exception to that. What we've seen with CRISPR over the last few years is that there are a couple of things that've been done with CRISPR that are clearly, I think, irresponsible and shouldn't be done. One of them, probably the one that got the most attention, was CRISPR babies."

What she's referring to is Chinese researcher He Jiankui's announcement in 2018 of the birth of twin girls whose genomes he had altered in vitro using CRISPR. This shocking bit of news ratcheted up the ethical debate around the use of CRISPR and, a year later, landed the researcher himself in prison, with a three-year sentence for "illegal medical practices."

Doudna's reaction to all of this was clear: "Using CRISPR to change the genetics of human embryos, not for research but for actual implantation and to create a pregnancy—I think that clearly is something that just, at least right now, shouldn't happen, because the technology isn't ready, and we're not ready, right? Society isn't ready for that."

But where should the lines be drawn?

Long before He's ill-fated foray into designer babies, Doudna had decided that her personal responsibility in these matters went far beyond simply publishing her work. "I went from being a biochemist and structural biologist, working in my lab on this esoteric bacterial system, to realizing that I needed to get up to speed quickly on how other kinds of technologies that have been transformative had been managed and handled by the scientists that were involved in their genesis. Because things were moving so quickly that the ethical discussions needed to get going very fast."

In 2015 Doudna organized a meeting of top biologists to discuss these issues and became the lead author of their report—also published in *Science*—calling for a moratorium on the use of CRISPR to edit the human genome in heritable ways. Her concerns also helped shape the book she was working on at about the same time. *A Crack in Creation: Gene Editing and the Unthinkable Power to Control Evolution,* published in 2017, wasn't just the story of a groundbreaking discovery and its potential benefits—it was also an exploration of the ethical dilemmas involved in controlling irresponsible use of that breakthrough.

"What I worry about the most," she explained, "is a rush to apply genome editing in ways that might harm people—because of overexcitement or the desire on the part of a scientist somewhere to do something first. I think that can be a very healthy drive in science, or in anything. In human endeavors, you know, people are competitive, and they want to move ahead with things and move ahead with ideas. I think it can also lead to problems, and in this case, I really hope that there's a concerted effort globally to restrain ourselves and do things in a measured and thoughtful fashion that doesn't get ahead of the technology or ahead of the ethical debate."

Of Patents and Pandemics

From the start, one key question has remained unanswered, and even now, eight years later, it still hangs in the legal balance.

Who owns CRISPR?

In a world where seemingly every scientific breakthrough gets ▷

monetized, that's a very important question. Over the past few years, the competition for the legal rights to this revolutionary technology has pitted two main camps against each other in a series of courtroom battles. On one side is a group known as CVC, led by UC Berkeley and based on the work of Doudna and Charpentier. On the other is the Broad Institute at Harvard and the Massachusetts Institute of Technology (MIT), based on the work of MIT researcher Feng Zhang, who published his own work on CRISPR seven months after Doudna and Charpentier, but with one key addition—evidence that it could be used to alter genes inside eukaryotic cells, the kind that make up all plants and animals.

Though Doudna and Charpentier were the first to publish about CRISPR-Cas9, Zhang's team was the first to obtain a patent. Since then, competing claims have been caught up in the byzantine complexities of patent law, as adjudicated by the Patent Trial and Appeal Board, which has seemed to try the Solomonic approach, cutting the CRISPR baby in half and granting each side a piece of the action. This has left a rather confusing dividing line between the two claims while leaving the door open to further challenges. As a result, it's still hard to say exactly who owns what.

Doudna raises a glass of champagne as she celebrates with her research team. —Photo by Brittany Hosea-Small

In the meantime, startups galore have taken CRISPR and run, doing science that has the potential to improve people's lives while banking on future profits. Doudna herself is the founder or co-founder of four startups now focusing on areas of research ranging from diagnostic tests to gene therapies. Other firms are trying to use CRISPR to detect genetic mutations, create customized plants and even grow human-compatible organs inside pigs.

So it's no surprise that CRISPR is already playing an important role in COVID-19 research.

Way back in March, Doudna pivoted in her work to seeking ways to play a constructive role in bringing the pandemic to heel. "When it was clear that we were facing a global emergency with this pandemic back in the early part of this year," she explained, "many of us asked ourselves, 'What could or should we be doing to use our own expertise in this time of real need?'"

Her immediate answer was to start a clinical testing lab for the virus through the Innovative Genomics Institute, where she is president and board chair. "We also raised quite a bit of donor support for this," she noted. "Because of that, we've been able to offer this test for free to many people in the East Bay Area of California, where quite frankly, many of those folks don't have access to health care. They don't have access to testing. A lot of our partner health care organizations service the unsheltered, the uninsured folks that are first responders, people that work in the California energy sector that are keeping our power plants running, police, firefighters, people working in nursing homes."

Those tests don't involve CRISPR, but research on CRISPR-based tests is ongoing. And just two days after the Nobel announcement, a new article in *Science* revealed that one of Doudna's research teams has developed far and away the fastest diagnostic test for the novel coronavirus yet. Though this CRISPR-based test is not yet as sensitive as tests that take a day or more to process, it can detect the virus in five minutes flat. And it can also do something else that no other test can do—quantify the amount of virus in the sample, potentially enabling doctors to tailor their treatment to the severity of the patient's infection.

Eyes on the Prize

On Dec. 10, there will be a big celebration in Stockholm, Sweden, with fanfare befitting a new bevy of Nobel laureates. When Doudna and Charpentier receive their award—whether or not the pandemic permits them to actually step onto the stage to accept their medallions from the hands of King Carl XVI Gustav of Sweden—it will be the first time in history that two women have shared the prize in chemistry.

The monetary value of the prize they will share is 10 million Swedish krona, a bit more than $1 million. However, its value in terms of prestige and history is incalculable. Patents and startups may come and go, but a Nobel Prize is forever.

For Doudna, however, the reward is still in the work.

"I still, in my heart, think of myself as that young girl growing up in Hilo and thinking to myself, 'Gosh, I wonder if I could be a biochemist someday.' I still think of myself that way, right? Honestly, I still have moments when I look around at my colleagues and the people I'm so lucky to work with every day, and I think, "Wow, I'm so lucky.' I just feel grateful. For me, that's what it's about. It really is. It's about doing work that I enjoy, where I feel like I'm making a contribution." PCM

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NEW (AB)NORMAL *in Dating*

Rewriting the Rules of Dating

Dating has always been fraught with emotional pitfalls. Even before the pandemic hit, in an October 2019 survey of singles by the Pew Center for Research, two-thirds of all respondents said their dating lives were going either "not too well" or "not well at all." Almost half (47% to be exact) said they believed dating was harder than it had been a decade before.

That was before quarantines and masks and social distancing added a whole new level of complication. Before everyone's lives moved almost entirely online—including, for many, the trials, disappointments and potential joys of dating.

Taking It Online

Online dating services are nothing new, of course, but they're clearly on the rise as isolation and curiosity continue to drive singles across the country to dating apps. Match Corp—which controls 45 dating brands and more than 60 percent of the dating app market, including such well-known apps as Tinder, Hinge, Match and OKCupid—reported a 15 percent bump in new subscribers during the second quarter of 2020 alone.

Among those trying dating apps for the first time last spring were Will Swanson '06 and Marianna Heckendorn '16.

Heckendorn had a couple of Sagehen friends who had used Hinge, and she enjoyed hearing their stories, but she'd never really been tempted to try it herself. Then the pandemic came along, and she decided to take the plunge. "I was unemployed and a bit bored," she recalls, "and also, I was, like, 'I want to meet some new people.' And so, I wasn't really looking for a relationship. Just chatting with people and meeting them. And also just, kind of, out of curiosity—like, 'What is this dating app?'"

For Swanson, trying a dating app seemed like a natural extension of the rest of his increasingly online life. He chose OKCupid because it offered more information than most sites. "It's not one of the swiping ones—like Tinder," he explains. "Well, yeah, you can swipe with it, but it's more fleshed out than the ones that have just, like, pictures and then a quick little blurb."

The ability to flick through a series of photos as you assess them for attractiveness—a kind of speed-shopping known in the industry as "swiping"—is a common feature on most dating apps. But counterintuitively, the combination of dating apps and pandemic quarantine seems to have had an opposite effect on dating in general. In many cases, it seems to have slowed things down.

Slow Dating

A resident of Seattle, Heckendorn was visiting her parents in Massachusetts when the lockdown began. So when she decided to try her luck with Hinge, she focused on guys back home. That's how she met Javier.

"Javier and I met just a couple of days in and pretty immediately dove into some really interesting conversation," she explains, "We tested it for about a week and then had a phone call, and I think at some point, I explained that I was in Massachusetts and not Seattle. And he's funny. He was like, 'What the heck?' And he wasn't mad or anything, but he was surprised. And I didn't even think of that being an issue because I was thinking, 'Well, if we were in Seattle, we wouldn't see each other anyway because of COVID.'"

Whatever the main reason—COVID or being a continent apart—they took it slow, not meeting in person until five weeks later, when Heckendorn flew home to Seattle. But even so, Heckendorn believes that their relationship actually deepened more quickly because of the pandemic.

"We've actually gotten really close a lot faster than I normally would have," she says. "I think partly that's because there isn't a lot else to distract ourselves with, and also, there's a level of just, like, the only thing we can really do is hang out and talk. It's not like going to a concert or going out to eat or even hanging out at friends' houses. A lot of our dating is conversation-based, which means we're getting to know each other pretty well."

Similarly, it was early May when Swanson first noticed Ruth Siegel's profile on OKCupid and sent her a message, using the app's chat feature. From back-and-forth chat messages, the relationship progressed first to phone calls and eventually to Zoom dates.

"He wanted to go straight to Zoom," Siegel remembers, "and I was like, 'I don't know. That's a little fast for me.'"

"'I'm a conservative gal,'" Swanson interprets dryly. "'I don't go straight to Zoom on the second date.'"

They didn't agree to meet in person until more than a month later. "By then, I knew all kinds of things about Ruth's family," Swanson says. "She knew about my family. We'd had a long time to get to know each other before there was even the possibility of hugging each other or touching each other."

A Question of Trust

"I think it is quite a conflict that people who are single are in—young adults and older adults," notes Professor Emerita of Psychological Science Suzanne Thompson, who has studied how people react to inconvenient health warnings. "And it's all the rewards of dating and relationships—the social contact, the physical closeness, sex—and, on the other hand, you could be exposing yourself to a serious disease. So it's really quite a quandary to be in, and certainly, based on research I've done over the years on denial, in those situations, it's very tempting to assume that this is a safe situation."

Neither Swanson nor Heckendorn, however, took the decision to meet in person lightly.

Heckendorn lives with four housemates, so she first sought their approval before bringing Javier into their shared circle. "I definitely had to check that with them, and they were like, you know, 'We have to trust your judgment.' They had a rule that everyone could have one plus-one. So it was basically me, the four housemates, and then everyone's plus-one."

Before finally meeting in person, Swanson and Siegel took some time to work out the ground rules. "One of the things we had to discuss was how we were going to manage physical contact," Swanson says. "Like, were we going to be able to hug each other on our first date after having talked for a month? And were we going wear masks? How were we going to navigate that stuff?"

"And if we don't wear masks," Siegel adds, "then how are we acting outside of dating each other? Like, how are we interacting with the world so that we can feel confident that we're not going to infect each other—that we can have trust in each other when we're still getting to know each other?"

"And so I think we erred on the side of caution," Swanson concludes, "but when it came to dating, we decided to just go ahead and incorporate each other into our social bubbles."

Simplifying the Rules

Looking back on their own experiences, Swanson, Siegel and Heckendorn all agree that there were some real advantages to online dating during a pandemic. For one thing, the inability to get together in the flesh removed some of the awkwardness and complication of normal dates. "I find a lot of the dating rules to be a little confusing in the first place," Swanson admits. "So one of the nice things about this is that there is kind of a reset. And we had to talk about everything and make everything explicit."

Siegel adds: "It really takes away a lot of the pressures of dating in certain ways. And then there's no expectation for physical intimacy before you really get to know the other person, which I also think is, like, a cool aspect of it."

In fact, they say the challenge of getting to know each other without breathing the same air pushed them to be more creative. "The templates were basically erased," Swanson says. "So you had to come up with your own template for what a date is. And that was interesting and kind of fun, in a way. And so I think it was, like, a good way to get to know each other outside of all the weird pressure that can sometimes be loaded onto dates and a way to see the other person instead of how this person fits into what you were expecting in a normal date."

For Swanson and Siegel, that inspired a series of themed Zoom calls during which they would watch marble racing together or play show-and-tell with a framed artwork or a favorite item purchased abroad. For one date, they set themselves the task of making the same complicated cocktail to drink together at opposite ends of the Zoom line.

Heckendorn has now become an advocate for dating apps. "I think I actually have sold a lot more people on online dating," she says. "I go to church with, like, a lot of folks, and I think there's a feeling, always, that online dating is just about hookup. And it's really not. There are a lot of people who are looking for a sincere relationship."

But for now, at least, her own online dating experience is over. "Javier and I met within days of signing on to the app," she says, "and then we both deleted the app two weeks later. Hinge's tagline is 'Designed to be deleted.' And, at least in our case, it worked out really well."

—Mark Wood

When the Whole World Hit the Brakes

By Nathanael Johnson '01

In 2020, humanity slammed on the brakes, arguably for the first time in modern history.

