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Archaeological Museum

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Robert D. Bates

Kevin Burton

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The Institute of ARCHAEOLOGY Siegfried H. Horn Museum



Table of Contents

	Page
<i>Excavations at 'Ataruz</i>	1
<i>Figurine Lecture</i>	2
<i>Random Survey</i>	4

INSTITUTE OF ARCHAEOLOGY
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NEWSLETTER

Paul J. Ray, Jr.	Editor
Constance E. Gane	Assoc. Editor
Randall W. Younker	Assoc. Editor
Robert D. Bates	Asst. Editor
Kevin Burton	Asst. Editor

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Excavations at 'Ataruz

Several staff and students from the Institute of Archaeology at Andrews University participated in excavations at Khirbat 'Ataruz in Jordan in July 2012. The Andrews team included Research Associate Robert D. Bates (Field Supervisor), faculty/PhD student Stefanie P. Elkins (Artist/Photographer), MA student Christine Chitwood and PhD student Abelardo Rivas serving as Square Supervisors, and volunteer Jerry Chase, mapping with GPS.

Khirbat 'Ataruz is directed by Chang-Ho Ji of La Sierra University who has also excavated with the Madaba Plains Project at Tall Jalul (1994-96). Dr. Ji surveyed 'Ataruz in 1998 and has excavated the site for six seasons, beginning in 2000. He has made a number of exciting discoveries at 'Ataruz, including a large cultic complex with a courtyard and several buildings, the largest consisting of a temple, with an adjacent hearth room. The temple measures 4.1 x 11 m and has a three-tiered altar at one end. In 2006, the fragments of two cult stands, some pedestal bowls, lamps, and an Egyptian bronze object were found near this altar. These objects probably served an important cultic function. One of the other buildings off the courtyard had a bench for offerings. Several additional altars were found in the courtyard. In 2010, Ji found a large bull figurine that resembles the god Baal along with other figurines smashed on the floor. These objects were probably broken when the temple complex was destroyed.

The site is located 24 km south of Madaba, Jordan, and 3 km east of Machaerus in the ancient territory of Moab. It sits on a ridge that overlooks the Dead Sea and guarded a main road. Most

(Cont'd on p. 2)



Christine Chitwood Excavates Jar at 'Ataruz.

likely the site is to be equated with 'Ataroth, a place that is mentioned seven times in the Bible, including two times where it clearly refers to a town in Transjordan. According to Num 34:32, 'Ataroth was "built" by the tribe of Gad and is mentioned in conjunction with other Transjordanian towns such as Dibon, Heshbon and Nebo.

The site is also mentioned on the Moabite Stone, a monumental stele commissioned by Mesha, the king of Moab, who is also mentioned in the Bible in 2 Kings 3:4, where earlier he had had to pay tribute to the king of Israel. According to the stela, 'Ataroth was built by the Gadites who lived there "from ancient times." Earlier, the king of Israel built a temple on the site for the Gadites and may have fortified the city. When Mesha rebelled against the house of Omri in order to free the Moabites from the heavy tribute levied against them, one of his first campaigns was against 'Ataroth, which he attacked and destroyed. He killed the Gadites and resettled the territory with two other Moabite tribes including the Sharonites and the Maharites. Mesha continued to liberate the region by capturing the cities of Jahaz and Nebo. Mesha also built roads, cisterns and monuments at Dibon, his capital.

One of the main goals of the 2012 season was to continue exploring the outer edges of the cultic complex at Khirbat 'Ataruz. The Andrews University team opened a new area (Field F) on the north side of the complex. Four squares were laid out, two (F3 and F4) of which were assigned to Christine Chitwood and Abelardo Rivas. On the first day of excavation, both squares found the outlines of walls that later turned out to be part of several rooms of an ancient building. In addition, a large storage jar that dated to the early Iron Age II was discovered in Square F3. This jar stood about 1.2 m tall and had four handles and a pointed base. The most peculiar thing about the vessel was that the inside of the jar was lined with stones, broken sections of its rim and other ceramic fragments. It most likely dates to the mid-9th century BC.



