

# Conservation at the Core of Archaeological Strategy

## The Case of Ancient Urkesh at Tell Mozan

By Giorgio Buccellati and Sophie Bonetti

**F**OR TOO LONG CONSERVATION HAS BEEN CONSIDERED extrinsic to archaeology, rather than a basic part of the process. As a result, its potential for contributing from within to the articulation of archaeological methods and to the development of theoretical arguments has not been fully realized.

Such an approach—integrating conservation into archaeological work at a site—has been central to our excavations at Tell Mozan, the location of ancient Urkesh in northeastern Syria. In undertaking our work at Urkesh—the primary center of Hurrian civilization in the third millennium of Syro-Mesopotamia—we have sought to make conservation intrinsic to the archaeological process, recognizing that conservation can provide benefits that go well beyond preservation and that impact the very strategy of excavation. Having acknowledged the need to conserve uncovered fragments for the sake of documentation, and having agreed to present them in a visually coherent reconstruction, we also recognize that conservation should be an integral part of the strategic planning for a site as a whole.

### An Intrinsic Component

Why should archaeologists bother to “think conservation” before they start to dig? Why should conservation be an intrinsic component of archaeological decision making?

There are at least two answers. The first is practical. The expertise of the conservator should guide the archaeologist in the choice of goals and in the determination of timing—is it feasible to save a given feature and, if so, how should the excavation proceed to minimize the need for later interventions? The second answer is more ambitious: the archaeologist can actually learn about archaeology from the conservator. The conservator has a superior understanding of the materials; his or her quick determination of the relevant properties can help excavators in their assessment of the stratigraphy within which the given feature is embedded. Additionally, the conservator has a trained understanding of the



A large hearth-shaped mud structure—or andiron—found intact at Tell Mozan. The successful excavation and consolidation of the andiron was the result of conservation considerations being integral to the overall archaeological work at the site. *Photos: The International Institute for Mesopotamian Area Studies (images V12d0817 and V14d9503).*

original integrity of the feature and the craftsmanship that created it. This can protect the archaeologist from the potentially harmful professional blind spot of concentrating so closely on the ruin as to lose sight of the monument it once was. If architectural conservation—and where appropriate, reconstruction—is considered as only an extrinsic intervention that takes place long after the ruin has been cleared, then the archaeologist is deprived of a possible vision of the site's past. If, on the other hand, the original integrity of the structures is envisaged during the process of excavation—in collaboration with the conservator—then the archaeologist's understanding of the remains under excavation is enriched.

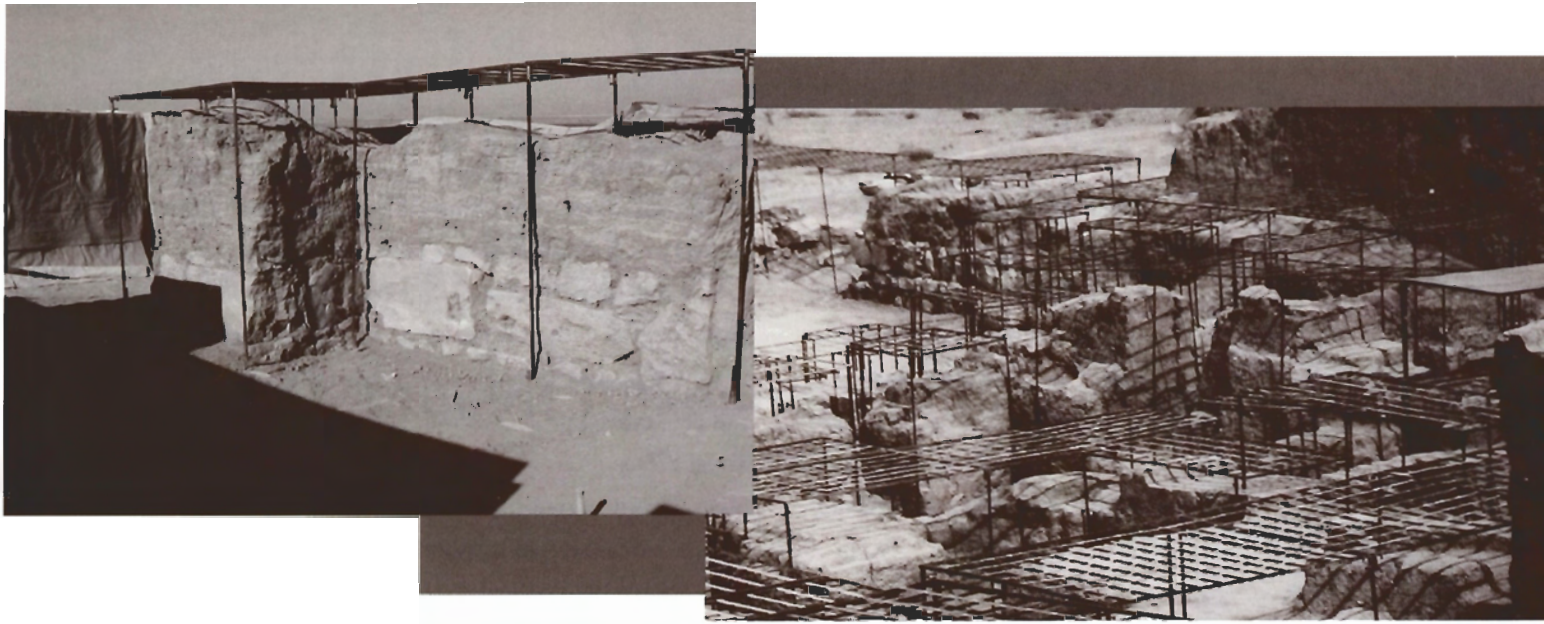
Similarly, why should conservators bother to “think archaeology”? Why should an understanding of stratigraphy become part of their mind-set? The answer mirrors the one given to the first question—namely, that conservators should be able to learn about their profession from archaeologists. The process of stratigraphic analysis by which archaeologists disentangle structures or objects from the ground is in itself constitutive of the meaning ultimately attached to these structures or objects. A shard scatter does not exist only as a potential jar that the conservator might piece together. The dynamics of the breakage are intimately interconnected with the dynamics of the reconstruction. To understand this interaction fully, conservators should have more than a passing experience with archaeology. They should receive some specific training as archaeologists in order to develop an understanding of stratigraphic analysis. Just as they learn specifics of chemistry in the laboratory, so they must learn firsthand, on an excavation, the dynamics between emplacement and deposition—how things are in the ground now and how they came to be so in antiquity.

