

**The Djehuty Project**  
A FUNERARY GARDEN IN THEBES

**Sacred Beasts**  
CONSERVING ANIMAL MUMMIES

**Weni the Elder**  
A NEW LOOK AT AN OLD LIFE

# SCRIBE

THE MAGAZINE OF THE AMERICAN RESEARCH CENTER IN EGYPT

THE  
Ancient  
Places  
& Lives  
ISSUE

## THE TEMPLE OF REPIT

A VIBRANT HISTORY PRESERVED

FALL 2020 | ISSUE 6

ARCE  
AMERICAN RESEARCH  
CENTER IN EGYPT

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Juanqui Andrés, staff member of Factum Arte, joining the pieces of the funerary garden facsimilie together and proceeding with the final retouching. Note the trunk of the tree that was also recreated.

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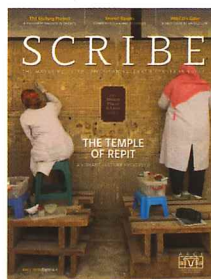
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Conservators work on the West wall of the Temple of Rept

THE AD IN OUR INNER FRONT COVER FEATURES A PHOTO BY MATJAZ KACICNIK. KACICNIK WAS NOT PREVIOUSLY CREDITED FOR THE USE OF THIS IMAGE IN OUR FALL 2019 ISSUE.

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# The Djehuty Project

**DISCOVERING A 12TH  
DYNASTY FUNERARY GARDEN  
IN THEBES**

BY JOSÉ M. GALÁN

The cracks and missing areas of the funerary garden being filled with silt (without lime)

# A

Spanish archaeological mission coordinated by the Spanish National Research Council in Madrid has been working in Dra Abu el-Naga, at the northern end of the Theban necropolis on the West Bank of Luxor, since January 2002. The mission started focusing in and around the rock-cut tomb-chapels of Djehuty and Hery (TT 11 and 12), two high officials who served under Hatshepsut and Queen Mother Ahhotep respectively, ca. 1520–1460 BCE. The area was previously occupied by funerary shafts (20 have been located) and by mudbrick offering chapels

(four unearthed). They seem to have belonged to members of the royal family and of the Theban elite during the 17th Dynasty, between 1600 and 1520 BCE. Dra Abu el-Naga has been associated with the 17th Dynasty since in the mid-19th century when the obelisks of King Nubkheperra Intef and the coffins of the Intef kings, King Kamose and Queen Ahhotep were discovered there, together with luxurious funerary equipment.

However, this does not mean that the area was not occupied before the 17th Dynasty. In fact, in 2008 the Spanish mission discovered an 11th/early 12th Dynasty burial 3 feet (1 meter) below the floor of the open courtyard of the tomb-chapel of Djehuty (TT 11), including a wooden coffin painted in red with a polychrome inscription along its four sides and the lid. The mummy of its owner, called Iqer, was resting on his left side, with three staves and two bows placed along his body.

A large group of modern houses stood southwest of the open courtyard of Djehuty until the village was demolished in the winter of 2006/07 and the families that lived there were relocated to New Qurna. The following year, in exchange for removing the debris closer to the site, the Supreme Council of Antiquities granted the Spanish mission an extension to the

**RIGHT:** View of the site in February 2018. The funerary garden may be identified to the left (southwest) of the open courtyard of Djehuty's tomb-chapel (TT 11) and in front of an early 12th Dynasty rock-cut tomb

**BELOW:** David García documenting the garden's structure. The staircase is visible at the side facing the tomb



southwest. The excavation in this area began in 2011 and brought to light the above-mentioned 17th Dynasty mudbrick offering chapels and funerary shafts, in addition to four 11th/early 12th Dynasty large rock-cut tombs. The identity of their owners remains unknown, but the size and layout of the structures suggests that they must have been high-ranking individuals at the Theban court. Two of them share an open courtyard and in front of one of the entrances a small funerary garden was unearthed in 2017.

