THE “MYSTERIOUS AND INNOVATIVE NABATAEANS” EXHIBITION
EUROPEAN UNION
AND
ENPI CBC MEDITERRANEAN SEA BASIN PROGRAMME
THE
“MYSTERIOUS AND INNOVATIVE NABATAEANS”
EXHIBITION
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The European Union is made up of 27 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders.

Partners MEDINA Project:

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NABATAEAN KINGDOM MAP
168BC - 106AD

NABATEAN KINGDOM
LAND ROUTE
SEA ROUTE
NABATAEAN SITES/ REMAINS

0 200 Kilometers

EGYPT
MEDITERRANEAN SEA
SYRIA
RED SEA
FOREWORD: THE MEDINA PROJECT

PROF. ALESSANDRA AVANZINI

MEDINA - "Mediterranean network for the valorization and fruition of inscriptions preserved in museums" [http://medina.cfs.unipi.it/] is a two year project funded by the European Union with the ENPI - CBC Med programme in 2012. The project aims at enhancing awareness, both in the local and in the international community, of the cultural heritage of some of the most important Ancient Near Eastern civilizations, as a necessary step for its future preservation.

The project is focused on the literate societies of the Phoenicians, the Nabataeans and the South Arabians for which writing was essential to several aspects of their organization: bureaucracy, commerce and religion. The surviving epigraphic texts in the Phoenician, Nabataean and South Arabian languages – all written by alphabetic scripts – are a rare treasure chest of interesting historical elements of these three civilizations: thousands of names for deities, kings, men, women, cities, temples, palaces are mentioned in the official documents conveying their concept of power and religion. Their importance is rightly assessed if considering that the history of the Nabataean kingdom of Petra, which controlled and managed the routes from the south of the Arabian Peninsula that allowed sumptuary products coming from India and the surrounding regions to arrive in the Mediterranean area, as well as the ancient Phoenician cities and the culture of the South Arabian kingdoms, are known almost exclusively through epigraphs, artworks and material culture as direct sources.
In the two years of its life, MEDINA has been working both to increase knowledge exchanges among institutions of the Mediterranean sea basin and to encourage the use of innovative digital technologies to communicate to the public the Phoenician and the Nabataean cultural heritage, especially preserved into Lebanese and Jordanian museums (the National Museum of Beirut and the Museum of Jordanian Heritage of the Yarmouk University).

On one hand, a strategy to promote epigraphic and archaeological assets has been developed: digital collections, online museums and virtual exhibitions are the most suitable means, developed with advanced digital technologies, to engage a large public, most of all young people, and educate them providing a proper and immediate interpretation. On the other hand, training courses addressed to non-EU students, researchers and museum personnel have been organized in order to spread a common understanding of the best practices in the field of digitization, communication of cultural heritage and promotion of museums. Finally, MEDINA has contributed to involve Lebanese and Jordanian museums into a network of institutions conducting their research in the domain of the Ancient Near East cultural Heritage.

The digital catalogue of the most important and meaningful artifacts that the museums involved into the project preserve has been created. Both inscriptions and archaeological objects were photographed, catalogued and, limited to epigraphs, transcribed and encoded according to the standards accepted by the international community. The catalogue and the project portal give access to the inscriptions and artworks digitized, organized into digital collections, thematic paths and virtual exhibitions. Thus MEDINA intends to provide their description, carried out according to strict scientific criteria, but also to encourage the exploration of the content and guide non-expert users to understand their multiple meanings. At the same time, several social platforms have been developed to engage the target groups of the project, identified among the general public.

However the usual means of communication have not been abandoned. Three printed catalogues have been prepared in order to illustrate, through the inscriptions and the not-inscribed objects of MEDINA, some aspects of the Phoenician, the Nabataean and the South Arabian civilizations respectively. Furthermore a handbook explains to the general public the Nabataean civilization demonstrating the unique contribution to knowledge provided by inscriptions.

This volume is dedicated to the Nabataean collection of the Museum of Jordanian Heritage of the Yarmouk University. Since the collection is the result of the research and the field projects conducted by the Faculty of Archaeology and Anthropology, of which the museum is part, that research have a leading role in the volume. Indeed, inscriptions and artworks are organized into three main sections, according to the aspects of the Nabataean civilization they better contribute to light up: innovative features in the Nabataean pottery; East fusion with West in Nabataean architecture and decorative arts; the Nabataean script as the root of the modern Arabic script. These themes reflect the structure of the new “Nabataean corner” which MEDINA is proud to have supported with the University of Florence (Italy). Along with the general overview, these themes are thought to provide an introduction and, we hope, an incentive also to non-specialists.

