

Refusing Extinction

When the Cherokee Nation got its first shipment of the Pfizer vaccine in December, there was no question where it would go. “We put Cherokee-fluent speakers at the front of the line,” said Principal Chief Chuck Hoskin. “Saving the language” is a top priority at all times, and never more so than during a pandemic (qtd. in Kaur).

Cherokee, like many Indigenous languages around the world, is endangered, with just two thousand fluent speakers. Most of these are elders, forty-five of whom were lost to COVID-19. The deaths of these keepers of language meant lost libraries of “lifeways, culture, stories” (Brown). Stung by these losses, the tribe pulled together to get the vaccine out as soon as it arrived. “Our doses have been administered without any lag time,” Hoskin said (qtd. in Brown).

The Cherokee Nation has 141,000 citizens living on its reservation in Oklahoma. By 8 February 2021, more than seventeen thousand had gotten both shots, a vaccination rate that, at twelve percent, was significantly higher than that of most states. Cherokee speakers, elders, and health-care workers had all been vaccinated, and the tribe was able to open up the distribution to those fifty-five and older, as well as to teachers and tribal government employees. On 25 February, the Cherokee Nation announced that those sixteen and older were now eligible (Mudd). By 11 March, the tribe began offering the vaccine to the general public, non-Native as well as Native (King).

Hoskin attributed this phenomenal success to the decision to put the Cherokee speakers at the head of the line. Given the widespread mistrust among Native communities—especially acute after the federal government sterilized more than a quarter of Native women of childbearing age in 1970 (Theobald)—this was the “biggest confidence builder” anyone could have come up with. By inoculating its most revered citizens, the tribe was sending a signal no one could fail to notice. It has “done something to create a sense of optimism among our people,” Hoskin told CNN (qtd. in Kaur).

It also helped that the infrastructure was already in place for the vaccine rollout. The Cherokee people are clear-eyed about the nation’s health-care system and have acted accordingly. “We’re a country that

doesn't make access to health care part of being a citizen," Hoskin said. "That's a problem during good times, and it's certainly a problem during the pandemic." Not wanting to leave everything to the state or federal government, the Cherokee Nation has been investing for years in its state-of-the-art hospital and clinics, now the largest tribally operated health-care system in the United States. It has made headline news before. Back in November, *PBS Newshour* ran a story, "How the Cherokee Nation Has Curtailed the Pandemic," featuring the tribe's cutting-edge contact tracing (McFarling).

The Cherokee Nation is less of an outlier than we might think. Other tribes, without this medical infrastructure, are doing fine as well with vaccine distribution, in part thanks to the clearly stated goal of protecting endangered speakers. According to an analysis by NPR, native communities as a rule have been faster than the rest of the country in getting shots into people's arms (Siegler). Given how dire things were at the beginning of the pandemic, this is an unexpected turn of events, to say the least.

Hand washing is difficult on reservations because Native households are nineteen times more likely than white households to lack access to indoor plumbing. "Running water, it would be such a luxury," said Legena Wagner, a member of the Navajo Nation (qtd. in Sellers). Other preexisting conditions are just as crushing. Native Americans are six hundred times more likely to die of tuberculosis and two hundred times more likely to die of diabetes (Hedgpeth et al.). During the early months of the pandemic, they were dying at twice the rate of white Americans (Currizzo). And yet, as Kyle Powys Whyte reminds us, threats of extinction are nothing new for Native communities; they have always found a way to come out at the other end ("Indigenous Climate Change Studies"; "Critical Investigations"). "Our genetic memory of past epidemics is very strong," said Chuck Sams, the COVID-19 incident commander on the Umatilla Reservation. "Epidemics that came through between 1780 to 1860 wiped out nearly 95% of our population. We're the descendants of the 5% that survived" (qtd. in Brown).

The Rosebud Sioux and Oglala Sioux tribes in South Dakota, with the lowest life expectancy in the United States, represent that five percent. Among the hardest hit in the pandemic, they have nonetheless been highly effective in making language preservation

a driving force in public health. Lakota is also an endangered language, again with just two thousand speakers. Elders fluent in that language offer vaccine information on the radio. Call-center staff members likewise make appointments and schedule transportation in Lakota. "That's one of the defining features of our response. Our community figures things out fairly well with limited resources," said Alicia Mousseau, vice president of the Oglala Sioux Tribe. Of the roughly thirty thousand tribe members living on its reservation, the tribe had vaccinated more than four thousand by 1 February (Kaur). The Rosebud Sioux Tribe, meanwhile, was vaccinating at double the rate of South Dakota as a whole. "We've even had non-Indian people from Sioux Falls and Omaha trying to get in here to get vaccinated because they can't get it over there," said Rodney Bordeaux, president of the tribe (qtd. in Siegler).