If you could watch the passing centuries of human movement on an animated map, you would see oceans grow dense with activity as coal replaced wind, as oil replaced coal and as air travel became commonplace.

Other epidemics wouldn't even have registered: In the 19th century, as this frenzy of movement was gaining speed, six cholera pandemics killed millions, but people kept moving. "That was when steam power became common; people were just moving faster and farther than ever," said Joyce Chaplin, author of *Round About the Earth: Circumnavigation from Magellan to Orbit.* With the exception of a few blips during world wars—when travel, trade and fishing fleets were supplanted by battleships—this toy model of movement would have told a single story of acceleration. That story ended in March of 2020, when every government in the world said: "Stop. Stay home."

Of course, we didn't totally stop. A few Airbuses still paint contrails across the skies, though often carrying only a handful of passengers. Farmworkers still rise before dawn to pick the food that feeds the quarantined masses. Medical workers, cleaners, truckers and grocery-store stockers buzz even more urgently than before. Our map of movement hasn't gone black. But it has dimmed more significantly than ever before.

This timeout is momentary. The trend of acceleration has already begun to resume. But the pause will also trigger lasting changes, and Pomona alumni working in transportation already have a sense of the long-term implications.

Rockwell "Rocky" Smith '77 was looking forward to a few uneventful months to wind down his career at the Crowley Maritime Corporation when the realization set in that the pandemic would change everything. Crowley is—by and large—a shipping company: It moves products. And so, when the economy halted, Smith had to ask: Would anyone want to move clothes from the factories in Guatemala to the United States? Would towns in Alaska still need fuel oil deliveries? "In Alaska we were expecting huge impacts," he recalled. "The tourists disappear; there are going to be no cruise ships. No one is going to need fuel."

John Urgo '03 was also at the cusp of a career transition. In February he was preparing for a move to Santa Cruz to become the planning director for the transit system there. But how do you plan for the future of a bus network when authorities are telling everyone to stay off the bus if possible? "My wife and I were like, 'We have decent jobs in the Bay Area. Is this crazy?'" As soon as he landed in his new home, he faced a crisis: Half the routes had to be cut, and it was Urgo's job to pick them. "No one else wanted that responsibility. In some sense it was good to be an outsider and an easy scapegoat to make bad decisions," he said.

Urgo was willing to be the bad guy for a moment. He had bigger concerns: Once people finished complaining about the bus cutbacks and found other ways to get around, would they ever come back? Ridership plummeted by 90 percent.

There's good reason to believe that some of those riders will never return. They'd stay home, not just in Santa Cruz, but everywhere, just as some of the highway commuters are done for good, according to Jarrett Walker '84, author of *Human Transit,* who has become something of a public intellectual on the subject.

"I would be surprised if everyone now working from home ever goes back to the office," Walker said.

Before the pandemic, employees were already starting to schedule days to work from home, and bosses were trying to figure out if they approved of the trend. Society was dipping its collective toes in the ▷

work-from-home water. Then the coronavirus came and pushed us all in. "At our company we discovered in the span of a few days that, hey, this is working pretty well," Smith said. "People can do all this from home. Maybe we don't need offices anymore." His company and many others began scrambling to end leases. Rush hour disappeared overnight. Smith marveled at how quickly it was all happening. "If you think about this history of how we went to open offices and then to cubicles, it took a few years before people got it figured out," he said. "But in the case of COVID, nobody could go to work tomorrow."

Working from home saves companies rent money and saves workers the time and cash they devoted to commuting. Some are bound to decide they like it. That newly homebound workforce will reduce the number of commuters at rush hour. And even if this reduction is small, it will trigger huge changes.

Planners design every road and subway station for the rush-hour crush, Walker said. That means that for the rest of the 20-odd hours in the day, they are overbuilt and underused. It's a ridiculous but unavoidable waste of money. Or at least it used to be unavoidable.

"That billion-dollar cloverleaf maybe doesn't need to get built now," Walker said.

The work-from-home revolution will also decrease the smog and greenhouse gases billowing off gridlocked freeways. In the United States, transportation is the single largest source of globe-heating gases. So the decline in commuting is a boon. But it also has a dark side: As white-collar workers stop commuting—and dispense with collars entirely—they may stop supporting the transportation systems that others still need.

Briana Lovell '08, who manages transit strategy for the city of Seattle, noticed the dramatic decline in transit ridership. She also noticed a change in the demographics of the people on the buses. It was clear in the data she saw professionally and her own observations on the bus: There were fewer white people, fewer ties, fewer sloppy-on-purpose hoodies. But there were still riders: essential workers in scrubs or steel-toed boots, people in heavily worn clothes, people tucking sacks of groceries under the seats.

"The assumption that because a lot of high-wage, white-collar jobs may be able to telework we don't need transit is just incredibly small-minded," she said. "Transit is not just getting people to their jobs, but also to the doctor and to shopping."

The pandemic provides a natural experiment, she said, showing transit officials exactly where and when people ride who truly have no better options. Instead of rush-hour commuter routes, people now are riding buses and trains more uniformly across nights and weekends and in the middle of the day. "For instance, the route that goes by my house: On weekends there's a food bank, and there's a ton of people who take the bus and come back with huge boxes and bags."

In the before times, when well-connected professionals had to slog through traffic jams or endure delays on transit, they would complain about it, and they would sometimes even organize themselves to do something about it. Now that political pressure may evaporate.

"When fortunate people stop having a problem themselves, they tend to stop supporting solutions around it," Walker said.

If that happens, some transit systems will die. The government stimulus package—the CARES Act—funded transit agencies around the country through the end of the year. But that money will run out long before there's a vaccine, so there's bound to be a reckoning. The Massachusetts Bay Transportation Authority, which runs Boston's T, has a half-billion-dollar hole in its budget next year, said Chris Dempsey '05, director of a coalition of nonprofits and regional transportation planning agencies called Transportation for Massachusetts. "That's extremely concerning to anyone in greater Boston who wants to make sure we have a viable transit system in the years ahead," he said.

The T system isn't going to disappear. In big cities a lack of money means that projects will be delayed and maintenance deferred, but transit will endure because it is simply irreplaceable: Trains and buses can move a lot of people in a small space, providing a solution for the implacable problem of geometry in cities. Without mass transit, city automobile traffic goes into a permanent stall, and movement slows to the pace of a brisk walk.

But in smaller sprawling towns, where cars are a viable alternative, the pandemic really could kill transit. In Santa Cruz, where Urgo is trying to plan for the revival of movement by bus, it's possible residents will instead revive their affection for cars, which carry them so easily through, unbound by commuter traffic.

There was one positive change that Dempsey saw—one he hoped would become permanent. Cities and towns across Massachusetts were making room on the streets for pedestrians, cyclists and outdoor dining.

His own bike commute to his office in downtown Boston transformed when the city plunked down new traffic barrels separating cars from cyclists. "It had been honking cars, exhaust in your face, trucks and commuters jostling for space in a turn lane," he said. "Now you cruise by them on your bike."

In Europe the changes have been more profound: Paris is adding 400 miles of new bicycle lanes, and the United Kingdom is spending \$2.5 billion on building better sidewalks and bike lanes—a "once-in-a generation change to the way that people travel in Britain," according to Grant Shapps, the country's transportation secretary. These cities are putting down concrete, not just traffic cones. But even traffic cones provide a glimpse of a different world.

"I think people have come to appreciate the value of being able to take a walk around their neighborhood in a way that maybe they never fully appreciated before," Dempsey said. "The hope is that we experience that, we love it, and we decide to keep it in years ahead rather than giving that space back to vehicles."

Back in Seattle, as the plague months ticked by, Rocky Smith was breathing easier. The pandemic hadn't been the catastrophe for shipping that he had feared. The crash in Alaskan oil demand never came. "A lot of the fuel we sell is subsistence fuel—you gotta have the lights on, and it's running the generators. In the winter you gotta heat your shack in Nome."

And so the ships kept cutting through the water. They kept moving in the Caribbean as well. Sure, there might have been fewer orders from the big clothing companies for the factories in Central America, but there were also new orders for masks and protective gowns. Smith could retire with a clear conscience: He'd leave the company in a time of flux, but not in crisis.

For John Urgo, in Santa Cruz, the future looked much more uncertain. Surveys showed that people had no interest in getting back on the bus. Someday the students would return to the local colleges, and surely they would want to take the bus again—or would they? And when would that day come? Santa Cruz is famously progressive and green, but how long would it support a bus service that very few people were using?

The key to thinking about all this, said Dempsey, is to maintain perspective. The pandemic will end. A new normal will emerge. This isn't—as some have suggested—the end of cities. "You can go back in time to the 16th century and find that people predicted the Black Plague was going to be the end of London," he notes. London—let's just check—still appears to exist. "We need cities. They are places where people innovate and share experiences and meet each other serendipitously and interact in ways that are really important to our economy and really important to our health and really important to our society," Dempsey said.

It sometimes feels like the shutdown will never end. Decades from now, will future historians note this period as another curious blip on the graph? Joyce Chaplin, a present-day historian, isn't so sure. Some changes will endure. Air traffic, which is both a speedy spreader of disease and extremely vulnerable to future shutdowns, will have to evolve. Airplane designers are proposing new ideas—flipping middle seats to face backward, raising dividers above armrests and transparent bubbles around headrests. And Chaplin expects that airlines might need to more nimbly impose flight quarantines to contain future epidemics.

If we return to that imagined map of transportation through the centuries: The modern perspective suggests an inevitable growth in movement up to this point. But, Chaplin said, if we broaden our view to the entirety of human history, we'd likely find other pauses—not because everyone got together and decided to quarantine, but because of past climate change. Surely the ice age and its end changed the way people moved around the world. "Yes, on a planetary scale we are living in an unusual moment," she said. "But it may also be a return—part of a longer cycle that we never left." PCM

NEW(AB)NORMAL in Housing

Affordably Green

When Walker Wells thinks about the future of housing in a post-pandemic world, he sees green. "Green housing comes out of sustainability," he says. It "looks at the relationship between the environment, social equity and the economy."

Even before the pandemic, homelessness was one of the major problems facing the U.S., especially in megacities. The crisis of unaffordability is a problem born of success. As cities like San Francisco, Los Angeles and New York have grown increasingly affluent, the cost of housing has skyrocketed, becoming out of reach for many of the workers who make urban life possible but whose wages have not kept up with housing inflation.

Efforts to address the housing shortage by building subsidized units often run into "not-in-my-backyard" resistance, even from those who recognize and want to solve the problem of the unhoused. Enter "greening"—a word Wells says is purposefully chosen to show ongoing action, and which can appeal to those with a desire to fight climate change. "People conflate older, deteriorated public housing ... with all affordable housing," he says. Yet "green often goes along with quality. A certified green rating gives people confidence that [affordable housing] will be well designed, maintained and attractive."

Wells, a principal at Raimi+Associates who teaches a class on "Green Urbanism" for Pomona students, wants to dispel the notion that green building is too expensive for affordable housing. "Reluctance—maybe resistance—can come from housing advocates," says Wells. "They sense it is a zero-sum game, trading green for units." In fact, he believes that in a world facing climate change and the possibility of future economic disruptions, not building green may be what is too costly. The dollar difference is, in his words, "shockingly low."

Building green only adds about 2 to 2 ½ percent to the project budget. "Higher-quality, more-efficient equipment will save more money than it costs by a factor of three," he notes.

One significant development in affordable housing could be greater use of prefabricated, modular housing units that are built in a mass-production factory, shipped to their final destination, and then "stacked up like Lego bricks," says Wells. In theory, the units could be built more quickly in a controlled, resource-efficient environment. So far, though, Wells notes, modular construction has not yet been demonstrated to be more cost-effective than traditional building methods.

Each year, Wells asks his students to analyze their own ecological footprint—how many Earths does it take to sustain their lifestyle? "A number of them say, 'When I'm out of school, I can do this green stuff,'" he remarks. "But sharing living spaces, being frugal, are all part of being green as well. An LEED [Leadership in Energy and Environmental Design] house on top of a mountain that you drive to in a Tesla may not be more green than sharing an apartment built in the '70s and only turning on the A/C when desperate," Wells says. "When they are in a position to choose on housing," going green "will be a consideration."

Wells sees positive trends continuing in housing, among them net-zero design so buildings offset their energy use, and "biophilia"—reflecting a desire to be connected to other living things. "There's so much innovation going on," he says.

—Marilyn Thomsen

Mail-in Voting, Yes Online Voting, No

Election Day—at least as we knew it—is a thing of the past. The pandemic expanded and accelerated a U.S. shift toward vote-by-mail and early voting that turned Election Day into voting season instead.

And the tradition of Election Night as a television production that inevitably reaches its exciting conclusion with concession and victory speeches before people go to bed on the West Coast? Also kaput. *Bush v. Gore* took care of that in 2000 when the U.S. Supreme Court finally decided the election less than two weeks before Christmas. But delayed results may become increasingly common, particularly in down-ballot races, as voting by mail and slower validation and counting of ballots become more entrenched in American democracy.

"I do think that as a country, we might have to get used to the idea that we don't know who wins the election on Election Day," says Debra Cleaver '99, the founder and CEO of VoteAmerica, the latest in the series of nonprofit voter registration and turnout organizations she has started, Vote.org among them.

