

“Their criteria are different,” DeLuca says. “They’re thinking about what’s happening at home, not whether there’s a rock-climbing wall or vegan menu on campus. So why not create policies that meet them there?” While some colleges offer services such as housing assistance that take students’ needs into account, “we just didn’t have the right model in decision-making,” Papageorge says of previous studies. “And that’s because we didn’t collect

**Their goal is to show policymakers how the so-called “shocks” disadvantaged students experience—injuries, violence, eviction, job loss, the incarceration and deaths of family members, to name a few—affect education planning.**

the right data and listen to people telling us how they make decisions.”

Their paper draws from interviews conducted with young Black people living in Baltimore’s highest-poverty neighborhoods. Just over 10% reported experiencing no shocks, 20% one shock, and the rest two or more.

Few interviews stood out to the researchers as much as that of Rhiannon. A top student in high school, Rhiannon was accepted by 10 colleges, some with scholarship offers. But the fatal shooting of her older brother sent Rhiannon’s mother into an overprotective tailspin. So Rhiannon chose to pursue a bachelor’s degree closer to home. What makes her story unique: Just 17 of the 150 students interviewed ended up

at four-year colleges, according to DeLuca. “So even the highest-achieving, most capable students in this group are influenced by the shocks in their lives,” she adds.

Because the study’s interview sample size is relatively small, the team sought to corroborate its findings with reputable sources of data, including the National Longitudinal Survey of Youth, or NLSY, which since 1997 has periodically queried 9,000 Americans on multiple subjects. Although the NLSY isn’t usually tapped for disadvantaged youth research, Papageorge says it contains hundreds of variables, many of which apply to the Baltimore students’ circumstances.

“When Anything Can Happen” is a working paper—a group of concepts—he emphasizes. He and DeLuca believe, however, that it provides enough evidence to show that changes in postsecondary policies are necessary. “You can’t understand the methods of decision-making about education if you don’t have these shocks included,” he says.

Counteracting such shocks is a challenge. Federal grant programs, Papageorge says, are too inflexible. They require students to earn their bachelor’s degrees in no more than six years, which might not be possible for students experiencing considerable instability.

The wraparound services some colleges offer—assistance with affordable food, housing, and transportation, for example—are helpful but also limited. So Papageorge and DeLuca have partnered with a Mid-Atlantic community college with the intent of interviewing students and staff to gauge what is and isn’t working. The college, Papageorge says, has a food bank and offers gas cards and one-time

payments for emergencies that could prevent schooling, Papageorge says. “It has a clothing program for interviews and works with local businesses to determine what training will lead to a job—and much more. It’s very forward-thinking.”

The aim of the ongoing project is to combine Papageorge’s expertise in quantitative economic analyses with DeLuca’s experience conducting qualitative research. “Despite a tendency to do so in each of our respective fields, we think it’s a mistake to ignore work outside our disciplines,” Papageorge explains. “Why use just the tools of one discipline when, together, we can seek truth and generate more knowledge? And Hopkins is a place that nurtures, encourages, and fosters this kind of multidisciplinary research collaboration.”

