The Archaeological Riches of Jordan

By Emily Lodge

One must never underestimate the value of the unexpected. Dr. Jacques Seigne, acting director of the French Institute in the Near East, had been excavating the Temple of Zeus in Jerash since the 1980's but it wasn't until one of his students asked him in the year 2000 how the Romans cut stone that he realized that the answer to the riddle was right in front of him —the remains of the first machine. Since the 1st c BC, water mills for grinding wheat had existed but never before transforming one type of movement into another type. The machine using a waterwheel to power "the alternative reciprocating movement of a saw" was etched into the sides of two columns. But no one had guessed that this was the prototype for the idea of cutting stone, dating 1000 years prior to the 14c. when it was generally believed to have been envisioned.

Jordan, although small and poor in resources for a scientific process that often takes decades, is rich in archaeological finds that are revolutionizing what was conventional wisdom about early history. The Americans and the Italians had known about the excavation near the temple of Artemis at Jerash since the 1920s, didn't recognize its value and hadn't bothered to record it. But it wasn't as if no one was looking for it. Thirty years ago, the Austrians had discovered a 7thc AD Roman stone saw machine in Turkey at Ephesus and the Italians in Hieropolis with the drawing on a 4th c. tombstone signed with the name of the engineer. But it wasn't until the new millennium at Jerash that the physical remains of the oldest machine, dating to the mid 6thc. AD was discovered.

Last year, Seigne and students from the Lycée Professionel Emile Delataille at Loches near Tours, with money from USAID and the French and Jordanian governments, created a restitution of the wooden parts of the machine. Seigne brought both the students and the pieces back to Jordan to see if they could make it work. They discovered that there was one important piece missing—the clutch--and that the failed machine wouldn't be corrected until the 14th c. The team is hoping to get it going this spring.

Petra, now one of the wonders of the world, was a showplace for the rich Nabataeans who borrowed heavily from the Greek and Roman worlds, according to Dr. Stephan Schmid, a Swiss archaeologist, who spoke recently at the American Center for Oriental Research (ACOR) in Amman. The facade of the Treasury is in the exact style of Hellenistic Alexandria as well as the Roman villa of Poppaea in Oplontis, near Naples. The funerary complex of the Soldier's Tomb with colonnades and servants entrances is drawn exactly from palaces around the Mediterranean basin indicating the Nabataeans traveled widely and that they were immensely rich, principally from trade in frankincense. Schmid has surmised from the heated baths at the top of Umm al-Biyara, a mountain overlooking the main street of Petra, that it was a summer palace to escape the heat in the valley.

Barbara Porter, the director of ACOR, estimates the number of important archaeological sites to be about 200,000. She notes the recent discovery of an Iron Age sculpture in downtown Amman and adds that there hasn't been nearly enough done about our earliest origins. Jordan is in the center of the Great Rift Valley, a geological schism that runs from northern Syria to Lake Victoria in east Africa. Early humans—homo erectus--literally walked up this valley over a million years ago. In the 1990s, Dr.

Gaetano Palumbo, an Italian archaeologist who is currently the World Monuments Fund's Program Director for North Africa, the Middle East and Central Asia, excavated fossilized mammoth bones and flint objects dating to a million years ago in Zarqa, north of Amman. Now Jordan can be added to the list of countries outside of Africa with the earliest evidence of 'homoerectus' (the others being Ubeidiya in Israel, Georgia, China, Pakistan, Spain and a controversial one in Java).

The World Monuments Fund is currently partnering with the Jordanian Department of Antiquities and the Italian Institute for Conservation (ISCR) to restore Qusayr Amra, an early 8th c AD spa and hunting palace, the world's sole example of Umayyad art. Walid I, the Umayyad Caliph who built the Dome of the Rock in Jerusalem and the Great Mosque in Damascus and went on to conquer all of North Africa and Spain (705-715AD), also built one of the most beautiful desert castles in Jordan. In the first centuries of Islam such representations were forbidden in sacred places like mosques, but not in private houses. The frescoes, in remarkably good condition, are unusual for their depiction of human life; the emperors of five continents paying him homage, dancing women and musicians, women and children bathing, lions and gazelles, hunting scenes of wild donkeys in a tradition dating to the Neolithic Age, a reclining figure reminiscent of William Blake, monkeys, bears holding mandolins, birds in a trellis, artisans at each phase of the building's construction, and the most remarkable, a little dome of the *calidarium*—the earliest known representation of the night sky in the round. "Christian communities continued to thrive and it is possible that Christian artists and artisans may have worked for the Caliph or his family to decorate this and other palaces," Palumbo commented.