Still, in a world where seemingly everything has gone online due to the pandemic, do not expect voting to follow.

"No to online voting. That would be a wonderful way for us to get 160 percent voter turnout," Cleaver says.

"The Internet is horribly insecure. I imagine someone will point out that we bank online. Bank accounts are FDIC insured," Cleaver says. "I think we are very far from online voting, whereas voting by mail, it's so insanely secure. The most secure vote is a vote on a piece of paper. When we vote by mail, there is an actual piece of paper."

Ever strategic, Cleaver considers the vulnerabilities by gaming it out. "It would be very hard for me personally to rig an election held by mail, whereas I mean, my tech team could absolutely hack the … out of an election held online. So yeah, let's not vote online. All the votes will come from Russia. It's a fair question. But I hope the answer to that is never."

Cleaver has been engaged in the vote-by-mail movement since 2008, when she founded Long Distance Voter, a nonprofit dedicated to increasing turnout by making it easier to vote by mail.

Underlying all her efforts is the historically low voter registration and turnout in the U.S.—though Donald Trump became an extremely unlikely ally, driving the massive turnout in the November election. Before 2020, the percentage of the voting-eligible population to cast a ballot in a presidential election hadn't reached 65% since 1908.

"Americans don't need to be convinced to vote. They need to be able to vote," Cleaver says. "It is objectively harder to cast a ballot in the United States than in any other nation with democratically elected leadership. Once you start there, it's just a matter of identifying what's keeping them from voting."

VoteAmerica and other voter sites offer tools to help people register to vote, check their status, sign up for vote-by-mail or find their polling place. In VoteAmerica's quest to remove roadblocks, it came up with another.

"Sixty-seven percent of Americans don't have printers," Cleaver says. "So if you need to print a mail-in form, you can't. At the end of our workflows, for people with these printed mail-in forms, there's now a line that says, 'Click here if you need us to print and mail this form to you.' And we do that."

NEW (AB) NORMAL *in Elections*

Voting by mail has other benefits, including cost savings.

"It's actually expensive to have polling places. You have to pay for poll workers. You have to do all that training with them. You have to map citizens to polling stations—it's just a tedious administrative process," she says.

Despite fears related to the decisions that slowed the U.S. Postal Service, as well as worries about tampering, widespread voting by mail is likely here to stay.

"The first year that a state votes by mail, people are a little thrown off by the process. Change is hard for people. But then it becomes overwhelmingly preferred by citizens," Cleaver says.

"Some lower-propensity people will say that they didn't vote because they didn't feel like they knew enough. But when we move to vote-by-mail, people have more time to research what's on their ballot. And so not only does it increase turnout, it increases the percentage of people who vote the entire ballot, not just top of ticket, because people have time to research all the weird things on your ballot, like judges and ballot measures.

"People prefer vote-by-mail by an overwhelming margin once they have it. I think we'll see more and more states move to vote-by-mail, which is great because it will increase participation."

—Robyn Norwood

NEW (AB) NORMAL *in Religion*

Streaming the Faith

Lo, I will be with you always … even unto the end of a pandemic. Adapting the final words of Jesus for his church might be, well, appropriate—and not just for Christians. In the time of COVID-19, people of all faiths are improvising ways to worship without the danger of gathering.

The Right Reverend Megan Traquair '85, bishop of the Episcopal Diocese of Northern California, is leading and watching the congregations under her care as they pray and pivot during the pandemic.

In keeping with state and county health directives, Episcopalians in California—like adherents of all religions—are not doing worship as usual. The gathering of the faithful is a core value—indeed, the point—of most ideas of church or temple. For Christians, when assembly isn't possible, baptisms, weddings, funerals, communion and ordination services all face constraints—but community has not been not canceled. In a span of two weeks, 60 online churches were launched in Traquair's diocese alone.

"People just rose to the occasion and started to stream worship from their living room or from the church as they were able," says Traquair. "Some of our clergy were older, so they were under quarantine in California. And so they were streaming from their dining room or their living room, and they were leading worship."

Troquair believes online church has actually been a boon for the diocese, not a bust. Attendance has increased. Perhaps, she posits, that's because the fear factor diminishes when you don't have to worry about parking or childcare. And of course, "once you sit in a pew and a sermon starts, you're kind of stuck," she adds. Online church "has been a wonderful way to get a flavor of what worship is like—lots more people are seeing it," says Traquair.

While regulations remain, human connection can't be contained. Traquair tells the story of the "Petunia Brigade" up near Eureka, California, where an older woman who is a church member there is isolated and lonely, with neither a computer nor a cellphone. Enter the brigade.

"One person brought a beautiful petunia and hung it outside of her dining room window. The rest of the congregation takes turns coming over to water the petunia baskets. And when they do, they put in a phone call to her. And they talk to each other on the phone looking at each other through the window under the petunia."

This isn't just a time to look through windows—it's also a moment to take a look into the mirror. Reflecting on what the church will become in days and years to come post-coronavirus, Traquair says its role remains the same. The tools are what have changed. For example, in-person feeding ministries are now preparing sack lunches to go.

"In the Episcopal Church, we understand that we are called to reconcile all people to God through Jesus Christ. And there are many steps in that, but one of the primary steps is connection. And we live out that connection by loving our neighbor and by serving each other."

With the world in the heat of panic, what about the church's temperature? While people are pretty threadbare, Traquair says, one thing remains.

"I would say that a clear feeling I get from folks is one of gratitude. We appreciate what we have now and what we had and what we will have again."

There are prayers in the Episcopal Church that are recited together, and there is no trouble keeping mostly in sync, Traquair says. But if the sanctuary offers unison, Zoom offers cacophony.

"And many of us have embraced that and said, 'Bring on the chaos, that's fine.' But every once in a while, I'll hear someone say, 'We had an outdoor service, and we also had the Lord's Prayer together, and we said it in unison.' And then they get a blissful look over their face, because—who knew that that was something to be so grateful for? But we know now, and we are grateful."

—Sneha Abraham

Reinventing Sports for the Plague Year

For a lot of Americans, sports equals normalcy. So the return of professional sports last summer brought a sigh of relief and a hope that things might be returning to normal, albeit a strange new normal of bubbles, air high-fives and fans checking the day's COVID tests instead of scores. But amid all the weirdness, there was also the comfortingly familiar—the slam-dunk, the slap shot, the corner kick, the crack of the bat.

Yes, pro sports were back.

College sports—not so much.

College Sports in Limbo

All across the country last summer, colleges were faced with the impossibility of holding fall sports as usual in the face of an ongoing pandemic. Unlike their professional counterparts, they didn't have the option of wrapping themselves up in a protective bubble.

"I was on a call the other day," says Pomona-Pitzer Director of Athletics Miriam Merrill, "and a parent said, 'Well, do you think you all will use the professional bubble philosophy?' And I said, 'No, because we're not professional athletes. The students need to be integrated into the community just like the rest of their peers.'"

As the summer surge receded and the fall surge began, just about the only part of college sports that tried to bob and weave its way through the pandemic instead of ducking and covering was major conference football. In the process, America's favorite college sport became the poster child for how not to prevent the spread of COVID-19, as coaches and players—in some cases what seemed like whole teams—tested positive. As this goes to press, 81 games (and counting) had been canceled or postponed due to the virus.

For some sports programs that were already facing challenges, the pandemic proved to be the final straw. Pomona-Pitzer's oldest continuous sports rival, Occidental College, announced in October that it was eliminating its football program after 133 years. Losses like these will be felt by future college athletes—not to mention fans—for many years to come.

But even as the virus resurged in the fall, there remained a slender thread of hope that at least some fall sports at places like Pomona might not have to be canceled—just delayed. Merrill noted that changes in NCAA policy have opened the door to the possible shift of fall athletic seasons into the spring, pandemic permitting. "There is conversation now of 'How can we support competition in the spring?'" she says. "And that would be fall, winter and spring sports, all happening during spring semester. Ultimately, we'd love to provide an opportunity for students to have a sport-related experience."

In the end, however, the pandemic will decide what's possible.

Pro Sports in a Bubble

While college athletics remain in coronavirus limbo, professional sports managed to make a tentative comeback in 2020, but not without some dramatic changes. Venues were empty of fans. Seasons were abbreviated. Several leagues, from the National Women's Soccer League to the National Basketball Association, opted for the bubble approach—sequestering all of their teams in a single location until the season was over.

Mike Budenholzer '92, head coach of the NBA's Milwaukee Bucks, credits NBA Commissioner Adam Silver's office and the NBA Players' Association for working together to come up with a workable solution for basketball in a bubble. "The collaboration between those two groups," he says, "has put us in an environment where we can have a very safe and healthy space and an opportunity to compete and play basketball again and bring NBA basketball back to the fans, and the chance to compete and crown a champion."

Pandemic seasons were also seasons of experimentation. Major League Baseball probably set a record for significant rules changes in one year—and with none of the usual pushback from its famously traditionalist but now famished fans. Seven-inning double-headers? Sure. Runner on second at the start of extra innings? Fine. The designated hitter in the National League? Why not? Expanded playoffs? Absolutely. A World Series in a neutral-site bubble? Whatever. When the alternative is zilch, it's amazing what fans will accept.

How many of those changes will become permanent? No one knows, but with COVID lingering, the smart betting is on most.

According to John Tulchin '83, CEO of The Promotions Department, a company in Torrance, California, that provides in-stadium promotional materials for some 35 pro teams, the pandemic has simply given pro sports a hard shove in a direction it was already headed. "In so many ways, and in our industry too, COVID-19 is mostly an accelerator of other trends, trends that were already going on," he says. "So, you know, things like remote viewing of games and ways to reach fans outside of the arena experience and enhancing the arena experience with technology—all of those things were happening, and this is just sort of ratcheting things up and making them happen quicker. It's forcing teams to move more quickly in some of those areas."

Planning Ahead

Today colleges are looking ahead, trying to plan for a variety of scenarios, including the possibility that the coronavirus never completely goes away. What's possible, Merrill said, depends in part on the sport involved. "The NCAA has categorized sports based on risk level," she notes. "So there are low-risk sports, like golf or tennis, where you can socially distance; you can wear a mask. And then there's medium risk, and then there's the high risk, which is where people are on top of each other, like in contact sports."

For some sports, there may have to be some creative rethinking of rules, in the same way the pros have done. "Like cross country—maybe we can check times for everyone, and instead of everyone starting at once, maybe we have wave one go, and then wave two," Merrill explains. "So there are all of these out-of-the-box ways of thinking about the sport while still staying true to the essence of the sport."

For Budenholzer, it's all about keeping his team going until the fans return, whenever that may be. "When that is, we're not sure," he says. "You know, the league and everybody will have to figure out how we get from here to there and how we can survive and be good and solid financially. But long term, I think, everybody is hopeful that we'll be back with playing in front of the fans, and all that that provides."

Part of the Show

In the absence of flesh-and-blood fans, pro sports leagues have experimented with a range of simulations, from low-tech (cardboard cutouts to fill seats) to medium-tech (recorded crowd noise) to cutting-edge (real NBA fans cheering from virtual seats on giant screens). All that effort to simulate their presence is a reminder that fans aren't just consumers—they're an important component of the show itself. The title of an article in *The New York Times* last summer maybe said it best: "If a Dunk Echoes Across an Empty Gym, Is It Still Must-See TV?"

"We really miss the fans just from an emotional point of view," Budenholzer says. "They're a big part of the game, and you start talking about the business side of it—the role that our fans play in our sport is critical. We're all hopeful that eventually we'll be back to playing in front of fans and stadiums with excitement."

The tentative return of live fans actually began this fall with the start of both major college and pro football seasons and baseball's World Series, but the numbers admitted were only a fraction of stadium capacity. With the virus threatening to hang around much longer than originally expected, teams may have to find a way to survive with sharply reduced levels of ticket sales—not to mention crowd noise—well into 2021, if not beyond.

Though Tulchin's company can't sell the usual quantities of bobbleheads or rally towels right now, he's been having discussions with teams about what it will look like as they welcome back fans with health protocols still in place. "How do you get people in and out without it being crowded?" he asks. "How do you avoid concession lines? So they're having to figure out creative ways around that, with mobile ordering and that kind of thing."

Tulchin's firm had already been helping teams obtain hard-to-find masks and hand sanitizers, both for use internally and as branded outreach to fans. But now he sees a need for a range of new logistical items geared to the pandemic. "There's a whole host of things that we're likely to be involved with—not only things that might be promotional items in the arena, but, you know, how do you promote social distancing?" he says. "You're going to need a lot of signage, a lot of floor decals, and you're going to need personnel that may need to be identifiable. How do you block off seats so that people don't go and sit down somewhere where they're not supposed to? So those are all things that potentially are opportunities for us, although I'd much rather provide 10,000 flags that everybody gets as they come in the gate than this other stuff."

—Mark Wood

The Great Outdoors Is In Again

(Especially in Your Own Backyard)

Last spring the number of travelers passing through our nation's airports, as tallied by the Transportation Security Administration, plummeted from an average of about 2.5 million per day to a low on April 14 of just 87,534—a reduction in airline traffic of more than 96 percent. Hotels suffered a similar debacle, with occupancies plummeting by three-quarters. And after coronavirus catastrophes on a couple of cruises, the whole cruise industry slipped into a kind of induced coma.

