

DEALING WITH The Funding Crisis

As research becomes more expensive and the competition to obtain government and private grants more intense, some archaeologists are pursuing new ways to fund their work.

By David Malakoff

In the summer of 1894, archaeologist Ernest Volk of Harvard University was excavating a promising prehistoric site in New Jersey's Delaware River Valley when he hit an unyielding obstacle: money. "Owing to lack of funds," he lamented in his journal, he had to suspend the dig.

More than a century later, Volk's financial frustration has a familiar ring to many archaeologists working in the United States. Although archaeological research is less expensive than many other scientific endeavors—there's no need for a billion-dollar atom smasher or interplanetary spacecraft—archaeologists often struggle to find the cash they need to conduct digs, date objects, and catalog and curate collections. Some spend as much or more time writing grant proposals and fundraising as they do conducting research. "There's a lot of anxiety around funding," said Peter Gould, a consulting scholar at the University of Pennsylvania Museum of Archaeology and Anthropology. "You get the sense that everywhere money is tight, and the competition is intense."

The angst is understandable. Archaeologists working at universities, for example, face sobering odds in trying to win a prestigious grant from the National Science Foundation

(NSF) or the National Endowment for the Humanities (NEH), two of the U.S. government's biggest funders of academic archaeology. Together, the two agencies award several dozen major archaeology grants each year, which amount to a small fraction of the requests they receive.

Other trends are contributing to the problem. Over the past few decades, the pool of money that academic archaeologists can compete for, from both the federal government and private foundations, has stagnated, even as the costs of projects have often grown. At the same time, some state and local governments have pared support for programs that help study and protect cultural resources. In Congress, conservative lawmakers have repeatedly questioned whether taxpayers should be supporting archaeology and other "soft" sciences; they have singled-out specific NSF-funded archaeology projects for ridicule, and called for the money to be spent on other things. President Donald Trump's administration has echoed some of those views, proposing deep cuts to agencies that support archaeological projects.

Congress has largely rejected those proposed cuts, much to the relief of researchers, and even modestly increased some budgets. Despite that good news, however, the past decade "has in many ways been the perfect storm

Archaeologist Bonnie Clark (second from right, front row) has tapped a number of sources to fund her investigation of a World War II internment camp in Colorado. She and her crew pose with a banner touting her primary source, Colorado's State Historical Fund.



for archaeology," said Ran Boytner, executive director of the Institute for Field Research (IFR) in Los Angeles, California, which helps archaeologists fund field work by recruiting students who pay to participate. "Universities keep turning out [archaeologists], but jobs are tight and research funding has stagnated. At the same time, the projects can cost more, because you have to invest in new technology." This new technology, such as lidar and camera-carrying drones that researchers use to make detailed, three-dimensional maps of sites, can cost thousands or even tens of thousands of dollars. And state-of-the-art laboratory tests for dating objects and analyzing DNA extracted from ancient skeletons can run \$500 each, and in some cases much more.

There are also other "hidden" costs, said archaeologist Willeke Wendrich, the director of the Cotsen Institute of Archaeology at the University of California, Los Angeles, who estimated she spends up to one-third of her time raising money to fund her research. Few benefactors are eager to pay for the cost of scholarly conferences, publishing research, project web sites and other forms of public outreach, or converting old paper and digital records to current digital formats. And recently some researchers have started shouldering an additional expense: paying \$1,500 or more

to publish their scholarly papers in so-called "open access" journals that make their contents freely available online, instead of charging a subscription fee.

Such challenges are prompting many archaeologists to seek other ways to pay for their projects. Some are redoubling efforts to reduce their reliance on one or a few funders by diversifying their donor bases, seeking to build alliances of interested individuals, charitable foundations, and government agencies. Others are experimenting with new business models, such as the IFR's tuition-based field work program, and so-called public benefit corporations that seek to create cash streams for some of archaeology's less sexy activities, such as building digital systems for storing and sharing data. A number have turned to the Internet to try to "crowdfund" projects, using social media to attract donations from hundreds, or even thousands, of people.

Many of these efforts are still in their formative stages, and it's not clear if they will succeed. But the flurry of activity is a positive sign, some observers said. Not that long ago, many archaeologists "were not really talking enough about money... and how to make a compelling case for getting it," according to Gould. But now, "people are getting creative, you see some innovation happening," said Michael Ashley,

PHOTO COURTESY OF THE DUJAMACHE PROJECT

the president of Codifi Paperless Solutions in San Rafael, California, who has created a public benefit corporation that works with researchers to digitize and share data. “The challenge, though, is figuring out which strategies can become sustainable over the long term.”

