

Happy mistake: Computer error brings ASU Online, on-campus students together to break new ground in research

Teotihuacan Research Laboratory uses modern technology to uncover ancient stories

By O'Hara Shipe, ASU News

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Every Thursday, a large group of students gathers in the [Teotihuacan Research Laboratory](#) (TeoLab) in the basement of the School of Human Evolution and Social Change building on Arizona State University's Tempe campus.

Despite the sterile connotations of laboratories, the TeoLab is brightly lit, covered in colorful posters and filled with energy as the students gather to discuss updates about their [Research Apprenticeship Program](#). On a large computer screen, additional [ASU Online](#) students join the meeting via Zoom.

For the past 50 years, archaeologists at ASU have been conducting field research at Teotihuacan in partnership with Mexico's [Instituto Nacional de Antropología e Historia](#). About 30 miles northeast of modern Mexico City, the archaeological site is home to one of the largest ancient cities in the world and offers an unprecedented opportunity to uncover the story of ancient urban life.

Under the direction of Michael Smith, a professor at the [School of Human Evolution and Social Change](#), research within the TeoLab has taken on a new digital approach.

“It was an error, really,” Smith said with a laugh.

Two years ago, a registration error admitted 10 ASU Online students into the lab’s research programs, and Smith had to scramble to find work for them.

“I thought, well, there’s this digital project checking the original field records against the database. Originally, I thought it was sort of a busy-work project, but as I discovered, the students were doing really useful things to advance the lab’s research,” Smith said.

One ASU Online student in particular, [Jennifer Minish](#), helped Smith see how archaeology research could not only be bolstered but made more accessible by modern technology. Her first project was orchestrating a collaborative effort to scan and upload 1960s hand-drawn maps of Teotihuacan. Online students then used Adobe Photoshop to create digital overlays of the architectural and terrestrial features of the site.

“Teotihuacan is cool because it’s one of the few large ancient cities where you actually can reconstruct thousands of buildings from the surface terrain. Because of the online students, we now have a scan of the original surface and a digital architectural map marked with key findings,” Smith said.

Now a PhD student in archaeology and the TeoLab administrative associate, Minish is applying her experience as an online researcher to continue to integrate online students into research projects.

“Archaeology is transitioning into a digital space, but it’s still so many different things. It’s both high-tech programs and drawing and sketching and digging in the dirt. I think that’s where combining both in-person and online research teams becomes important,” Minish said. “It’s about giving students the tools to be successful professionals when they graduate.”

For all of its benefits, there are of course some hiccups to applying new technologies. From Bluetooth headsets not connecting on Zoom to time differences and learning new platforms like Discord, sometimes research meetings don’t always go as planned.

Still, for Abigail Harrison, an ASU Online anthropology student, the benefits outweigh any challenges. She cites obstacles common to online education anywhere, such as difficulty making connections both with fellow students and with professors, a key step in getting references for graduate school.

“The TeoLab RAPs give online students a chance to work in small groups and get to know professors personally,” Harrison said.

The increased accessibility for research opportunities within the TeoLab has also contributed to attracting a diverse group of students.

“We have students as old as 55 and as young as 18 with a wide range of interests and learning styles. We also have visiting researchers and graduate students. Inclusivity is something we pride ourselves on,” Minish said. “There are opportunities for every interested student.”

In the future, the lab hopes to attract more interdisciplinary students who want to put their theoretical knowledge into practice.

“I would love to have some art students or some architecture students. So much of what we do is interdisciplinary in nature, and I could see many of our projects being of interest to students outside of the School of Human Evolution and Social Change,” Minish said.

This story originally appeared on [ASU News](#).