There is no better example of this sea change than the Navajo Nation. The largest reservation in the United States, it had long been stricken by nightmarish health crises. The 1918 flu epidemic killed between ten and eighteen percent of the Navajo population (Blakemore). This time around, COVID-19 (*Dikos Nitsaa'igii-19*, "the big cough," in Navajo) also struck swiftly and relentlessly. Three hundred twenty-one tribal members had already been infected by 4 April 2020, a day that saw fifty-one new cases and thirteen fatalities (Hedgpeth et al.). By 18 May, the Navajo Nation surpassed New York State as the area with the highest infection rate in the country (Silverman et al.). That infection rate soared to nearly thirty-eight percent on 20 November (Begay).

But other trends were also beginning to emerge. While the Navajo (Diné) language, with 170,000 speakers, is not under immediate threat of extinction like Cherokee and Lakota, reservation health-care workers have nonetheless been able to use it as a hook for the vaccine rollout. Daily radio call-in shows and biweekly town hall meetings in Navajo were organized to educate the public. "Utilizing our way of life and teaching helps our people feel it's okay to take the shots," said Jonathan Nez, president of the Navajo Nation. When the first shipment of vaccines arrived in December, three out of four of the residents welcomed them with open arms. By 8 February 2021 thirty-three percent had received the first dose, and over four percent had been fully vaccinated (Kaur). "The Navajo Nation is beating out every state's coronavirus vaccine rollout," *Forbes* reported on 4 April 2021 (Porterfield).

Navajo physicians have made a point of integrating Native medicine into contemporary drug-based treatment. Michael Tutt, chief medical officer of the Tséhootsooí Medical Center in Fort Defiance, Arizona (www.fdihb.org/tsehootsooi), cares for a population of thirty thousand by practicing the art of listening. “My grandmother told me listening is medicine. And what you say, what comes out of your mouth, is medicine. Probably stronger than what you give as medication. When you only treat patients physically, you just throw medications at them. But the Navajo way, we treat them physically, mentally, spiritually” (qtd. in Flaherty).

There is a difference between medicine and medication. The former is much broader, more democratic, an art as well as a science. The Navajo word for this integrated medicine is *Hózhó*, a balanced way of walking the earth. It means that the patient has as much input into the healing process as the physician, not just being treated with pills but also being listened to and prayed for. To put *Hózhó* into practice, Tutt brings a traditional healer to his mobile rheumatology clinic:

Sometimes my patients are looking forward more to the traditional healer than to me. That's what I want. Because they feel good when they get a prayer, that things will be all right. To me it's a pure way of praying for somebody. It's Navajo, it's tied to the ground, tied to our surroundings, non-denominational, non-judging. Our way of praying has been going on for 500 years. And it will still be here 500 years from now. (qtd. in Flaherty)

To make sure that the Navajo prayer will last five hundred years, Tutt looks to the next generation for creative continuity. The Tséhootsooí Medical Center has an adolescent care unit, Arizona's first inpatient psychiatric clinic for young Native Americans. “A lot of these kids—I call them scrappers because somehow they've survived this long—have lost their parents to drugs and alcohol,” Tutt said. “We take care of them with their addiction; we give them tools to survive their daily life. But one of the things that I think makes a big difference is we instill within the program traditional teaching.” The Navajo Nation can have a future only if there are youngsters to carry its way of life forward. Threats of extinction can be put to rest only if this next generation is equipped for the rocky road ahead, given tools that maximize their chances of survival.

Here is a lesson for the humanities. Precarious even before the pandemic, our field is now confronted with existential threats never seen before. But things aren't carved in stone, and, as it turns out, some of us have already taken a page from the same playbook as Native Americans. The University of Virginia (UVA), the recipient of multiple Mellon grants for the study of Indigenous art and culture, has built its vibrant humanities programs in part by dedicating itself to the revival of endangered languages, while putting the younger generation front and center, as cocreators of an education updated for the twenty-first century, integrating the arts and sciences as foundational knowledge now needs to be.