Today’s funding woes are, in part, a product of American archaeology’s past growth. If Harvard’s Volk were alive today, for example, he would likely be astounded by the number of archaeologists working in the United States. In his day, just 100 or so people could credibly call themselves professional archaeologists. Today, the number is roughly 9,000 to 12,000, according to various estimates, with U.S. universities granting hundreds more graduate-level archaeology degrees every year. Most work for cultural resource management (CRM) firms that perform surveys, digs, and related activities undertaken to satisfy an array of environmental and historic preservation laws. But a substantial number—perhaps between 1,000 and 2,000—are affiliated with universities, museums, or other research institutions.

Volk also surely would be awestruck by the expense of archaeological projects. Although accurate statistics are difficult to compile, analysts estimate that governments and private firms spend around \$200 million to \$500 million on CRM archaeology in a typical year, depending on economic

and other conditions. That dwarfs the funding that academic archaeologists receive from agencies that award competitive grants. For example, the four biggest funders of academic archaeology—NSF, NEH, the National Geographic Society, and the Wenner-Gren Foundation—have in recent years typically awarded about \$12 million to \$18 million annually in major grants to archaeologists, according to a recent analysis by Boytner and his IFR colleague, Danny Zborover. The average grant is for about \$50,000 a year, with some grants lasting two or three years (doctoral students can win smaller grants from NSF to complete their dissertations). NSF is by far the biggest player, providing about two-thirds of the total, but that amounts to a tiny fraction of the agency’s nearly \$8 billion budget for 2018. And, overall, total spending on U.S. archaeology is miniscule compared to funding for other kinds of research. Biomedical scientists in the U.S., for example, now receive more than \$35 billion a year in federal funding alone.

All of those numbers provide little solace to archaeologists trying to find money to pay for their research. Since the prospect of finding a single donor able to fund a project is slim, many archaeologists have adopted a hunter-gatherer mentality, said Gould. “People basically scrounge up money wherever they can find it—a little bit here, a little bit there,” he said. “It’s often about trying to patch things together.”



The Institute for Field Research partially funded the Mohegan archaeology field school in Connecticut. The students investigated colonial-era Mohegan households to learn about everyday life during tumultuous times in Mohegan history.

CRAIG N. CIPOLLA



Excavations led by archaeologist David Landon of the University of Massachusetts Boston resulted in the discovery of the first known remains of the original 1620 Plymouth Colony settlement in Plymouth, Massachusetts. This project was funded by the National Endowment for the Humanities, which only funds a small amount of the requests it receives.

Take, for example, Bonnie Clark, an archaeologist at the University of Denver in Colorado. Since 2008, Clark has been involved in a long-term effort to document Amache, a World War II internment camp near Granada, Colorado, that confined up to 7,300 Japanese-American internees from 1942 to 1945. (See “A Case For Collaboration,” page 40, *American Archaeology*, Spring 2018.) Since the beginning, Clark has known that raising money to study the sprawling site would be a challenge. “Every year,” she said, “I get a little bit of a pit in my stomach, worried whether I’ll find the money to make it happen.” Early on, Clark considered writing a proposal to NSF, even though she knew that her project involved a discipline—historical archaeology, the study of the relatively recent past—that appears to be of little interest to the agency.

After a discouraging conversation with NSF staff, she opted to search elsewhere. To fund the first season of her project, she pieced together about \$30,000 in small grants from the National Park Service (which helps manage National Historic Landmarks such as the camp) and her own university, which offers small grants to faculty members involved in projects that address a “public good” and involve outreach to the community. “The university’s support was

critical to getting things off the ground,” Clark said.

Today, her project’s annual budget is closer to \$50,000, which she acquires from a diverse array of funding agencies and donors. In addition to her university, the Japanese American Association of Colorado has covered the salary of a graduate student who oversees the summer digs, which are held every other year and can involve several dozen students, interns, and volunteers. The Amache Preservation Society, which has a small museum, helps pay for preserving and curating artifacts, and provides some logistical support. The Dumbarton Oaks Research Library, in Washington, D.C., provided a small grant of about \$10,000 to help analyze pollen samples and other evidence that reveal what the camp’s landscape used to look like. Individual donors, including some former internees and others who have ties to the camp, have contributed thousands of dollars. Those donations have allowed Clark to apply for grant funding through a Colorado historic preservation program that requires a twenty-five percent cash match. “Having that match in hand really helped us get the state funding, which is a core of our work,” Clark said.