As the project has almost come to the end, I would like to thank the consortium, a multidisciplinary working group consisting of research and education institutions, archaeological museums and private companies in the communication and creative domains, from a number of Mediterranean countries: the Yarmouk University (Jordan), the Institute of Ancient Near East Studies of the University of Barcelona (Spain), GAIA Heritage (Lebanon), and Magoproduction (Spain) in addition to the University of Pisa (Italy). Most of all, I would like to take this opportunity to thank the Museum of Jordanian Heritage that has allowed us to document both the artifacts, for the digital and the paper catalogues, and the exhibition rooms, for the virtual tour of the museum.
It seems clear that the term nabatu, which appears frequently in the inscriptions together with the names of the Nabataean monarchs, is more an ethnic denomination than a geographical one and refers to a people whose activity and influence covered a broad area that included that south and east of Palestine, southern Syria, Jordan, the Sinai Peninsula and the north of Africa. Even today, the question remains as to whether they should be identified with the nabaiat-nabaiati mentioned in texts from the time of King Assurbanipal, in the 7th century BCE, and with an ancestor named Nebayot in the Book of Genesis (25:13; 28:9; 36:3). Although there are linguistic arguments that contradict this possibility, the presence of Arabic names among the nabaiat in the Neo-Assyrian chronicles continues to plant a seed of doubt in the minds of the researchers.

The origin of the Nabataeans also seems uncertain. J. Starcky claims that they came from southern Arabia, although there is no evidence to prove this. A. Knauf think that they were originally an Arab clan belonging to the Qedari confederation that controlled the north of Arabia from the 8th-5th century BCE, thereby making them the inhabitants of Edom territory. W. Diem used linguistic arguments to situate their origins in the area of Siro-Mesopotamia.

In any case, the first certain reference to the Nabataeans goes back to 312 BCE during the campaign unsuccessfully waged by Antigonus I against the nomads living in the ancient Edom lands. The historian Diodorus Siculus (50 BCE) told of the events using the report by Hieronymous of Cardia, a Seleu-
cid official who fought in the war. So, in his *Bibliotheca historica* is the first known description of the Nabataeans: “nomads who neither sow nor reap, nor do they build houses, living from the trade of goods from Arabia. Their rocky, arid land is impenetrable by enemies and only they understand† it. It is highly probable that the relationship of the Nabataeans with Petra, the capital of their kingdom, and with Al-Higr, situated in north-west Arabia and the hub of the trade routes goes back to the 4th century BCE.

Control of the trade routes linking Arabia with the continent was key to the prosperity of the Nabataean people; remains found in areas as far apart as Egypt, Phoenicia and Italy (Pozzuoli and Rome, where the Nabataean colony had its own temple), bear witness to the eminently commercial character of their civilisation.

The history of the Nabataeans can be divided into two phases. The first (2nd century BCE – 106 CE) is the period of the monarchy and the age of greatest splendour for the Nabataeans. Thanks to epigraphic documentation, a list of Nabataean kings can be reconstructed in an uninterrupted line from the end of the Hellenistic era to the Roman occupation. This period was characterised by Nabataean expansionism, clashes with the Hasmonaean monarchs to gain control of the trading routes, and also by the policy of understanding that the Nabataean chiefs had with Rome to conserve their independence and control their own territories.

The second phase coincides with the period of the kingdom's decline, which began after the death of Aretas IV and culminated with the Roman occupation. In 106 CE, Nabataean territory became a Roman province administrated by a legate, and the political centre transferred from Petra to Bosra. The area became a military-occupied border and Nabataean civilisation fell into gradual decline as trade became concentrated in the area around the oasis of Palmyra.

In terms of writing and language, the Nabataeans used an alphabet consisting of 21 consonants which they wrote from right to left; it is highly probable that the "square" calligraphy found in the first inscriptions was inspired by earlier models, such as Imperial Aramaic or Hasmonaean Aramaic and this can be explained by the strong political and cultural influence of this Jewish region on the Nabataeans. The calligraphic model, where the letters still appear to be separate from one another, evolved towards calligraphy proper where the characters tended to be joined, like Syriac or Arabic.

The language in the Nabataean inscriptions is mainly an Aramaic dialect but with its own characteristics which allude to a strong tendency towards archaisms and the influence of Arabic. The phenomenon of archaism is present in both the morphology and the syntax.
NABATAEAN CATALOGUE
Nabataean pottery is found from the north border of their territory at Madaba to the south at Aqaba or Aila as it was called at the time, including the Negev area to Gaza and down further south to Madain Saleh close to the present Saudi Arabian town of ‘Ula.