There is every reason why this integrated knowledge should have an honored place at UVA. The university stands on the ancestral land of the Monacan Nation; that legacy continues to shape the intellectual communities that have sprung up. The UVA archaeologist Jeffrey Hantman wrote the path-breaking *Monacan Millennium* to honor that legacy. Christian McMillen, a professor of history and associate dean of the social sciences—who has also lectured in the medical school—wrote his classic study of pandemics and designs his classes by stitching Native history into the history of infectious diseases. Karenne Wood, a poet and educator, the first Monacan student to receive her PhD from UVA, titled her dissertation “The Language Ghost: Linguistic Heritage and Collective Identity among the Monacan Indians of Central Virginia.” She would go on to bring that “language ghost” with her to Virginia Humanities, a state foundation that makes a point of acknowledging its debt to “the Monacan Nation, the original people of the land and waters of our home in Charlottesville, Virginia.” The foundation invites readers “to learn more about Indians in Virginia in our *Encyclopedia Virginia*” (“Indigenous Acknowledgment”).

UVA, meanwhile, joins Duke University and Vanderbilt University to form a consortium offering classes on less commonly taught languages, including Maya K'iche. The Interdisciplinary Doctoral Fellowship program in Indigenous studies has become an innovation hub for the College of Arts and Sciences, and for the community at large. Students in these program might work on

Indigenous data collection, curation, and sovereignty in partnership with anthropologists, data scientists and UVA librarians. You might explore Indigenous

arts, languages, and landscapes with linguists, art historians, musicologists and curators at the University's Fralin Museum of Art and Kluge-Ruhe Collection of Aboriginal Art. You might focus on Indigenous science, technology, and sustainability with faculty in Architecture and Spanish languages and cultures and members of the Charlottesville community. ("Indigenous Studies")

This integrated knowledge became the template for the new college curriculum when Ian Baucom, dean of arts and sciences, and an interdisciplinary faculty team led by Sarah Betzer (art history) and Chad Wellmon (German) set out to redesign it, for the first time in more than forty years. For Baucom, the challenges facing modern life—"climate change; a staggering rise in displaced populations and human movements across borders; the enormous technological and economic changes springing from data, machine-learning and artificial intelligence; global public health crises and astonishing medical breakthroughs; the many challenges to the future of democracy, old and new"—call for an updated curriculum emphasizing the connection rather than the separation among the disciplines (Carfagno). The arts and sciences are equal partners here, with "philosophers co-teaching with biologists, historians with mathematicians" (Bacon).

"It's not our job to give students the answers," Baucom says. "But we do need to give them a framework" to grapple with "big normative questions: What is the nature of democracy? What are our ethical obligations to our communities, to others around the world, and to generations to come?" (qtd. in Carfagno). The new curriculum is meant to encourage faculty members as well as students to ask these questions from across a range of disciplines. Toward that end, first-year students are offered a number of courses called Engagements, collaboratively taught by a rotating cohort of faculty members spanning the disciplines. This pilot program attracted more than 1,900 students in its first three years. In October 2019 the UVA arts and sciences faculty members voted to adopt the new curriculum for the university's general education requirement. In tandem with that innovation, UVA has launched a set of new humanities labs to bring cross-field teams of faculty members and students together.

Mapping Indigenous Worlds is one of the humanities labs. Jointly led by Max Edelson and James Igoe—

a historian specializing in digital cartography and an anthropologist championing local knowledge, respectively—the lab collaborates on an interactive atlas that studies large-scale ecosystems as well as site-specific cultural artifacts: a Haudenosaunee wampum belt, a Catawba deerskin map, a Maya vase depicting the destruction of the rulers of Xibalba (*Mapping*). This rubric in turn leads to smaller research clusters made up of teams of faculty members, graduate students, and undergraduates. Kasey Jernigan, an assistant professor of American studies and an enrolled citizen of the Choctaw Nation whose participatory research on food has been supported by the United States Department of Agriculture and the National Institutes of Health, teaches a seminar called Mapping Indigenous/UVA Relations. Mark Sicoli, an assistant professor of linguistics, runs the PhyloNet Lab, so far coding 150 Native American languages and select languages of the Pacific Rim and East Asia. For all these researchers, data collection and community engagement go hand in hand. Sicoli's documentary film, *Whistles in the Mist: Whistled Speech in Oaxaca* (winner of a 2014 Emmy Award), involved extensive collaboration with the Chinantec community. His class Language Revival in the Eastern Tribes, developed in partnership with the Nottoway tribe of Virginia, works to reconstruct the Nottoway (Iroquoian) language with tribal members, while introducing undergraduates to comparative linguistics and community-engaged research. From this historical reconstruction of words, sounds, and grammar, this collaborative team hopes to develop a methodology and a pedagogy for the tribe's language-revival program.