Clark said the take-away from her experience is that “the little pieces can add up.” Although she admitted that “it

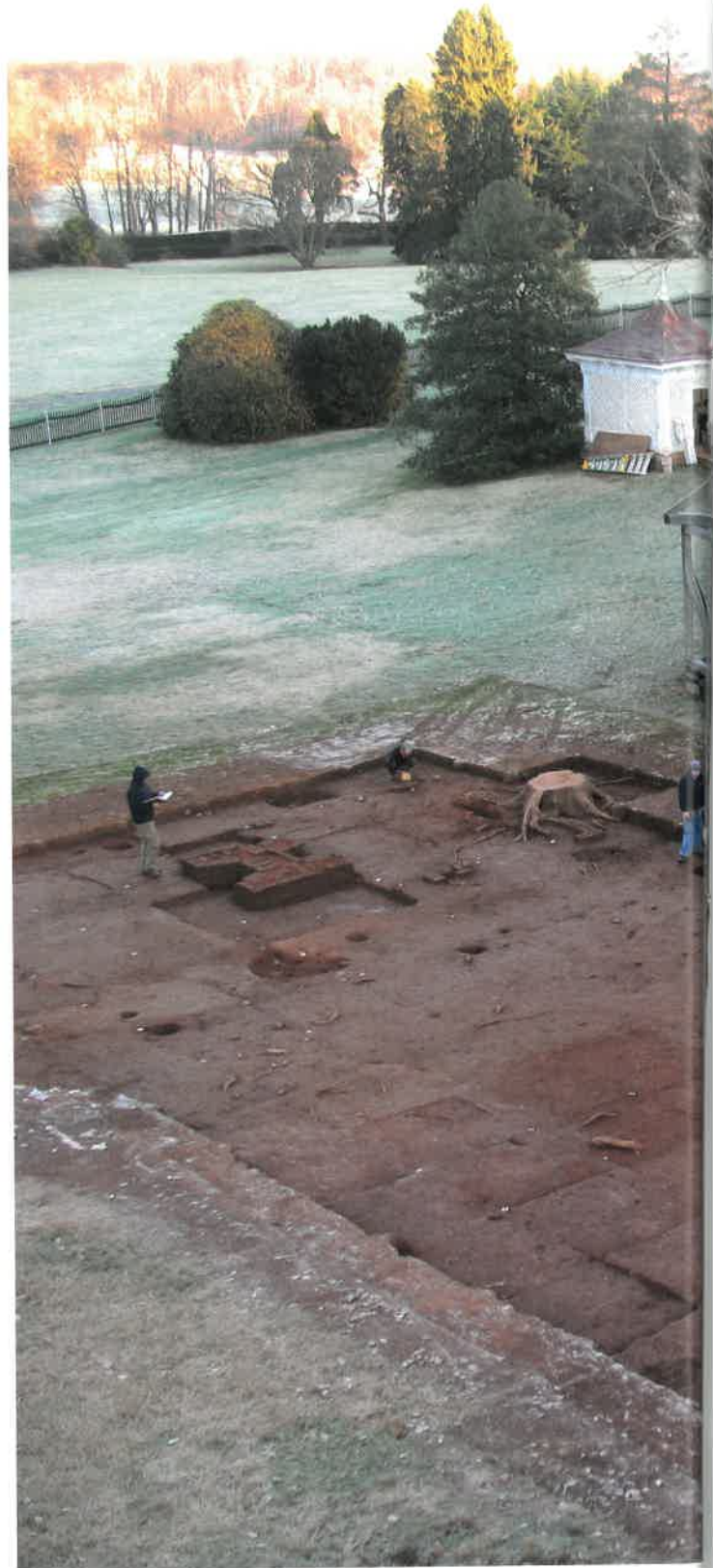
A grant from the NEH supported excavation and analysis by Matthew Reeves of the Montpelier Foundation of the 1820s' homes of enslaved laborers at James Madison's Montpelier estate.

would be very nice to have that big, fat, multi-year NSF grant," she noted that broad-based fundraising has its own rewards. "A lot of people see raising money this way as stressful—and it can be. But it is also very empowering and helps build healthy social networks. When you go directly to individuals and communities to ask for support, you have to explain why what you are doing is meaningful. And you are entering into obligations that aren't necessarily bad. They mean you have a real relationship with the community. And when I go to other, bigger funders, and they ask: 'Do you have community support?' I can say, 'yes.' That's very powerful."