Nabataean fine painted pottery is one of the most intriguing products of ancient technology in Jordan. The Nabataeans produced varied types of pottery during their long existence as a (settled) culturally distinct group. The pottery vessels may be divided into two main categories: coarse common wares, and fine, often “egg-shell” wares of 1-3mm thickness and metallic hardness (Khairieh ‘Amr, Talal Akasheh and Maram Na’es, 2011).

The first phase of Nabataean pottery production started with the rule of Aretas the Third around 75BC and in the Negev area even later between 15AD to 50AD during King Aretas the Fourth times. Quickly Nabataeans developed their own very distinctive and independent pottery style. This is remarkable, as they adopted many Hellenistic styles and items in their architecture, as seen from their famous tomb facades. But in their ceramic-ware no Hellenic scenes and techniques were used (Thomas M., 2011).

The ceramic ware was smooth with matt surfaces and showed on the backside some white inclusions. It was a softer and porous ware, which absorbed water and was not very strong yet, as it chipped easily. The second phase started in the Negev area around 80AD and was very distinctive and a defined own style was developed. This ware was produced to eggshell thinness on average with one and a half millimeters. The third phase started around 150AD during Roman rule and again later in the Negev area after 200AD. Unfortunately now under Roman rule the pottery lost elegance, was tougher and thicker, in summyr just a more crude ceramic ware. (Thomas M., 2011)
CERAMIC ITEMS PRODUCED

Nabataean painted wares are the most distinct and most extensively studied of all Nabataean pottery productions. Most painted forms are open bowls with rounded bases, although other forms such as juglets and cups are also found. The list of pottery items produced also included huge storage jars, which could reach one meter in height and various sets of kitchen pots. In addition, various forms of flacons were produced, most had a long neck for the storage of perfume and ointments.

NABATAEAN POTTERY FEATURES

Nabataean pottery is recognized by the thinness of its walls, which were sometimes only 1.5 mm thick. It was a pinkish/red color, decorated often by hand with dark brown flower and leaf designs. The painted ware had an interior decoration based on simple burning palmetto and feather motifs in a light red paint. The pottery became with time coarser, designs more stylish, intensive use of the brush, until it went out of production by the end of the Roman period. Another characteristic of the Nabataean pottery is that it’s extremely thin. The typical —Egg-Shell Pottery, were mostly shallow open bowls were very difficult to be produced on the potter’s wheel, demonstrating how skilled their craftsmen were. Nabataeans normal ware pottery was simple and comparable to the pottery used by the civilizations around them, it is distinctive characteristic was the use of red clay that gave it a bright red color, Nabataean pottery was well made, with little decorations, this was not true for their fine, thin-wares (Alawneh, F. and Bala’awi, F., 2012).

CLAY AND RAW MATERIAL

The archaeometric analysis results showed that the clay that best matched the ancient Nabataeans ceramic shreds come from Al-Zurraba and Ain Al-Tinneh site near Petra, which are considered as ancient Nabataean production centers of pottery and fine ware. The coarser particles in the clay acted to hold-back shrinkage within the bodies of the ware during cooling, which was carried out slowly to reduce the risk of thermal stress and cracking.

The clay has a high expansion/ shrinkage rate, and is extremely plastic thus enabling the manufacture of the characteristic —egg shell Nabataean wares under proper manufacturing procedures. The high iron contents of the clay result in bright red-colored pottery which is also typical of the Nabataean wares (Yazzan Tell, 2011).

The Nabataean painted pottery was unique and one of its kind, with figures of ancient mythology, flowering vines, flowers, and even birds with bright plumage. There is a variety of decorations and designs noted on different pieces. It seems that the most popular method was incision. Decoration method was usually applied to the Pottery object before firing, when the clay was still soft. The incision was made by either a sharp or a rounded tool. The tool could be of metal or bone or any other suitable material enabling the potter to make the desired grooves. The grooves are shallow or deep, depending on the amount of force which the potter applied with the tool. Sometimes deep grooves were created by a very sharp thin tool. Much wider and shallower grooves were made by a rounded object (Yazzan Tell, 2011).

DECORATION TECHNOLOGY USED IN NABATAEAN POTTERY
The Nabataean potters work is improved by indication of their skill at shaping, probably some caliper-like tool was employed to insure regularity of rim diameters among the various ware types. A further technical achievement, also obvious in terms of “standards,” is that of section thickness. This was done so evenly, and in such good proportion to size, especially in the finer-ware classes, that it is a clear indication of “quality control” in both fabrication and firing.