Since then, there has been a slight recovery in some sectors—airline traffic has rebounded somewhat, to about a third of last year's norm—but as a whole the travel and tourism industry remains on life-support. What all of this means for the long-term future of leisure travel and tourism is still unclear. But at least in the short term, there are signs of a shift in the way Americans think about travel.

Taking It Outside

Alison Mathes '05, CEO of AVA Rafting and Zipline, first saw those signs way back in May, when the rafting season opened up on Colorado's rivers. "We were a little bit shocked actually at the volume of interest when we opened up in the spring," she says. "We were expecting a tiny trickle of interest, a few people who are a little bit more adventurous, willing to try group activities, willing to try getting out, doing things in public again, but really, it's apparently what everyone wants to do."

According to the U.S. Travel Association, 60% of Americans now consider outdoor recreational activities relatively safe—something that can't be said for most other kinds of outside-the-home entertainment in a time of pandemic. After a slow start, attendance at national parks around the country boomed all summer long as Americans sought to escape from their confinement into the relative safety of the great outdoors.

"I think people really are itching to get outside, both from having been cooped up for so long but also looking for something that they feel comfortable doing, and outdoor recreation seems to tick all those boxes," Mathes says, noting that her outdoor outfitting company remained booked up all summer long.

The biggest challenge, she says, has been ensuring the safety of both customers and staff. "For all of our activities, we have tried to do as much outside as possible. So rather than having people come inside to check in, we're doing outdoor check-ins at all locations, requiring masks on-site. Transportation—we're doing half capacity with staggered seating so that people aren't too close together, keeping all windows open, requiring masks on vehicles, loading back to front and then unloading front to back, so that people aren't crossing each other."

They also do a lot of screening. "We ask at the time of reservation if they're feeling ill or have any symptoms, and then we also ask the day before that they review and make sure that they do not have any symptoms, they're not feverish. And that if they are feeling any of those symptoms, they'll call us in advance and cancel, and we'll give them a full refund in that context. And that seems to have worked. We have not had people show up exhibiting symptoms that needed to be turned away."

One change that Mathes witnessed throughout the summer was a surge in the number of people who were trying activities like rafting, hiking or zip lining for the first time. "It's been nice to see how much people seem to be connecting with these outdoor activities," she says. "And I think a lot of people will continue that after this. Even if, let's say, we magically get a vaccine in the next six months, I think we'll continue to see people looking to get outside and enjoy nature-based activities more than they have historically."

A lot of those newbies, she says, are turning into enthusiasts and investing in the experience. "People are going out and buying a mountain bike for the first time," she says. "They're investing in fly-fishing gear. They're buying a tent and sleeping bags. They're really putting money behind these activities, and I think they'll continue to use that equipment moving forward."

Road-Trip Revival

Another change from previous years, Mathes says, is that her clientele has become overwhelmingly local, as vacationers look around for nearby opportunities they've overlooked in the past. The tourists who used to fly in from the coasts for an outdoor adventure and then fly out again have been replaced by car traffic, mostly from Colorado and neighboring states, though she's seen a few license plates from as far away as Massachusetts. "What I'm seeing is people are really comfortable jumping in a car and driving to a destination to get outside," she says.

As a result, the old-fashioned road-trip vacation seems to be making a comeback. That was the fallback choice of Chuck and Maggie Seaca of Anchorage, Alaska, whose summer plans for a big wedding and a honeymoon in the Galápagos Islands were overturned by the pandemic.

"We were supposed to get married in a big celebration with lots of friends who were going to come out to Alaska," explains Chuck Seaca '14 (known to his classmates as Chuck Herman). "And we had rented out a big campground, and it was going to be a big celebration where everybody camped and had fun. Sadly, that was unable to happen due to coronavirus."

Instead, for their wedding, the couple decided to take a small party of local friends back to the site of their engagement—on top of a glacier in Wrangell-St. Elias National Park. "We hiked seven miles total," Seaca recalls. "Maggie did the whole thing in her wedding dress."

Next they had to make a decision about their honeymoon plans. "We kind of kept up that hope for a while," he says, "and then realized that probably a cruise ship out to the Galápagos, which is essentially the main way to go out ▷

and see them—that it was not the ideal time to do that."

So instead of flying and sailing, they decided to think local and do something neither of them had ever found time to do in their years in Alaska—drive north past the Arctic Circle. "We got pretty lucky with Denali National Park," he remembers. "Normally you're never allowed to drive in on your own. You have to take a shuttle or a big bus run by a tour company. But because there are so few tourists, they opened up a pretty limited permit system to let you drive in on your own."

Self-described nature lovers, the couple tallied a wide range of animal sightings—including 11 grizzly bears, nine caribou, six moose and very few people—during a road trip that took them more than 200 miles north of the Arctic Circle and then, after a few days of camping and hiking, 700 miles back to Anchorage. "While the honeymoon wasn't to the Galápagos like we'd hoped," Seaca says, "we got to explore parts of our own state that we'd never seen and had a delightful time north of the Arctic Circle with the bears, moose and caribou."

Lock, Stock and Barrel

On the flip side of the rediscovered road trip, Mathes says, she's also seen another growing trend—people who are moving lock, stock and barrel to the places where they used to vacation.

"We're seeing a lot more people move out to these vacation destinations in Colorado as well," she says. "I think people, as they're able to work remotely, are shifting their whole lifestyle in order to be closer to the activities that they want to do and closer to the places they would normally spend a lot of money to visit for a week once a year. So it'll be really interesting to see how that shakes out, but that seems to be what people want to do, at least in the short term."

—Mark Wood

A Taste of Scarcity

Half-stocked shelves, meatpacking plant shutdowns, broken supply chains. Food scarcity is not what Americans expected in the 21st century, but it became a reality early in the pandemic. It may be but a hint of global food issues ahead, not only because of more frequent pandemics but also because of climate change.

Jan Low '78 holds a Ph.D. from Cornell in agricultural economics and was a co-laureate of the 2016 World Food Prize for her work on biofortified sweetpotatoes in sub-Saharan Africa. Through Low's efforts with her team, the improved sweetpotato—rich in vitamin A—has become an established part of the diet in many parts of the region, helping save the eyesight of hundreds of thousands of children while strengthening the nutrition and food security of millions of people.

In Kenya, where Low leads the Sweetpotato for Profit and Health Initiative of the International Potato Center, COVID-19 was effectively contained during the first phase of the pandemic, in part because of significant government restrictions. (With a population of about 54 million, Kenya had about 1,100 COVID-19 deaths through early November, according to the World Health Organization.)

"But food prices now are going up, and of course the big concern is the quality of the diet," Low says. "The households that are very poor, obviously, when these kinds of things start to happen, diet is what drops out first. Your animal-source foods, your fruits and vegetables. People eat fewer meals a day, and they rely on their staples."

As the world emerges from the pandemic, Low says, "we should wake up and see the problems in the global food system."

"We recognize that during these peak periods of time, the quality of diets really goes down, particularly for the poorest households. But when we build back, let's try and make it a more equitable, healthier system than the one that's been evolving."

More difficult times lie ahead, Low says. In East Africa, climate change already is contributing to erratic rainfall and unseasonable temperatures that impact agricultural output. A plague of locusts even descended in some areas—floods in others, all in the same year.

Not only the developing world faces food challenges, however. "I think one of the very, very worrying challenges that the U.S. will face is we are the global grain producers," Low says. "Out in the Midwest, those are the fields that feed the world,and they're facing climate change for the first time. A lot of those fields in Iowa are not irrigated. They've had dependable regular rainfall. And some of that is changing now."

Meat is likely to go up in cost as livestock feed grains become more expensive, though people might also move toward consuming less meat out of health and environmental concerns.

"Everybody says, you know, everything's going to dramatically change … but I think behavioral change is very hard," Low says. "So the question will be, unless there's really an investment to change the inequities in our income systems, the inequalities are going to grow more.

"I fear for the United States because I look at the rates and divisions of inequality between rich and poor, and Kenya has the same problem. There's a wealthy class. There is a small but growing middle class. And then there's this huge number of poor people.

"At some point in time, people say enough is enough. So, you know, we're really at one of those critical points."

—Robyn Norwood

Compassion in a Disrupted World

The sudden disruption caused by the COVID-19 pandemic had the potential to upend Shayok Chakraborty's work as a community organizer with the Greater Boston Interfaith Organization. "The whole point of the job is to have one-to-one meetings with people, listen to people's stories and eventually gather someplace in a public fashion," he explains. How could that work continue amid public health restrictions?

Now, Chakraborty '19 has come to see Zoom as a new part of the activist toolkit while the fundamentals of the work remain the same. In his view, there is a potential upside to the upheavals of the year 2020: "People are seeing things they maybe didn't have to think about," he says. "People don't stick around in organizing or activism unless it is real to them in their own life. … There will hopefully be some longer-term base-building, awakening, consciousness."

Three thousand miles from Boston, Darrell Jones III '14 is also working to change the dynamics of power in communities. He had never seen himself as an activist but "tried to do what I do with an open heart and let my open heart lead the way," he says. And although active in the business world, he "always had this other part of me that needed to act, to make compassion a verb in some way, shape or form."

Jones is deputy director of Just Cities, based in Oakland, California, an organization co-founded by the late Congressman Ron Dellums. Jones says that "we like to proceed with something we call transformative justice, where we center the voices of those most proximate to pain."

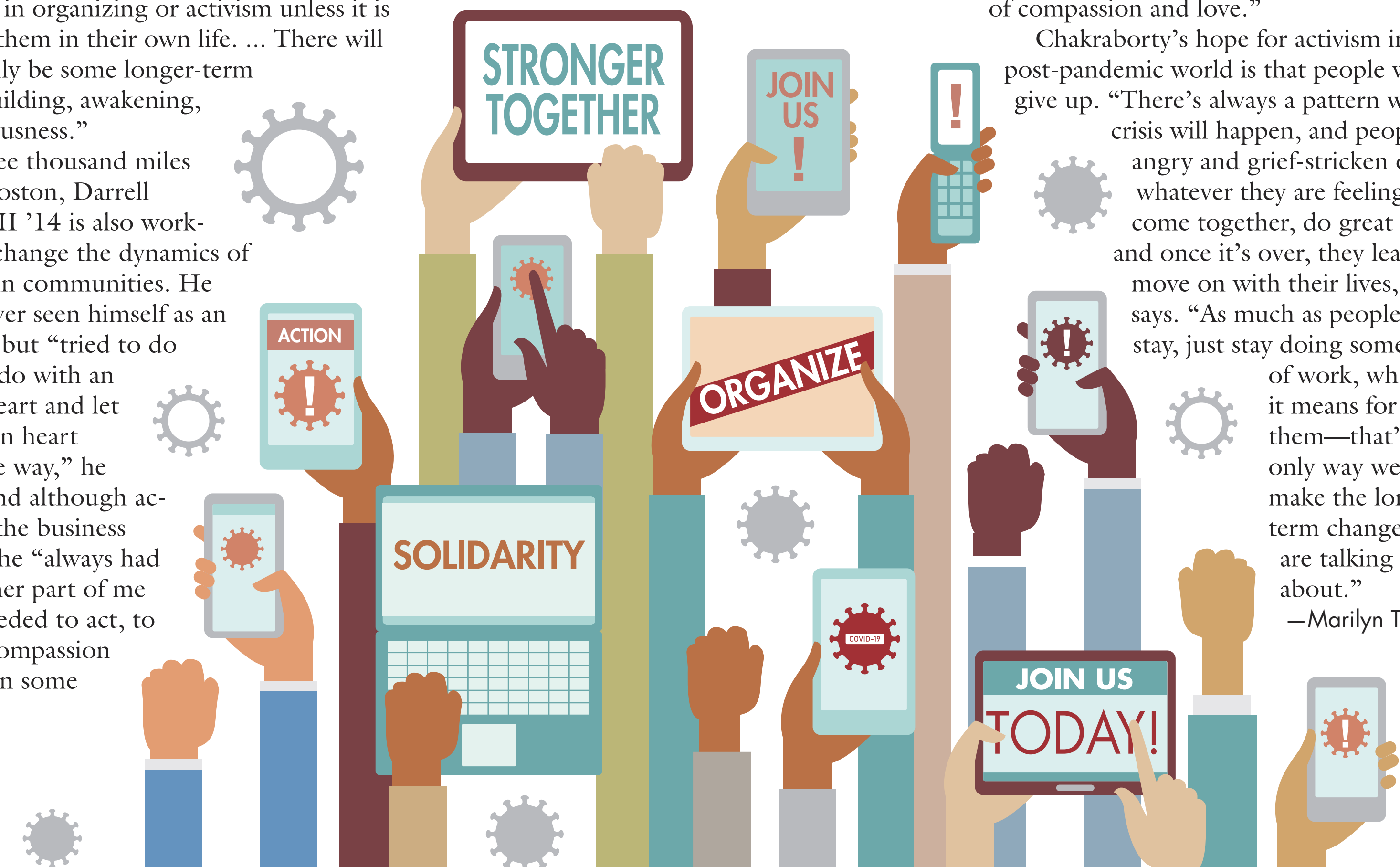
Both Chakraborty and Jones see pros and cons in the role technology is playing in activism. Technology makes possible breadth—"You can reach a bunch of folks very quickly," says Jones. "It allows a lot of voices to be heard." But "oftentimes we sacrifice depth," he adds. "Expertise, truth and authority can go by the wayside."