In our excavations at the site of ancient Urkesh, we have consistently incorporated conservation into planning and implementation. The current major effort is the excavation of the Urkesh Royal Palace, a vast structure built around 2250 B.C.E. The conservation program—funded by the Samuel H. Kress Foundation and implemented with the collaboration of the *Opificio delle Pietre Dure* in Florence—has, among other things, resulted in an effective and economical project of mudbrick wall conservation in the Royal Palace.

This program goes back to 1990, to the beginning of excavations in this area. As a result of the conservation efforts made, the walls are readily available for examination and study, while being maintained in a state of preservation that hardly differs from when they were first uncovered.



*Left: A general view of the service wing of the Royal Palace, looking southwest. Tightly fitting canvas tents cover the metal cages to provide protection for the walls. Right: The covers can be quickly lifted to reveal the state of the walls. Photos: The International Institute for Mesopotamian Area Studies (images V13d8402 and V13d8567).*



## Fieldwork at Tell Mozan

Very often on archaeological digs, conservators are considered simply technicians and are expected to stay in the conservation room all day gluing pieces together. As a result, they do not acquire a feel for work in the field nor knowledge of how objects look when they are still in the ground. This is why it is necessary for conservators to have some field experience—to know how to move within the excavation. The conservator on site must be flexible and able to work in the field as well as in the lab on short notice, since there are often urgent cases at the excavation site. For example, archaeologists at Mozan asked the conservators to save a very fragile piece, a burnt wood log, requesting that the log be lifted as a whole from the ground. However, the conservators, based on practical considerations, believed that the piece was much too delicate to be removed. In this instance, the needs of both the conservator and the archaeologist were met with a solution that preserved the object in the ground but left it in a state where experts could examine it in situ.

Another notable case was that of a large mud structure shaped as a hearth, called an andiron by comparison with other similar objects typical of Anatolia. The piece was found intact in the ground, but the clay, not being baked, was exfoliating and crumbling very quickly due to the rapid change in its environment. In order to save what looked like a unique find, the object was lifted as a whole with a large lump of soil around it, well wrapped in cotton sheets, and carried to the excavation house on a wooden ladder. It was then excavated and consolidated very slowly and was successfully saved as a whole piece.

Clearly it is extremely important to create a genuine exchange of information that can illuminate the needs of the conservator in the field and the expectations of the archaeologist. They do not always meet, but it is important to try. This is all the more important when dealing with permanent features in the ground, such as walls and hearths. The walls of the Urkesh Royal Palace at Tell

Mozan are largely of mud brick, except for the stone substructure, and subject to damage by atmospheric elements. If left exposed, the walls will crumble and disintegrate within a few years.

To mitigate this deterioration effectively, archaeologists and conservators on the project jointly developed a new and relatively low-cost type of protection in 1998, based on the use of local materials and the ready availability of local craftsmen (this followed a series of experiments dating to 1990). The new protection system involved constructing metal frames or cages that follow the profile of the walls and rest on the surface without affecting the stratigraphy. The frames are then covered with a thick, waterproof fabric that the local population uses for tents. The first test with this new system was made on just a few walls. It produced what looked like a virtual reconstruction of the building—except that it was physical as opposed to virtual.