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### SPECIAL COLLECTIONS

## The Tell-Tale A

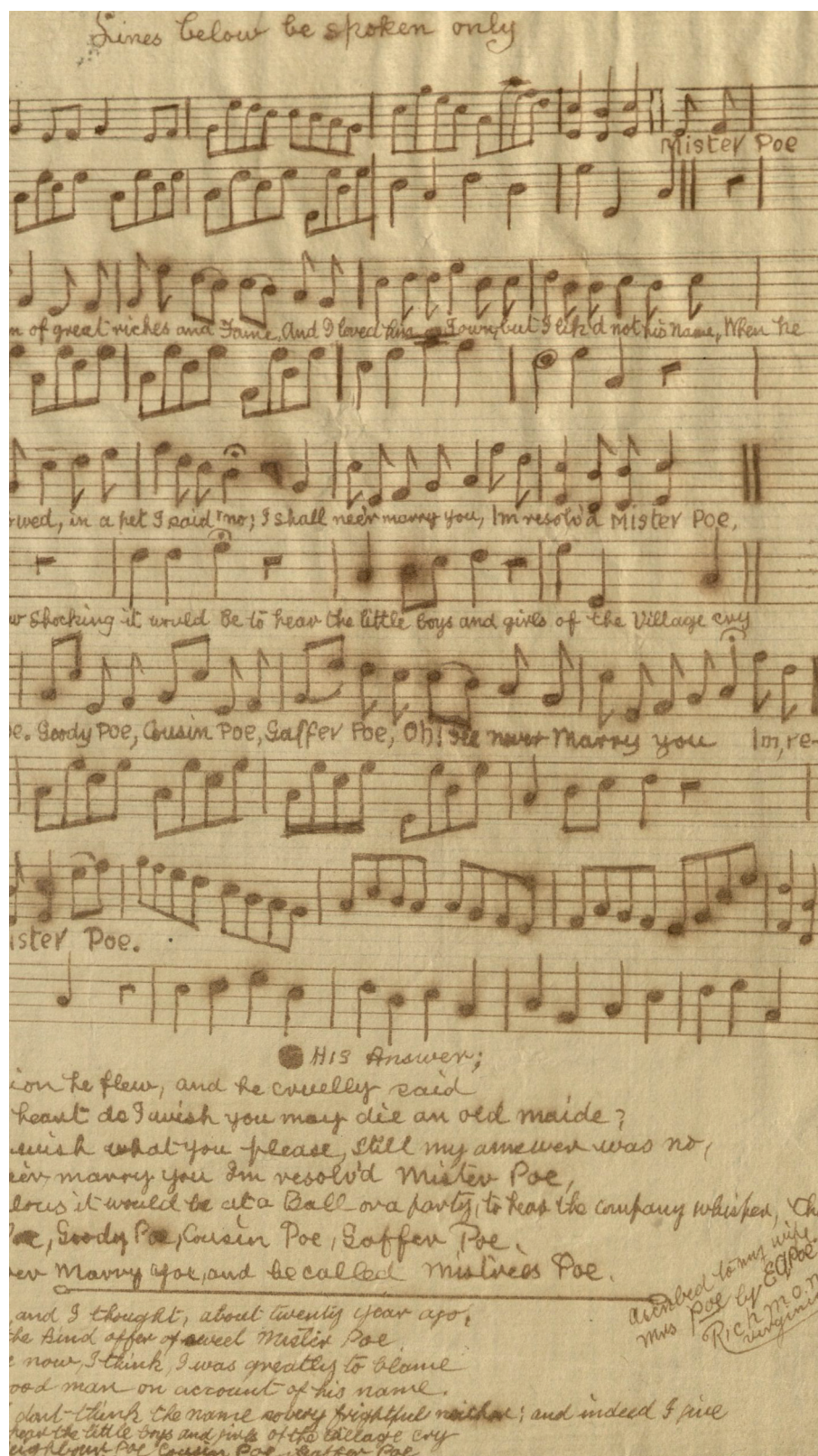
Katie Pearce

The “A” is questionable.

Edgar Allan Poe usually wrote his A’s as sharp triangles, but in a manuscript a Johns Hopkins curator recently discovered—a page of sheet music signed by an “E.A. Poe” in 1835—the A is a cursive loop.

If it is found not to be a forgery, it would be the only example of music notes written by the famously macabre writer, and it could support rumors of a secret elopement.

Sam Bessen, curator of sheet music at the Johns Hopkins Sheridan Libraries, was preparing an exhibition a few months ago when he chanced



upon the yellowed page. When he shared it with colleagues, one of them “jumped out of her chair,” he says.

“It’s one of the most excitingly confusing papers I’ve ever held,” Bessen says.

The page features, in ornate handwritten cursive, musical notations and lyrics to *Mr. Po*, a popular song from the early 1800s. At the bottom right is an inscription, which reads, in part: *Ascribed to my wife, Mrs. Poe, by E.A. Poe, 1835 Richmond, Virginia.*”

The facts more or less line up. Edgar Allan Poe did live in Richmond at that time, when he was named assistant editor of *The Southern Literary Messenger* at age 26. His writing career was starting to flourish, though his most famous works would come the following decade. In an uneasy part of Poe’s biography, 1835 was also the year he became engaged to the object of his devotion: Virginia Eliza Clemm, his 13-year-old first cousin. Though marrying first cousins wasn’t necessarily scandalous at the time, the age difference was glaring.

Calling her “Mrs. Poe” in 1835 would have predated their official wedding day, recorded as May 16, 1836, in Richmond. But records show that Poe had obtained a license for marriage to Clemm the year before—on Sept. 22, 1835, in Baltimore, according to Poe expert Richard Kopley, who is currently completing a biography of the writer. “There is disagreement among scholars as to whether they were then secretly married,” he says.

