THE STORY OF

IMAGINATION

THE MACHINE

HOW GEORGIA STATE BECAME THE KEEPER OF AN EXTRAORDINARY RELIC FROM THE EARLIEST DAYS OF ELECTRONICS — PART VIDEO GAME CONSOLE, PART PERSONAL COMPUTER — DESIGNED BY AN UNHERALDED AFRICAN-AMERICAN COMPUTING ENGINEER
CONGRATULATIONS TO
THE GEORGIA STATE ALUMNI ASSOCIATION’S INAUGURAL

40 UNDER 40

Adebola Akinola-Aguda (B.S. ‘15)
Lisa Marie Bristol (J.D. ‘09)
Kirk Brown (B.A. ‘08)
Tosif Chouhan (B.B.A. ‘05)
Darren Clay (B.S.E. ‘10, M.Ed. ‘11)
Odie Donald, II (B.A. ‘03, MBA ‘12)
Desron Dorset (M.S. ‘11)
Darren English (M.A. ‘14)
Christopher Escobar (B.A. ‘08, M.A. ‘13)
Brittany Garner (B.S. ‘14, M.S.W. ‘16)
Ben Gibson Jr. (B.B.A ‘03)
Cheryl Johnson (B.A. ‘08, M.A. ‘11, GCPH ‘12)
Heval Kelli (B.S. ‘06)
Grace Lee (B.S. ‘12)
Wendy Lewis (M.B.A ‘07)
Jennifer Lind (M.P.H. ‘12)
Natalia Long (B.B.A. ‘11)
Bettina Love (Ph.D. ‘08)
Eric Lucan (M.B.A. ‘05)
Ana Maria Martinez (J.D. ‘09)

Petrina McDaniel (B.A. ‘01, J.D. ‘04)
Alexander Membrillo (B.B.A. ‘04)
Manoj Mishra (J.D. ‘02)
Ashley Moore (B.A. ‘11)
Carrie O’Brien (B.B.A. ‘07, J.D. ‘14)
Justin Palmer (B.B.A. ‘05)
Sucheta Rawal (B.B.A. ‘02, M.S. ‘04)
Terrance Rogers (B.B.A. ‘10)
Barbara Rogers (M.B.A ‘08, M.H.A. ‘09, J.D. ‘15)
Firat Sarsar (Ph.D. ‘14)
Kyle Stapleton (B.B.A. ‘09, MBA ‘12)
Dylan Stone-Miller (B.A. ‘13)
Henry Swofford (B.S. ‘08)
Brandon Talley (M.P.H. ‘14)
Eric Teusink (J.D. ‘08)
Hanan Waite (B.S.N. ‘08)
Kevin White (M.S. ‘09)
Benjamin Williams (B.A. ‘13)
Jason Winston (B.B.A. ‘04, M.S. ‘12)
Ben Yin (M.B.A ‘09)

FOR MORE INFORMATION, VISIT PANTHERALUMNI.COM/40UNDER40
CLASS OF 2019 NOMINATIONS OPEN FALL 2018
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ON THE COVER:
3-D ILLUSTRATION BY WILLIAM DAVIS (B.A. ’11)
I’M EXCITED TO REPORT work has begun on the Greenway, Georgia State’s signature greenspace that will thread through the core of our Atlanta Campus to recreate Library Plaza and connect Woodruff Park to the Parker H. Petit Science Center.

The Greenway will comprise a necklace of landscaped quadrangles and courtyards that link to surrounding streets and public spaces. Replacing long stretches of concrete with beautiful outdoor study and social spaces, we will dramatically improve the student experience while contributing to the revitalization of downtown Atlanta.

I originally announced this plan to make our campus a far more inviting, attractive, safe and livable space in fall 2013. The project has been welcomed enthusiastically, and we’ve spent several years working out the details.

Thanks to the hard work of our Government Affairs office, we secured $5 million from the State of Georgia last year and can now begin work on the multimillion dollar, multiphase project that first calls for the demolition of Kell Hall.

Constructed as a parking garage in 1920, acquired by Georgia State in 1945 and transformed into a classroom building using war surplus materials by 1946, Kell Hall was the university’s first permanent building and has endured as a longtime icon of the university’s enterprising spirit. Nearly a century after its construction, the building will make way for the next step of our university’s remarkable ascent.

Students will climb its ramps for the last time this spring, and we hope to begin demolition in December. We are already relocating offices, including the university Post Office, which has moved to a storefront on the first floor of T Deck at Edgewood and Peachtree Center avenues.

Once Kell Hall has been removed, future phases will call for extensive modifications to Library Plaza as well as Arts & Humanities, Langdale Hall, Library North and Sparks Hall. Construction timelines may depend on another significant campus improvement, the redesign and replacement of the Courtland Street bridge between Gilmer Street and Martin Luther King Jr. Drive. Work is already underway, and the new bridge, which will feature aesthetic and safety improvements, should open by November.

With 17 buildings added to our downtown campus since 2010, Georgia State’s expansion and growth have been breathing new life into the city’s core for years now. However, this latest project — the cornerstone of our campus master plan — takes our commitment to the city of Atlanta even further. It transforms entire blocks of major downtown streets to provide a vibrant gathering place and pedestrian thoroughfare for residents, workers and visitors as well as our students, faculty and staff.

We call Georgia State a university without boundaries partly because it blends so seamlessly into the city surrounding it. When we create a more welcoming and productive environment for our students, faculty and staff, we are contributing once again to the revitalization of downtown Atlanta. It is part of the vision and mission of a leading modern urban research university.

Sincerely,

Mark P. Becker
President
CLASS NOTES

Your fellow classmates are a successful bunch. From mayors, to marketers, to published authors, business owners and “Jeopardy!” winners, there are Panthers out there doing fantastic things. Got a promotion? A new addition to the family? Go ahead, brag a little. Post your good news and read about your fellow alumni by visiting news.gsu.edu/magazine/class-notes. You can share Class Notes through Facebook, Twitter and LinkedIn.

Keisha Lance Bottoms J.D. ’94

Keisha Lance Bottoms (J.D. ‘94) has been elected the 60th mayor of Atlanta. Prior to her election, Mayor Bottoms served as Councilmember of District 11 for nearly eight years. In addition to her service on the city council, Mayor Bottoms was executive director of the Atlanta–Fulton County Recreation Authority.

NEW LOOK

Thanks to everyone who participated in our recent online readership survey. We’ve made a few changes based on your feedback. As always, we want to hear from you. Let us know what you think of the look of the new magazine, the stories we tell and anything else. Send your letters to the editor to magazine@gsu.edu.

THE MAYOR

Former Atlanta mayor Sam Massell (B.C.S. ’51) (center) sits for a picture outside his office at Buckhead’s Tower Place 100. Photographer Ben Rollins (lower left) crafts a shot while editor William Inman (right) chats with Massell. Read the exchange between Massell and the author of his new biography, Charles McNair, in “Atlanta Has a Sam” on p. 14.
after graduating with her journalism degree, Saffer started a teaching certificate program in Thailand. You pay for it, train for a month, earn the degree and have a guaranteed job on the other side. So, she threw herself into Thai language and customs for the year.

At the end of the year, Josalin returned to Atlanta and found herself grounded back where she’d started — a tough break after having already flown the coop.

“I graduated, I lived abroad, and now I was back in my home city working at a burger restaurant,” Saffer said. “So that really kind of hit me hard. Then I decided, you know what? I know who would hire me — the rest of the world.”

So she set out again, this time to the Czech Republic (recently renamed Czechia), where she taught English. That’s where she met Filip, a Czech man, and the pair moved to Wellington, New Zealand, together in July 2016 on working holiday visas. In Wellington, she’s putting her Georgia State degree to work as a writer and Web content editor for a travel media company.

Saffer says that, ultimately, she found a sense of home in her partnership. “I realized that I’ve got this great relationship and this relationship is willing to move with me. That was when I kind of accepted that this is my home,” she said.
After three and a half years reporting the news for the Champion Newspaper in Decatur, Ga., Daniel Beauregard decided to explore the finer side of writing — poetry. He was accepted into a master’s degree program for poetry at a university in Colorado, but before he enrolled, he moved to Buenos Aires, Argentina.

“I didn’t really look at it as this giant leap of faith sort of thing,” Beauregard said. “If it didn’t work out, I’d just head back home.”

Like Saffer, Beauregard initially found work teaching English, but he’s carved out his career there in creative writing.

Alongside his old college buddy Alex Gregor (B.A. ’11, M.A. ’14), Beauregard co-founded OOMPH Press, a literary journal based in Buenos Aires and Rome that focuses on translating poetry from around the world into English.

Beauregard also met his wife, an Argentinian woman, while living in Buenos Aires, and the couple plans on staying for the foreseeable future.

“Home is where you feel most comfortable,” he said. “Whether that’s a house or a thousand miles away from where you were born.”

Beauregard does have other options to relocate if wanderlust strikes again. He was born in Canada and has citizenship there, and thanks to his Sicilian-born grandmother, he’s eligible for Italian citizenship, too.