Chango-Ho Ji and Robert Bates Discussing Excavation Strategy.

Another goal of the project was to survey the site with a GPS unit in order to create an accurate topographical map. Jerry Chase used the Promark 3 GPS unit from Tall Jalul to map out the walls on the tell. Later these points were compared with those on existing diagrams in order to make a more accurate drawing. Stefanie Elkins took pictures of the walls especially in the cultic complex as well as the perimeter walls around the site. While she was conducting a photo survey she found a female figurine with a distended belly holding a flat disk. The head and feet were missing, but the torso was intact. This figurine may have been a votive offering or a family god. A similar figurine was found earlier at Tall Hisban.

In addition, Stefanie Elkins went into the cistern to measure and draw the bull figure that is carved on the wall. This figure consists of a head with large ears and tall horns that curve inward. The bull figure was discovered by Drs. Ji and Bates on the last day of the excavation season in 2011. They found that at noon on the summer solstice light from the cistern opening shines directly on the face of the bull, suggesting that the place had an important cultic function.

Khirbat 'Ataruz continues to produce unique and exciting discoveries. Further excavations will continue exploring the buildings in Field F as well as new areas

of excavation on the site. (Robert D. Bates)



Figurine Lecture

On April 18, 2013 three researchers, Regine Hunziker-Rodewald, Astride Nunn, and Thomas Graichen, from the Franco-German Figurines Project, presented an illustrated lecture as part of the Horn Museum Lecture Series entitled "Figuring Out Figurines."

The lecture was begun by Professor Hunziker-Rodewald, of the faculty of Protestant Theology at the University of Strasbourg, who described the project and its goals. The main objective of the project is to compile and create an inventory of all the Iron Age female figurines from Jordan. In gathering the information, the project team uses both primary and secondary sources. The primary sources are the figurines themselves, which are located at various museums. Some of the figurines are in collections that are housed in Jordan, others are located in Israel, Europe, and North America. In addition to the public collections, the project team is attempting to incorporate figurines from private collections. The secondary sources include the excavation reports, which are read in order to verify the information.

After the information is gathered, ID numbers are given to each figurine. The ID sheet also contains various details relating to the figurine, including the state of preservation, a description, attributes and features. Once the information is gathered, the figurines are linked to textual, epigraphic, iconographic, and archaeological evidence. Each figurine is recorded using RTI photography and the data evaluated statistically and typologically. Several research questions are asked during this process, including: what are the mold-links? Can any molding techniques be ascertained? How did the sociopolitical and religious life of the people affect the images? What are the pros and cons of identifying the figurines with various goddesses? The project team anticipates a functioning database by about 2015.

Professor Nunn, who is on the faculty at the University of Würzburg, then presented more specific information on the figurines. She noted that so far the team has knowledge of about 340 female figurines from Jordan, of which they have only physically seen around 150.

About three-quarters of these figurines are naked, the remainder dressed. Most of the figurines depict a woman holding something, perhaps a disc; others are holding a child, a pole, or an unidentified object. The figurines that are holding a disc tend to have it covering the left half of their chest with both hands holding it. Those figurines that are not holding objects have their arms to their sides, or are cupping or covering their breasts. Some of the figurines have the hands covering the pubic area.

In terms of archaeological provenance, about 50% of the figurines come from domestic contexts, another 15% were found in graves, with 35% found in a cultic context, usually around a temple. Most of the figurines were locally made, although some were imported from Phoenicia.

Finally, Thomas Graichen, an archaeology student on the Master's level at the Ludwig-Maximilians Universitaet, in Munich, finished the lecture on the use of Reflective Transformation Imaging (RTI)



Nunn, Graichen, and Hunziker-Rodewald.

in the context of archaeology, and more specifically on the figurines.

Graichen began this section of the lecture by noting that drawings are subjective, and a reflection of the interpretation of the artist. The main challenge of photography is lighting. It can be very challenging to get proper lighting for the object. One of the reasons is that one needs to use multiple lights that are exactly the same temperature. Since a lot of lighting equipment cannot be transferred and used at each museum, the photographer oftentimes experiences uncontrollable ambient lighting.