Chakraborty says that he "used to be super-scornful of online activism"—sometimes called "clicktivism." "There's a strain of activism that is about posting a super-funny tweet, a clever one-liner, and that's it," he says. "That's deeply irritating. A lot of people are going through a lot of stuff. When you make it into saying something smart and get some likes and then let's move on, that's not enough." But, Chakraborty concludes, "I've grown to see there is a real use for it. Clicktivism helps a lot of people learn about these things and get into it."

Ultimately, Jones sees a big part of the future of activism as "an invitation for each individual to go deeper within their own sense of self, in their own heart space, and try to infuse how they show up with a spirit of compassion and love."

Chakraborty's hope for activism in a post-pandemic world is that people won't give up. "There's always a pattern where a crisis will happen, and people get angry and grief-stricken or whatever they are feeling. They come together, do great stuff, and once it's over, they leave, move on with their lives," he says. "As much as people can stay, just stay doing some kind of work, whatever it means for them—that's the only way we'll make the long-term changes we are talking about."

—Marilyn Thomsen



NEW(AB)NORMAL *in the Economy*

Recovery or Reinvention?

By Marilyn Thomsen

Thurgood Powell '10 recalls walking through Times Square at 8:30 on a Saturday evening last July. A newly minted MBA from Penn's Wharton School, he was starting a job at Goldman Sachs in New York. "It was really, really bizarre," he says of the scene. There were a few homeless people wearing masks and gloves, some police on regular patrol—and no tourists. What he remembers is that "the lights felt overpowering. There are just so many of them. You don't notice until that's the only thing there."

The COVID-19 pandemic that emptied out Times Square has also upended the U.S. and world economy in 2020. More than 30 million Americans filed first-time unemployment claims in just six weeks in March and April. Whole industries, such as travel and hospitality, faced sudden crisis. Small businesses struggled to hang on—and many didn't make it. The U.S. Congress temporarily overcame political polarization to pass pandemic response spending bills totaling more than $4 trillion.

At some point—a study by McKinsey & Company estimates it is most likely to be in the second half of 2021 or later—the U.S. will reach herd immunity in the pandemic, allowing some kind of "normal life" to resume, to our great relief. Restaurants will fill up. Students will learn in person again. The lights will go on as workers return to megacity offices coast to coast and around the world.

Or will they? Will a few superstar cities like New York still dominate, post-pandemic? Or will work-from-home continue and make possible an exodus to places less crowded and more affordable? Is globalism dead? What will the new normal in the economy look like?

While some might think the sudden supply-chain disruptions and closed international borders of the pandemic year might take the luster off globalization, Manisha Goel, associate professor of economics at Pomona, says, "I'm a skeptic about that." The reason why goods in various stages of production have been manufactured in multiple ▷

countries and shipped to markets around the world is because it was cost-efficient. "As long as the pandemic is not going to occur every three or four years, people will want to go back to the way they used to do things because that is what made the most rational sense," Goel believes.

"COVID has accelerated trends," says Powell, an associate in Goldman Sachs's Merchant Banking Division and a member of the Urban Investment Group's acquisitions team. "Like delivery. A lot of us use Amazon, but I'd never gotten groceries delivered. Now I can't imagine *not* having groceries delivered. I just have to go to my phone and type in what I want."

Yet there is a price for this convenience, often paid by small businesses. Fernando Lozano, chair of Pomona's Department of Economics, sees a concerning trend in the closure of small and medium-sized businesses during the pandemic. "Larger firms have increased market share," he notes. "Less people are accumulating assets. The distribution of wealth becomes more and more unequal."

Industry consolidation, as smaller players are squeezed out, also increases the power of industry leaders to hire workers with lower pay, less benefits and worse conditions, says Lozano. "Whenever large firms increase their market share, they increase their own bargaining power."

Goel describes a potential K-shaped post-pandemic recovery as top earners, many of whom can work from home, do even better, while those below them on the pay scale fall farther behind. She believes future tax policy needs to be more progressive. "The marginal tax rates for the rich should not be lower than for the middle- and lower-income households," she says. "They should be substantially higher. The trickle-down policies haven't really worked."

Four months into his new job at Goldman Sachs in New York, Powell has never been to the office. He is part of the huge cohort of workers for whom "Zoom" is now both proper noun and verb. "I'm working from home, doing everything I would do in the office. I'm using a technology that makes it so I have the same desktop I would have in the office," he says. "A lot of businesses," he notes, "are thinking, 'Do we need all this office space?'"

COVID-19, Powell believes, is also making employees rethink their own housing situations. Some are asking, "Why am I paying $4,000 a month for a 900-square-foot apartment with a screaming child in the bedroom next to me?" he remarks. For some slice of those now working remotely, the answer is to move to a place like the Hudson Valley or North Carolina or Reno.

Work-from-home, if it becomes widely accepted long-term, offers potential benefits for women, whose workforce participation during the pandemic has dropped to 1987 levels, Goel says. A vital need is accessible, quality childcare. Without it, she says, women dropping out of the workforce "may end up being the new normal."

Academia, like the rest of the economy, has faced major adjustments in the transition to work- and learn-from-home. "In today's world, what is the value of the physical space?" asks Erika James '91, dean of Penn's Wharton School. "I personally believe that the value of physical space resides in the ability to create community and culture and sociability, which also drives performance," she says. "Zoom and Microsoft Teams and all these platforms are great for providing a mechanism to converse and to exchange ideas, but sometimes those ideas happen most creatively when you can build on a thought someone else has, or when you have a thought and walk down the hallway to step into someone else's office and say, 'I've been thinking about something. I want to run this by you.' That option doesn't really exist with these online platforms."

As a member of California's newly formed Council of Economic Advisors, Lozano cannot reveal the group's confidential discussions. But, he says, "it is safe to say all of those in the council are really concerned with equity, with social justice, with how to alter the very perverse consequences of the pandemic." One area he singles out as an urgent need in the new normal economy is equitable access to broadband so that students and employees don't have to go to McDonald's to get online for school or work. Universal health care is another essential change, he believes, in the shadow of a pandemic in which laid-off workers not only lost jobs but their health insurance as well.

Both Lozano and Powell see merit in universal basic income—an idea championed in the 2020 presidential primaries by Andrew Yang. Lozana disputes the idea that "if you pay people, they won't have incentive to work," saying that argument "has been refuted over and over."

The political will to bring about such major changes in access to technology and in the social safety net may well come from young adults in Powell's age group or the current Pomona students Lozano teaches. One of them is Erika James' son, currently a freshman at Pomona. "This moment in time has so fundamentally changed his trajectory in some regards, and what he cares about, and what's important and what's not important," she observes. "I think that will last a lifetime. This is a defining moment for a generation."

Powell notes that millennials, born between 1981 and 1996, have already faced four huge challenges in their relatively short working lives—the Great Recession, housing inflation, wage stagnation and now COVID-19. He tells of four friends, three of whom recently lost jobs—a restaurant manager, a flight attendant and a construction worker. "They feel they can't catch a break," he says. People he knows who have never taken an interest in politics were planning to vote this year. "In the next eight to 10 years, I think you'll see an FDR-type New Deal," he predicts.

Indeed, it is the generations coming into their own that give people like Lozano and James and Powell reason for optimism. "The people joining the labor force right now, I think they are more aware, not only of the environment but of those around them," says Lozano. He sees in his students "a large sense of kinship and also a sense of political activism to make things better."

"It's so easy to frame what we're currently experiencing as negative and bad, and it is for so many reasons, especially for people who have been physically affected by the pandemic," says James. "But it is in these moments that innovation occurs, and the world makes shifts that, over time, are really positive."

Change, James notes, "doesn't feel good in the moment. But there will likely be a day, however many years from now, where we look back on this time and can't believe how backward we were. 'How could we have ever thought or acted or done those kinds of things?'

"Because of COVID," James concludes, "we've had to innovate in new ways that are fundamentally going to change our future. We can't predict what they are now. This is one of those defining moments in history, and that's a good thing. There will be good that comes from this. We don't know what it is yet." PCM

NEW(AB)NORMAL in Childcare

No Longer a Perk

As the country continues to grapple with the COVID-19 pandemic, childcare is among the toughest challenges for parents and employers alike.

Prior to the pandemic, about half of U.S. families reported having trouble finding care for a young child, according to the Center for American Progress. That number shot to nearly two-thirds this past spring as childcare centers closed and other in-home caretakers were told to stay home during lockdown orders.

"Now more than ever, children have come to the forefront," says Shadiah Sigala '06, as she holds her two-year-old on her lap during a *PCM* interview conducted via Zoom.

She speaks from personal experience as the mother of two young children, but also as the co-founder and CEO of Kinside, an app that assists employers offering childcare benefits. When an employer partners with Kinside, its employees can use the service to browse and find reliable childcare options for their families.

Sigala's impetus for her newest entrepreneurial effort was inspired in part by her own experience with motherhood.

"I had a kid while co-founding my former company [Honeybook.com]. I now had a baby, and then my family leave period ended. How do I do this as a working mother? So I instituted the first family-related benefits, policies and organizational structures at the company, which was undergoing a big baby boom. As a company executive I asked myself, what is the experience like for my employees? And how do we show that we're paying attention to this? So definitely, this was born out of personal need and our employees' needs."

Sigala says the pandemic has exposed the fact that the childcare system in America is both fragile and under-resourced. "To give context, about two-thirds of households in the U.S. are dual working households where both parents work," she says. "On top of that, working mothers take on a larger load of childcare. Working mothers average 22 hours of childcare per week, on top of their full-time jobs."

The pandemic has only made things worse.

"It really doesn't matter if you are a frontline worker, an hourly worker, which is usually who suffers the most silently, or if you are middle management or an executive at a company. We're all in this together," she says. "And this is usually where we find an inflection point—where those in power and influence experience a pain point and they feel compelled to fix it."

So what are employers doing to alleviate the challenges of childcare for their employees? "They realize that this is literally impacting their very bottom line," says Sigala. "On top of productivity losses, it is estimated that about one in five working parents is saying that either they or their partner are considering leaving the workforce. Imagine that 20 to 30% of your employees are experiencing this? That is a significant portion of your employee base."

"The most obvious incentive is that employers are offering subsidies for childcare for the first time, especially those employers who have employees that are essential and on the front lines. For example, we're seeing many health organizations, who employ our nurses and doctors, folks who are absolutely essential. In order to keep them going, their employers are offering a childcare subsidy."

Other employers are making their parental benefits more robust. That can mean anything from maternity or paternity leave to support for new parents who are returning to work, including childcare.

Sigala points out that working parents, and particularly mothers, are not only caring for children but sometimes caring for multiple members of their family, whether they live with them or not.

"Employers are really looking at this very holistically. We're finding that suddenly they want it al,l or at least more, when it comes to family benefits. Whereas before, they were considering adding one new benefit; now they're considering several, ranging from mental health to fertility to childcare. And whereas these benefits used to be considered perks, organizations are strategically moving their energy and efforts of family benefits into the 'essential' bucket."

—Patricia Vest

NEW(AB)NORMAL *in Work*

Embracing the Virtual Workplace

As coronavirus cases spiked across the country in the fall, companies continued to recalibrate their work environments. Working from home may have seemed a temporary measure back in the spring, but it's now becoming a more permanent solution for many.

Microsoft announced in early October that it will allow some of its employees to work from home until at least 2021, joining others such as Target and Ford Motor Company, as these companies struggle to figure out how to arrange offices in a way that keeps workers socially distanced and safe. Facebook took it one step further, allowing employees to work from home permanently.

While a move away from an in-office culture makes it harder to create connections and serendipitous moments of creativity, Laszlo Bock '93, founder and CEO of Humu and former head of People Operations at Google, told the *Wall Street Journal* that right now, checking in on how an organization's team members are doing is the most important thing an employer can do to keep them productive. No one should be surprised, he said, that the productivity gains that accompanied the move to remote work have now leveled off as fatigue has begun to set in.

"It was people being terrified of losing their jobs," he told the *Journal,* "and that fear-driven productivity is not sustainable."

Still, the experience with remote work has caused some companies to consider whether their employees need to be in the office at all, says Carol Fishman Cohen '81, chair and co-founder of the career reentry firm iRelaunch. "Whereas face time in the office used to be a priority, the pandemic has forced a reckoning of whether productivity levels are equal or even higher if employees are working virtually."

According to a recent study released by Upwork, it's estimated that an astonishing 14 million to 23 million Americans intend to relocate to a different city or region as a result of telework.

The implications, Fishman Cohen said, are huge, no matter whether you're an employer or an employee. "For employers, if roles are not location-specific, companies can search for talent anywhere in the country, and for some, the world. They can rethink their expenditures on real estate and business travel. For employees, taking location out of the equation means they can live anywhere they want and can move out of high-cost-of-living urban centers to smaller cities or more-remote locations if they choose."

Disruption and Opportunity

The ability of workers to work from home, however, depends on a couple of things. Obviously but importantly, it depends on the survival of the organizations that employ them—and in times like these, that can be a stressful concern. It also depends on technologies that are being adopted in a rush and often stretched to their limits. For organizations and their employees alike, the name of the game during the time of COVID-19 has been coping with the resulting disruptions.

Organizations of all kinds have felt the shockwave from COVID-19 on their notion of business as usual, says Jose Low '96, HR business partner at Port Logistics Group. The degree of impact, however, depends on the industry, the type of organization and its previous level of technology.