Coco Hunter (B.B.A. ’10), Zug and Geneva, Switzerland

despite a lifelong dream of trotting the globe, Coco Hunter didn’t study abroad in college. After graduating with dual degrees in marketing and managerial sciences and earning a certificate in hospitality administration, she bided her time working in sales and marketing.

Yearning for a break from the grind and itching to travel, Hunter abruptly quit her job to take off on an adventure.

Hunter’s travels led her to 39 cities in 17 countries. While sitting in a bar in Paris, she met some executives from a French cosmetics company. Hunter could converse with them — she took French at Georgia State — and she played up her marketing background. They offered her a job on the spot, but there was a catch: She would have to move to Dubai.

The job kept her on the road, traveling across the Middle East for work. What eventually grounded her? Like Saffer and Beauregard, it was love. She met her boyfriend while traveling and eventually got tired of the long-distance commute to see him in Switzerland. Now she runs a travel blog called “Coco Gone Global” and freelances for travel websites and apps, writing hotel and restaurant reviews and more.

“After having such freedom as a digital nomad, I have no idea how I’d ever return back to corporate life,” she said.
Atlanta Film Society Executive Director Christopher Escobar (B.A. ’08, M.A. ’13) spliced his love of cinema and passion for preservation when he helped buy the iconic Plaza Theatre.

BY JEREMY CRAIG | PHOTO BY STEVE THACKSTON

THE SHOW MUST GO ON

With an office covered in classic film posters and Atlanta-themed art and curios, Christopher Escobar can’t hide his love for the city and great movies. Escobar is the executive director of the Atlanta Film Society, and nothing illustrates his devotion better than his beloved Plaza Theatre at the corner of Highland and Ponce de Leon avenues.

Taking a personal interest in Atlanta’s cinematic heritage, Escobar teamed up with some friends last fall to purchase the venerable movie palace, which has survived the city’s relentless change for more than 70 years.

“The Plaza is in a position — and has an obligation — to preserve the cinematic experience,” said Escobar, who earned a place in the Georgia State Alumni Association’s inaugural “40 Under 40” class of distinguished alumni.

A single-screen cinema showing classic and independent films, the Plaza occupies a special niche in Atlanta — a quirky institution outside mainstream culture that locals adore.

“For people whose religion is movies, the Plaza is their temple,” Escobar said. “And service is not on Sunday mornings but on Fridays at midnight for ‘The Rocky Horror Picture Show.’ That’s part of the magic, things you can get there and only there.”

The Atlanta Film Society — which keeps its offices on the 10th floor of Georgia State’s 25 Park Place Building — organizes the annual Atlanta Film Festival, which made the Plaza its home base in the early 2000s. Escobar has been the executive director for the Atlanta Film Festival since 2012. He says the decision to buy the Plaza was due in part to the ties between the film society and the theater, and his desire to keep the festival there.

As the nearby Freedom Park testifies, preserving special buildings and unique places has rarely been Atlanta’s first priority. It’s a beautiful place now, but it used to be a thriving neighborhood full of historic houses called Copenhill. The district was razed in the 1970s to make way for a new freeway interchange. After citizens revolted, the freeway plans were scrapped, but the damage had been done. To cover the scar, the state turned over the land to the city, which turned it into a park.
The theater may have survived the bungled freeway project, but it’s still at risk. The community has long feared the Plaza could also get lost to development.

“Sometimes, Atlanta isn’t just ‘the city too busy to hate,’” said Escobar, echoing a famous 1960s slogan. “It’s also the city too busy to remember.”

For Escobar, development isn’t necessarily bad, but Atlanta needs more balance to preserve those things it can no longer replace.

“For people whose religion is movies, the Plaza is their temple.”

“These issues don’t have simple answers,” Escobar said, “but I have a sense of responsibility to do everything I can to not only save something special but also make it thrive.”

That’s why he and his partners have already started investing in upgrades for the facility. They’ll introduce better technology and restore the theater to its original two-screen design.

Atlanta provides a perfect case study for Escobar to emulate as he leads the Plaza going forward — another historic venue that was nearly lost, the Fox Theatre.

Outspoken Atlantans saved the ornate performance hall from becoming just another parking lot. Decades later, the Fox is a point of civic pride and a major institution that hosts the city’s top acts.

“I’d like the Plaza to thrive like the Fox does,” Escobar said. “People might go years without buying a ticket, but they love that it’s there. They have a sense of ownership, and it’s a major economic driver for the neighborhood and the whole city. I want the Plaza to be for cinema what the Fox is for live performance.”

WINNING WAYS
University senior leader garners national recognition for strides in higher education.

Timothy Renick, senior vice president for student success, was named among the winners of the 2018 Harold W. McGraw Jr. Prize in Education, which recognizes outstanding individuals who have dedicated themselves to improving education through successful, innovative approaches.

A prestigious award, the McGraw Prize is administered through a collaboration among The Harold W. McGraw Jr. Family Foundation, McGraw-Hill Education and Arizona State University.

McGraw prizes were awarded in three categories. Renick won the higher education prize for using analytics to increase graduation rates and eliminate achievement gaps at Georgia State.

“This year’s winners exemplify the highest standards of educational leadership,” said Harold McGraw III, the former chairman and chief executive officer of The McGraw-Hill Companies. “They’ve also delivered outstanding and measurable results that have improved achievement and created opportunities for students in the classroom and beyond.”

WHAT’S IN A NAME?
Lewis College’s new name is a nod to growth.

In January, Georgia State kicked off a yearlong salute to the 50th anniversary of the Byrdine F. Lewis College of Nursing & Health Professions. As the longstanding program celebrates its milestone birthday and decades of contributions to healthcare in Atlanta, it also celebrates a new name.

On Aug. 1, 2017, the university’s Administrative Council voted unanimously to change the program’s name from “Lewis School” to “Lewis College.”

“The new designation clarifies the college’s organizational structure and reflects its growth in academic program offerings and student enrollment,” said Nancy Kropf, professor and dean of the Lewis College.

Founded in 1968 as part of the School of Allied Health, the Lewis College has graduated more than 11,200 health professionals, educators and researchers. It houses Georgia’s largest nursing and respiratory therapy programs as well as the state’s oldest physical therapy program.

In 2003, the School of Nursing was named to honor Byrdine F. Lewis, a longtime bedside nurse and mother of Kenneth Lewis (B.A. ’69), former chief executive officer and president of Bank of America.

In 2011, the newly consolidated School of Nursing & Health Professions took on the Lewis name.
**BRAIN POWER**

*New research center focuses on inflammation in the brain.*

Georgia State scientists are on a mission to find the connection between brain swelling and serious health complications such as hypertension, stroke, depression and Alzheimer’s disease. They’re conducting the research in the university’s new Center for Neuroinflammation & Cardiometabolic Diseases with founding director Javier Stern at the helm. Stern, a neuroinflammation expert, joined the university’s faculty last year.

“The center will unite faculty in areas of existing research strengths, including neuroscience, immunology, cardiovascular health and obesity,” said James Weyhenmeyer, vice president for research and economic development.

As the center works to convert laboratory breakthroughs into new clinical tools, it will also provide mentoring and training for new graduate students, postdoctoral fellows and undergraduates.

**HIGH MARKS**

*Georgia State earns lofty rankings in national surveys on student outcomes.*

Georgia State ranked first in the state and 25th in the nation in a Brookings Institution study of social mobility, which ranks institutions on how effectively they enroll students from low-income backgrounds and how many of those students graduate and find gainful jobs.

In addition, the university was among the top 100 public colleges and universities in the U.S. in Kiplinger’s Personal Finance magazine’s Best College Values rankings. Military Times also ranked Georgia State ninth in the nation for support of military learners and their graduation rates.

“Every year, Georgia State helps transform the lives of thousands of students,” said Timothy Renick, senior vice president for student success. “It also helps to create a skilled workforce, higher employment levels, a better tax base and cutting-edge research that spurs economic growth.”

**STADIUM ROCK**

*The Foo Fighters are going to perform the first concert at Georgia State Stadium.*

In support of their ninth studio album, “Concrete and Gold,” which debuted at No. 1 on the Billboard charts last September, the band will take the south end-zone stage at 7 p.m. on April 28.

“This will be a great concert to showcase our facility,” said Charlie Cobb, Georgia State’s athletics director. “It will be the first of many at the stadium.”
Karen Graham’s new work space is a different world than the Fox 5 set of “Good Day Atlanta,” the popular morning show she hosted for seven years. In her new digs, there’s no plush leather couch, no array of lights and cameras, no perfectly coiffed TV personalities bustling around.

She wouldn’t have it any other way.

Graham, who has been in front of the camera since 1997 as a sports anchor and high-profile morning show host, is now the executive producer of Sign1News, a digital news network that delivers the day’s top stories in American Sign Language (ASL).

The network has been on the air for six months and broadcasts in 80 countries. As a CNN affiliate, Sign1News uses ASL to tell the same stories seen on CNN.