The Nabataeans fine — egg-shell wares are the most characteristic products for the Nabataean culture; they had a thickness from 1-3 mm, and metallic hardness. These fine wares were either plain, slipped or decorated with painting, impressing or rouletting, or combinations of these decorative techniques (Yazzan Tell, 2011).

The Nabataeans innovative pottery

The firing techniques of the Nabataeans were related to those of the Edomite since this technique is a matter of ceramic chemistry and skill and similar results need to be loans.

The painted wares were generally fired close to the 800o C temperature range and the paints used in the Nabataean painting on wares were not organic, nor where the slips which were commonly used. The earliest constructed kilns were pit-kilns or trench-kilns, holes dug in the ground and covered with fuel. Holes in the ground provided insulation and resulted in better control over firing.

Firing times were short but the maximum temperatures achieved in the fire were high (900 oC) and were reached very quickly (Yazzan Tell, 2011).
POTTERY WAS MADE BY USING WHEEL AND HAND MODELED OVER A CORE MOULD USING LOCAL RED CLAY, WHICH ORIGINALLY CAME FROM THE ASH-SHARAH MOUNTAINS TO THE NORTHEAST OF THE ANCIENT CITY OF PETRA. POTTERY KILNS WERE FIRST DISCOVERED THERE, AT THE AZ-ZURRABA DISTRICT OF WADI MUSA. THEIR QUALITY WAS RIVALING THOSE OF GRECO ROMAN DECENT.

AMPHORAS

Amphoras were used to store incense and perfume, the mainstay of nabataean trade. Thousands of these have been found throughout the Nabataean Empire.
Nabataean Amphora 2 | Petra | between 15AD to 50AD | clay and temper | h. 8.5 x d. 1.23 w.min 1.23 w.max 2.91 | Yarmouk University Museum, A318
This small amphora dates to 15 AD to 50 AD during King Aretas the fourth reign. It is with a thin neck and a striate body, a little part from the nozzle is broken.

Nabataean Amphora 3 | Petra | between 15AD to 50AD | clay and temper | h.9, w.min.3.44, w.max.2.05, d.1.35 | Yarmouk University Museum, A678
This small amphora dates to the period between 15 AD to 50AD during King Aretas reign. It is with a thin neck, rounded nozzle and a striate body and the color of it is beige.

Nabataean Amphora 4 | Petra | between 15AD to 50AD | clay and temper | h. 17.5, d.1.51, w.min 2.08, w.max 5.17 | Yarmouk University Museum, A677
This small amphora dates to the period between 15 AD to 50AD during King Aretas the fourth reign. A small Pottery Amphora with a thin neck, rounded nozzle and a striate body and the color of it is beige.

Nabataean Amphora 5 | Petra | between 15AD to 50AD | clay and temper | h.7, d.1.11, w.min.1.81, w.max 3.34 | Yarmouk University Museum, A679
This small amphora dates to the period between 15 AD to 50AD during King Aretas the fourth reign. A small Pottery Amphora with a thin neck, rounded nozzle and a striate body and the color of it is beige which used to store incense and perfume.
Pottery was made with smooth rounded bottoms because sharp angles might crack, after a period of drying, the pitchers were put upside down on the wheel and the thickness of the base was reduced by shaving off any clay surplus forming the required base.

Nabataean Bottle 1  |  Petra  | around 80AD  |  clay  |  h.9, d.2.41, w.min. 3.42, max.6.01  |  Yarmouk University Museum, A675 A small Nabataean pottery pitcher with one handle, the base of this pitcher is rounded and the used clay was in pink color, it’s broken from its nozzle and from the body with missing parts; it was conserved in the Yarmouk University conservation Laboratories.

Nabataean Bottle 2  |  Petra  | around 150AD  |  clay and temper  |  h.12.5, d.min.2, d.max.3.5  |  Yarmouk University Museum, A763 An inflatable Nabataean pottery pitcher, with a short neck, a narrow nozzle, and one handle, with a rounded small base, striated from the middle of the body and polished from the outside, the base had a ring. This pitcher returns to the age around 150 AD during Roman rules, it is tough and thick and a simple crude ceramic ware.
Nabataean Bottle 4 | Petra | around 80AD | clay and temper | h.13, d.min.3.5, d.max.4, w.min.3.42, max.6.01 | Yarmouk University Museum, A765
Nabataean pottery bottle with one handle, short neck and wide nozzle, with a narrow ring base, polished, very smooth, to achieve this metal hardness it was well burnt, and that what gave it the red clay color.