Adapting to the challenges has been especially tough for small businesses in which higher levels of in-person, face-to-face involvement and interaction are required to get the job done, according to Low. "Larger and medium-sized companies that have incorporated technology in the last few decades to allow a portion of their workforce to remotely connect in and to virtually collaborate and complete tasks and workflows seemingly have been able to flex and minimize disruptions," he explained.

Organizations have also faced disruption due to their dependence on the global economy, he noted. "Despite individual functions and organizations being able to adapt more quickly through technical capabilities, we've seen and experienced that a disruption in some part of the supply chain network still significantly impacts other areas—affecting the production and delivery of products as well as performance of services."

However, despite all the roadblocks the pandemic has dropped into the world of work, it has also created a few opportunities.

Fishman Cohen works with employers to create "returnships" and other programs to bring back mid- to senior-level talent after career breaks for childcare, eldercare and other reasons. A 'relauncher' herself, Fishman Cohen's return to work at investment firm Bain Capital after an 11-year career break was the subject of a Harvard Business School case study.

"Even before the pandemic, relaunchers typically feel pretty isolated in their experiences while trying to return to work after a multiyear career break," says Fishman Cohen. "Now, with unemployment levels having spiked and still remaining high, 'relaunchers' are feeling more vulnerable, because they picture themselves standing in line behind millions of newly unemployed, which makes them feel their chances of getting hired are even slimmer."

But the pandemic has also created an urgent demand for medical and technology professionals to return to work from retirement or a career break. "Any prior stereotypes and hesitations typically associated with hiring back older workers disappeared in our country's hour of need, and these professionals reintegrated back into the workforce efficiently and effectively," says Fishman Cohen.

For his part, Low believes that the pandemic is giving us a glimpse of what work may look like in the future. "It'll take time, and different areas will experience different rates of change, including traditionally labor-intensive areas that require care and fine dexterity and manipulation."

Workplace Newbies

Of all of the members of the workforce, perhaps the hardest hit are the young people just preparing to enter it. They're the ones Hazel Raja, senior director of the Career Development Office at Pomona College, worries about on a daily basis.

"In terms of challenges, one thing that I don't think people talk enough about is the mental and emotional impact of the pandemic on these young adults," she says. "Our alums and students may be juggling a lot. Some may have different responsibilities off-campus compared to the responsibilities they had when classes were in session on campus; so their ability to set up informational interviews and/or to do career research may be difficult because of their living situation, household responsibilities, part-time jobs, etc. It's no doubt a challenging time for many, but the transition from college is already a bumpy one without a pandemic."

Raja points out, however, that there may also be some upsides to the COVID era that college students and new graduates should bear in mind. Even though current opportunities to connect in person with potential employers and recruiters are limited to virtual programming and events, for some this may become an advantage.

"Students who thrive in an online environment will feel a lot more comfortable engaging behind the screen. This environment removes some, but not all, of the awkwardness and nervousness that may be attached to new introductions," she adds. "Moreover, the pandemic may open up space for students to really consider what they want to focus on as far as career prospects. Many new industries and career fields will be created through this pandemic, and our students' liberal arts education can set them up beautifully for what's on the horizon."

—Patricia Vest

Prioritizing Relationships

"Crickets." That's all Daniel Post Senning '99 of The Emily Post Institute—great-great-grandson of the grande dame of etiquette herself—says he heard about manners the first two weeks after COVID-19 hit the U.S. hard. But etiquette-in-place soon became a thing.

The first manners-related issue that came to the institute was surrounding the touchy issue of the greeting: "Can I say no to a handshake?" Of course, says Senning. For him, that's not a manners question so much as a safety precaution—and safety supersedes etiquette.

What *is* in the realm of etiquette is how you now manage a greeting, he says. He has

NEW(AB)NORMAL *in Etiquette*

a few pointers: Use your voice, use your words, smile with your eyes, and maybe take a cue from another culture. Senning has adopted a gesture that is common in the Muslim world: placing a hand over one's heart and taking a small bow or offering a slight nod. "It's really sweet. It's really personal. It actually sets up a physical boundary—like, I've got you in my heart. I'm holding you close, and I'm not extending my hand."

What about masking? Is it proper to ask someone to put on a mask? Senning says the key is to avoid shame, embarrassment or insults. "This all sounds really obvious but 'Could you please stay away from me? I can't believe you're not wearing a mask,' is a very different thing than 'I'm so much more comfortable when people are wearing masks. Would you mind stepping back a few feet?' Big, big difference in tone, but also in terms of how you're setting up the relationship and where your expectations are coming from."

When the reminder is offered in the spirit of camaraderie, good-natured accountability and humor, a gentle nudge can go far and be appreciated, he says. "The vast majority of rude behavior is unintentional and something someone would self-correct if they were even aware of the effect it was having." ▷

What about Zoom etiquette?

It's a multipurpose medium, says Senning. But there are a few things to keep in mind. Whether it's a business call from your home office (or kitchen pantry) or a personal conversation from your easy chair, you're accountable for questions of discretion and privacy as well as distraction. You must offer the courtesy of explaining who's in the room and whether you will be recording. "When you're broadcasting someone's voice into a room, you should let them know who's hearing it, both as a question of discretion and privacy. They should know your intern is sitting there hearing every word or that you're in a public space where people could be walking through."

And turn on that camera to avoid the pajama assumption. Because if you don't, "it reads very plainly that that person, for whatever reason, isn't prepared, isn't working in a way that they're capable or willing to show what they're doing at that moment."

What you're doing at the moment at the grocery store matters, too. During a pandemic, do you buy that first apple you touch? Yes, says Senning. Knocking on fruit and smelling it is not COVID-appropriate behavior. "It's important to adjust our behavior and take into account others." Doing so demonstrates a measure of grace and poise that sets people apart, he says.

Living in social isolation does raise the specter of people forgetting how to behave around others. Empathy is a skill, and researchers who study it measure vagal tone—the degree to which your heart rate fluctuates based on your mental or emotional state. Vagal tone atrophies as we have less human-to-human interaction. So our capacity to empathize and the systems that regulate our biological responses based on the emotional cues we're getting weaken if not exercised.

But all will not be lost, says Senning, because those systems can also get stronger very quickly. Face-to-face interactions improve vagal tone rapidly. Empathy improves with practice.

So although the pandemic has turned everything inside out and upside down, including proper manners, one thing remains true about etiquette regardless of the times, says Senning: It's about making choices that prioritize relationships.

"I like to advise people to proceed with a lot of compassion for themselves and for the people around them," says Senning. "So, proceed with compassion and understanding, and you'll probably be OK whatever comes up."

—Sneha Abraham

Hollywood Lockdown

By Zan Romanoff

We all have our own memory of the moment when our world abruptly shut down: the cancelled trip or postponed birthday party, the day the office or school announced it was closing its doors. The way veteran film producer Linda Obst '72 recalls it happening in Hollywood is that "Kobe's plane went down, and everything went down with it."

"That was the L.A. zeitgeist horror," she says of Bryant's death in a late-January helicopter crash. "And then all of a sudden, we were told, no reason to come into the office. You all can work out of your homes. The next thing I knew, I was on a Zoom call—and, of course, I didn't know what a Zoom call was."

For Aditya Sood '97, it was a different celebrity who marked the moment: Tom Hanks's COVID diagnosis happened the same day that Sood and his colleagues at Lord Miller Productions had agreed to send their staff home for the week and suspend the productions they had in progress—what felt like just in case, but turned out to be just in time. "We had already decided, but there was something about that that was so earth-shattering, particularly in Hollywood," he says.

The pandemic came at what was already a tense moment for the film and television industry: The imperatives of an ▷

international business and the advent of streaming had already been producing creative, financial and technical upheavals, threatening the multiplex model and the dominance of the traditional movie studio. And yet in lockdown, what is there to do but consume whatever content we can get our hands on? Netflix alone added nearly 16 million paid subscribers globally in the first quarter—double the number it had predicted for that period. That's a whole lot of money to put toward ordering new shows.

The past year has posed unique challenges and offered unique opportunities to the industry, so we consulted Obst and Sood, both of whom have multi-decade careers under their belts, about how lockdown has shaped Hollywood and what the consequences of those changes might be in the years to come.

All of Obst's projects were in development in March, she says, so there were no sets to shut down. Still, she notes, since then it's been hard to move those projects forward when the options for releasing them are so limited. "It's very easy to keep things in development in the best of circumstances," she says. "So now, when there's a real reason not to give a green light… We were in a very productive swarm of shows getting made before this happened, and now much less is getting bought than before."

That's in part, she continues, because while sets are slowly opening back up again, they're more expensive than ever to operate, thanks to the need for COVID plans and protocol supervisors, as well as testing and PPE. That means there has to be a lot of obvious financial upside to a project for it to be worth kicking into gear. "It was very easy for Nicole Kidman to get *The Undoing* back at HBO Max, because it's what HBO Max depends on for you to order a subscription," she says by way of example, adding that Disney's *The Mandalorian* is in a similar position. "If you're part of the mandate of a new streamer, you can get ordered. But if you're not part of that mandate, Netflix doesn't need you." And if you're hoping for a theatrical release, for now, there's nothing doing.

Hollywood execs have long been worried about audiences preferring to stay home and stream rather than pay for an expensive movie theatre ticket (plus parking and popcorn), and there's been some concern that lockdown will only accelerate that trend. But Sood is bullish about the future of movie theatres. "I think that people are going to come out of this really craving that large communal experience in a way they were maybe taking a little bit for granted," he says.

Plus, "there's something different about watching a movie in a theatre. Not just the big spectacle movies either. I remember seeing *The Big Sick* at the Cinerama Dome at the ArcLight, which is not a movie you think you need to see on a 50-foot screen. But it actually was transcendent that way, because all of a sudden, these very simple, domestic, mundane things became larger than life. The dinner scene, when you see it with 300 other people—it's just different than watching it on your home screen."

The biggest challenge for Lord Miller as a company, he says, has been making sure that everyone feels connected to one another—that they aren't just talking work but finding ways to make up for the office camaraderie that usually comes from the hours spent in the same room together. To that end, the company has instituted a virtual movie night. "We're on our third go-round," he explains. "Every Tuesday night we watch a movie together and text about it, and it's been a really nice way for people to stay in contact beyond the work stuff."

Both Obst and Sood have spent multiple decades in the industry, and while they're worried about the changes the virus will bring, they also note that this is not the first time the movie business has weathered what feels like an all-encompassing sea change. To those who think the future of film is iPhone shorts released straight to Netflix, as well as the camps convinced that we're in for a lifetime of mega-blockbuster tentpoles that require a crew of thousands to make, Sood says, "We're never all or nothing. This has happened before: In the '60s, the studios decided, 'We aren't going to compete with television, so we're only going to make the biggest entertainments possible.'

"At the same time, you had this new guard of filmmakers that were making these really gritty independent-feeling movies, even though at that time they were still distributed through the major studios. There was a countermovement that started at the same time. Much of the industry today is grown out of that part of the business, more than the classic studio business."

Obst also notes that, unlike those changes, which were industry-specific, the coronavirus is a global phenomenon. "There's no technological issue that's fundamentally changing the foundation of the movie industry," she says. "It's just that if we can't get people back into theatres, they're going to be watching everything at home. So the question is, how long will it take to get people back in the theatres?"

"This is a sea change for everyone," she says, "that we have to go through with everyone else."

The changes aren't just limited to the limitations imposed by lockdown. Sood points out that one of the most lasting shifts in Hollywood might not come from any of those considerations but from the social unrest that simmered in the U.S. over the summer and the effort to diversify the industry that's come out of it.

"I think there's a recognition that behind the scenes, behind the camera, in front of the camera, in the executive suite, there is a real change that needs to happen," he says. It feels like Hollywood is ready for "changing representation of whose stories are being told, and by who. And the thing that I tell everybody is: More than ever, authenticity is a prized commodity. If there was ever a moment to be how you are, to embrace the stories that you want to tell—this is the moment to really seize these opportunities."

He knows that following a nontraditional career path might feel especially daunting at a moment when everything seems to be in flux, but he encourages those interested in entering the industry to "know it's possible, and that there's been a great democratization of access to this industry that's happened."

"But also know there's a long way to go," he adds, "and the more people land on the beachhead and secure positions, the more they can change that and be part of that conversation."

He particularly hopes that some young filmmakers will find a way to tackle this period in their work, to offer modern audiences a way to digest what's happening to us, but also to memorialize it for future generations. "I think there will be great art that's made about [the pandemic]," he says. "Interestingly, there's very little great art that was made about the Spanish flu—the culture seems to have forgotten that period of time, maybe because it was so traumatic. But it would be nice to have some of that to help inform our thinking today." PCM

Tuning In to Earth Life

Severine von Tscharner Fleming '04 is a national leader in a growing agricultural movement encouraging young farmers to grow food to be sold close to market and serve as stewards of the nation's dwindling supply of irrigable farmland. She is a founding board member of the Agrarian Trust and the director of Greenhorns, a grassroots cultural organization for young farmers that produces an annual literary journal for working agrarians called the *New Farmers Almanac*. Additionally, she runs Smithereen Farm, a certified organic wild blueberry, seaweed and orchard operation in Maine that hosts summer camps, camping and educational workshops. She also speaks nationally and internationally on land access, food sovereignty and the needs and vision of the incoming generation of farmers and ranchers. *PCM*'s interview with her has been edited for length and style.