“We track where we’re being viewed, and we know there’s someone in Norway watching us,” Graham said, laughing.

The set of Sign1News is modest. There’s one small green screen, a couple of standing lights and one camera. The industry-savvy Graham says the lean operation is by design.

“These days, you don’t need an elaborate studio,” she said. “We’re taking advantage of technology to shake up how news is delivered.”

All the Sign1 anchors and some of the production staff are deaf. One of Graham’s goals is to maintain a deaf majority among her employees.

“The deaf community is very tight,” Graham said. “We have to build trust, and the news is all about building trust.”

Graham announced she was leaving Fox 5 Atlanta in 2016 after 16 years as one of the network’s leading anchors. Her decision left many wondering why the respected journalist would suddenly leave at the top of her game. While she didn’t reveal her post-Fox plans, her farewell video, communicated entirely in ASL, gave an inkling.

When people witness Graham’s proficiency in ASL, they often want to know about her connection to the deaf community and whether she has a loved one who’s deaf or hard-of-hearing. The answer is no.

In fact, Graham initially resisted what she considers a spiritual attraction toward sign language. She enrolled in an ASL class at Perimeter College in 2006, intending to take only one class.

But Graham says she absorbed the language rather effortlessly and continued taking classes until she had completed the entire program.

Jon Shive, a former ASL instructor at Perimeter who now teaches sign language interpreting at Georgia State’s Atlanta Campus, was one of Graham’s favorites.

“She is amazing. It’s safe to say she made an A,” Shive said, noting that’s not an easy task in a program as rigorous as this one.

“The deaf community has a special place in my heart, so I knew my next career step would fall in this area,” Graham said.

She’s speaks with both conviction and peace. She says she knows she’s on the right track and doing exactly what she’s supposed to be doing.

“I can’t wait to see how this grows and where it goes,” she said.
THE BOOK ON PANTHER SPORTS

Ed Gadrix (B.B.A. ‘65) pens the history of Georgia State athletics from its humble beginnings to its inaugural season in a major league stadium.

BY JARREL RUSHIN (B.A. ’19)

Ed Gadrix Jr. is a true-blue believer. Ever since he stepped foot on campus, he yearned for the day when the Panthers could make it to the Big Dance or win a bowl game. “I’ve always wanted Georgia State to be big time,” he said.

Back in the 1960s, he co-founded Georgia State’s first athletics booster group, the “Panther Club,” and sold Coca-Cola and candy to basketball fans when the team played at the old O’Keefe High School gym near Georgia Tech.

“There couldn’t have been more than 50 people there a night,” Gadrix said.

Not long after he graduated, Gadrix, an attorney, began compiling the history of Georgia State sports, a labor of love he’s kept up for more than three decades. The result of his work is his new book, “Panther Pride,” that chronicles Georgia State’s sports history since the school’s founding in 1913.

Gadrix researched athletics records from Georgia State and Georgia Tech and spent hours in the archives of the Georgia State Library, poring through yearbooks and issues of The Signal, Georgia State’s student newspaper.

“The Signal is the reason I could get a lot of this information,” he said.

Gadrix served eight years on the Georgia State Athletics Board and was an early proponent for football. In his book, he lays out the myriad challenges Georgia State experienced to get to those NCAA Basketball Tournament wins and last year’s AutoNation Cure Bowl football victory.

“Panther Pride” opens with the line: “Struggle — continuous struggle — characterizes Georgia State’s history. ... Intercollegiate sports struggled to survive, first in [their] formation, then through the doldrums and the ‘dark days’ of the 1960s and ’70s.”

“It’s amazing to think that now we have this incredible stadium, and our football team just won a bowl game,” Gadrix said. “We’ve come further than any college athletics program in history. I really believe that.”

ALL-TIME SLUGGERS
Senior softball players Megan Litumbe and Ivie Drake entered the spring as the No. 1 and No. 2 career home run hitters in school history. The duo have more than 100 career home runs, the most of any two active teammates in NCAA Division I.

Both were picked to the preseason All–Sun Belt team, and they have wasted no time adding to their gaudy numbers to start the season. Litumbe, an outfielder, sits at 55 home runs thus far, and Drake, the starting catcher, has 50.

BEACH SEASON
Georgia State opened the beach volleyball season ranked No. 12 nationally. For Coach Beth Van Fleet (B.B.A. ’99), the goal is to finish in the top eight and earn a trip to the national championship tournament.

Van Fleet recently welcomed three graduate transfers and five freshmen to the roster, and she expects all of them to see playing time.

The Panthers have nine returning players, including sophomore Georgia Johnson, who amassed a 21-8 record last season. Other contributors include Brooke Weiner, Olivia Stasevich and Amie Held, who all earned double-digit victory totals last year.

“Our ultimate goals are to compete for a conference and a national championship,” Van Fleet said. “But right now, our focus is on the match in front of us and taking each set point by point.”

WONDER TWINS
Twins Alex and Max Herrmann have led the men’s golf team to three straight trips to the NCAA Regional Tournament, and the seniors from Wörthsee, Germany, are poised for yet another appearance. The Panthers are the defending Sun Belt Conference champions.

The Herrmann brothers are All-Sun Belt performers, and Max Herrmann was the 2016 Sun Belt Conference individual champ.

MELTING POT
The women’s tennis team is truly an international ensemble. All eight team members hail from eight different countries, and no player is from the U.S.

Sophomore Arina Taluyenko is the farthest from home. She’s from Almaty, Kazakhstan, about a 20-hour flight from Atlanta.
UNIVERSAL TREATMENT

Georgia State researchers are working to create a universal flu vaccine that will stop the infectious disease in its tracks.

BY LATINA EMERSON | ILLUSTRATION BY REID SCHULZ (B.F.A. ’18)

THIS YEAR’S FLU SEASON will go down in history as one of the most severe in nearly a decade. The seasonal vaccine failed to protect many, resulting in record hospitalization rates and many deaths, including 53 children.

Thousands die from the flu in the U.S. each year. In 2009, a new influenza A (H1N1) virus emerged. Never previously identified in humans, it was first detected in the U.S. and spread quickly across the globe, killing an estimated 575,400 people in a year.

Seasonal flu vaccines are often unreliable because they can only target specific strains of the virus. Each year, six months before flu season starts, scientists must predict which strains of the virus are likely to infect the public that year. They make their determination so early to give manufacturers the time they need to produce the vaccine in time for flu season.

However, that means the seasonal vaccine’s effectiveness depends entirely on the accuracy of the predictions used to develop it.

“That prediction is not always correct,” said Sang-Moo Kang, professor in the Institute for Biomedical Sciences. “If there’s a mismatch, the vaccine’s efficacy is severely low.”

According to the Centers for Disease Control & Prevention (CDC), H3N2 viruses have circulated the most this year while H1N1 and influenza B viruses have also spread. The CDC estimates the 2017–18 seasonal vaccine was only 30 to 40 percent effective.

Georgia State scientists are leading the fight to develop a different approach: a universal vaccine that could protect against any strain of the flu, eliminating the risky gamble of the seasonal vaccine.

“We still use the traditional flu vaccine, and we face the same challenges year after year,” said Bao-Zhong Wang, associate professor in the Institute for Biomedical Sciences.

Wang and Kang are tackling the universal flu vaccine from different approaches. Wang and his team have made great strides toward the development of a “super vaccine” by targeting an interior part of an influenza virus surface protein, the hemagglutinin (HA) stalk, which is the same in all influenza viruses. By contrast, seasonal flu vaccines target the exterior head of this surface protein, which varies widely in each virus. This super vaccine would combine the parts of the virus’ three surface proteins that rarely differ but can each induce an immune response from the human body.

Whereas seasonal vaccines target the variable HA protein, Kang and his team are targeting the virus’ more constant M2 protein. To do so, they’ve created particles that contain the protein, resemble the influenza virus and are about as big — about 100 nanometers across. They then transmit the particles using the baculovirus, which can only replicate in insects, not mammals or humans.

“There’s no way for it to become infectious, but it mimics the size, structure and shape of the flu virus,” Kang said.

In a recent study published in the journal Frontiers in Immunology, Kang and his colleagues demonstrated their vaccine worked better than the seasonal vaccine to protect against several flu viruses, including H1N1, H3N2 and H5N1, a strain of the avian flu.

CELESTIAL SENIORS

Georgia State astronomers led a census of our solar neighborhood, or the region of space within 80 light years of Earth, to identify how many young, adult and “senior citizen” stars are present.

The resulting study focused on the oldest stars, known as “cool subdwarfs,” formed six to nine billion years ago. The team also pinpointed 29 potential new subdwarfs, including two old binary stars — a significant discovery because older stars are typically found alone.

“Maybe these stars have some planets around them we don’t know about,” said Wei-Chun Jao, lead author of the study and research scientist in the Department of Physics & Astronomy. “Maybe even some ancient civilizations.”