After the system proved successful during the winter season of 1999, a massive operation was begun to cover the entire exposed palace walls by the same method. The tents were tailored for metal structures that were constructed by a local smith with the help of a local architect, who also served as the representative of the directorate general of antiquities and museums. The tents—sewn in the excavation house and applied over the metal cages—can easily be lifted to reveal the walls in their original state. One of the highlights of this system is its complete and relatively fast reversibility. For instance, to take aerial photographs of the site, the whole building can be uncovered and the metal structures removed in a day.

In 2001, a systematic program to monitor the conditions of the walls was begun in order to determine if the covering system was working and how it could be improved. In order to have a clear sense of the humidity and temperature fluctuation throughout the year, monitoring was carried out from summer 2001 to summer 2002 by a project assistant who is a resident of the nearby village of Mozan. He kept a precise record and provided a chart of the values read from a hygrometer and thermometer twice a day, every day.

Two views of the metal cages or frames that encase the Royal Palace walls as part of a preservation strategy developed and implemented jointly by the archaeologists and conservators on the archaeological team. Set close to but not touching the walls, the frames rest on the ground without intruding into it. The components are modular for easy removal, yet interlocked to provide stability. *Photos:* The International Institute for Mesopotamian Area Studies (images V13d8521 and V13d8662).

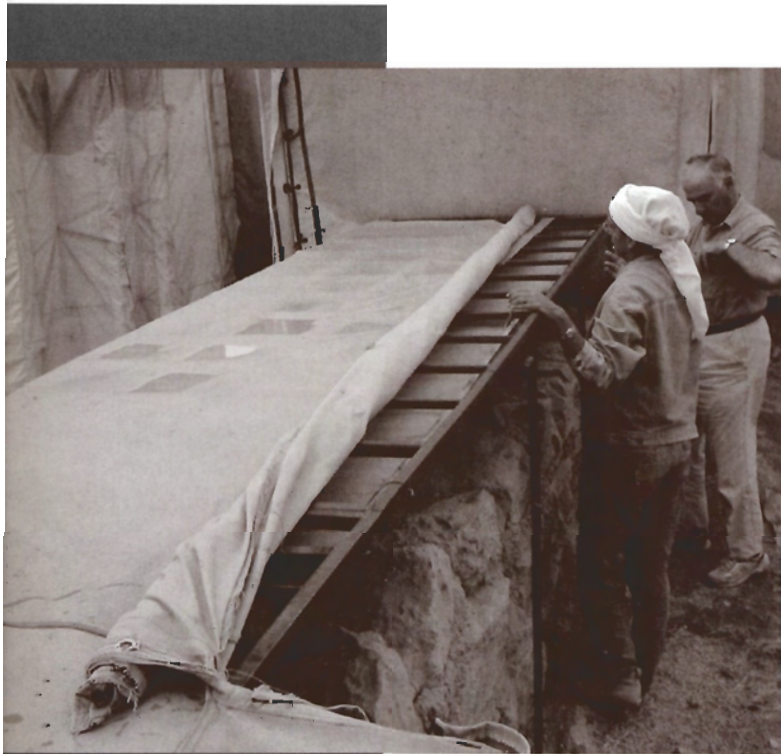
The main problem turned out to be the effect of strong wind against the tent material. During frequent sandstorms—or even just normal strong winds—the tents, not being fixed at the base, tended to slap vigorously and repetitively against the walls themselves. The combined effects of wind and rain caused some smearing of the wall surface so that the bricks' edges were no longer visible. It was very useful for the conservator to be on site during an episode of strong wind to observe the process that caused the damage, in order to plan a different system to secure the tents to the external metal cage. The same was true for a second problem involving the presence of stagnant water on top of the canvas and along the sides of the walls. Solutions to these problems were developed and carried out through close cooperation between the project's archaeologist and conservator.

The conservator's responsibility in the solutions implemented included supervising the changes in the covering technique and monitoring conditions. Monitoring involved taking digital photos of every wall and preparing a series of notes in the form of a diary. During the last two years, inspections were made three to five times per season, every time with a particular objective in mind—for instance, checking the state of the tops of the walls or checking the conditions of the fabric after rain.

It is anticipated that the method for protecting the walls will work well over longer periods of time, although a certain level of maintenance is essential, since the fabric is affected by aging. In 2002, some of the old fabric was replaced with a new type that was suggested by the tent maker. The new fabric has been tested and appears perfectly waterproof. In summer 2003, the resistance of the fabric will be checked, and it is hoped that this new material will prove more durable and protective than the old one.

The monitoring of the walls and of the covering method will continue. We hope that the result will be optimal, so that with a known, standard level of maintenance, we will be able to preserve the palace walls of this very ancient site indefinitely. The results obtained thus far demonstrate the virtue of embedding conservation in the process of excavation itself. In doing so, we not only safeguard a ruin in the state in which it was found but also obtain a richer understanding of the cultural whole of which the fragment gives evidence.

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Conservator and archaeologist checking the walls after a heavy rain. A metal basin suspended from the trellis collects water seeping through the tarp. The close cooperation between the conservators and archaeologists on the team is considered critical for the success of the program. *Photo:* The International Institute for Mesopotamian Area Studies (image V15d7562).