In 2004 the Leuven camera dome system with 260 LED's was built for photographing cuneiform tablets. This technology was used in 2005 in the Antikythera Mechanism Research Project, proving its reliability by identifying 2,000 more characters by use of this technology. However, the system is very high maintenance and cumbersome to transport. In the meantime, Cultural Heritage Imaging (CHI) was formed in 2001. This project has ultimately simplified the imaging process by placing a highly-reflective black sphere within each frame, thus eliminating the need for a photographic dome. With this new method, the mobility of equipment is no longer an issue and larger objects can now be digitized.

In 2006 CHI, along with Thomas Malzbender, developed the RTI software. RTI allows a fixed viewing location on a flat surface, and reduces the issues involved in lighting. In terms of RGB values, red is viewed as the x-axis, green the y-axis, and blue the z-axis. The equipment necessary for using this method includes: a DSLR Camera, a copy stand, an external flash unit, a remote flash, and the reflective spheres. Sand is also optimum, since it keeps the object in place without leaving any residue. The RTI software is also necessary. The procedure consists of placing the object in a fixed position, with the reflective sphere in each shot. Thirty-eight photos are taken with different lighting from 11 different angles.

Post-processing is relatively simple. The photographer needs to adjust the white balance to obtain the proper color, with some lens correction, which allows for accurate measurements of the object. One may also wish to do some sharpening and masking.

The researchers used these same techniques during their three-day stay at the Institute of Archaeology, working with the female figurines that have been discovered at the Andrews University excavation sites of Jalul and Hesban, in Jordan. (Kevin Burton)



RANDOM SURVEY

Inscription Found:

Archaeologists have located a monumental inscription at the gate of 'Ayn Gharandal, located on a spring-fed oasis in the Wadi Arabah, in Jordan. The site was part of a series of Late Roman-period forts along the eastern frontier of the Roman Empire, known as *Limes*. It is strategically located on a caravan route between the port of Aila on the Red Sea, and places to the north and west. The inscription is dedicated to the emperors Diocletian, Maximian, Galerius and Constantius I, and identifies the name of the site as Arieldela.

New Excavations in Iraq:

Archaeologists have recently unearthed a complex of rooms around a courtyard at the site of Tell Khaiber, ca. 20 km from the ancient city of Ur, in Iraq. A 80 sq m structure, perhaps an administrative building, dating to ca. 2000 BC has been found. A Ziggurat is located nearby.

To discover more about archaeology, the Institute, and the Museum, contact us at:

VOX: 269-471-3273

FAX: 269-471-3619

E-mail: hornmuseum@andrews.edu

or visit our Web site at:

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Temple Found in Israel:

A 2,750-year-old temple and a cache of vessels has recently been discovered at the site of Tel Motza, near Jerusalem. The massive building was entered from the east with a square-shaped structure, identified as an altar, found in the courtyard, along with a cache of sacred vessels such as chalices, ritual pedestals, and a number of ceramic figurines, including horse and riders, as well as human heads with flat headdresses. The modern name Motza is thought to be connected with the biblical site of Mozah, mentioned in the book of Joshua.

Roman Basilica Found:

Archaeologists have recently discovered a Roman civil basilica in the city of Alexandria, Egypt. Two parallel rows of granite and limestone pillars have been found so far. The basilica was built on top of a Ptolemaic temple dedicated to the deities Harpocrates, Isis, and Serapis, on the basis of the terracotta statues found there. The Ptolemaic edifice is perhaps one of the two temples described by the historian Strabo when he visited Alexandria in AD 24.

Ancient City Found in Turkey:

Archaeologists have found a prehistoric city on the floor of the Aegean Sea entrance to the Dardanelles, near Çanakkale. The city, originally built on a mound, is ca. 2000 years older than Troy, and is yielding clues about ancient settlement patterns in the region.

N E W S L E T T E R



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