PLANT POWER

Associate professor of biology Gary Hastings’ research focuses primarily on unraveling the process of photosynthesis. He uses infrared spectroscopy, which analyzes how infrared light interacts with matter, to develop improved solar cells to help power our cars or heat our homes.

Even the best man-made solar cell pales in efficiency compared to the humble leaf. But instead of green plants, Hastings is studying cyanobacteria, often called blue-green algae. Cyanobacteria convert energy the same way plants do.

He’s also studying blue-green algae as a source of biofuels and forecasting hazardous algal blooms, out-of-control algae colonies that are becoming more prevalent across the U.S.
Four years ago, Pulitzer Prize–nominated author Charles McNair wrote a feature story for the Georgia State University Magazine on Sam Massell (B.C.S. ’51), the inimitable former mayor of Atlanta. McNair’s prose impressed Massell so much he approached the writer to pen his biography. The result is “Play It Again, Sam: The Notable Life of Sam Massell, Atlanta’s First Minority Mayor,” a warts-and-all book that follows Sam from his days as a 9-year-old entrepreneur running a “Co’Cola” stand in Atlanta’s Druid Hills neighborhood through his exceptional life of public service.

Massell was the city’s first Jewish mayor, and his one term from 1970 to 1974 was filled with accomplishments. He appointed the first African-Americans to offices of influence, including the first woman on the Atlanta City Council. He oversaw the development of the Omni Coliseum, created Atlanta’s Urban Design Commission and established MARTA, Atlanta’s public transit system.

He lost a bitter race for reelection to Maynard Jackson, Atlanta’s first African-American mayor, but he is widely credited as being a conduit for change in City Hall and a champion of Atlanta’s dynamic growth at a pivotal time in history.

William Inman, editor of the Georgia State University Magazine, sat down to discuss the book with Massell, now 90, who still works six days a week as the director of the Buckhead Coalition. McNair, who lives and works in Bogota, Colombia, joined in via Skype.

Inman: I like to take a tiny bit of credit for this book and for bringing the two of you together.

Massell: Well, the origin of the book is the two of you and the Georgia State magazine. As you might imagine, having spent 22 years in elected office and a lifetime in civic service, I’ve had a lot written about me — some of it favorable, a lot not so much. I believe everybody has a book in them, and when I saw what Charles wrote — his writing, his style, it was so good, it just spills out — I said, “That’s it. There it is. I’m going to do it.” And soon after, we sat down and got started.
McNair: The way we worked on the book was I would look at Sam, and he would start talking. And about every 30 minutes, I would say “uh huh,” and he would start talking again, and we did that about 40 times — about twice a week for 20 weeks. Those were some of the best afternoons I’ve had in my career as a writer. It was really rich having an oracle and a shaper of Atlanta’s history tell Atlanta’s story.

Massell: I enjoyed every bit of it as well, and we never had a cross word. I imagine that’s pretty unusual between an author and a subject. From the very beginning, he said he wouldn’t write this book unless it contained some of the negative as well as the positive because it wouldn’t be honest or interesting. That was the only part of the whole deal that I didn’t like (laughing), but I understood and respected it. If I had to polish it, I would have made me 6 feet tall instead of 5 foot 5.

McNair: Sam’s story has been overlooked and maybe shoveled under a little by the freight train of history. It began to dawn on me early on that the stature of this man is enormous. He is one of the great citizens of Atlanta history — of the whole history of this place. And he has had a tremendous influence shaping this city. He’s a builder, a visionary, a man who saw 30 or 40 years ahead.

Inman: Sam is an exceptional storyteller. Charles, what’s your favorite Sam story?

McNair: Without any question, the stories of his childhood in Druid Hills. Those resonated with me because it was a distant time that still had the echoes of the old South I heard about from my parents and grandparents. Sam’s descriptions of those days were so colorful and so wry. He’s very funny. There was a guy who lived next door to Sam who wanted to convert him into a Christian, and he would give him Nilla Wafers and Kool-Aid. I remember Sam told me, “I always ate the cookies, but I never drank the Kool-Aid.” I must’ve told that story 10 times over the next two hours to all my friends.

Massell: There is work on a documentary about Druid Hills, and they invited me to be part of it because of that reference in the book. So, I spent an hour or more telling these same stories on film. We made it big!

Inman: Mayor Massell, your life is written out on these pages. What would you say makes you the proudest? Or, what is your favorite part of the book?

McNair: That part about Sam.
Massell: (laughing) It’s interesting you ask, but I haven’t narrowed down a favorite story or part. I find myself talking about different parts of the book to different audiences. I only had 22 years in elected office, but I’ve had a lifetime of civic service. And I do talk a lot about my early days, from being 9 years old and the executive of Bud’s Place, and on to age 90 and being the president of the Buckhead Coalition, being mayor and all the jobs in between. But, I’d say the work ethic is an important part. It was instilled in me by my father who felt so strongly that you give back to your community more than you receive.

McNair: One of the most important things to me was Sam’s Jewishness. Times have certainly changed, but Sam Massell had to climb a mountain to become the mayor of the largest and most important city in the deep South. It’s a tremendous story. Sam not only overcame but, in a way, changed and broke an old model of how Jewish people were seen in the South. And that’s just a mention in his achievements. This man is an iconoclast. Sam, you’d make a great movie.

McNair: (laughing) You know, our theme for the book, “Play it Again, Sam,” comes from the movie “Casablanca,” and while telling this story, Sam stopped and looked at me and said, just like (Humphrey) Bogart, "Of all the gin joints in the world, he walks into this one."

Massell: Yes, I remember it very well.

Inman: Another part that really stands out in the book is the value you place on education.

Massell: I was not a good student. But I felt like, if I would go and sit there, I’d get something by osmosis if no other way. Showing up is half the business. And it worked, evidently. Even though I spent time at the University of Georgia, Emory, Georgia Tech, Atlanta Law School and Woodrow Wilson Law School, Georgia State University is the place where those pieces of parchment I earned are the most meaningful.

McNair: Have you met anyone else who went to two different night schools at the same time? And he walks out of Georgia State with not just one or two degrees, but three degrees!

Massell: I have so many good memories from my time there, and I’m very proud of the school. I’ve had close relations to Georgia State at all different levels. From when it was just a garage to what it is today. I gave the eulogy for...
(former Georgia State president) Noah Langdale. Now, Georgia State keeps getting bigger, better and stronger. Look what’s happening there now. So, now I get to take some credit: I was president of the Atlanta City Council when we approved the contract to build Atlanta–Fulton County Stadium, and Georgia State owns that property now.

McNair: There are so many Sam stories like that. That’s why Sam is Sam. Actually, there are two reasons: First, he has such an inventive and ingenious mind. He thinks of things other people wouldn’t think of. But he’s also inexhaustible. He has a broad mind and a bigger heart and isn’t afraid to consider things that are different and new in business and politics.

Massell: My overriding legacy — and I hope this comes through — is that I had the responsibility, or a better word, opportunity, to transform the city government peacefully from an all-white to a predominantly black power structure. A lot of cities in the South were not able to do that peacefully and still suffer from it today. I’m very proud that our city moves forward together.

McNair: Atlanta had a Sam. There could have been any number of people in that position at that time who would have gotten it dead wrong. There’s a chance Atlanta would have never become the international city it is today without him. It was a balancing act of the first order, and Atlanta owes a tremendous amount to this guy sitting here. I use this word without embarrassment — greatness. Sam has greatness in him, and you just don’t meet a fellow like him every day.

Massell: I’m glad I had you to spell it out to people. I don’t think anyone noticed before! (laughing)

McNair: Something happens with the leadership in cities. Selfish decisions can be made, and you can see the stunted growth. And that’s the difference in a lot of cities. Many places didn’t have a Sam. Atlanta was lucky. Sam is a man who earned a book like this — earned it with his whole life and deserves it. And it was a privilege to be able to sit down with him. I wish I was still doing it. Sam, let’s do a sequel!

“...There could have been any number of people in that position at that time who would have gotten it dead wrong. There’s a chance Atlanta would have never become the international city it is today without him.”

— CHARLES MCNAIR

Massell earned a bachelor of commercial science in 1951, a postgraduate certificate in selling in 1952 and a postgraduate diploma in real estate in 1953.
A GENEROUS DONATION MAKES GEORGIA STATE THE PROUD OWNER OF A TREASURED RELIC FROM THE EARLIEST DAYS OF PERSONAL COMPUTING...
A MACHINE SO INNOVATIVE FOR ITS TIME
THAT IT HAS ITS OWN STORY TO TELL.
Last September,

Ying Zhu,
an associate professor in Georgia State’s Creative Media Industries Institute (CMII), received an unexpected phone call.

On the other end of the line was Kathy Scott, a public relations specialist whose daughter had recently begun her freshman year at Georgia State as a computer science major.

Scott got right down to it: “What do you know about the Imagination Machine?”

Zhu had no idea what Scott was talking about. The words sounded like they should be splashed in psychedelic colors on the side of the Scooby-Doo gang’s van.

“I've never heard of it,” said Zhu.

