

Planet Texas 2050 Uses Ancient Civilizations to Prepare Texas For the Future

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Thousands of years ago, on the western coast of the Black Sea, where the water flows through the mouth of Europe's second-longest river, the Danube, hundreds of Grecian settlers built their homes.

Histria, as it was known, quickly became a major urban center with a booming trade industry. But as centuries passed, the city became riddled with numerous problems: geopolitical clashes, violence, plagues, environmental changes. Inevitably, people abandoned the area, and Histria fell to ruin.

More than 2,000 years later, UT Classics Professor Adam Rabinowitz and a group of UT researchers are looking to the once-thriving colony to teach us about today's world—and specifically about Texas.

When I meet Rabinowitz in August, just a few weeks have passed since he returned from his summer abroad in Romania, where Histria, which bordered the Roman Empire, once stood. The excavation is part of UT Austin's Planet Texas 2050, an eight-year-long "sprint" to find solutions that will make the state more resilient. As Texas' population is predicted to double to 55 million by the midcentury, UT aims to prepare the state for problems such as population growth, climate change, and depleting resources.

"The question was, 'How do we make Texas a habitable, sustainable, and equitable environment for human settlement by the time we get to the middle of the 21st century?'" says Rabinowitz, who is one of Planet Texas' founding grand challenge researchers.

UT Austin President Greg Fenves first introduced Planet Texas 2050 in March 2018 as part of the university's Bridging Barriers initiative, which serves to foster large projects that bring different disciplines together. "Our goal is to achieve, through research, a better understanding and better knowledge to build a clear picture of what the future of Texas will look like," he said, "environmentally, economically, and demographically so that we as a society and state can prepare, adapt, and thrive."

When the university tasked a team of UT researchers that included Rabinowitz with creating a proposal for Planet Texas in 2017, the Greek and Roman archaeologist had already been eyeing an excavation project in Histria. He believes it is a place that has a lot to teach about sustainability—and that studying the past can help inform our state's future. With its proximity to the coast, growing population, and location on the border, Rabinowitz sees Histria as a place reminiscent of Texas.

"I wanted to work not in Texas and not in the present and not in the future, but in a place where there was a dense urban settlement that was dealing with climate and environmental changes," he says. "Also a place of real demographic dynamism and people sorting out how they're going to get along and dealing with an environment that can be unpredictable."

Rabinowitz's team looked at Histria's water supply and human and animal remains, excavating what was once a residential area for the Greeks but served as a children's cemetery during the Romans' inhabitation. Today, the area where Histria used to exist is mostly a vast and empty expanse of grassy land, though a few walls and ruined houses and churches of the later phase of the city are still visible above ground. They also collected flora and fauna samples. Through magnetometry—measuring and mapping patterns of magnetism in the soil—the excavation team happened upon an ancient pottery kiln, giving them insight to a key part of the Greeks' economy.

"We're really in the early days of what kinds of things we can look for," Rabinowitz says. "The remains give us a lot of information on the general health of the population and mortality rates, which will help us build demographic profiles."

Studying the past is beneficial to a project like Planet Texas because the distance allows for more open dialogue about issues like immigration and climate change. "The situation in the past isn't as urgent to us," he says. "So it becomes something where you can see, in some cases, there are violent conflicts or climate change is forcing a group of people out. And you can see where some of them are absorbed into the empire."

Rabinowitz's study on Histria is just one of many ongoing projects within Planet Texas. There are currently 14 researchers from colleges, schools, and units across campus that comprise the team. One project focuses on collecting and understanding data on traffic patterns and air quality. Another, called "Optimal Averaging of Water Resources," examines how much water is available in Texas. Researcher and English professor Heather Houser is working on a narrative anthology, documenting how different types of people—urbanites, indigenous people, farmers—talk about water.

"What we're doing now, I hope has ramifications for how we're all going to be living in Texas," Rabinowitz says. "I'm really grateful to be a part of this."

In a perfect world, at the end of Planet Texas' eight years, the team will have solved every problem. But in reality, Rabinowitz suspects Planet Texas will have just begun to scratch the surface. Come 2026, the team will have gathered data and created tools to help people understand what that data means for the present and future. Rabinowitz hopes they will have built relationships with communities and policymakers to help those groups take action.

"Ideally, it will help us all pool together," he says, "so that we don't reach the middle of the century in a dramatically more difficult situation than we are in now."