Innovative classes taught by early-career scholars and dedicated research by undergraduates are the twin signatures of the new UVA curriculum. Another class, Extinction in Literature and Culture, taught by Adrienne Ghaly, a postdoctoral fellow in arts and sciences, is equally rigorous and galvanizing. Using UVA's Special Collections Library as its source of evidence, it reorients students toward a cultural mapping of biodiversity loss. A 2019 United Nations report predicted that a million species are due to go extinct, many in the coming decades ("World"). "How do we understand this historical moment if it's happening all around us, but we mostly can't see or experience it?" Ghaly asked. "Art, artifacts, and literature can show us ways of thinking about it in everyday life." Chronicling what we eat and wear, and how we go about our business,

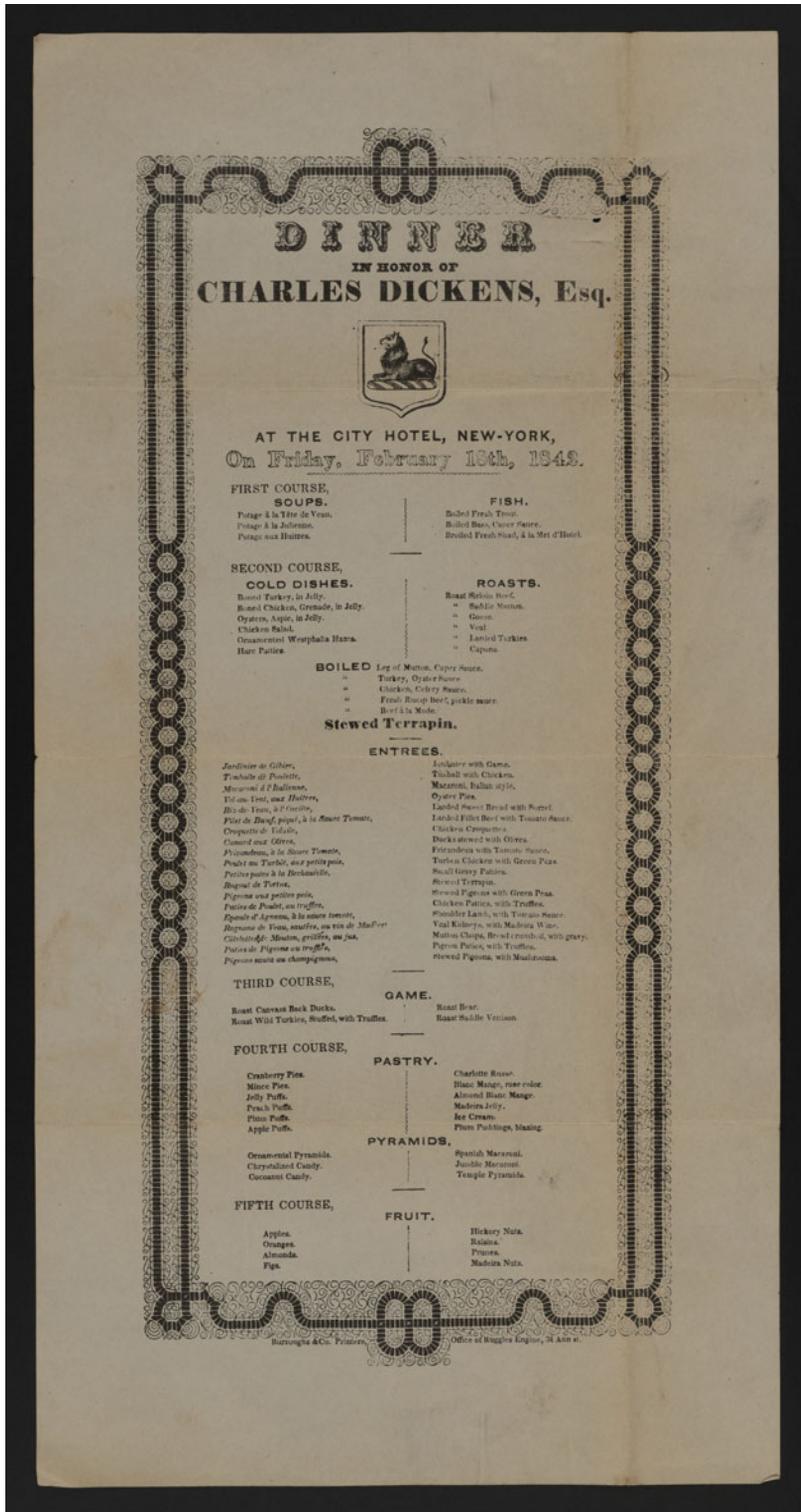


Fig. 1. Menu for a dinner honoring Charles Dickens's 1842 tour of America. Broadside 1842.D52. Courtesy of the University of Virginia Special Collections Library.

these records bring into focus our “aggregate agency” in anthropogenic processes. They are the “cultural residues of biodiversity loss, everywhere hiding in plain sight.”