Nabataean Bottle 5 | Petra | around 150AD | clay and temper | h.12, d.min.3, d.max.4, w.min.3.42, max.6.01 | Yarmouk University Museum, A767
Nabataean pottery bottle with a short neck and a very wide nozzle, with one handle and a rounded base, striated from its lower body, with a rounded small base, striated from the middle of the body and polished from the outside, the base had a ring.
This pitcher returns to the age around 150 AD during Roman rules, it is tough and thick and a simple crude ceramic ware.
PLATES

This ware was produced to eggshell thinness on average with one and a half millimeters. The ceramic ware was smooth with matt surface and showed on the backside some white inclusions, it is soft and porous plate, which absorbed water easily and made it not very strong, but is unique as all the nabataean pottery at this age were.

Nabataean Plate 1 | Petra | between 15AD to 50AD | clay and temper | h.3, d.min.11.5, w.13.4 | Yarmouk University Museum, A324 Nabataean pottery plate, from the Aretas the Fourth, tapered from the base, as a ring which gave the plate a balance to stand still, with a long rim as it was special at this age, in the color beige.

Nabataean Plate 2 | Petra | around 80AD | clay and temper | h.4, d.11.5, w.12.7 | Yarmouk University Museum, A325 Nabataean pottery plate with a ring shaped base with a high rim shaped very well, very smooth. Very fine but relatively thick fine ware, that is Pink/light red fabric, red paint. The shape is semi-globular bowl with ring base and a wide rim.
Nabataean Plate 3 | Petra | between 15AD to 50AD | clay and temper | h.12.5, w.13.4, h.4.02 | Yarmouk University Museum, A326
Nabataean pottery plate, from the Aretas the Fourth, tapered from the base, as a ring shape base which gave the plate a balance to stand still, with a long rim as it was special at this age, in the color beige.

Nabataean Plate 4 | Petra | around 80AD | clay and temper | h.4.5, w.14.4, d.16.5 | Yarmouk University Museum, A697
Nabataean pottery plate with a ring shaped base with a high rim shaped very well, very smooth, it was found broken and then it was conserved in the Yarmouk Conservation laboratories.
Pottery from Nabataean usually avoids figural representation and restricts itself to geometric or vegetal motifs; this plate goes back to the dates c. 100 AD and features a design of palmettes, with relaxed three fold symmetry. The Nabataeans were famous for their egg-shell thin, red pottery with black designs. Dishes ranged in size from small saucers to large trays almost a meter across.
Pink Nabataean pottery plate broken with lost pieces and colored, decorated with red color. Very fine and thin, light red and yellowish-red body color. Deeper red paint color. Decoration was complex and the naturalistic Wheat spikes. It was thrown on a wheel. Pottery from Nabataea usually avoids figural representation and restricts itself to geometric or vegetal motifs and features a design of palmettes, with relaxed threefold symmetry.

Nabataean pottery plate, from the Aretas the Fourth, tapered from the base, as a ring shape base which gave the plate a balance to stand still, with a long rim as it was special at this age, in the color beige.
LAMPS

Oil was poured into the middle of the lamp, and a wick was inserted in the left side and lighted. The lamp was held by the handle on the right. Since in this period the Roman’s ruled, and that reflected on the pottery making techniques, so in these Oil lamps we can see palm leafs and diagonal double field designs.
Nabataean pottery bowl 1
Petra | around 150AD
clay and temper | h.3.5, w.7.5, d.min.3, d.max.7
Yarmouk University Museum, A767
Nabataean pottery bowl with a ring-shaped base and small piece of it is missing from the edge, polished from the outside, the base had a ring. This bowl returns to the age around 150 AD during Roman rules, it is tough and thicker and it is a simple crude ceramic ware.

Nabataean pottery bowl 2
Petra | around 150AD
clay and temper | h.3.5, w.7.5, d.min.3, d.max.7
Yarmouk University Museum, A322
Nabataean pottery pottery bowl with a ring-shaped base and small piece of it is missing from the edge, polished from the outside, the base had a ring. This bowl returns to the age around 150 AD during Roman rules, it is tough and thicker and it is a simple crude ceramic ware.

Nabataean pottery bowl 3
Petra | around 150AD
clay and temper | h.4, w.8.5, d.7
Yarmouk University Museum, A687
Nabataean pottery bowl with a ring-shaped base and small piece of it is missing from the edge, polished from the outside, the base had a ring. This bowl returns to the age around 150 AD during Roman rules, it is tough, thick and it is a simple crude ceramic ware.