Pella, sixty miles northwest of Amman, is the site of one of the areas' most significant "tells," (the Arabic word for mounds consisting of consecutive layers of ancient occupation) from a 14th c AD mosque to the Byzantine period, to the Bronze and Iron ages right down to Paleolithic era. Dr. Stephen Bourke, research scholar at the University of Sydney, Australia, spoke last spring in Amman about his thirty year project at Pella, at an event hosted by the Australian Embassy and HRH Prince Hassan.

Bourke's focus is the early civilization of the Jordan valley, the western arm of the Fertile Crescent, where humans first appeared around a million years ago. He challenged whether urban civilization first arose in southern Mesopotamia as is generally thought, as recent finds at Pella support a very early start to urban life in Jordan, fully a thousand years before the pyramid age in Egypt. Bourke showed slides of the earliest free-standing sculptured monolith in the Middle East, dating around 14,000 years ago. From the same prehistoric village site came a tool kit containing flint pieces and a double-edged sickle ("Gillette claims to have invented the twin blade but actually the idea dates to ten thousand years ago.")

Probably the most significant discoveries relate to the appearance of new pyro-technology in the sixteenth century B.C., namely glassmaking and iron/mild steel working. This predates previous discoveries in Mesopotamia and Egypt. Pella's Middle Bronze Age city walls were built around 4000 years ago. They were four meters thick and over ten meters high, and over 1.5kms long. In 3400 B.C., 1000 years before the pyramids, massive terrace walling and fortifications were crafted at the top of the nearby fortress hill of the Tell Husn, indicating it is one of the earliest complex urban centers known to the region. Maritime trade with Cyprus and overland trade with the Aegean world has been established as early as 2800 B.C. Among the artifacts were alabaster and

faience brought from Egypt, and a tortoise shell used as a sounding box for a lute, found laid across the body of a musician, one of the earliest such finds in the Middle East (1600 B.C.)

With Bourke currently looking for Pella's 'Coin Temple,' HRH Prince Hassan, King Abdullah II's uncle and brother of the late King Hussein, remarked he is eager to have more information unveiled about the meaning and purpose the Decapolis, the ten cities of the Greco-Roman period, linking among others Pella, Jerash and Amman, known in Greco-Roman times as Philadelphia, the city of brotherly love.

New archaeological research related to the Bible has been conducted by Dr. Konstantinos D. Politis, a Greek archaeologist based at the British Museum in London, who has been leading a team excavating Lot's Cave Sanctuary and Zoara on the southeastern shore of the Dead Sea. Lot is thought to have escaped there with his daughters after the destruction of Sodom and Gomorrah. One of Lot's daughters is alleged to have given birth to Ammon and the other to Moab, whose descendants comprise the ancient tribes of the northern and southern peoples of the region. A new museum, "The Museum at the Lowest Place on Earth," will open in the spring highlighting the Dead Sea, the 4th – 7th century AD early Christian communities and the origins of the sugar industry 1,000 years ago.

Jerash water saw reconstructed by the Ecole Lycée Professionel Emile Delataille at Loches near Tours, France. Photo courtesy of Dr. Jacques Seigne.

Treasury at Petra. Photo by Emily Lodge

Reclining figure at Qusayr Amra. Photo by Emily Lodge

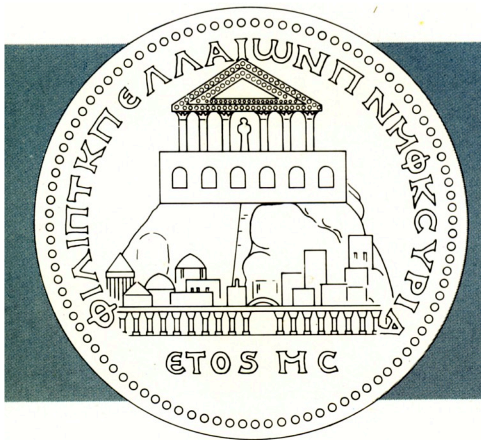
Zodiac at Qusayr Amra. Photo by Emily Lodge