In 2018, she recruited seven students for her summer field school through the IFR. Each student paid nearly \$4,000 to participate, and Clark was able to use a portion of that money to support her project and provide the required match for state funding. "IFR was kind of my rock on which I built everything else," she said. Boytner helped found IFR in 2011 after realizing that many universities were ending their support for archaeological field schools because of funding and liability issues. Sensing an opportunity, Boytner and his colleagues recruited top archaeologists around the world to identify "high quality, meaningful research projects that students could help support."

Winning the IFR's backing isn't easy. Researchers like Clark have to submit an application that includes a detailed description of how they plan to incorporate the students in the research, ensure their safety, and offer a rewarding academic experience. The organization then sends an archaeologist to inspect potentially promising sites. "The vetting is really rigorous," said Clark. "But as a professor, I really appreciate that. I feel confident telling my students that if they do an IFR program, it will be a good experience."

Such vetting, as well as the extensive marketing that the IFR does to attract students, means the program is relatively "immersive and labor-intensive," said Boytner. In 2011, the IFR helped fund a single field school with eleven students. In 2018, the group recruited several hundred students for forty-seven field schools, most of which involved archaeology, and seven of which took place in the U.S. That number could grow to more than fifty field schools next year. Students pay \$3,000 to \$6,000 to participate, and the tuition typically provides \$25,000 to \$30,000 to each dig. The tuition is the sole source of funding for more than half of the IFR's projects, and the largest source of funding for almost all of them. "For the researchers we work with, this has become an important way of funding their field work, and there is room for it to grow," he said.



Other researchers have turned to the Internet to fund their work. Inspired by sites like Kickstarter and GoFundMe, they have tried to draw new, mostly small, donors to support everything from digs to artifact preservation. But the results have been decidedly mixed, said Gould, who is a partner in DigVentures, one of the biggest



MATTHEW REEVES, THE MONTPELIER FOUNDATION

crowdfunding sites dedicated to archaeology. A few projects, mostly outside of the U.S., have raised \$25,000 or more, but, according to Gould, those are exceptions.

Studies appear to bear him out. Overall, they've found that less than fifty percent of science-related crowdfunding efforts succeed in reaching their goals, even when the goals

are relatively small amounts of money. Successful campaigns typically tap well-established social networks, such as the friends and families of the researchers, rather than attracting unfamiliar donors. And projects that deal with important but mundane activities, such as curating collections, aren't likely to draw much interest. "It's hard to put together a



DIGVENTURES

A girl holds a pair of scissors recovered during excavations at Darrow School in upstate New York. The project was funded by DigVentures, a crowdfunding site dedicated to archaeology.

compelling story for that kind of work,” Gould said, adding that crowdfunding takes “a lot of commitment and marketing savvy. Where crowdfunding has worked consistently in archaeology, it is due to creating and sustaining communities of repeat donors. That is hard.”

To fund archaeology’s less glamorous activities, a few practitioners have turned to the world of business. For example, Codifi’s Ashley—who describes himself as an “archaeologist, photographer, and digital nerd”—has thought a lot about how researchers can meet obligations to digitally collect, store, and share data, a requirement sometimes imposed on them by both CRM and academic funders. Archaeologists frequently submit data management plans “that are just not sustainable or believable,” he said, “they can’t tell you how they are going to maintain their data five years from now when their funding runs out.”

His answer has been to establish a public benefit corporation that, under the law, exists not only to make a profit for its shareholders, but also to provide a public service. One of Ashley’s goals is to develop paperless applications that can help ensure that the data collected in the field are designed to remain accessible to researchers and the public. He and his team are building Codifi, which he described as “a platform that is like TurboTax, but for archaeology—standards-based,

widely applicable, and easy to support.” The public benefit structure is helping him persuade investors who share his goals to help fund these tools and initiatives that benefit the industry.

“If we charge \$100 a month for a field tool that saves the firm ten times that,” he said, it’s possible to envision creating a revenue stream that supports digital platforms for educational, non-profit, and non-governmental organizations at little or no cost. (Clark is also using Codifi for her Amache research.)

Such creative business ventures could take years to bear fruit. In the meantime, many archaeologists are likely to continue to struggle to find a funding strategy that fits their situation. But perhaps they can take heart from Ernest Volk’s experience some 125 years ago. Not long after having to cancel his dig, Volk was able to get back into the field when a new patron—the Duke of Loubat, a French-American philanthropist and enthusiastic amateur archaeologist—“generously contributed funds to continue the work.” Help, it seems, sometimes comes from unexpected sources.

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