Nabataean pottery bowl 4
Petra | around 150AD
clay and temper | h.4, w.7.8, d.7.5
Yarmouk University Museum, A685
A red Nabataean pottery bowl with a ring-shaped base and small piece of it is missing from the edge, polished from the outside, the base had a ring. This pitcher returns to the age around 150 AD during Roman rules crude ceramic ware.
Nabataean pottery bowl 5  |  Petra  |  around 150 AD  
clay and temper  |  h.4, w.7.5, d.min.3, d.max.7  
|  Yarmouk University Museum, A770 |  A red  
Nabataean pottery bowl with a ring shaped base and small piece of it is missing from the edge, polished from the outside, the base had a ring. This bowl returns to the age around 150 AD during Roman rules, it is tough and thicker and it is a simple crude ceramic ware.

Nabataean pottery pot 1  |  Petra  |  around 150 AD  
clay and temper  |  h.10, w.9.4, d.min.4, d.max.9  
|  Yarmouk University Museum, A760 |  A pink  
Nabataean pottery pot, which has a rounded base and very smooth and polished, reflected by the Roman’s rule, this pot used for cooking. This pot returns to the age around 150 AD during Roman rules.

Nabataean pottery pot 2  |  Petra  |  around 150 AD  
clay and temper  |  d.8.5, w.8.77, h.8.66  
|  Yarmouk University Museum, A762 |  A nabataean pottery bowl with one handle, encircled with a pointed base, made from a soft clay paste, by using the potter’s wheel, lined using pink color and piece from the body is scratched base, it is very smooth and polished, reflected by the Roman’s rule, this pot used for cooking. This pot returns to the age around 150 AD during Roman rules. The shape was mainly open rounded bowl with small rolled rim continues.
The ancient city of Petra was at the center of the great Nabataean trade empire, which was a hub for not only the exchange of goods, but ideas and culture as well. This confluence of culture would lead to the unique style of art and architecture seen in Petra.

Although their dwellings remained simple, Nabataeans began incorporating the ideas and styles of their trading partners into their tombs and monumental architecture.

Commerce brought cross-pollination from many other cultures and influenced Petra’s architecture, which blended Arabic traditions with Hellenistic and Egyptian styles to create astonishing tombs, temples, and theaters all carved into cliffs of Nubian sandstone. The architectural style of the Nabataeans was a true blend of Assyrian, Egyptian, Hellenistic, and Roman influences that were incorporated into the unique architecture of Petra.
Scholars now recognize that most of the Near East was flooded with Hellenistic architectural and artistic craftsmanship before a distinctive Nabatean style developed, and that the Nabateans also had a penchant for borrowing ideas as they traded throughout the Roman world. The result of these two factors was a characteristically eclectic mix of tastes.

It was this question of outside influences on Nabatean architecture that allowed for the most extensive myth-making. Initial discussion of foreign influences in the Nabatean architectural orders—such as “Assyrian” crow-step decoration, “Egyptian” moldings, “Roman” canons, and so on—led to suggestions that outsiders had not only influenced architectural style, but had in fact built the monuments as well. However, the excavation of the Main Theater in Petra clearly demonstrated original Nabatean construction. Since then, the bias against Nabatean originality and artistry has largely evaporated, and the creative abilities of this early Arab people are being recognized and appreciated more widely (Rababeh, 2005; Rababeh, 2010; Hammond, 1991).

As the Nabateans began to build architecture in Petra, they relied upon the architectural forms and practices of earlier Mesopotamian empires that had controlled the area mainly the Assyrians.

It is possible to suggest that the introduction of the crow-step element, a pyramidal stepped decoration, into the Nabatean rock-cut facades may have been a two-dimensional symbol for the Assyrian and Babylonian ziggurat (Rababeh, 2005). Crow-step comprising the primary facade decoration of early Petra structures, they appear in two general arrangements, serial arrangements and massive arrangements.

The crow-step motifs were probably the earliest architectural feature of the Nabateans (Wenning, 2003), and that the Nabateans probably inherited this basic idea from Mesopotamia. Some scholars note that the number of steps differs from this found on the original Assyrian version of this motif with only three steps, whereas the number of steps in Petra varies between 4 and 6 (Browning, 1989).

Some Nabatean facades, the Proto-Hegr and Hegr types, have a large cavetto cornice. This is a feature of Egyptian architecture (Wenning, 2003; Browning, 1989). Another example of Egyptian influence is the obelisks, as on the Obelisk Tomb which has a plain lower part and is decorated with four obelisks in its upper part; cut free from the rock behind. (Rababe’h S., 2010)

Several scholars (Lyttelton, 1974) have noted that the architectural images of some of Petra’s monuments are shared with other Hellenistic and Roman buildings or monuments. McKenzie (1990) concluded that the “baroque” architecture of Ptolemaic Alexandria, is reflected in the classical architecture of Petra. The decorative stuccos and wall paintings in temples, rock-cut facades, and private houses were very rich (Kolb, 2003). This led to the conclusion that Alexandria was the source of inspiration for all these examples.
In addition to adopting the Mesopotamian and Hellenistic elements, the Nabataeans developed some entirely new features that afford their architecture an altogether unique look. Therefore, the Nabataeans developed their architecture in a milieu containing Hellenistic and later Roman cultures in addition to Eastern ones.

