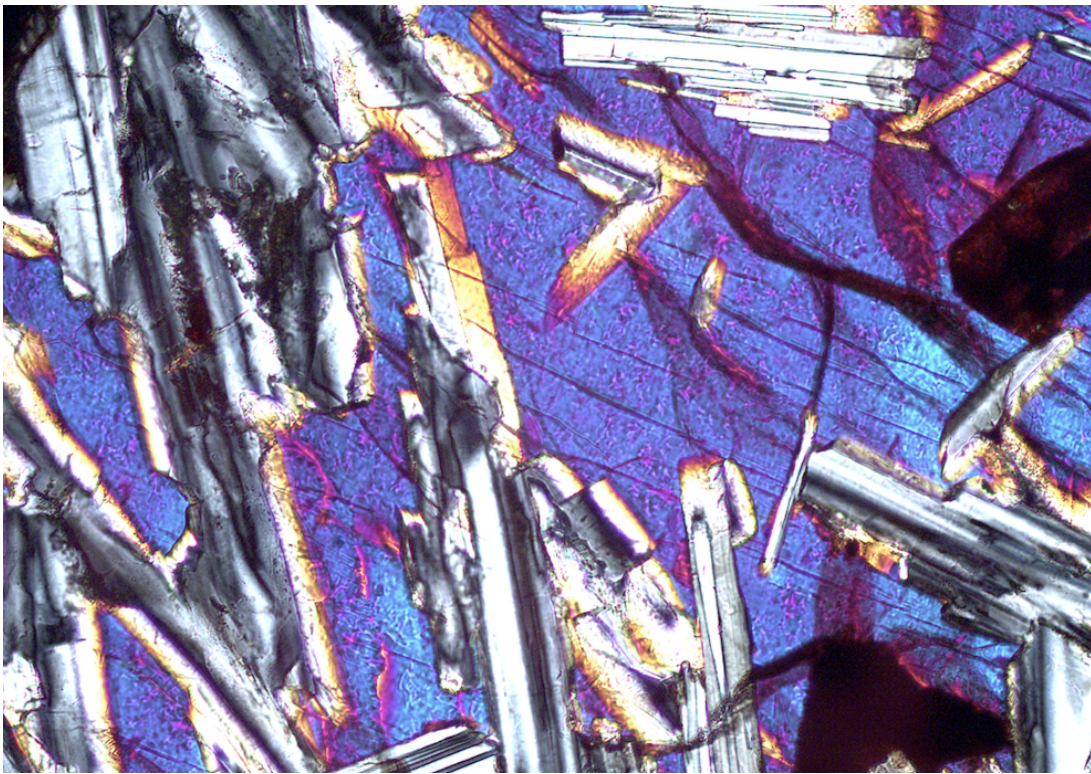


## NEWS RELEASE

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## Penn Museum Exposes Objects' Exquisite Details with *Invisible Beauty: The Art of Archaeological Science* On view January 16–June 6, 2021



As seen under a microscope, a basalt inclusion in a ceramic tile from the first half of 6<sup>th</sup> century BCE, from Gordion, in present-day Turkey. Photo: Janelle Sadarananda and Brigitte Keslinke. SAM 1954-1-128.

PHILADELPHIA — Using innovative technology, the Penn Museum peers inside a fascinating, hidden world with a new 1,100 square-foot special exhibition, *Invisible Beauty: The Art of Archaeological Science*, opening Saturday, January 16, 2021.

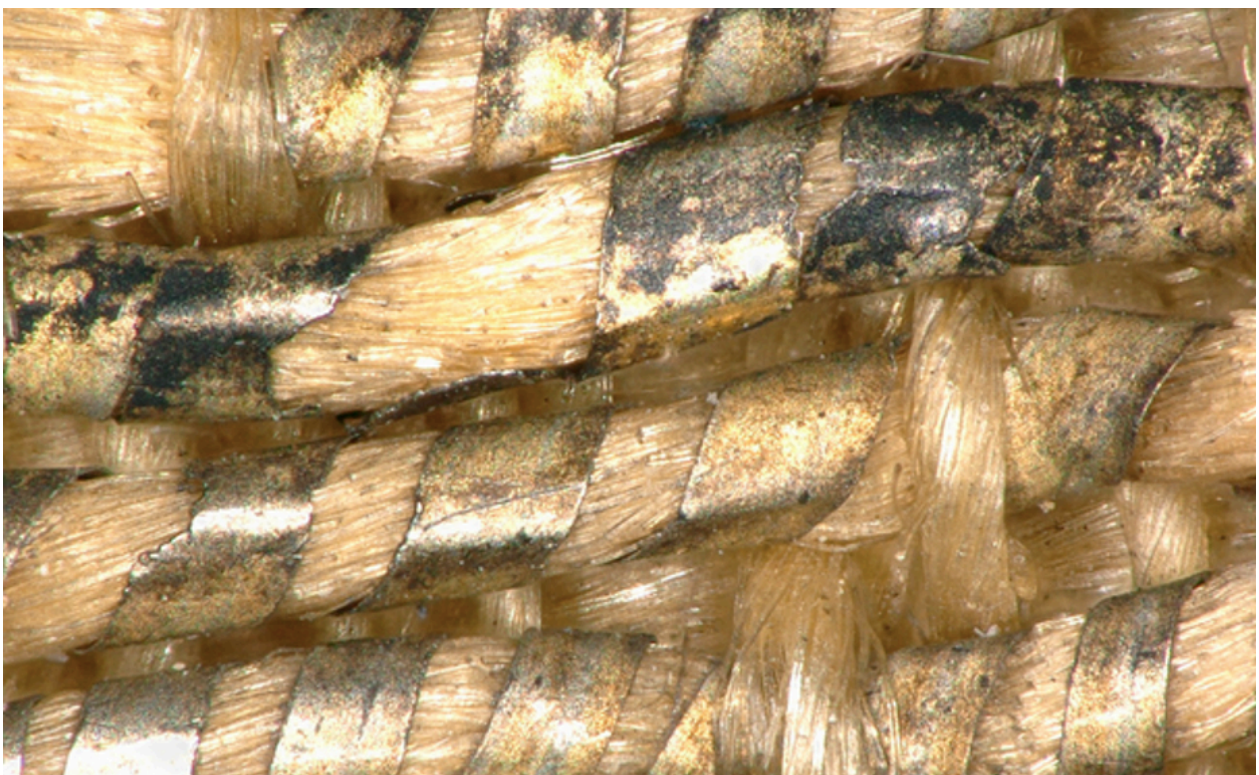
Through more than 25 stunning images, *Invisible Beauty* unlocks the wonder of the human story—exposing objects' concealed information with the use of high-powered microscopes and multimodal imaging that employs infrared light.