“It’s an old video game console,” Scott replied. “I’d like to donate it to the school. Are you interested?”

Zhu had recently moved from the Computer Science Department to CMII, an interdisciplinary institute meant to cultivate talent for Georgia’s growing film, television, music and gaming industries. Zhu had spent most of his career as a software engineer, but he’d never heard of an Imagination Machine.

He said he didn’t know if he was interested. He’d have to do some research. He wrote “Imagination Machine” on a notepad and asked Scott to email him more information.

Then he started searching the Web. It turned out the Imagination Machine was an extremely rare hybrid of a video game console and a personal computer from a much more innocent time in gaming and computing — before Xbox, “Mario Bros.,” or even “Pac-Man.”

And the mind behind the Machine was one of the first African-American video game console engineers.

When Scott later forwarded more details on the machine, Zhu replied immediately and definitively: “I’m interested.”

UNDER THE HOOD

Unlike other early home computers, the Imagination Machine is a modular, two-part system that combines a video game console with a computer base unit to transform into a personal computer.

A J-shaped connector plugs into the MP1000’s cartridge port and links the system.

The MP1000 game unit, powered by an 8-bit microprocessor, serves the core of a larger computer system.

With the two units combined, the Imagination Machine has 9 kilobytes of memory in total.

The computer base unit features an integrated keyboard and a built-in cassette tape drive for extra data storage.

The system came with one built-in game, “Rocket Patrol.” Games could come on either cartridge or cassette.

Two hard-wired controllers each feature a joystick, fire button and numeric keypad.

2-IN-1

For those who don’t know much about computers and video games, seeing the Imagination Machine for the first time could be a trifle confusing. It doesn’t look quite like anything else. Each component is familiar — keyboard, cassette deck,
speaker, game console — but they’re all part of one machine. It’s like a mad computer scientist’s Frankenstein monster.

The confusion stems partly from the fact the Imagination Machine combines two things into one piece of equipment. First, there’s the base. An off-white rectangular plastic box, it houses a clicking mechanical keyboard on the bottom left and a cassette deck in the top right above a small speaker and a volume dial.

The second part of the Imagination Machine sits to the left of the cassette deck on a flat surface the size of a small shoebox cover: the MP1000 video game console. Similar to an old Atari or Coleco-Vision from the early 1980s, the MP1000 is black with two controllers, each with a joystick, a red “fire” button on top and a numeric keypad. Like the 8-bit Nintendo Entertainment System, the console has power and reset buttons and a place to insert rectangular cartridges. A radio frequency (RF) adapter allows users to hook up the MP1000 to a television and play it like other video game consoles.

But the real magic happens when the two units are connected to each other. When a user inserts a black, J-shaped connector into the cartridge port of the MP1000 and the back of the base, the two units become the Imagination Machine, a personal computer with 9 kilobytes of memory that allows users to program using BASIC (Beginner’s All-purpose Symbolic Instruction Code), a visual calculator and a text editor. With an All-purpose Symbolic Instruction Code (ELECTRIC CHIMERA), the Imagination Machine could support a printer, modem or additional keyboards and displays. But the real reason they hired him was because of a young Smith.

In the early to mid-1970s, APF specialized in calculators, and Smith started off designing the “cosmetics” of calculator keyboards and displays. But the real reason they hired him was because of a new industry that had recently taken off: home video games.

In 1975, Atari successfully brought “Pong,” the pioneering Ping-Pong arcade game, to home consoles. Other companies, such as APF, followed suit and started releasing their own games with standalone consoles that could plug into a television.

In 1976, APF created a series of TV Fun consoles, which featured a handful of simple built-in games like tennis, hockey, squash and handball. The first version required six C batteries and had two controller knobs built right into the faux-wood case. During the console’s first year on the market, APF sold 400,000 units. With that early success, APF wanted to make its mark in this young, exciting industry.

When Smith’s bosses at APF said they wanted him to build a new video game system to compete with Atari, he was over the moon.

“I was foaming at the mouth,” Smith says. “It was the most exciting thing I had ever heard. It was exactly what I wanted to do.”

First, Smith had to figure out how to make a console. He started by reverse-engineering the Atari VCS (later known as the Atari 2600), the most popular console at the time, to figure out how a video game console worked. The VCS sold for $199 (about $800 today) and came with a straightforward shooting game called “Combat” and initially supported eight other game cartridges you could purchase, insert and play.

Smith opened up the VCS to see what made it tick in order to replicate, and perhaps improve upon, its functions. Working at a small company during the earliest stages of console design, Smith did a bit of everything.

“I had to understand exactly what those components did and how they worked and then take that information back to the engineering team,” he says.

Primarily a hardware designer, Smith built the prototypes and drafted the engineering documents for the MP1000 console, the cartridges and the computer base that came later. Smith’s building blocks included circuits, resistors and capacitors. His tools included soldering irons, magnifying glasses, oscilloscopes and spectrum analyzers.

He was a pioneer in an immature industry that hadn’t yet been shaped by decades of trial and error. For a young black man in the late 1970s, he painted an unusual picture.

“I was one of those guys who walked around in a lab coat with 15 pens in my pocket with a pocket protector,” he says. “That was my world.”

As a hardware guy, he let the software people do their work. But somebody had to make sure the console and the games worked properly.

“I would spend half a day at my desk playing games,” he says. “It was amazing.”

But it wasn’t all fun. In fact, he found the gameplay draining. He had to make sure there were no bugs, so he would be under great pressure to get to the final levels — not always an easy task with the game’s programmers continually poppin in and out of his office to ask, “What level are you on now?”

Smith’s job didn’t end there. As the engineer behind the Imagination Machine, he understood it better than anyone else at APF. Because it looked so different from any other systems, the sales team
struggled to sell it and came to Smith for help. Eventually, Smith was asked to go out in the field with them and help sell the new product himself.

In no time, he’d gone from research and design engineer to game tester to salesperson. He even gave one pitch at the top of the Sears Tower in Chicago. Smith had elevated himself from poverty in Brownsville to human engineering’s literal zenith.

“I looked out that window from the Sears Tower at that expanse and thought: ‘Man, I’ve finally gotten to where I need to be,” he says.

The MP1000 went on sale to the public in 1978, and Smith’s sales trip would lead to about 50,000 units sold. The computer base went on sale a year or so later, completing the Imagination Machine. (Designing the computer base was a whole other challenge that required Smith to reverse-engineer the Apple I, Commodore Pet and RadioShack’s TRS-80 Model I.)

The company put out colorful ads in publications such as BYTE Magazine with “Imagination Machine” spelled out in rainbow-colored letters and the console flying through space like the Millennium Falcon, its cultural contemporary. The tagline read: “Your life will never be the same.” It re-tailed for $599 (about $2,000 in 2018).

PLAY YOUR OWN GAME

For his first computer, 14-year-old Larry Greenfield in Orange County, Calif., knew exactly what he wanted. He subscribed to Popular Science magazine and had seen ads for a reasonably priced personal computer. It had two joysticks and a built-in cassette deck. He could use it to program in BASIC. He’d saved a sizeable amount of birthday money and begged his parents to let him buy it. He was dying to get his hands on it. But it wasn’t an Imagination Machine.

The ads he’d seen were from a liquidator called Protecoto Enterprizes. They were selling an Interact Model One home computer, an early personal computer that was released in 1978. But when young Larry ordered his Model One, Protecoto told him they were sold out and offered him a similar product instead: the APF Imagination Machine. He owned an APF calculator but had no idea the company also made computers. He took it.

Greenfield is now a freelance violinist living on the West Coast, making music for film and television. (He can be heard in the original “Toy Story” and the recently released “Coco.”) All these years later, he still remembers when his computer arrived just before Christmas in 1980. He had been waiting all day for it to be delivered when it finally came late at night.

As it turned out, Greenfield’s new computer was way better than the Model One. Though they had similar memory, the Imagination Machine was quicker for programming in BASIC. The Imagination Machine also had the only cassette system he’d ever seen that could use tapes for both storing data and recording audio. That meant Greenfield could record notes for himself on a cassette — such as a reminder for where he’d left off in whatever piece of code he was programming — while the tape saved his code like a flash drive. It also used keyboard shortcuts to save memory, an invaluable feature for a computer that supported just 9 kilobytes of memory instead of the 8 gigabytes that now come standard with many laptops — an increase of more than 900,000 percent.

Greenfield put together a website dedicated to the Imagination Machine about 10 years ago. On his site, you can hear the opening audio segment for “Space Destroyer,” the game Greenfield most fondly remembers playing and enjoying, which came on a tape. (Games made for the Imagination Machine could come in either cartridge or cassette format.) The voice is deep and dramatic, mimicking the voiceover for an old B-movie trailer:

For all of you who dreamed of battling and conquering the unknown, APF presents “Space Destroyer,” a computerized intergalactical game that pits your strategy and skill against an ominous force. … In the never-ending battle of us versus them, this is the ultimate space fight. Score well.