It can be said that the simpler rock-cut facades show stronger Oriental influences, while the more complicated ones show more Western influences. It is probable that the shift from crowstepped facades to classical ones, as seen by the Khazneh replacing the Hegr tombs below it, represents the shift of the Nabataean cultural orientation from East to West (Rababeh, 2005). Beside these influences, some architectural features which are characteristically Nabataean can be found, such as the Nabataean capital (McKenzie, 2001, Rababe'h S., 2010). For the Nabataeans, forms were freed of their function, at least more than they had been in the past, allowing them to take on a purely decorative role. Moreover, the combination of the elements together in the Nabataean monuments gives them their own character. The result: a creative and engaging aesthetic conditioned by an appreciation for both Mesopotamian and Hellenistic traditions that is unparalleled in architecture anywhere else.
THE NABATAEANS ARCHITECTURE AND DECORATIVE ARTS USUALLY REFLECTS THE INFLUENCE OF: GREEKS, EGYPTIANS AND ROMANS. THE DECORATION STYLE AND SOURCE OF THE ORIGINAL MATERIAL INDICATE TRADE CONTACTS AND EXCHANGE WITH THESE CIVILIZATIONS.
Capital volute  |  Great Temple, Petra, Jordan  
|  1st century BC  |  sandstone  
|  h.29, w.21, th.max.14, th.min.13(top)  |  Yarmouk University Museum  
This fragment of an Ionic column capital was found in great temple at Petra site. The craftsman made volute through a deep recessed by using the pointing chisel tool. On the top of the volute an Acanthus leaf is found. This type of decoration using the acanthus leaf as a part of volute was rarely used.

Marble panel  |  Qaser el Bint Temple, Petra, Jordan  
|  1st century BC  |  white marble  
|  h. max. 24, h. min. 22 (right side), w. max .28 w.min. 23(base), th.3.5  |  Yarmouk University Museum  
This marble panel fragment shows the use of the Roman decoration and materials in Petra monuments. The fragment contains on its upper part branches of plants, below this three wide band were engraved with plants and leaves decorative motifs.

Stucco decorative element  |  Petra, Jordan  
|  1st century BC  |  lime plaster  
|  h.16, w .max 28 (top), w.24, min. th.12  |  Yarmouk University Museum  
Qasr al-Bint was built in the 1st century BC, by Obodas III, on an earlier foundation. It’s believed that the temple was originally stuccoed in bright colors with Greco-Roman art elements. According to researchers the fragment belongs to the external walls of the temple and strongly reflects the Roman influence on Nabataean art.
Artistic Object | Human face from the Nabataean period | sculpted of sandstone | Petra site, Jordan | 1st century BC | h. 13.5, w. 15, th. 5 | Jordan Heritage Museum (A1238) Yarmouk University Museum

Stucco decorative element | Petra site, Jordan | 1st century BC | lime plaster | h. 13, w 25, th. 12 | Yarmouk University Museum This fragment of stucco was found in Qasr al-Bint Temple is another typical example that represents the strong influence of Roman on the architecture and decorative art of Petra.
Stucco decorative element | Petra site, Jordan | 1st century BC | lime plaster | h.10.5, w.24, th.6 | Yarmouk University Museum This is another fragment of the decorative stucco of the famous Qasr al-Bint Temple. It has been established that the temple was originally stuccoed in bright colors with Greco-Roman art elements.

Artistic object | Petra site, Jordan | 1st century AD | white marble | h.21, w. max 21 (top), w.13, th.3 | Yarmouk University Museum This marble object was extensively decorated with plant leaves and a palm tree. The object was made of high-quality white marble imported from Italy as proved by lead isotope analysis. The decoration style and source of the original material indicate trade contacts and exchange with Rome.
Head of The Goddess Tyche | Petra site, Jordan | 1st century BC | sandstone | h.15, w.15, d.9 | Yarmouk University Museum

The head of Tyche is sculpted of the local al-Quwayra sandstone, the famous red stone of the Petra valley. The face is oval dominated by sweeping, gently modeled curves of the cheeks and chin. The eyes are expressive and deep-set, the lips are full and rounded with a slight downturn at corner. Wavy hair proceeds from a part over the middle of the face and is arranged in lines running parallel to the curving line of the brow. Tyche was popular subject among the Nabataean and other Hellenized inhabitants of Jordan.