PCM: Have you seen an uptick in interest in gardening or urban farming—what some are calling "pandemic victory gardens"?

von Tscharner Fleming: There's a massive increase in gardening and local food. CSA [community-supported agriculture] signups are up. Local meat sales are up. Farm-club computer ordering is up. Fresh vegetable sales at grocery stores are up. This has been documented by garden centers, nurseries, hatcheries, inquiries through goodfoodjobs.com, through ATTRA, Americorps, WOOF USA and our own viewership at youngfarmers.org and Greenhorns.org.

PCM: What do you think is motivating people to plant victory gardens?

von Tscharner Fleming: Tending to living beings, tuning in to Earth life—this helps the vibrations. It's an antidote to computer-brain and Zoom bingo. It also seems like tuning in to the crisis is anxiety-creating and debilitating, boring and trying and stressful. We also saw a major increase in home cooking and bread baking. All my friends who sell flour and local grains had huge demand.

PCM: What kinds of problems are people wrestling with as they try to up their game or expand their investment in gardening?

von Tscharner Fleming: Everywhere, the weather is abnormal. Abnormally hot, abnormally dry, abnormally wet. It's an abnormal time for gardening, but diversity and organic compost are very strong tactics overall.

PCM: How sustainable do you think this growing interest in growing our own food is? Is it sustainable or just something people are doing until things go back to normal?

von Tscharner Fleming: Do I think that the world is going back to normal? No. There is no normal; there is history, and there is the future. Unemployment hit 30 percent during the peak of the shutdown. Many of those jobs will not come back. Our economy will be transformed by COVID and by the shakeup of small and medium businesses. This means that there will be more edge. Digital workers will be, as they already are, moving to small towns for a better lifestyle. This alone will provoke a lot of changes. Then there are all the jobs that are imperiled by automation. While many people live in cities and don't have access to land for gardening, those in the suburbs already do, and here in the U.S., our countryside is wide open—so many small towns with main streets are ready to be revived, rural areas that turned into monocultures for export that need to be diversified. Such a lot of opportunity for entrepreneurship and reshuffling of our farm economy.

PCM: Do you think this could have a lasting effect on people's relation to food or to the environment?

von Tscharner Fleming: Every economic crisis provokes changes, especially with the youngest generation, who have to confront the difficult job market. The last big pulse of the 2008 economic crisis was a huge recruitment episode for new farmers with record application rates at the organic training farms.

PCM: What has been your own experience with gardening during the pandemic?

von Tscharner Fleming: In our gardens at Smithereen Farm we are growing more storage crops—corn, potatoes, garlic. I'm freezing as much as I can—tomatoes, squash, kale, greens—mostly because we'd rather have way too much food than not enough, and so we can comfortably host and feed our guests with food we've grown. It feels like a great time to have a stocked sanctuary.

PCM: Do you have any recommendations for people who want to get started on a victory garden?

von Tscharner Fleming: There's marvelous literature on this subject. Go to your public library. PCM

NEW(AB)NORMAL *in Education*

REDESIGNING SCHOOLS

One impact of the pandemic that remains to be seen is its effect on young learners. There are widespread concerns about K–12 learning loss—particularly among children who were just learning to read and students on the wrong side of the digital divide who lacked consistent access to high-speed Internet, computer devices and, in many cases, a suitable space to study.

Still, there are some ways in which the pandemic has been like pressing a fast-forward button for K–12 education.

In California the state budget signed in June included an astonishing $5.3 billion in funds to mitigate lost learning, and Gov. Gavin Newsom signed an executive order directing state agencies to bridge the digital divide so that all students have access to devices and Internet service.

"Basically, the 'I don't have enough money,' 'We can't do it because we don't have the budget for it,' well, that is no longer a viable excuse," says Trang Lai '91, director of educational services at Fullerton School District, a K–8 district where all students are now provided with iPads and mobile hot spots if needed. "And now that we've had it, one of those things in education and in life is that once somebody has something, it's very hard to take it away."

Make no mistake, there are students in California and across the country who still don't have satisfactory home connectivity, but the idea that a device and Internet access are at least as essential to education as textbooks is now set.

Technology alone does not move education forward, however, says Justine Selsing '11, a former elementary school teacher now at Harvard University Graduate School of Education, where she is pursuing a master's degree in technology, innovation and education. "Every school I had worked at had so many tools and had invested so much in those technology tools, but they weren't always being used to do better things," she says.

"A classic example that we've talked about in some of my coursework is districts have invested so much in these smartboards [interactive whiteboards] and then have not made the investment in the human capital—in supporting teachers to use them in innovative ways," Selsing says. "So a lot of teachers, myself included, would use them to do things very similarly to what was being done before. Just inputting the technology is not enough to make those changes."

Now that almost every teacher in America has had a crash course in Zoom methods, some mental roadblocks about technology have been removed. Yet it's not only teachers who've adapted; there's a new realization about what students can do, says Lai, who sat in on a Zoom art class of mostly kindergarten students.

"These are the little ones, and they're at home. And then I saw that on the Zoom screen, one patient child had had his hand up. The teacher finally said, 'Oh, So and So, I see you have your hand up. Do you want to say something?'

"And then you see him reaching to push the unmute button, and then you hear his cute little voice. We've got a little one who knows how to unmute and then share on the screen. I was just floored.

"What will stick? I believe that our belief in the ability of our students, including our very youngest ones, to be flexible, to adapt to the situation, is novel and new. If we didn't have these outside pressures, I'm going to say it would have taken at least another five years for us to believe that our students are capable of a lot more than we give them credit for."

Almost everyone's goal is to get students back in classrooms as soon as possible, but some things seem forever changed.

Parent-teacher conferences and IEP (individualized education program) meetings—the annual planning sessions for students with disabilities that involve parents, teachers and administrators—are simpler and no longer require everyone being in one room.

Students who are home sick might be able to watch class on Zoom or view a recording when they're feeling better.

Some home-schoolers who had increasingly flocked to for-profit online learning might be brought back into the public-school fold with online learning, depending on the family's reasons for choosing home-schooling. And students who would benefit from classes at another school, whether it's because of where they live, special needs or a desire for accelerated coursework, could have more options.

In addition, standardized testing, cast aside in K–12 education last spring out of necessity because of school closings, might be fading.

"I've seen schools where we are relying on this standardized test as the only goal for what our students should be able to achieve instead of thinking about how to really be prepared for the future," Selsing says. "We have catastrophic change coming in our future as humans. And all of our students are going to need to be able to exercise leadership skills, are going to need to be able to research and figure out what's true and false, to talk across an ideological divide, to solve huge problems. And I don't think that teaching them to succeed on the standardized tests is the most important thing.

"I think that we have a lot of hope that this will be a time of redesigning schools to ideally look pretty different from how they looked before."

—Robyn Norwood

NEW(AB)NORMAL *in Mental Health*

Zooming Past the Stigma of OCD

Mental health went mainstream in 2020. Headlines about coping strategies and self-care proliferated as millions of people experienced anxiety, sleep problems and depression related to health fears, financial setbacks and social isolation during the pandemic.

More serious, the Centers for Disease Control reported that drug overdose deaths were on a record pace, perhaps exacerbated by isolation and difficulty accessing treatment. The CDC also reported that the percentage of people surveyed in June who said they had seriously considered suicide in the previous month had more than doubled compared to an earlier survey.

Still, there may be silver linings that emerge from the pandemic in terms of behavioral health care. "I think in many ways, this pandemic has destigmatized mental illness because it's talked about so much more frequently," says Stephen Smith '17, founder and CEO of NOCD, a telehealth company that provides face-to-face online sessions with licensed therapists to patients with obsessive-compulsive disorder. "I think the more we talk about mental illness and the challenges that people with mental illness face, the less stigmatized it becomes," Smith says.

Besides normalizing openness about mental health, the pandemic has brought telehealth into the mainstream. Almost everyone from kindergarteners to grandparents has been on a Zoom call at this point, so the routine has become familiar. Physicians now use video calls for consultations that don't require lab work or physical exams. Yet for mental health therapy, an online session can be even better than an in-person session. Evening and weekend appointments are more readily available to accommodate work or school schedules. And no longer must someone

seeking help worry about being seen entering a psychiatrist's or therapist's office—or worse, sit in a waiting room with an acquaintance in awkward silence.

"We've seen that people are more likely to seek treatment online and open up faster," Smith says. "It just feels less taboo for them."

The bad news and good news is that business is booming for NOCD—pronounced "No OCD," which in addition to therapy provides online support, including peer communities and self-help tools. "During the pandemic, growth has spiked twofold," says Smith, whose company recently raised $12 million in funding to expand its services to all 50 states. Just a year ago, the startup he founded while still at Pomona was operating in only three states.

In depicting OCD, popular culture tends to focus on the meticulousness of a TV character like Monk or the contamination obsessions that cause compulsive hand-washing, but the disorder has many subtypes, involving various kinds of intrusive thoughts—including unwanted sexual, religious or violent thoughts—that result in compulsive behaviors performed to reduce stress.

Yet at a time when all of us are washing our hands for 20 seconds as recommended by the CDC, a person with OCD worrying about getting sick or infecting a vulnerable loved one might take it further.

"What many with contamination OCD will do is wash their hands until they bleed, to make their fear go away," Smith says. "They also might go to a nearby clinic or to the ER to take tests and ensure that they aren't ill, in order to prove with 100% certainty that they won't cause their loved ones to become deathly sick. They do these actions in attempts to stop the crippling fear and reduce the corresponding anxiety, ultimately making their symptoms worse."

NOCD therapists specialize in exposure and response prevention (ERP), a form of cognitive behavioral therapy most often recommended for treatment of OCD. ERP works by intentionally exposing people to situations that provoke their obsessions and distress while preventing the compulsive responses. Yet the model Smith has created has potential for many types of behavioral health issues.

"We've learned that using technology to treat people with mental illness is actually very effective," he says. "Going forward, as we step out of the pandemic, we're actually going to be able to use more technology to get people better. And that allows us to break down barriers that would typically prevent people from getting better in the past."

—Robyn Norwood

NEW (AB)NORMAL in City Life

Rerighting the City

By Char Miller

Second Home, an innovative co-working space in Hollywood, has garnered a lot of attention due to its design features. Sixty pods, which occupy a large parking lot, are embowered with trees, are fancifully painted, and contain large workable windows that produce a sun-drenched environment for those settling in for a day's work.

As its designer assured the *Los Angeles Times*: "One of the best aspects of living in L.A. is to be able to open a door and being surrounded by nature." The region's "close relationship with the good weather, hummingbirds and flowers is lost if you have stairs, elevators or corridors in the way. The goal was to work in a garden, where you can be indoors, but the outdoors is just a door away."

But is Second Home, as has been touted, a sign of our post-pandemic future? The question also might be asked of the al fresco dining craze, in which restaurants and bakeries have crowded out onto sidewalks, or, as in Claremont, commandeered parking spaces and turned them into patios. The same goes for the slotting of bollards into streets to produce instant pedestrian malls in central cities and small downtowns.

Will these quick adaptations do more than provide a rapid influx of consumers and cash to prop up our faltering economy and boost employment? Those two results are essential, but I'm not convinced that the design interventions by themselves offer long-term solutions to the many and enduring social issues that plagued American cities before the pandemic and that have been further exposed by COVID-19's sweep across the urban landscape.

Start with the novel coronavirus's fatal power. As of early October 2020, it has killed more than 200,000 Americans, roughly 20 percent of fatalities worldwide. Those numbers have had a decidedly urban framing. Los Angeles, like New York City, has been among the epicenters in the United States, a location concentration that seems consistent across the globe.

Yet within urban America, some residents have been more impacted than others. The data is glaringly obvious in who has died, where and why—in large part due to age, race and ethnicity, poverty, class, education and neighborhood. The pandemic, in short, has exposed the fault lines that run through U.S. society. These fissures—which include spatial inequities, economic disparities and political inequalities—have segmented the urban landscape.

In this unsettling context, social distancing takes on new meaning. Ditto for Second Home's chic if segregated pods, which only reinforce the fragmented, exclusive character of the modern workplace.

What interventions might we take to alter more radically the inequalities hammered into our built environments? Here are some of the related questions that students in the Environmental Analysis program grappled during the fall semester: Who has rights to the city? Who has unfettered access to a community's public resources—its politics, policies and services, its streets and open space, its healthy and full life?

Social theorist Henri Lefebvre was an earlier source of some these queries, which he used to directly confront the capitalist state that was busily commodifying social relations and controlling city governments. The only effective antidote, Lefebvre argued, was a concerted effort to rescue "the citizen as main element and protagonist of the city that he himself had built" and the subsequent reclamation of the metropolis as "a meeting point for building collective life."

His formative concerns have gained greater urgency amid the global pandemic, but whether they will gain traction is another matter. The news is not particularly encouraging, a point some of my students made when I queried them over the summer about what they were observing, thinking and reading. Luba Masliy '22 sent me a link to architectural critic Benjamin Bratton's sharp interrogation of the pandemic's hollowing out of communal life: "As amenities that were once known as places in the city are transformed now into apps and appliances inside the home, public space is evacuated and the 'domestic' sphere becomes its own horizon."