If the sheet music was Poe’s work, it seems intended to amuse his love. The song *Mr. Po* is the tale of a woman who rejects her suitor due to his embarrassing last name, shorthand for “Poor.” The shallow lady ends up



alone, lamenting her decision. (In the document found by Bessen, “Po” is changed to “Poe” with an “e.”)

Whoever copied the song was clearly not a professional musician, Bessen says, based on some tell-tale mistakes, such as a giant treble clef before the notations start. For Poe, it would have been “an entirely new medium,” he says. “We don’t know of any other musical notations in the poet’s handwriting.”

It’s unclear how this paper ended up in the Johns Hopkins Sheridan Libraries, but some Poe scholars have reservations about its authenticity. Kopley says the signature is “not like other examples I’ve seen ... in Poe’s letters,” pointing to the A as “especially problematic.” Jeffrey Savoye, the secretary and treasurer of the Poe Society in Baltimore, also says the handwriting at first impression “does not strongly resemble Poe’s.”

Conservationists at the Sheridan Libraries are currently investigating the actual paper to see if the 1835 date seems authentic. So far, the ink matches others from the 19th century. A crucial tell could be the watermark on the paper, which the conservationists enhanced in hopes of comparing it to others from the era.

Peter Bower, an internationally respected forensic paper historian and analyst whom Bessen consulted, says he believes “without any hesitation” that the watermark doesn’t make sense for 1835. Bower concluded that it was formed via electrotyping—a process not invented until 1838, and not used for producing watermarks until the 1850s, he says.

So if the manuscript is a fake, the nagging question is: Why would someone do this? “What an odd thing to forge,” says Scott Peeples, a Poe scholar at the University of Charleston.

“If it’s a forgery, it’s such a bold forgery,” Bessen agrees, wondering why someone would produce something so unusually specific. “We have no other music in Poe’s handwriting, and why do an atypical signature?”

Could the forger be George H. Wright, the Californian who originally gave the document to the Poe Society, after quibbling over prices and agreeing to less than he hoped? Bessen is looking into that. Savoye points to another possible suspect: William Fearing Gill, a Poe biographer of the late 1800s “who was pretty clearly a scoundrel and not to be fully trusted,” he says.

The E.A. Poe document is featured in Bessen’s exhibition, *Grace Notes in American History: 200 Years of Songs from the Lester Levy Sheet Music Collection*, running virtually and at the George Peabody Library in Baltimore through July. He acknowledges that the mysteries surrounding the strange artifact will most likely endure unless more conclusive evidence turns up. “I don’t know that we’ll ever be 100% sure, either way.”

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### MARINE BIOLOGY

## Indoor Oceans for Science’s Sake

Greg Rienzi

According to Eric Hancock, spider crabs dance. At least, he likes to think so.

Each day at work, the marine biologist walks over to the 500-gallon tank that houses 11 common spider crabs, ranging in size from 4 inches to a little over a foot in claw span. The crabs are separated by opaque plastic

dividers so they “don’t squabble,” he says, but they share the same seawater that neatly matches the water temperature, salinity level, and nutrient content of their natural habitat off the Florida coast.

The crabs see Hancock coming.

“They’re really charismatic,” he says. “Each has its own little personality. I watch them dancing in fun ways. They’re probably the most exciting creatures we have.”

The “we” is the Johns Hopkins Applied Physics Laboratory, or more specifically its new NAMI facility, a 3,000-square-foot laboratory for unique applied marine biology. The indoor facility, which opened in summer 2020, boasts aquariums of various shapes and sizes. NAMI has the capability to make its own seawater—up to 10,000 gallons per week—and is currently home to aquatic organisms including barnacles, mussels, coral, algae species, zebrafish, and those fun dancing crabs—along with some native Maryland blue ones, of course.

The sea creatures live in modular mini environments, or mesocosms, for controlled experiments. Right now, NAMI features a dozen or so of these mesocosms, including coastal Florida, a tank that replicates Baltimore Harbor (yes, it’s brownish), and a larger tank for the waters off Hawaii. A mini Arctic Ocean or Gulf of Mexico coming soon? Sure, why not.

“The conditions of the water, and what’s living in them, depend on what the needs of the project are,” Hancock says. “For the Baltimore Harbor tank, we can drive almost literally down the road to collect samples that are relevant to the projects, like small false black mussels that attach themselves to just about anything you place in the water. But, yes, we’ve done far-flung places and could replicate any environment.”