Figure 1: Façade of the Ad-Deir Monument, Petra, Jordan with the 2018 final erosion clearances of about one-half of the Great Circle in the foreground. The façade dimensions of the Ad-Deir Monument are: width, 46.77m; height, 48.3m., making it the largest known rock cut desert circle in the world. The Great Circle is almost exactly 60m in diameter—a massive water pool in the desert acting as both a quarry and catch pool to protect the Ad-Deir Monument in antiquity. See two tourist visitors in the upper right of the Great Circle for scale. The entrance to the courtyard of the North Temenos Region also under AMPP excavation and restoration is in the upper center portion of the photo (AMPP-Finlayson, June, 2018).

PRESS RELEASE: The Ad-Deir Monument & Plateau Project-2018 Field Season (BYU-AMPP)

Three BYU Archaeology students and one student from BYU Ancient Near Eastern Studies had an unprecedented opportunity this summer to work with the Ad-Deir Monument and Plateau Project’s professional archaeology team to help save a UNESCO-World Heritage site in Petra, Jordan. The Ad-Deir Monument (‘The Monastery’) is one of the largest rock-cut edifices in the ancient city of Petra and recognized the world over as a symbol of Jordan’s cultural heritage (Fig. 1). Built by the ancient Nabataeans who are noted by historians as one of the earliest Arab-Aramaean kingdoms in history (c. 400 BCE to a post C.E. 373 earthquake), this massive structure is severely endangered by seasonal water and wind erosion. Dr. Cynthia Finlayson of the BYU Department of Anthropology (Socio-Cultural Anthropology, Archaeology, and Museum Studies) is currently working with the
Jordanian Department of Antiquities and the Petra Archaeological Park to reduce these threats by excavating, studying, and restoring the three most important ancient structures built by the Nabataeans to protect this beautiful rock-cut building from flash flooding and wind erosion. Ancient Nabataean water engineers developed ingenious water collecting and storage facilities that saved precious fresh water sources in desert environments for human and animal consumption, as well as agricultural and religious ritual purposes. The Nabataeans were recognized by even the Romans as the best ancient desert water engineers and agriculturalists in the Classical Near East. Thus, modern efforts to reclaim desert regions for expanding human populations can learn a great deal from the ancient Nabataean archaeological sites in Jordan, the Negev Desert, and southern Syria.

The AMPP project has just completed its fifth season of clearing 2,000 years of erosion debris and earthquake damage and restoring three structures: 1) the Great Circle (See Fig. 1); 2) Eastern Cliff Cistern B just northwest of the Ad-Deir Monument; and, 3) an area north of the rock-cut stairway entrance to the Ad-Deir’s courtyard or temenos called the North Temenos Slot Region (See again Figure 1). In 2018, the AMPP Project also completed a five-year GPS mapping of all archaeological elements on the Ad-Deir Plateau that was begun in 2013 with a UAV-drone flight (See Figure 2). This portion of the project is part of Jordan’s participation in the ongoing MEGA or Middle Eastern Geo-database for Antiquities that is attempting to not only document all archaeological elements in the Middle East but also assess their conservation status and needs. BYU students have been involved in training in GPS mapping and archaeological site conservation assessment since the project’s beginnings. Currently, BYU-AMPP has recorded and mapped over 600 previously unknown archaeological elements on the Ad-Deir Plateau and involved both BYU archaeology students and Jordanian participants in these efforts. This high-tech mapping and recording effort along with the excavations noted above are revealing exciting new information about the complexity of Nabataean water engineering as well as how the Ad-Deir Plateau functioned throughout antiquity beginning in the Late Neolithic and Early Bronze Age down through the Roman, Byzantine, and Islamic Eras.