When APF brought in Ed Smith to create the Imagination Machine in 1977, personal computing and home video gaming were developing at a breakneck pace. By 1978, so many different companies were doing their own thing that engineers struggled to keep up. Smith’s employers needed to release a machine that stood out, that’d be APF’s stake in this wide, wild field that evolved faster than anyone anticipated.

But just before APF released the Imagination Machine with a built-in cassette deck, Apple released a 5¼-inch floppy disk drive designed by Steve Wozniak. By the time the Imagination Machine went on sale, it was already obsolete.

While APF eventually sold an external floppy disk drive, it was already too late. The market had gone in another direction. Nobody wanted a computer with a cassette drive or a video game console sitting right on top of it any more.

“APF had every opportunity to become the type of company Apple was,” Smith says. “We just missed the market. I think that’s the legacy of that entire business.”

APF suffered from not only obsolete technology but also a home video game market that crashed in epic fashion just a few years after it came on the scene. Over a two-year period, revenues dropped from more than $3 billion in 1981 to less than $100 million in 1983, a loss of nearly 97 percent.

Alongside competition from computers, a spate of consoles with noninterchangeable games flooded the market to cause an industry-wide collapse. It didn’t just affect APF. Atari, Coleco, Fairchild, Magnavox and every other home console maker suffered, too. By the time the 8-bit Nintendo came around in 1985, the industry’s power players had shifted from the U.S. to Japan.

“I had to feed my family, and I couldn’t get a job in the video game industry even if I had wanted to,” says Smith. “So by the time the industry had rebounded, I was already on a different path.”
“The guys at APF decided to make it really cool,” says Greenfield.

While Greenfield didn’t like many of the other games for his console, he spent a lot of time using his Imagination Machine to program his own games, such as a digital version of “Clue” and a stock market simulator.

“I didn’t know anything about the stock market, so it wasn’t realistic,” he says. “But, hey, you could buy stocks, and then it would randomly go up and down, and you could sell and merge. Really simple games like that.”

RARE SIGHTINGS

In his childhood living room, Greenfield kept his Imagination Machine on the coffee table and hooked it up to the family’s color television. Sitting on the carpet to operate it, little Larry was the only one in the family who cared about the technological marvel. When the family had company, the Imagination Machine went back in its box and into a closet.

At a time when personal computers were still very much experimental, the Imagination Machine was unique.

“It was like a Tinkertoy or a set of Legos. It was meant for building and experimenting and playing with,” Greenfield says. “It was such a part of my life, and nobody really knows anything about it. If you search for old 8-bit computers, you won’t find another machine that looks like the APF. Even in the early days of the Web, there’d be tons of stuff on the Commodore 64 and 128 and the Atari. But with APF, people are like: ‘Huh? What’s that?’”

The young Greenfield used his beloved Imagination Machine for about three years before selling it to help pay for a RadioShack TRS-80, one of the earliest mass-produced personal computers.

“I was really sad to see it go,” he says. “Unfortunately, like everything that comes out, there was a time and place for it.”

Video game historian Benj Edwards is the editor-in-chief of Vintage Computing and Gaming magazine.

“The Imagination Machine is mostly a lost, underrated personal computer because it didn’t sell well, and few people have heard of it,” Edwards says. “It didn’t get the attention of an Apple II, which had public champions. The Imagination Machine got overshadowed.”

Though Edwards wrote a definitive article on Smith’s invention and maintains a private collection of vintage consoles, the Imagination Machine is so rare he’s never seen one in person.

Even Ed Smith doesn’t own an Imagination Machine these days. In fact, he’s long wanted to donate one to the Computer History Museum in Mountain View, Calif., home of the largest collection of computing artifacts in the world, but hasn’t been able to acquire one. Now 63 years old, Smith has been in the computer business, and out of the video game business, for 35 years. But he and Edwards will both have a chance to see one if they visit Georgia State.

Kathy Scott found the Imagination Machine she donated to the university on shopgoodwill.com, an online auction website. She liked its name but didn’t know anything else about the strange product. When she searched for it online, she realized it was a rare item but couldn’t find much more.

“I thought I had discovered something spectacular,” says Scott, “and nobody knew what it was.”

The Imagination Machine reminded Scott of her daughter, Chloe, a computer science student at Georgia State with an assistantship at CMII and a passion for virtual reality (VR) technology. (Chloe’s dream is to create VR programs that help people recover from mental illness.) Always on the lookout for unique, personalized gifts, Scott originally bought the computer for Chloe.

“When my mom got it, I had no idea what it was, and I’m not sure she did either,” Chloe says. “She just kept saying it was a ‘big deal,’ which has proved to be true.”

While the two liked the idea of keeping the machine, they agreed it would contribute more if it were made available to the public. With its mission to promote invention and ingenuity, CMII supplied the perfect setting to make the Imagination Machine available for everyone’s viewing.

“It was a really cool idea, and it’s amazing we have an artifact like this at Georgia State,” Chloe says.

The Imagination Machine now lives at the new CMII just down the hall from where students are training to become creative minds of the future. One hopes newfound interest in the Imagination Machine — and the brilliant mind from Brooklyn behind it — can help Smith inspire the next generation of engineers to great feats of innovation.

As Smith says, “I’m not done yet.”
The sordid details of an unsolved missing persons case led Laurah Norton (M.F.A. ’06) to embark on her own investigation and create a podcast to publicize her findings. Now in its third season atop the iTunes charts, “The Fall Line” tells the stories of Georgia’s forgotten missing.

A WAVY LINE SNAKES ACROSS GEORGIA’S MIDSECTION, CONNECTING COLUMBUS TO AUGUSTA. ONCE THE STATE’S ATLANTIC SEABOARD, THIS BOUNDARY SEPARATES THE ROLLING HILLS AND PLUTONS OF THE PIEDMONT FROM THE LIVE OAKS AND SALT MARSHES OF THE COASTAL PLAIN. HERE, THE GROUND ABRUPTLY RISES INTO ROCKY CLIFFS, AND WATERS BLITZ DOWN RAPIDS AND SHOOT OVER WATERFALLS. IT’S AN IMPASSABLE DIVIDE THAT MARKS THE END OF MOST JOURNEYS UPSTREAM.

THIS BORDERLAND IS CALLED THE FALL LINE, A THRESHOLD BETWEEN WORLDS IN COLLISION — GEOGRAPHIES, ECONOMIES AND ECOSYSTEMS THAT, AT TIMES, CAN SEEM POLES APART.
There was a slight problem, though. Norton hadn’t done much of that herself. She’d have to set out on a journey of her own before she could pass on any insight. It’s a good thing she knew right where to start.

Norton first heard about Dannette and Jeannette Millbrook, twin sisters from Augusta, Ga., who went missing in 1990, in fall 2016. The case disturbed Norton profoundly and had grown increasingly cold, year after year.

The 15-year-old girls had stopped at a convenience store to buy some snacks on their way home and then disappeared without a trace. No one knew what happened to them, and nothing indicated they had left on their own volition. Equally disturbing, the Richmond County police recorded every single aspect of the case incorrectly — the order of events, the locations, even the twins’ own names and birthday — which means every single report thereafter spread nothing but error and contradiction.

But it only gets worse. The police treated the missing teens as “runaways” from the very start, did no investigation and then improperly closed the case just a year later. Even though they hadn’t even tried to make progress on the girls’ whereabouts, they went so far as to reclassify them as “located” and thoroughly wiped them from the system at the local and national levels. And then the case files went missing, too. These are all things that, according to police procedure, simply couldn’t have happened. But they did.

“The case failed at every level,” Norton says. “No one helped the family. No one looked for the girls. No one was questioned. No one covered the story.”

Effectively quashed by media and police, the case never entered the public consciousness. When Norton began researching the story, the Web brimmed with hits and leads regarding similar cases of the same era, but she could find only three reports about the Millbrook twins — all from 2013, 23 years after they vanished, when Sheriff Richard Roundtree quietly reopened the case at the family’s request.

She couldn’t believe it, so she hit the archives and rooted through decades’ worth of Atlanta Journal-Constitution and Augusta Chronicle newspapers. Nothing. There had been absolutely zero coverage.

“It was so upsetting,” she recalls. “I got angry, and then I started thinking about what I could do.”

Channeling her anger into productive obsession, Norton shared the case with her rhetoric and composition students and kept digging. She wanted to help publicize the case, but she also needed experience making a podcast so she could teach her new class. This was her chance to do both.

Norton contacted the twins’ younger sister, Shanta Sturgis, and obtained her enthusiastic endorsement to tackle the case. Sturgis and her mother, Louise, had never given up on the girls. Making hundreds of phone calls and barking up every conceivable tree, they’d been struggling to get any kind of attention or help for decades.
Using social media to amplify their message, Norton reached out to state government, the district attorney, the Georgia Bureau of Investigation, and media outlets near and far to ratchet up the pressure on investigators and make Dannette and Jeannette Millbrook household names.