To collect these cultural residues, students looked at the artifacts in the Special Collections Library—cookbooks, souvenir menus, games, advertisements, trade catalogs, and municipal records—to trace the “complex, multiple drivers and indirect causalities” that lead to the accelerating pace of mass extinction. The menu of a dinner in honor of Charles Dickens on his 1842 tour of the United States, for instance, featured stewed pigeon—passenger pigeon (fig. 1). This used to be the most common bird species in the United States, darkening the sky in flocks of billions, but it has not been seen for over a century. The Dickens dinner menu is a microcosm of our consumption habits that spell disaster for nonhumans. Other documents in the library corroborate that evidence. One of the students in the class, Liv Gwilliam, found a nineteenth-century letter about the binge hunting indulged in by her family members, lamenting that they killed so many birds that everyone would soon get sick of eating them (qtd. in Bromley).

Gwilliam said she was “fascinated and passionately saddened” by what she found. “What was most notable was how conscious people were, even over 100 years ago, about the harm they were doing to animals while they were doing it.” Other students, however, also found “narratives of extinction that the author of the time did not know they were narrating” (qtd. in Bromley). A case in point is the collection and cultivation of wild plants. Skylar Wampler, an English major with a minor in environmental sustainability, noted that such upfront goodwill often hides a deeper and more pervasive level of harm. The Venus flytrap, a popular plant to have in the garden, is in sharp decline in the wild, with fewer than 35,000 remaining, thanks to overcollection, climate change, sea level rise, and habitat destruction.

The impact of human action on the nonhuman world is complex and long-term and often has unintended consequences. Documenting its multiple pathways fired students up. Several of them joined a research team after the class was over, and Ghaly continued to meet with them over a three-year period, designing with them a public-facing exhibition, *Extinction in the Archive* (September 2019–January 2020), while making a key contribution to an open-access symposium, *Burning the Library of Life* (September 2019). In May 2020 the project was awarded a “Faculty Research

Sprint”: six librarians and curators from English, special collections, metadata, digital research and scholarship, astronomy, and environmental sciences joined forces with the team for more brainstorming. While much remains uncertain, one thing is clear. Existential threats can energize us as well as destroy us. To build a body of knowledge around the refusal of extinction is to inject a new sense of purpose into education itself. It is to integrate the arts and sciences, linking everyday practice to large-scale processes the better to think ethically, emotionally, and analytically about the future of our species and other species. It is a lifeline we cannot do without.

Wai Chee Dimock

WORKS CITED

- Bacon, James A. “Ian Baucom’s Plan to Change the World.” *Bacon’s Rebellion*, 24 Feb. 2017, www.baconsrebellion.com/wp/baucom-plan-change-world/.
- Begay, Jade. “How Navajo Physicians Are Battling the COVID-19 Pandemic.” *Smithsonian Magazine*, Mar. 2021, www.smithsonianmag.com/science-nature/healers-navajo-nation-pandemic-covid-19-180976994/.
- Blakemore, Erin. “How Influenza Devastated the Navajo Community in 1918.” *JSTOR Daily*, 13 July 2020, daily.jstor.org/how-influenza-devastated-the-navajo-community-in-1918/.
- Bromley, Anne. “Finding Extinction Where You Least Expect It—in the Special Collections Library.” *UVAToday*, 7 Oct. 2019, news.virginia.edu/content/finding-extinction-where-you-least-expect-it-special-collections-library.
- Brown, Alex. “In Hard-Hit Indian Country, Tribes Rapidly Roll Out Vaccines.” *Pew Charitable Trusts*, 9 Feb. 2021, www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2021/02/09/in-hard-hit-indian-country-tribes-rapidly-roll-out-vaccines.
- Carfagno, John. “Dean Ian Baucom Aims to Build on College’s Momentum.” *UVAToday*, 4 Dec. 2019, news.virginia.edu/content/qa-dean-ian-baucom-aims-build-colleges-momentum.
- Currizzo, Chelsea. “COVID Mortality Twice as High among Native Americans than Whites.” *US News*, 10 Dec. 2020, www.usnews.com/news/health-news/articles/2020-12-10/covid-mortality-twice-as-high-among-native-americans-than-whites.
- Flaherty, Julie. “For This Navajo Doctor, Listening Is Medicine.” *Tufts Now*, 15 Apr. 2019, now.tufts.edu/articles/navajo-doctor-listening-medicine.
- Ghaly, Adrienne. “Extinction in the Archive.” E-mail to the author, 22 Mar. 2021.
- Hedgpeth, Dana, et al. “Indian Country, Where Residents Suffer Disproportionately from Disease, Is Bracing for Coronavirus.”