Figure 2: AMPP BYU student team members (from left to right) Josie Newbold (MA candidate-archaeology and Associate Director for AMPP), Hailey Ferguson (MA candidate archaeology & AMPP Tech Specialist), and Cannon Fairbairn (graduating senior Ancient Near Eastern Studies) finishing the four-year GPS mapping of the entire Ad-Deir Plateau under the direction of Dr. Cynthia Finlayson of the BYU Department of Anthropology (AMPP-Finlayson, June 2018).
AMPP’s 2018 field season was an exciting one! Just over 500 square meters of erosion soils were cleared from all three of the archaeological sites that are now the focus of restoration, with 40 cubic meters of Eastern Cistern B erosion debris cleared this season under the area direction of Bruce Allardice and assistance from Jake Hubbert and volunteer Cynthia Bingham. The floor of Eastern Cistern B was ¾ cleared and almost all of the most massive collections of Nabataean pottery from a sealed context in Petra recovered. The Jordanian Department of Antiquities has placed much of this pottery on long-term or permanent loan to the BYU Museum of Peoples and Cultures for study by Dr. Cynthia Finlayson, Director of the AMPP project, and her students. BYU undergraduate archaeology student, Jake Hubbert, has previously received an ORCA grant as well as a grant from the Archaeological Institute of America in 2017 and the College of Family Home and Social Science in 2018 to assist in working on the Nabataean coarse wares and their dating sequences (See Figure 3).

In 2018, just over 66,012 sherds of Nabataean Pottery from all sites were processed with a total weight of 419.78 kg. These amounts are fully double of what was accomplished...
in 2017 during last year’s official departmental field school. During the 2018 Field Season, a proposed chronology for the use of the Great Circle was discerned through combined archaeological and geological evidences via three excavation clearances under the direction of Dr. Finlayson, Dr. Glenna Nielsen-Grimm, and Josie Newbold with the assistance of Cannon Fairbairn. This year, two terracotta figurines of a female goddess, possibly Astarte-Isis were also retrieved from the Great Circle excavations (See Fig. 4). Additionally, the North Temenos Slot Area under the area direction of Deb Harris and assistance from volunteer Laurel Quinn was more fully cleared and a better understanding of the ancient Nabataean water control systems for the Ad-Deir pushed forward in its research goals. The North Temenos Region continued to produce numerous ancient coins. The AMPP project has now retrieved just over 800 such coins in total over the past four seasons in this region of the Plateau—one of the largest collections of Nabataean coins ever retrieved from archaeological contexts. These artifacts seemingly point to the use of the Ad-Deir Plateau as a strategic storage area for the mints of the Nabataean king Aretas IV during his war campaigns with Judea (See Figure 5).

![Figure 4: A fragment of a molded terracotta plaque with a seated female figure holding a cornucopia and wearing a bracelet with a possibly bared breast. Her seat is bordered by a column to the viewer’s left that was probably mirrored in the missing portion of the plaque. Retrieved from the Great Circle, Section/Area 6, 5007N4967E, Bottom of SU1 against the south side of the Outer Ring Wall close to the bedrock floor of the square, almost 1m below surface. (AMPP-Ferguson, June 2018).](image-url)
Figure 5: The Nabataean King Aretas IV and his queen, Shuqailat. Obverse and reverse of a coin with an inscription retrieved from the area North of the Temenos Slot, c. 18-25 C.E. Women in ancient Nabataean society could own their own property and serve in high religious and political positions (AMPP-Finlayson 2017).

Participants for the AMPP project in 2018 included Jordanian Department of Antiquities representatives Mr. Sati Massedeh and Mr. Bassel Halasah from Karak along with BYU Archaeology Masters students Josie Newbold (Associate Director) and Hailey Ferguson (Technology Specialist), BYU Archaeology undergraduate student Jake Hubbert (Classical Archaeology), and BYU Ancient Near Eastern Studies graduating senior Cannon Fairbairn (Egyptology). The project is directed by Cynthia Finlayson, Ph.D., R.P.A. of the BYU Department of Anthropology with Assistant Directors Bruce Allardice-American University of Cairo graduate student; Glenna Nielsen-Grimm-Collections Manager of the University of Utah Natural History Museum; Allison Lee-BYU alumni and Ph.D. Candidate University of Durham, England; and, Deb Harris, Office of Public Archaeology, BYU. Funding for the 2018 AMPP fieldwork was provided by Rex and Ruth Maughan, the BYU Department of Anthropology Shallit Grant, and additional student grants from the College of Family, Home, and Social Science.

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