This inward focus has happened even in highly centralized Moscow, Masliy noted of her hometown. Although its downtown contains the majority of its urban functions—jobs, education, shopping and recreation—it has been diminished in one key sense. Before the pandemic, mass-transit rush hours dominated daily commutes. Now, auto-owning Moscovites have clogged the road. She was skeptical whether this gridlock will fuel demand for a more decentralized urban system and greater diversity of infrastructure and services.

Pauline Bekkers '21 shared Masliy's skepticism. She spent the summer back in the Netherlands and there observed a sharp uptick in the number of motorized vehicles on highways, despite her country's longstanding investment in a robust bicycle-and-transit system. "People have such a negative image of public transportation," she wrote, that "they'd rather take any other alternative." Her hope was tempered: "As much as this is an opportunity for city governments to make radical changes in the urban landscape, it is also essential that we grab this opportunity to change attitudes." She'd start with a real commitment to engage with the most vulnerable communities, a goal that requires urban planners "to completely reimagine what their planning process looks like and how they empower communities to build their own post-pandemic cities."

That same argument is central to a book that Anam Mehta '21 encouraged me to read: Samuel Stein's *Capital City: Gentrification and the Real Estate State* (2019). For Stein, the rise of the "real estate state," a phenomenon he associates with New York and other global cities, is attributable to a rapid accumulation of real-estate capital since the 1980s. This concentration of wealth, he writes in homage to Lefebvre's earlier insights, has secured "inordinate influence over the shape of our cities, the parameters of our politics and the lives we lead."

To break that pattern will require planners and designers to envision a new and healthier urban society. That potential comes with a catch. The real estate state "is most firmly grafted onto municipal governments," Stein observes, "because that is where much of the capitalist state's physical planning is done." This locus means that planners are "uniquely positioned at the nexus of the state, capital and popular power," and as a result, they "sit uncomfortably at the center of this maelstrom." The only force that can help these professionals "unwind real estate's grip over our politics" and give them the freedom to dismantle the social inequities built into the urban fabric is the formation of a series of "mass movements to remake our cities from the ground up."

Were that to occur, then this galvanizing momentum might finally secure Lefebvre's imagined community and our collective and embodied right to cities that are habitable and just—an outcome that is as essential whether we are locked down or opened up.

Char Miller is the W.M. Keck Professor of Environmental Analysis and History.

Welcome, Nathan Dean '10

In July Pomona College welcomed **Nathan Dean** '10 as the new National Chair of Annual Giving. Nathan will serve a two-year term as the College's primary proponent for annual giving and as an ex-officio member of the Board of Trustees.

Working to lead and support fundraising for top priorities, Nathan will partner with the Office of Advancement and the Board of Trustees Advancement Committee to set and monitor Annual Fund goals, assist with volunteer recruitment and serve as a spokesperson for Annual Fund initiatives.

Visit *pomona.edu/give* and support current students through the Annual Fund today!

Say Hello to Alisa Fishbach, our new Director of Alumni and Parent Engagement

The Office of Alumni and Parent Engagement welcomed **Alisa Fishbach** as its new director this past summer. Alisa is a graduate of Occidental College and brings with her to Pomona College more than 30 years of experience in nonprofit and corporate management, event production, fundraising and higher education community building. In addition to her background in higher education, Alisa has extensive experience in theatrical production and promotion, working with Broadway's Shubert Organization and Theatre L.A., Los Angeles' consortium of performing arts organizations. Alisa was born in India and lived there and in Iran and Hawaii before settling in California, where she enjoys life with her family. Alisa shares that, as a product of the liberal arts, her commitment to the philosophy and tenets of the mission of Pomona College is firmly rooted, and she is thrilled to be working on behalf of Sagehen alumni and families. *Chirp! Chirp!*

Save the Dates for Big Sagehen Celebrations in Spring 2021

We are excited to announce two celebratory virtual events coming next spring to bring some joy and rejuvenation to all.

Our annual **4/7 Day** will celebrate and honor Sagehens for their local and global contributions. All are invited for a special day of recognizing and discovering the extraordinary impact that alumni make in so many ways in their hometowns and across the world, bearing their added riches!

On **May 1**, classes whose years end in 1 or 6 are invited to our Pomona College Reunion Celebration. Planning is underway for an online event filled with opportunities for alumni in reunion to gather, reminisce, explore and celebrate! And don't forget, it's never too early to start contributing to your Reunion Class Gift. Visit *pomona.edu/class-gift* to give today.

Watch your email for details on these special spring events! Need to update your contact information? Go to *pomona.edu/update-your-info*.

Shifting to Virtual Alumni and Family Events This Year

Along with many other changes in the pandemic (hello Zoom!), our alumni and parent programs have pivoted quickly to reshape our events and continue to provide opportunities to come together in our virtual world. Thanks to Alumni and Parent Engagement and the partnership of the Career Development Office (CDO), the Benton Museum at Pomona College, the Orange County Regional Alumni Chapter and others, the fall presented a variety of online events for alumni and parents to engage with Pomona. To highlight a few of those:

In September, the Pomona College Orange County Regional Alumni Chapter hosted "DACA 101: The Supreme Court Decision, the Sagehen Community and Beyond," a panel discussion on the current state of the DACA program and the impact on the Pomona community should DACA end. Panelists included:

- **Gilda Ochoa**, professor of Chicana/o-Latina/o Studies at Pomona College and moderator
- **Arely Zimmerman**, assistant professor of Chicana/o-Latina/o Studies at Pomona College
- **Paula Gonzalez** '95, immigration attorney and co-founder of the Pomona College Pro Bono Legal Network
- **Daniel Caballero**, assistant director, First-Generation & Undocumented Student Programs at Pomona College
- **Aldair Arriola Gomez** '17

In October, the CDO and Alumni & Parent Engagement launched "Trustee Talks from the Workplace," a series featuring Pomona College trustees sharing career experiences and advice with students and young alumni. With nearly all industries impacted by current public health and economic conditions, the talks focus on how industries are adapting, as well as job market realities and current and future opportunities. This first talk focused on "Hollywood in the Time of COVID" and featured panelists:

- **Aditya Sood** '97, president, Lord Miller, Pomona College trustee
- **Gregory McKnight** '90, partner, United Talent Agency
- **Ryan Engley**, assistant professor of media studies and moderator

At the end of October, the new event series "Faculty Chirps & Chats," presented by the Alumni Association Board, began with "Six Days Left! A (Most Unusual) 2020 Election." Each month, alumni and families are invited to join Pomona College faculty talks where speakers will discuss their current research, projects and interests. This recent chat featured a close look at the 2020 election and a lively bipartisan discussion about the fight for the White House and the Senate. Panelists included:

- **David Menefee-Libey**, Pomona College professor of politics and coordinator of public policy analysis
- **John J. Pitney**, Claremont McKenna College Roy P. Crocker professor of politics
- **Don Swan** '15, Alumni Association president and moderator

Watch your email for ongoing event announcements and registration information.

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CROSSWORD ANSWERS FROM PAGE 64

ACROSS
1. STRUCK
7. YOUTUBED
15. WOOHOO
16. YOSEMITE
17. URANUS
18. YOGIBEAR
19. MONOPOLY
21. GENT
22. VOYAGER
25. BFF
28. HOLYMAN
29. VPS
32. MOIRE
34. YES
35. LEIA
36. XXXXXXX
39. XXXXXXX
41. ETES
42: KEY
44. EIEIO
45. RVS
46. KENYANS
49. DEN
50. IDSAYSO
51. CALL
53. YARDSALE
59. HAULAWAY
62. DEEJAY
63. ORDINARY
64. IMGAME
65. STINGRAY
66. COAXES

DOWN
1. SWUM
2. TORO
3. ROAN
4. UHNO
5. COUP
6. KOSOVO
7. YYYYYYY
8. OOO
9. USG
10. TEIGEN
11. UMBER
12. BIEN
13. ETAT
14. DER
20. LOL
23. AMEX
24. GASX
25. BMXER
26. FOXTV
27. FIXES
28. HEX
29. VEXED
30. PIXIE
31. SAXON
33. RXS
35. LXI
37. XKES
38. XENA
40. XES
43. YYYYYYY
46. KDLANG
47. ASA
48. NORDIC
50. ILLIN
51. CART
52. AUDI
54. DEMO
55. SEGA
56. AJAX
57. LAME
58. EYES
59. HOS
60. WAR
61. ARA

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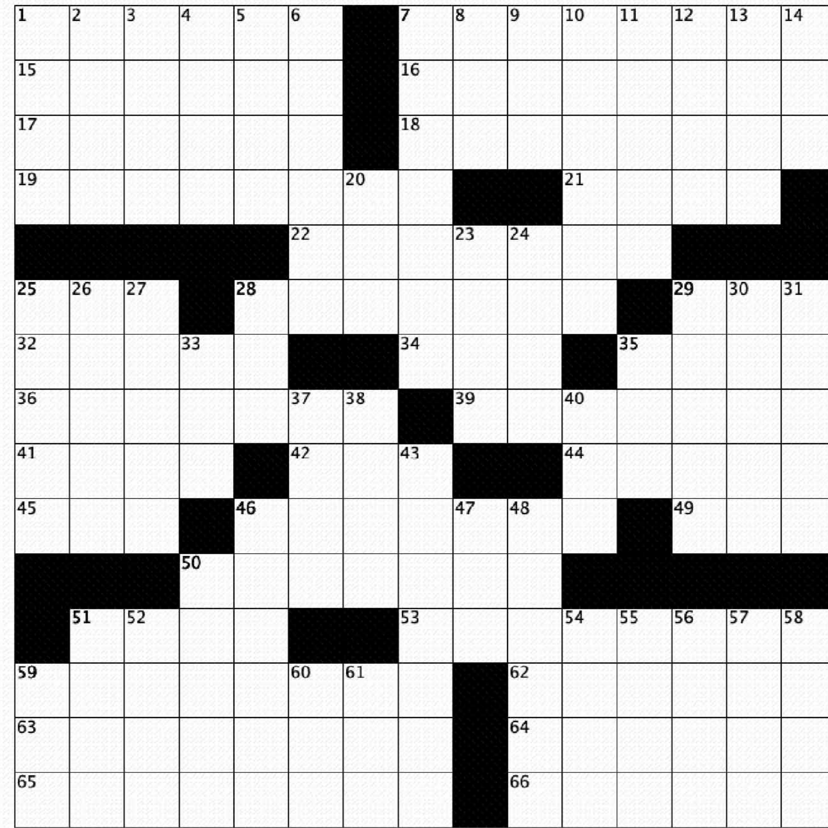
"Plotlines"

By Joel Fagliano '14



ACROSS

1. Failed at the plate, with "out"
7. Looked up a video online, in modern parlance
15. Celebratory shout
16. Home to Half Dome and El Capitan
17. Planet beyond Saturn
18. Boo Boo's friend in Jellystone Park
19. Board game with tiny hotels
21. Mannerly man
22. First spacecraft to leave the solar system
25. Closest bud, in slang
28. Lama or priest
29. Ballot #2's, for short
32. Wavy fabric pattern
34. "I agree"
35. "Star Wars" princess
36. Plot line #2
39. Plot line #3
41. "Vous ___ ici" (French for "You are here")
42. Teacher's answer book
44. "Old MacDonald" refrain
45. Campground vehicles, for short
46. Nairobi residents
49. TV room
50. "Seems that way to me"
51. Match a bet, in poker
53. Event for a bargain hunter
59. Remove with a truck, as garbage
62. Play the music for a party
63. Vanilla
64. "Sure, down to try"
65. Underwater creature with a dangerous tail
66. Cajoles

DOWN

1. Done the backstroke, e.g.
2. Spanish bull
3. Dappled horse color
4. "Sorry, ain't happening"
5. Forceful takeover
6. Balkan territory that declared independence from Serbia in 2008
7. Plot line #1
8. Tic-tac-toe winner
9. Post-Civil War president: Abbr.
10. Model and social media star Chrissy
11. Dark reddish brown
12. "Très ___!"
13. State of France
14. ___ Spiegel, German magazine
20. Relative of "Haha"
23. Visa alternative, for short
24. Antibloating brand
25. One doing flips and tricks on a two-wheeler, informally
26. "Family Guy" network
27. Repairs
28. Put a spell on
29. Irritated
30. Mischievous fairy
31. The "S" of WASP
33. Prescribed meds
35. 61, in old Rome
37. Classic Jags
38. Warrior princess of TV
40. Ballot markings
43. Plot line #4
46. Grammy winner for "Constant Craving," 1992
47. "___ matter of fact ..."
48. From Scandanavia
50. Run-D.M.C.'s "You Be ___"
51. Online shopping icon
52. BMW competitor
54. How-to presentation
55. Sonic the Hedgehog's game company
56. Trojan War hero
57. ___ duck
58. Centers of hurricanes
59. Sounds from Santa
60. Mindless card game
61. Palindromic constellation

CROSSWORD CHALLENGE

This crossword puzzle was designed by Joel Fagliano '14, the digital puzzle editor of *The New York Times* and assistant to the print crossword editor, Will Shortz. The answers are available on page 60.

COLOR ME CREATIVE

For those who have joined the adult coloring craze—or who want to give it a try—here's another familiar image from the Pomona College campus. Send us a scan of your work *(pcm@pomona.edu)* to show off in a future issue.

This rendering of last issue's coloring challenge was submitted by Boston architect **Harriet Chu** '76

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