- The Washington Post*, 4 Apr. 2020, www.washingtonpost.com/climate-environment/2020/04/04/native-american-coronavirus/.
- "Indigenous Acknowledgment." *Virginia Humanities*, virginiahumanities.org/about/. Accessed on 7 Apr. 2021.
- "Indigenous Studies." *The Graduate School of Arts and Sciences*, U of Virginia, 2021, graduate.as.virginia.edu/indigenous-studies.
- Kaur, Harmeet. "Tribal Health Providers Have Figured Out Key to COVID-19 Success." *CNN*, 26 Feb. 2021, www.cnn.com/2021/02/09/us/tribal-health-providers-covid-vaccine-trnd/index.html.
- King, James. "Cherokee Nation Opens Vaccine to Everyone in 14-Country Reservation Area." *KTUL*, 11 Mar. 2021, ktul.com/news/local/ Cherokee-nation-opens-vaccine-to-everyone-in-14-country-reservation-area.
- Mapping Indigenous Worlds*. U of Virginia, 2021, uva.theopenscholar.com/mapping-indigenous-worlds/.
- McFarling, Usha Lee. "How the Cherokee Nation Has Curtailed the Pandemic." *PBS NewsHour*, PBS, 24 Nov. 2020, www.pbs.org/newshour/health/how-the-cherokee-nation-has-curtailed-the-pandemic.
- Mudd, Cassidy. "Cherokee Nation in Phase 3 of Vaccine Distribution." *KTUL*, 26 Feb. 2021, ktul.com/news/local/ Cherokee-nation-in-phase-three-of-vaccine-distribution-plan.
- Porterfield, Carlie. "Here's Why the Navajo Nation Is Beating Out Every State in Coronavirus Vaccine Rollout." *Forbes*, 4 Apr. 2021, www.forbes.com/sites/carlieporterfield/2021/04/04/heres-why-the-navajo-nation-is-beating-out-every-states-coronavirus-vaccine-rollout/?sh=109b1e9611cf.
- Sellers, Frances Stead. "It's Almost 2020 and 2 Million Americans Still Don't Have Running Water." *The Washington Post*, 11 Dec. 2019, www.washingtonpost.com/national/its-almost-2020-and-2-million-americans-still-dont-have-running-ewater-new-report-says/2019/12/10/a0720e8a-14b3-11ea-a659-7d69641c6f7_story.html.
- Siegler, Kurt. "Why Native Americans Are Getting the COVID-19 Vaccines Faster." *NPR*, 19 Feb. 2021, www.npr.org/2021/02/19/969046248/why-native-americans-are-getting-the-covid-19-vaccines-faster.
- Silverman, Holly, et al. "Navajo Nation Surpasses New York State in the Highest COVID-19 Infection Rate in the US." *CNN*, 18 May 2020, www.cnn.com/2020/05/18/us/navajo-nation-infection-rate-trnd/index.html.
- Theobald, Brianna. "A 1970 Law Led to the Mass Sterilization of Native American Women." *Time*, 28 Nov. 2019, time.com/5737080/native-american-sterilization-history/#:~:text=Over%20the%20six%2Dyear%20period,numbers%20were%20actually%20even%20higher.
- Whyte, Kyle Powys. "Critical Investigations of Resilience: A Brief Introduction to Indigenous Environmental Studies and Science." *Daedalus*, no. 147, 2018, pp. 136–47.
- . "Indigenous Climate Change Studies: Indigenizing Futures, Decolonizing the Anthropocene." *English Language Notes*, no. 55, Fall 2017, pp. 153–62.
- "World Is 'On Notice' as Major UN Report Shows One Million Species Face Extinction." *UN News*, 6 May 2019, news.un.org/en/story/2019/05/1037941.