And the inaccurate public records with the erroneous names, locations, birthdate and timeline that hampered the investigation from the very beginning? They worked with the family and police to fix those, too, and detectives are now using the correct information.

Equal parts cliffhanger and crusade, the podcast captured an audience with its compelling narrative about ordinary citizens gumshoeing their way through a labyrinth of error and intrigue. After just a few episodes, “The Fall Line” earned a detailed mention on the hit podcast “My Favorite Murder” in September 2017, and its popularity mushroomed overnight.

With popularity came assistance from listeners. Without solicitation, hundreds of fans started using the Facebook discussion group to figure out ways to publicize the case, ferret out leads and even coordinate labor so stuff actually got done.

Someone in Canada created a Wikipedia page for the Millbrook twins. Many perused public records of unidentified bodies, hunting for correlations. People from all over the country submitted tips in droves, to both the podcast and the Richmond County Sheriff’s Office.
Several collaborated to design and print “missing” posters, which they then tacked up throughout Augusta. Lawyers offered free legal advice, and a private investigator shared some trade secrets. Businesses teamed up with fans to volunteer an $8,000 reward for information leading to an arrest. Others have planned a day to remember and celebrate the twins in Augusta on March 18, which marks the 28th anniversary of their disappearance.

However, Norton might be most thankful for the audio engineer who reached out halfway through the first season and begged to donate his time and equipment for future episodes. She didn’t need any convincing.

“We had no idea what we were doing,” Norton recalls. “It sounded terrible. We were recording under a bedsheet — in stereo — and randomly talking toward a very primitive microphone from far away with no sound proofing. It was a hot mess.”

With the show suddenly attracting so much attention, sponsors started rolling in. Just months before, the pair had been making great financial sacrifices to fund their investigation — the time, the travel, the babysitters. Now, it was sustainable.

“I’ve always liked true crime, but I didn’t mean to get into it like this,” Norton says. “The case just made me lose my temper, and I wanted to do something about it. I can write and research and talk. So, I thought I’d make a little podcast and get some experience, and that’d be it. But it blew up and just kept going. It’s crazy.”

Just a month after concluding their inaugural season, Norton and Hargrove started another one about a similar missing persons case from Brunswick, Ga. While local police had a longtime suspect, the podcast did a lot to weave threads together, publicize the case and give the family a platform. By the time they wrapped it up in December, the duo had pushed the investigation so far they expect an arrest to be made.

Meanwhile, “The Fall Line” had grown from a one-off miniseries into an ongoing serial. Far from leaving the Millbrook twins behind, Norton and Hargrove continue to work leads and update listeners.

“It’s intense. It’s involved,” Norton says. “And we’re fairly confident we know what happened in both cases.”

Their next challenge brings them back to Atlanta, home of Grady Memorial Hospital, the No. 1 site for infant abductions in the U.S. between 1983 and 2003. They’ve identified seven cases so far and will delve deeper than ever to question hospital staff, police, victims and even perpetrators.

“It’s definitely going to be the biggest one we’ve done,” Norton says. A prologue aired in late February, and the new season will premiere May 7.

From season to season, Norton and Hargrove have been careful to stay out of the stories. While they aren’t anonymous, the podcast never mentions them by name.

“We’re here to amplify the voices of Georgia’s forgotten missing,” Hargrove says. “We’re not characters or protagonists. We’re not going to tell the stories of people who’ve been marginalized and then stand in front of them.”

**OVER THE WALL**

It’s safe to say Norton’s prepared to teach her class now. The daughter of a longtime newspaper reporter, Norton has unwittingly become proficient with skills she never dreamed she’d share with her father.

She knows her way around a microfiche machine. She can record and mix sound. She’s comfortable writing and reading aloud for the audio format, a far cry from her bread-and-butter literary fiction. She knows how to read between the lines of news reports. She can go head to head with government agencies to combat falsehoods and expose incompetence. She has connections throughout the criminal justice industry — homicide detectives, forensic psychologists, star podcasters from Atlanta to Canada and many more. Norton’s even arranged for many of these folks to visit her class for guest lectures and workshops.

“Now that I’ve had this experience, maybe my kids won’t have to make the same mistakes I made,” she says. “I feel like I can teach my podcasting class now.”

“Laura is a superb teacher with an innate understanding of student needs,” says Lynée Gailet, chair of the English Department. “Our faculty are blown away by what she’s doing. In my 33 years of teaching, I’ve rarely encountered a teacher of this magnitude. She makes us look good.”

**EPILOGUE**

Last December, months after the show’s first season ended, several listeners contacted “The Fall Line” independently with the same astonishing proposal.

It was no secret that Shanta Sturgis, the Millbrook twins’ sister who had donated so much of her time to help Norton and Hargrove with their investigation, was having a hard time. With almost no help, she takes care of five kids, works two jobs and supports a grandchild as well.

The listeners wanted to send her money anonymously so she could provide her family with a lovely Christmas.

“They didn’t want any credit for it. They just wanted the Sturgis family to have a nice Christmas,” says Norton. “It was … wow, I don’t know. I expected people to donate to the reward fund, but to have multiple people contact us wanting to do something so generous? And anonymously? This stuff is wild to me.”

Accustomed to humble holidays, Sturgis couldn’t have been more surprised. She used the money to buy gifts and food for everyone in her family. Even better, she kept it all a secret until Christmas morning. Her children couldn’t believe their eyes. It was a restorative experience for Sturgis, who had advocated for her missing sisters in the face of systemic indifference and hostility for far too long.

“All these years, I felt nobody cared,” Sturgis says. “And it’s been really amazing to find out that people did care. They just didn’t know.”
Let’s Play.
As the Panthers’ first esports teams plug in, Georgia State leads the charge among national universities in bringing one of the world’s fastest growing sports to campus: competitive video gaming.
ever since he was a kid, Andrew Jespersen has played video games — a lot of video games.

It started with the Game Boy Advance his parents bought him when he was 6 years old and the hours he spent thumbing through “Yu-Gi-Oh! Duelist,” “Harry Potter: Quidditch World Cup” and various Pokémon titles. By fourth grade, Jespersen had discovered “World of Warcraft,” the popular online fantasy role-playing game, where he linked up with gamers all over the globe.

Eighth grade brought “League of Legends,” a multiplayer online battle arena game that tapped into Jespersen’s hyper-competitive nature. Just like basketball and soccer, sports he played since early childhood, “League of Legends” required certain skills and specializations and let players start over every game with a clean slate. Those parallels with more respected and accepted sports, coupled with Jespersen’s burgeoning control-pad prowess, led the Marietta, Ga., teen to a natural conclusion.

“That’s when I realized I could and wanted to do something with video games,” he says.

Of course, Jespersen’s parents had their concerns. They didn’t think all video games were bad, but they understood the potential time drain that could swallow a child through the screen, so they sought moderation. They instituted a one-for-one rule: one hour reading or playing basketball outside for every hour spent battling online. Jespersen’s dad would repeat his mantra: “After all, you’re not going to college for Xbox.”

Imagine Mr. Jespersen’s astonishment if he could have looked just a few years into the future and seen his son as a junior at Georgia State and the head coach of the “League of Legends” team under the university’s brand new esports program.

Late last summer, Georgia State announced it would become the 34th member of the National Association of Collegiate eSports (NACE), joining schools such as the University of California, Irvine and the University of Utah.

In September 2017, students were invited to try out for a roster spot on varsity teams competing in three games — “Brawlhalla,” “Smite” and “League of Legends” — and one of 10 $1,000 scholarships. Those teams would compete in tournaments, online and in person, representing the Panthers against NACE.

“I HONESTLY THINK ESPORTS HAVE THE SAME BENEFITS AS ANY OTHER SPORT: PERSONAL DEVELOPMENT, COMMUNICATION AND COHESION — WHAT YOU LEARN FROM BEING PART OF A TEAM.”

LUCAS BAILEY
schools from across the country — like any other collegiate sport, except on a computer.

“I don’t doubt that there are people who are silently wondering what we’re doing,” says David Cheshier, director of the Georgia State Creative Media Industries Institute (CMII), which administers the esports program. “We anticipated concern when we built the program so it’d be easy to defend if anyone asked. But no one’s asked.”

PARADIGM TWITCH

If someone were to ask — say, a fretful parent, perplexed professor or anxious administrator — the question might sound like Jespersen’s dad’s concern: “Why are we sending our kids to college to play Xbox?”

“I will admit,” says Cheshier. “I’ve had maybe 10 conversations with parents where they’re saying, ‘I love the fact my child is interested in animation and plays video games, but I’m terrified of what that might mean.’”

According to Lucas Bailey, assistant director of Georgia State esports, competitive video games aren’t all that different from softball, soccer or football.

“I honestly think esports have the same benefits as any other sport,” he says. “Personal development, communication and cohesion — what you learn from being part of a team. You have to work with your team to achieve objectives, take criticism and reflect to improve yourself. No matter what you’re doing, knowing how to communicate and work with people is essential.”