The garden measures 9 feet by 7 feet (or 3 meters by 2.2 meters), and has a maximum height of 1.3 feet (0.4 meters). The structure was made of silt, which was covered in a layer of white lime mortar to make it stronger. The interior is mostly divided into a grid of 23 squares measuring roughly 1 foot by 1 foot (30 by 30 centimeters) squares, separated from one another by 3 inch (8 centimeters) walls with rounded tops. It also contains three plots of different layouts and sizes, and two slightly elevated platforms in the middle that have circles of darker soil in the center. Between the perimeter wall and the inner grid is a channel 2 inches (5 centimeters) wide. The garden was built over a 1.3 feet (0.4 meters) mound of dark soil, which had been brought from the fertile plain and placed on the limestone floor of the courtyard's northeast half. Each square then acted as an independent planting area, and their silt walls helped retain the water within the individual small beds.

The aim of a so-called 'square foot garden,' also known as a 'waffle garden,' is to enable cultivation in a non-favorable environment by optimizing the available water, making them characteristic of arid areas. Its use as an agricultural installation for daily nourishment is already documented in the mastaba of Mereruka in Saqqara, ca. 2300 BCE. Archaeological evidence of such gardens has been found, for example, in the fortress of Uronarti (next to the Second Cataract), in Avaris (east Delta) and in el-Amarna (Middle Egypt). While from a completely different period and location, the similarities with the cultivation system used by Native Americans of the Zuni Pueblo in New Mexico (documented in photographs from the early 20th century) are quite remarkable.

Several square cells of the Dra Abu el-Naga garden contained desiccated seeds that had been planted around 4,000 years ago, which constitute a remarkable finding. Research is in progress, but archaeobotanists have already identified seeds of coriander (*Coriandrum sativum*) and of a non-sweet variety of melon (*Cucumis melo*), as well as several parts of flowers of the daisy family (*Asteraceae*). It seems that the garden combined plants associated



with food offerings, together with other plants that probably had an aesthetic and/or symbolic use, to be presented to the deceased as a wish for life/rebirth.

The lower part of a tree trunk was found at the northeast corner of the garden, still upright (1.3 feet or 0.4 meters high) with one of its roots growing towards the middle of the garden, in the direction of more humid soil. The tree has been identified as a tamarisk, and its visible rings reveal that it lived for around 25 years. Although the tamarisk is a semi-desert species and it could have grown spontaneously, its location at the exact corner of the garden seems to reflect a certain intentionality.

Attached to the northwest side, which faces the tomb entrance, is a two-step mudbrick staircase coated with lime mortar, which would have been used by water carriers to access the inner squares. The detail of the

**TOP:** Retrieving botanical remains in the process of excavation

**BOTTOM:** Archaeobotanist Leonor Peña sampling the soil looking for seeds and other botanical remains



Zulema Barahona documents the pottery found around the garden, including *kernoi*-bowls and *hes*-vases. They were probably used in rituals in the early 12th Dynasty

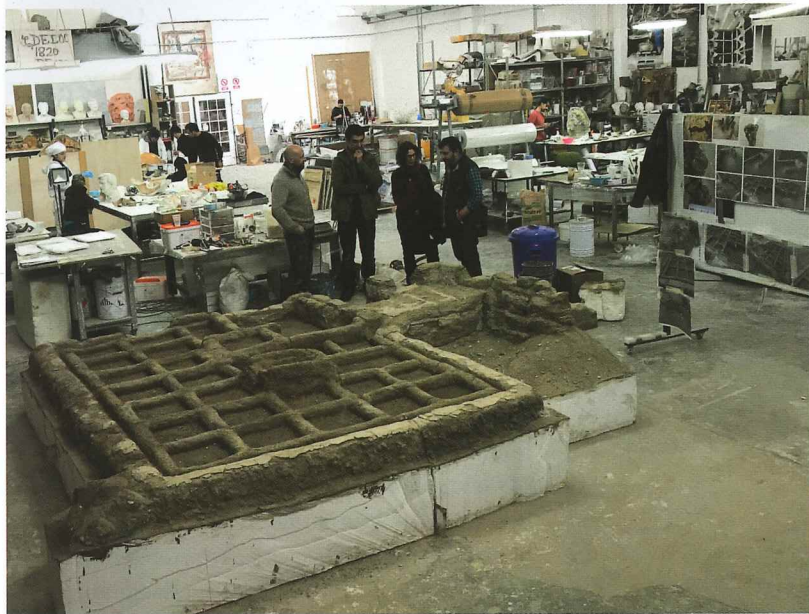


The entrance to the open courtyard preserves the layers that eventually sealed the garden and protected it when the area was reused in the Second Intermediate Period

staircase (and the tree growing at one of its corners) makes the garden a very close physical rendering of the gardens depicted in the tombs of Amenemhat and Khnumhotep III at Beni Hasan, also dating to the 12th Dynasty, ca. 1840 BCE. The outer face of the staircase adjoins a mudbrick enclosing wall 6 inches (15 centimeters) thick (same as the width of a brick), which sets aside an area for the garden of 12.5 by 12.8 feet (3.8 by 3.9 meters).

