



Winch moving the conserved stones of the citadel's South Gate (9th century BCE) back to their original position, looking north. Photo by Zekeriya Utğu and Alican Kırcaali.

Repairing Damage Inflicted by the Persians 2,500 Years Ago

SUMMER 2021 ARCHITECTURAL CONSERVATION WORK AT GORDION, TURKEY

BY C. BRIAN ROSE

FIELDWORK AT GORDION in 2021 focused on architectural conservation, object conservation, and research for a wide variety of manuscripts dealing with material from the Bronze Age through the Roman period. There was only limited excavation because of the pandemic (our excavation supervisors are British and the COVID-19 variants there prompted the Turkish



(1) Conservation at the citadel's East Gate (9th century BCE), looking west. Photo by Brian Rose. (2) Conservation of the East Gate's South Bastion, looking south (9th century BCE). Photo by Brian Rose.

government to ban travel between Britain and Turkey). This was not a serious setback, however, because we have excavated buildings faster than our conservation team can restore them and by the end of the summer we accomplished everything we set out to do.

Our architectural conservation priorities were the two monumental citadel gates: the Early Phrygian **East Gate** and the multi-period **South Gate**, both of which were built in the mid-9th century BCE and subsequently damaged by earthquakes. This year we completed our multi-season conservation program for the 10 m (33 feet) high **East Gate**, the highest and best-preserved Iron Age citadel gate in Asia Minor. The **South Gate**, which we have been excavating since 2013, has a monumental approach road along which King Midas himself will have passed. The gate was built ca. 850 BCE, refurbished in the 8th and 6th centuries BCE, then rebuilt again in the 4th century CE, so it was in operation for over 1,200 years. The approach road was over 65 m (213 ft) in length, making it the longest known approach road of any citadel gate in Asia



The South Gate, looking north (4) with arrow indicating the damaged section of the wall. Photos by Brian Rose. (5) Angelo Lanza and Nahit Yılmaz stabilizing the wall stones at the South Gate with the damaged section of the wall behind them; (6) Nahit Yılmaz, Angelo Lanza, and Alican Kircaali moving a conserved wall stone back into its original position on the South Gate. Photos by Elisa del Bono.





(8) The newly conserved north wall of the South Gate (9th century BCE), with the conserved segment on the left (compare to figure 5). The arrows indicate vertical offsets in the wall. (9) The newly conserved north wall of the South Gate (9th century BCE), with the glacis (stepped revetment wall) in the foreground. Photos by Brian Rose.

Minor, and the fortification wall on the road's northern side still rises to a height of nearly 4.4 m (14 ft).

In general, the defensive walls lining the gate's approach road have survived relatively well during the last 3,000 years, but one stretch was so badly damaged that our excavators were forced to leave a large rectangle of earth in front of it so that the stones would be protected until the conservators had an opportunity to restore it. During the first week of the season, we excavated this section of earth (measuring 6 x 4 m [19 x 13 ft]) and exposed the badly damaged wall behind it where an earthquake had caused most of the facing stones to collapse. The core of the wall was still preserved to a height of nearly 3 m (10 ft). Conservation began immediately after the excavation ended and was completed by the end of the season.

Each of the stones had to be consolidated before we repositioned them on the wall and the restored facing courses were then anchored to the rubble core by steel straps. Altogether, 43 newly stabilized stones were assembled in 12 wall courses, and the northern side of the approach road is once again defined by the same handsome limestone facing it once possessed.

One reason why the wall was so badly damaged is that Gordion's masons in the 9th century BCE had

placed rows of juniper logs between every three courses of stone, apparently to provide greater flexibility in the event of an earthquake. This measure works relatively well, unless there is a war that causes the building to catch fire, which is what happened when the Persians attacked Gordion ca. 540 BCE. This was a siege of unknown duration, but in the end, the Persians won. In the course of the conflict, however, the juniper logs burned from end to end within the wall, weakening the stones around them and causing their faces to shear off over time. We have therefore done our best to repair the damage caused by the Persians 2,500 years ago.

Other conservation projects included renewing the poa grass "green caps" above the conserved walls of the 9th-century BCE Terrace Building and adding new galvanized fencing along the visitor circuit on the Citadel Mound.

We completed the first phase of laser scanning the Tumulus MM (Midas Mound) tomb chamber, the oldest standing wooden building in the world, including all of the chamber's interior and much of the exterior (to be finished in 2022). The aim is to produce a comprehensive and accurate record of the monument as well as a digital reconstruction of what it looked like ca. 740 BCE during the funeral of a man whom we identify as King Midas's

father. The digital model will also be of great value to cultural heritage management in that we will be able to more effectively monitor deterioration that may occur over time. Furthermore, we can prepare an interactive tomb exhibition by using virtual and augmented reality technology. In this way, Gordion's many visitors can tour the burial chamber for the first time, something that was impossible before due to restricted access to the fragile wooden chamber.

This season marked the seventh year of the Cultural Heritage Education Program (CHEP) Program, directed by Ayşe Gürsan-Salzmann (Penn Museum) in tandem with Halil Demirdelen (Ankara Ethnographic Museum) since 2014. The program's main goal is to inform and educate local village communities, high school students, teachers, and members of the local municipal government about the historical and humanistic values of the Gordion region. The program started with an orientation for 21 participants, of whom 14 were high school graduates, two were regional directors of historic tours, and two were high school principals.

One of our most important projects involves Turkey's application to UNESCO for Gordion's

inscription on the List of World Heritage Sites, which would officially recognize Gordion's unique cultural and archaeological significance. We completed the nearly 300-page nomination file in the fall of 2020. The onsite evaluation, by UNESCO expert Dr. Cynthia Dunning Thierstein of *Archaeoconcept* in Switzerland, took place in early August. It included tours of the proposed site protection zone, ancient city, and tumuli; a full day of lectures by the Gordion team and Turkey's Cultural Heritage Department; and interviews with local village households about their attitudes toward the ancient monuments. The evaluation was a positive experience for everyone involved and we are optimistic about Gordion's addition to UNESCO's World Heritage List.

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Günce Öçgüden preparing to scan the interior of the Tumulus MM tomb chamber. Photo by Michael Barngrover.