The special exhibition zooms in on the exquisite details that are not visible to the naked eye in a breathtaking series of microscopic photographs, x-rays, and magnetic gradiometry survey

results, which allows archaeologists to map what's underground without digging—alongside some of the artifacts themselves in a thought-provoking display.

By meticulously extracting and analyzing information from artifacts, specimens, and landscapes—unseen decorations on ancient sculptures, metallurgical textures, colorful crystals, and cellular structures—archaeologists and anthropologists are better able to answer questions related to technology, use, trade, diet, health, and the environment at the time.

For instance, when looking closer at a sample from a corroded bronze needle found on the island of Cyprus, one can see its metal microstructure and a large black swirl of corrosion, illustrating the way the craftsman was turning the needle as they hammered it. And, using a high level of magnification to view a 17th century Persian textile reveals how its silk threads were delicately wrapped in silver metal strips.



*Invisible Beauty: The Art of Archaeological Science* features a textile that reveals how Persian weavers in the 17<sup>th</sup> century crafted designs from metal-wrapped thread. Photo: Renata Holod and Moritz Jansen.

Highlighting multiple scales, the exhibition invites guests not only to examine a tiny diatom, a single-cell organism at 26,000x magnification, which was found in a clay sample from Ban Chiang, Thailand, but also to immerse themselves in a representation of an ancient city—Zincirli, located in present-day Turkey.

In addition, *Invisible Beauty* spotlights the important role of research in archaeological discovery, including the cutting-edge work inside the Museum's **Center for the Analysis of Archaeological Materials** (CAAM), which was created in 2014 in partnership with the School of Arts and Sciences at Penn.



"Many people are familiar with excavations, but they usually aren't familiar with what happens in the labs, which are not typically accessible to the general public," says Dr. Marie-Claude Boileau, the Director of CAAM and co-Curator of *Invisible Beauty*. Her work focuses on Near Eastern and Mediterranean archaeology and specializes in ceramic analysis. "This exhibit is like a behind-the-scenes experience for visitors. It shows what we see when we look down the microscope, and with this exhibition we're sharing it with everyone."

Simultaneously, *Invisible Beauty* showcases the invaluable interdisciplinary undergraduate and graduate student research opportunities available at the University of Pennsylvania.

Dr. Sarah Linn, Research Liaison at the Penn Museum and co-Curator of *Invisible Beauty*, is a Mediterranean archaeologist who specializes in Aegean prehistory. Her passion is sharing the Museum's work with the public, including the student research that takes place inside the classroom.

"Some of the microscopic images in the exhibition are the result of an experiment we do as a part of a CAAM course, during which students create and then use obsidian tools," Linn says. "*Invisible Beauty* dovetails nicely with the work of CAAM and our Academic Engagement Department, as it provides students with opportunities to present their research to the public."

Linn adds that the exhibition offers a one-of-a-kind sense of discovery for visitors by demonstrating how research is constantly happening in the laboratory.

"It tells a beautiful story about the past, displaying objects and specimens that visitors wouldn't normally see in an exhibition. Mundane objects and material—when under a microscope—come to life," Linn says.

*Invisible Beauty: The Art of Archaeological Science* runs through June 6, 2021. Exhibition access is included with Museum admission starting January 16, 2021.

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Editor's Note: Here's a link to **downloadable images and captions**.

### About the Penn Museum

Since 1887, the Museum has been transforming our understanding of the human experience. Dedicated to building connections between cultures, the Museum welcomes everyone to uncover the past, gain an understanding of our shared humanity, and find one's own place in the arc of human history.

The Penn Museum is open Tuesday–Sunday, 10:00 AM–5:00 PM with safety guidelines. For more information, visit [www.penn.museum](http://www.penn.museum), call 215.898.4000 or follow @PennMuseum on social media.