Bear with mandolin at Qusayr Amra. Photo by Emily Lodge

Dancing Girl, Qusayr Amra, Photo by Emily Lodge

Qusayr Amra. Photo by Emily Lodge

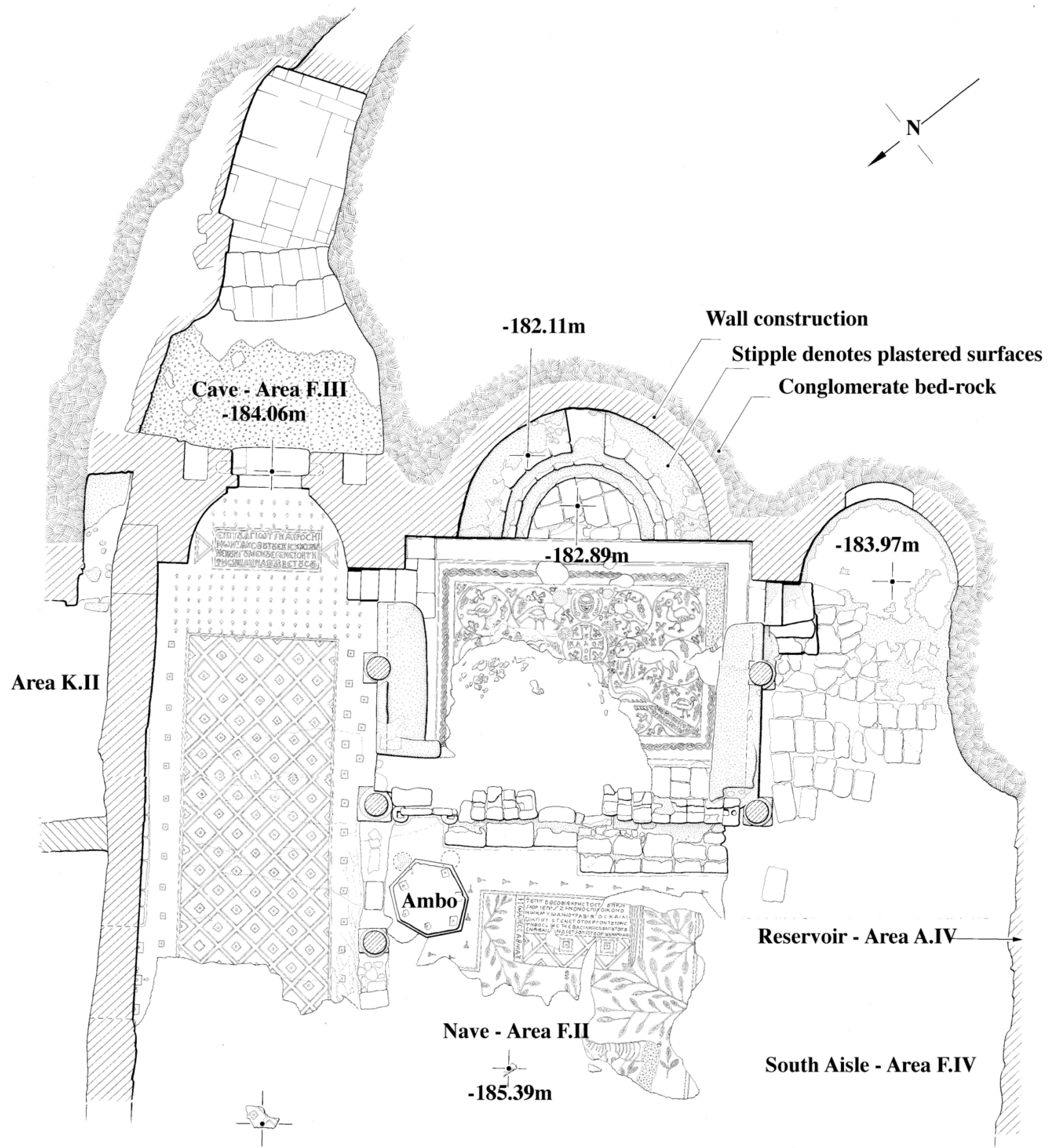
Qusayr Amra, 8th c Umayyad complex originally featured a palace and garden with exotic animals as well as the baths shown here. Photo Courtesy of Jane Taylor, author, Jordan: Images from the Air.



Drawing of a 170-230AD Pella coin courtesy of Dr. Stephen Bourke. Locally produced (a rare city issue), the coins show a large temple on a hill, dedicated to a probable female deity.

Church of St Lot at Deir 'Ain 'Abata, Jordan.. Note the entrance to Lot's Cave at end of northern (left) aisle of church. Photo: K. D. Politis

Basilica Church of Aghios Lot at Deir ‘Ain ‘Abata, Jordan



Drawings of Lot’s Cave and restored mosaics of the Byzantine Church at its entryway carved into a mountain above the Dead Sea, courtesy of Dr. Konstantinos D. Politis. of the sugar industry 1,000 years ago.