

THE PAST IS PRESENT



Chris Johanson takes his studies of ancient Rome into the electronic realm.

By Mary Daily

As a freshman, Chris Johanson began college at Iowa State University, planning to be a computer scientist. The curriculum for his major required some humanities electives, so, along the way, he signed up for Latin.

Nothing was ever the same again.

Johanson was hooked on the classics, and that's the field he pursued all the way through a Ph.D. at UCLA, where, after graduation, he joined the faculty.

Still, Johanson's computer skills and interest have not been dormant. Today he teaches and conducts research in digital humanities, combining his two passions. Through the modern technology of digitization, he brings students into contact with a rich history of scholarly work that reaches back over the centuries.

"We have extraordinarily robust technology to study historical phenomena in space and time," Johanson said. "This gives us a whole new way to talk about things. Digitization enables us to address questions more effectively. We can do things today that 20 years ago were theorized or set aside because they were too expensive or the tools were unavailable."

The digital world in which Johanson spends much of his

time is the Roman Forum of the 2nd century BCE. He's there to study the stagecraft of the funerals of prominent Roman citizens and the gladiatorial games that followed.

Digitization adds a third dimension to the two-dimensional material that is conveyed through archaeological site reports and the paper and library tradition. The process often reveals new knowledge as incongruities arise—when something previously believed true doesn't actually fit the lay of the land. Elements from different research projects can be layered in the spatial laboratory and measured against geographical coordinates connected to each digital model.

"It's a 'Tinker Toy' model to test ideas before changing the surrounding models, similar to methods used by scientists," Johanson said. "The knowledge base is then modified to reflect the nuances that are discovered in the digital space."

Digital study is particularly important to the study of ancient places where the only information available comes from small bits of archaeological evidence and textual descriptions written much later by antiquarians digging up the past. The visualization helps explain what the texts are saying.

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Left image: Chris Johanson and the Experiential Technologies Center.

Center image: Marie Saldaña, Chris Johanson, and the Experiential Technologies Center.

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city of Rome by layering different types of information on the architecture and the archaeology, creating a new place for conducting research,” Johanson said.

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“This is more about visualizing information than about trying to reconstruct an archaeological site,” said Johanson, who experienced the Forum digitally before actually seeing it in person. “There are always multiple possibilities, and the visualization lets you look at different iterations of how it might have been. The research drives what we build.”

The visualization also adds rigor to scholarship by providing a shared baseline through which researchers can know that they’re all talking about the same thing.

Within the digital Forum, Johanson studies the visual messages that can be drawn from the layout of the funeral procession. For a deceased person of high status, the procession usually included actors who dressed in ceremonial garb of gold, purple and crimson, and wore waxen masks that depicted the ancestors of the deceased. There were also professional mourn-

ers, hired to encourage others in attendance to audibly express their grief.

“The event was so important,” Johanson said, “that Romans were motivated to fight and die in combat so that their funerals would follow.”

The eulogy, of particular interest to Johanson, was usually delivered by a son of the deceased standing at the rostrum within the Forum. It included a recounting of the deeds of the deceased and his illustrious ancestors. The corpse on display served as a prop. Johanson examines the various locations within the forum where each part of the funeral took place and how that changed over time. He inserts people into the models in order to understand what they could see and hear. Gradually, the event starts to come to life.

Although ancient Rome is Johanson’s special interest, he also sees his work as kind of a case study or example of how space-based research and representation can enable a boundless array of study opportunities in almost any field. Loving the classics, though, he’s especially excited about the ability of virtual reality to span the centuries and make yesterday seem almost like today. 