The size of the garden does not correspond to that of fields under cultivation for a mortuary foundation, such as the one mentioned at the end of the story of *Sinuhe*, or in the agreements that the nomarch Hapidjefa reached with the priests in charge of his funerary cult, which he registered on the wall of his tomb at Asyut. The garden was thus probably conceived and built as a model or miniature garden, to make a visual statement of the deceased's capability and to support his wish to be periodically supplied with offerings during his eternal life. It probably also played a role in one of the funerary rituals performed at the entrance of the tomb. The pottery found around the garden included two *hes*-vases and four *kernoi*-bowls of different sizes, two made of Nile silt and one of marl clay with incised wavy decoration. The pottery matches that found inside the rock-cut tomb and confirms that both the tomb and garden date back to the early 12th Dynasty, ca. 1920 BCE.

The garden found by the Spanish mission, together with the one found by Herbert E. Winlock in 1930 in front of the tomb-chapel of Djari (TT 366), are the only Middle Kingdom examples yet known that were built as part of a funerary monument in the Theban necropolis. These two funerary gardens constitute the archaeological evidence of the

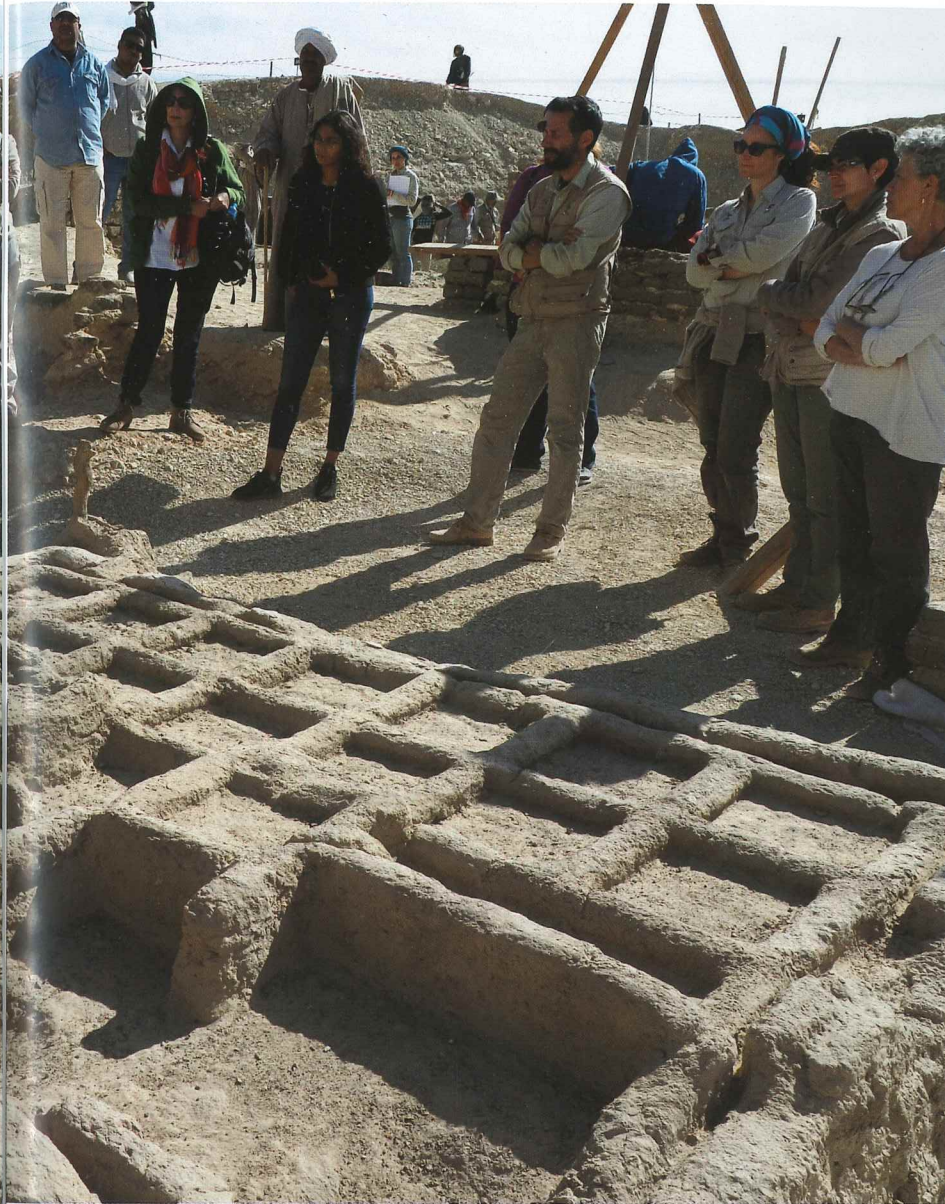
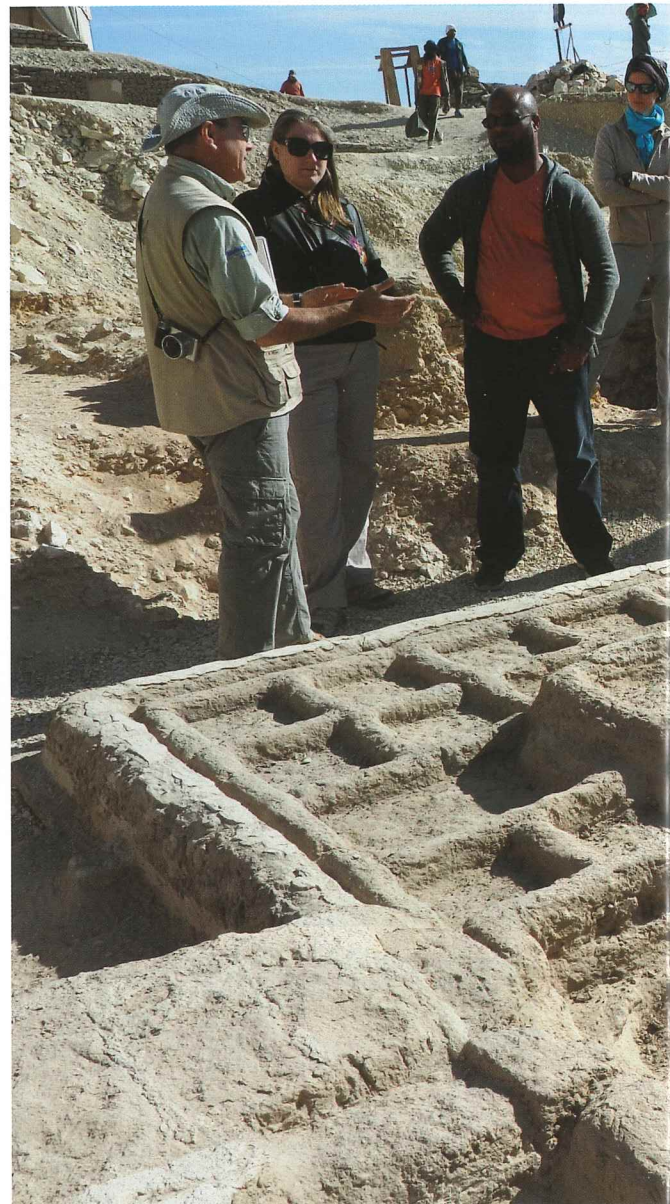


**TOP:** Once finished, the replica was cut in four pieces to facilitate its transportation to Luxor

**BOTTOM:** A replica of the garden was produced in Madrid by Factum Arte

iconographic composition which includes a square grid-garden in front of the chapels of Anubis and Osiris, in the *heilige Bezirke* scenes in the early 18th Dynasty tomb-chapels of Reneni in Elkab, and of Hery (TT 12), Teteki (TT 15) and Ineni (TT 81) in Thebes. Miniature grid-gardens are also depicted before small shrines, as part of a ritual called “plowing the earth,” as shown in the tomb-chapels of Rekhmira (TT 100) and Amenemhat (TT 53).