Unlike other sports, gaming carries no physical restrictions such as size, strength or speed, save for the hand-eye coordination, endurance and reaction time that can be so essential in many of these games. That quick-on-the-trigger dexterity is called “twitch,” a skill so vital to competitive gameplay that the industry’s leading live video streaming network is named after it. (Online at twitch.tv, Twitch hosts more than two million broadcasters every month and streams to more than 15 million users every day.)

Today’s professional gamers compete for millions of dollars in prizes in worldwide tournaments and leagues that are followed by tens of millions of people. E-athletes also draw sponsorships from playing before millions of viewers who stream games live on Twitch. The upper echelon of gamers can reach a tax bracket shared by some of the more famous traditional athletes.

But while e-athletes might dream of making the big time one day, the university and most students see a much more practical application for gaming. For Cheshier, esports fit nicely under the mission of the CMII, which sprung up in 2014 to connect students with the most advanced technology and create a model for media entrepreneurship — a one-stop shop for media companies who want to partner with students versed in film, music and entertainment. E-athletes aren’t just playing the games. Some are coming to CMII to learn how to conceive, create and market them.

“They’re learning the industry’s essential job skills,” says Cheshier. “Coding, programming, immersive world creation, animation and entrepreneurship.”

And that industry, along with film and music, is a growth market in Atlanta. Major game producers such as Hi-Rez Studios and Blue Mammoth Games are based here and part of an electronic gaming business that pumps anywhere from $500 million to $3 billion into the local economy.

“Twenty years ago, all games were made by two or three big studios,” Cheshier says. “Now it’s all small startups. Those places want an educated workforce and an ecosystem that encourages investment. We want to help build that sector here.”

Even for those students who aren’t interested in the technical or artistic aspects of gaming, there is growth potential in marketing esports, organizing leagues and tournaments, producing Twitch streams and television broadcasts, and even becoming commentators.

After the university initially announced the program in August, Cheshier says some 340 students showed up for the general information sessions downtown. He estimates that only 20 percent of those young men and women came because they were interested in tournament competition.

“Most wanted to connect in other ways,” he says. With only 33 other schools in the NACE, Georgia
“League of Legends” is the most popular esport and, by some estimates, the most popular video game in the world. The game hosts about 100 million players every month, and the finals from last year’s World Championship attracted more than 60 million viewers.

A multiplayer online battle arena (or “MOBA” in gamer lingo), “League of Legends” divides players into two teams of five for every match. Each player competes as a “champion,” one of 138 unique characters available for gameplay, and the teams attack their opponents’ base while protecting their own. To win, a team must destroy the enemy’s Nexus, the main structure in each base, with its own intact.

The teams meet in an arena split into three lanes (“Top,” “Middle” and “Bottom”), and the space around them is called the “Jungle,” giving rise to five player positions.

**TOP LANER:** Protects teammates and focuses on powerful enemies.

**MID LANER:** Relentlessly engages the enemy, often becoming the star role of the team.

**ATTACK DAMAGE CARRY (ADC):** Patrols the bottom lane with the Support. Starts weak and vulnerable but grows powerful over time, often dealing the most damage late in the game.

**SUPPORT:** Protects the ADC early in the game and, later on, uses powerful “crowd control” abilities to frustrate and disrupt the enemy’s every move.

**JUNGLER:** Kills monsters in the jungle and drops in the lanes as needed to assist teammates — especially to double up on an enemy champion and prevent his escape, which is called “ganking.”
State is among the pioneers in this emerging field and the first in Georgia. And while Georgia Tech and the Savannah College of Art & Design might be more traditionally obvious pipelines for local talent in information technology or electronic design, the Panthers have something unique to offer.

“The video game industry faces a diversity crisis,” says Cheshier. “It’s overwhelmingly male and white. The genuine diversity of our student body gives us a unique advantage in solving that.”

Offering one of the only esports programs in the land also gives Georgia State a recruiting boost. The university can attract students who want to pursue a career in video games as well as other youth who grew up with competitive gaming and just want to keep playing (and reap a little scholarship money) while working toward degrees in something completely different.

“We’ve found staggering levels of interest in bright high school students who want to connect their love of video games with their college careers,” says Cheshier. “My guess is that there are plenty more students who are interested in many creative aspects of the video game industry who just haven’t seen a way to tie it all together into a cohesive educational experience.”

ACHIEVEMENT UNLOCKED

As a trailblazer, Georgia State has also had to deal with special obstacles, especially at the outset. Starting an esports program isn’t like starting a football team. There’s no blueprint. Even the few other collegiate esports programs are only a year or two old. It’s largely unexplored territory.

To begin with, the world was a different place when much of the administration and faculty grew up. This means the people in charge of the new program are sometimes unfamiliar with the pixelated, 3-D, role-playing universe their students have known from birth.

“Aside from a six-month addiction to ‘Asteroids,’ I didn’t play anything growing up,” says Cheshier. “We only had ‘Pong’ in my house.”

That’s where Bailey and Aimee Vu, student director of esports, come in. Bailey is 24 years old, has played video games all his life and has followed the esports scene for eight years. A native of Greensboro, N.C., Bailey came to Georgia State after teaching debate at Henry W. Grady High School, where he managed the administration had its own needs — chief among them a smooth, uncontroversial beginning to a program that was probably going to raise some eyebrows, on and off campus. That meant higher standards for e-athletes, such as a minimum grade point average of 3.0 compared to the 2.0 required of other athletes.

“We didn’t want the reputation that we were picking off struggling students,” says Cheshier. “So, we adopted a student code of conduct — similar to our other athletes.”

The bosses also had a say in which games students would play. There would be no realistic first-person shooters or war simulators such as “Call of Duty,” especially in the wake of recent school shootings. In the end, the program landed on “League of Legends,” “Smite” and “Brawlhalla,” a fighting game where the object is to knock one’s opponent off the stage. The first game was chosen because of its prevalence in the community, the latter two largely because they were created by Atlanta companies.

The next challenge was building the actual teams: spending time in the computer lab, gauging players’ talents and winnowing the field to the very best. This, too, proved challenging. Before it became an official university-sponsored program, esports had been an informal club sport at Georgia State, and the student-run venture provided some pre-existing, albeit disorganized, structure.

Only a handful of candidates tried out for the lesser-known games such as “Smite” and “Brawlhalla,” perhaps indicating there should have been better student outreach. “League of Legends,” on the other hand, presented the opposite problem. Thirty-three students showed up to battle for 10 spots — five on the main team and five more on a second team of alternates.

The original tryout format tried to assess each individual’s ability, but with so many players, it proved difficult to distinguish who was best suited for which role. So, a second tryout was held.

“The second time, we had them go up against each other — five versus five,” says Vu. “The teams were assembled at random so we could assess how they would work against each other and together on a team.”

Finally, in January 2018, the rosters were announced — 19 keyboard warriors to represent the inaugural Georgia State Panthers esports program.

THE FINAL FANTASY

It’s hard to warp ahead and know what will become of this burgeoning sport, but it’s pretty safe to say that, after multiple generations have grown up in front of consoles and computer screens, esports aren’t going away. And if esports’ recent growth is an indication, the safe play would be betting on an even brighter future on the virtual battlefield.

Cheshier says he can see the university’s esports program outgrowing CMII one day and moving under the roof of Georgia State Athletics. After all, the International Olympic Committee is considering esports as an official event for the 2024 games in Paris. Who’s to say that, at some point, 25,000 screaming, face-painted Panther fans won’t pack into Georgia State Stadium to watch a clash of titans on the big screen in “League of Legends” or whatever virtual reality game succeeds it?

If that day comes, it’s likely Jespersen won’t be sitting at the keyboard or controller. But the junior hopes he’ll still be involved in esports. Through his experience at Georgia State, Jespersen has already seen vast possibilities for growth in this industry. He says he’d like to get involved with marketing for an esports team or league or use what he’s learned here to help another school build an esports program from the ground up. Maybe he’ll even be the director.

Either way, he’ll probably be able to tell his children: “Yes, you can go to college to play video games.”
IN THE ARCADE • In 1917 at the height of World War I, Georgia State's first dean, Wayne Kell, made a shrewd business decision to keep the fledgling institution in the black — he opened its doors to women. By 1918, the school had outgrown its first home in a modest building on Walton Street. Then known as the Evening School of Commerce, it moved to the newly opened Peachtree Arcade (below), the city's first enclosed shopping center, at 2 Peachtree St. NW in fall 1918 just as enrollment jumped from 190 to 310.

The institution occupied four rooms on the second floor of the Peachtree Arcade along with 15 other shops and businesses. Georgia State's home until 1921, the building was demolished in 1964 to make way for the new headquarters of the First National Bank of Atlanta. At the same time, the top half of the bank's former building at the corner of Peachtree and Marietta streets was removed. That building now houses the Andrew Young School of Policy Studies.

Do you have a question about Georgia State history? Ask the archivist. Send an email to archives@gsu.edu or contact @gsu_archives on Twitter or Instagram. We'll include a few of the top questions and answers here in our next issue.
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