Main image

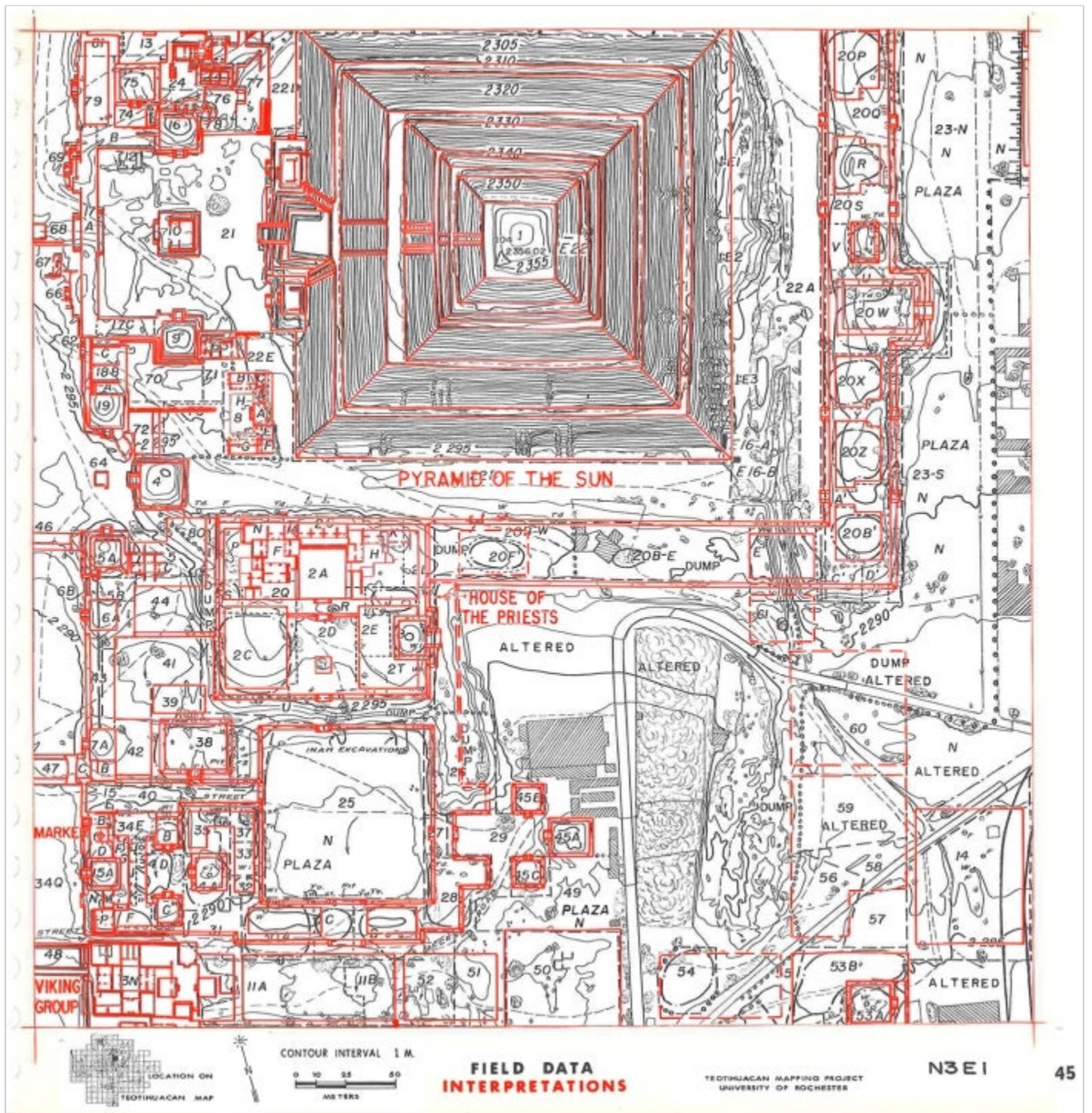


School of Human Evolution and Social Change campus-immersion students meet with ASU Online students from the school to discuss ongoing research projects. Photo by O'Hara Shipe/ASU

Gallery



Michael Smith, a professor at the School of Human Evolution and Social Change, shows Research Apprenticeship Program students hand-drawn maps of Teotihuacan from the 1960s.



Original paperwork for recording site details by hand from the Teotihuacan Mapping Project carried out by Rene Millon and George Cowgill in the 1960s.



Jennifer Minish, an ASU Teotihuacan Research Laboratory administrative associate and archaeology PhD student, conducts a Research Apprenticeship Program meeting with ASU Online and in-person students.



Both campus-immersion and ASU Online students collaborate on Teotihuacan Research Laboratory projects via online platforms like Discord, Zoom and Dropbox.



Abigail Harrison, an ASU Online anthropology student, photographs Teotihuacan artifacts. The pottery shards will then be uploaded into a database for online researchers to conduct further analyses.



As a PhD student in archaeology and the Teotihuacan Research Laboratory administrative associate, Jennifer Minish is applying her experience as an online researcher to continue to integrate online students into research projects.