Successive events of blowing wind and running rainwater dragged sand into the open courtyard and eventually covered the garden and sealed it, so that when the area was reused in the 13th Dynasty and later it was protected under a natural cushion of thin sand. This circumstance made possible that the garden’s fragile silt structure, the 4,000 year-old seeds and the tamarisk trunk were preserved in good condition. The stratigraphy of the court’s fill conveys



**ABOVE:** Dr. Louise Bertini and ARCE staff from the Cairo Center visited the site and had a close look at the garden’s replica

evidence of both environmental and human factors ranging from the early 12th Dynasty until the very beginning of the 18th Dynasty.

The analysis of the seeds and plant remains from the garden may contribute to our knowledge about the cultivation of plants for funerary/ritual purposes. Information on other trees and plants that grew wild or were cultivated on the fertile plain on the West Bank at Thebes may be derived from the analysis of the pollen preserved in the strata that filled the courtyard. The stratigraphy, analyzed by geologists/geomorphologists, may also shed information on pluviometry and the environment in the Theban region from 1900 to 1500 BCE. This is part of the objectives of the project sponsored by an ARCE Antiquities Endowment Fund (AEF) grant from the 2018/19 cycle.

Another objective is the conservation of the garden. Once the sediment was removed, the cracks

and missing areas were filled with a silt/“*muna*” similar in composition to the original one (which has no lime). The areas where the layer of white lime mortar was detached from the silt structure were sealed with a similar plaster. The whole structure was then consolidated with ethyl silicate.

Despite the consolidation undertaken, the garden’s structure is too fragile to leave it exposed to environmental and human factors and a decision was made to conceal it with a protective covering. However, it is a pity to think that the only well-preserved and documented Middle Kingdom funerary garden would be kept out of sight and hidden from visitors to Dra Abu el-Naga. For this reason, the AEF-funded project also included the production of a replica of the garden, transportation of the replica to Luxor, and its installation on top of the new protection covering the original garden. The replica, or facsimile, was

produced in Madrid by Factum Arte, who are experts in the use of digital technology for conservation and have considerable experience in Egypt in the tombs of Tutankhamun and Seti I. The key of this undertaking was to produce a replica that would require minimal upkeep. We began this process by scanning the garden during the 2018 fieldwork season, in collaboration with Leica Geosystems. A STL, or stereolithography, archive was produced for printing in a 3D large-scale printer. The replica was milled into medium density polyurethane and was then molded and cast in an epoxy resin mixed with soil and pigment to resemble the color and look of the original. The final cast contains UV filters to protect the replica and will ensure it has an extended life despite being located outdoors in Dra Abu el-Naga. The replica was cut in to four sections to facilitate its transportation (the total weight being 1,784 pounds or 800 kilograms). It arrived from Spain and was unpacked at the site in March 2019.

The four pieces of the replica were joined together again at the beginning of February 2020, and the final retouching was conducted by a staff member of Factum Arte. Even the trunk of the tamarisk tree was reproduced and attached to the garden’s structure. The replica was set up on top of the solid structure that covers and protects the original garden. It is in the exact same place as the ancient garden, only resting 3 feet (1 meter) above it. For this reason, the courtyard was filled with clean sand to visually position the ‘new’ garden at ground level. A time capsule box containing information about the ancient and the new gardens was buried with the Middle Kingdom garden, and a small pipe was installed at one corner to allow for monitoring of the temperature and humidity of the reburied garden.

Ultimately, the purpose of the replica is to preserve the fragile original structure and, at the same time, allow visitors to see what a Middle Kingdom funerary garden looks like. Visitors to the tomb-chapels of Djehuty and Hery will gain a better understanding and appreciation of how this area of the necropolis may have looked in ancient times, and Dra Abu el-Naga can now boast a rare funerary garden as one of its unique features. ♡

*José M. Galán is a Research Professor at the Spanish National Research Council in Madrid. The documentation, interpretation, and conservation of the Dra Abu el-Naga Middle Kingdom funerary garden was sponsored by an AEF grant from ARCE from 2018-2019.*