Lower part of a Corinthian floral capital | Petra site, Jordan | 1st century BC | sandstone | h.21, w.38, d.18 | Yarmouk University Museum

The almost completely preserved lower part of a Corinthian floral capital has a collar of acanthus leaves with plastered details. The state of preservation of the upper part is good enough to identify a floral capital of McKenzie’s Type 1, which strongly reflect the influence of the Greco-Roman Architecture.
This sculpture of a bench of flowers and leaves is a typical example of Nabatean decorative works used on Petra monuments façades. The decorative motifs clearly indicate strong Egyptian and Roman influences.
Nabatean Terracotta Horse Figurine | Petra site, Jordan | 40-70 A.D | terracotta | h.21, w.33.5, th.15 | Yarmouk University Museum

A saddled and harnessed horse, decorated with screw-shaped pendants. Screw-shaped girth strap consists of two inclined ropes coming from the top of the back, starting with two oval-shaped patterns at the fix point between them and the saddle. These two ropes rejoin at the lower edge of the saddle and extend around the belly together with a third one, which surrounds the body and passed over the saddle. The tail is solid and tall, indicated by diagonal straight incised lines, and the coronet is crescent-shaped. The concept, techniques (Moulded in two halves) and color reflect the influence of Greco–Egyptian art in Nabatean art.

The goddess of victory (Nika) | Al Dahariah site, Southern Jordan | 1st century BC | limestone | h.max 48, h.min 43 (top), w.38, th.112 | Yarmouk University Museum

This lower part of a broken Nabatean goddess of victory called Nika was found in Al Dahariah Temple Façade. This object reflects the clear influence of the Greco-Roman rituals on Nabatean life and culture.

Water pipe | Petra, Jordan | Made of pottery | sandstone | 42 x 18 cm | Collection of the Jordanian Heritage Museum A716a | Yarmouk University Museum
Ibexes Figurine  | Petra, Jordan  | 1st century AD  | terracotta  | h.6, w.1.5, d. 0.75  | Yarmouk University Museum
A head and a neck of an ibex with two horns tightly close together. Horns are incised with transverse ridges on the front area. Small punctured grooves on the forehead indicating hair plaits. The head is elongated. The mouth is half open. The nose is indicated by two small holes. The eyes are almond in shape. Small thin whiskers underneath the mouth. Two small ears on each side of the head. A rope surrounding the neck and tight on the left side.

Seated woman figurine  | Petra, Jordan  | 1st century AD  | terracotta  | h.9.5, w.2.5, th.3  | Yarmouk University Museum
Seated draped mourning Isis, wearing a chiton, sitting in a frontal position with foot resting on a rectangular pedestal. Supporting her chin with the right hand, while the left hand is adorned with a bracelet, resting on the lap and holding perhaps a feather. Exact details and features are not clear. Long hair can be distinguished in the back by traces of long vertically incised lines under the fine hair-dress. Vent-hole plugged under Isis, reflects the strongest Hellenistic influence on the Petra terracotta figurines came through Egypt.
The origin of the Arabic script goes back to an alphabet created by the Phoenicians. The Phoenicians developed the alphabet circa 1400-1250 BC in order to communicate with the diverse cultures and tongues of their maritime trading partners. The Phoenician script developed into Greek and later the modern Latin alphabet in one side and into Aramaic, which developed further into Modern Hebrew and Nabataean.

The question of the development of the Arabic script, is perforated with uncertainty for scholars. They disagree on the origin of this significant medium, which has been used by Arabs, Persians, and other nations for the past 15 centuries. (Musa, I, 2001). In general, there are two schools of thought regarding the origin of the present Arabic script. One believes it is Nabataean while the other attributes it to Syriac. The Syriac, like the Nabataean, is another offshoot of the Aramaic script, which evolved from the Phoenician (Musa, I, 2001).

However, it is now an accepted theory that the Arabic script originated from the Nabataean script. T. Nöldeke was the first to establish the link between the Nabataean and Arabic scripts in 1865, which later confirmed against J. Starcky’s Syriac thesis by Grohmann. The affiliation between Nabatean and Arabic scripts has now been fully documented by J. Healey with almost a complete consensus among scholars on the Nabatean root of the Arabic script (Healy, J. 1990).
Centered at the ancient city of Petra, the Nabataeans built a kingdom in the 2nd century BC that grew prosperous from trade routes that crisscrossed their territory. At its height the Nabataean kingdom extended from Syria northern Saudi Arabia, and from Jordan into the Sinai in Egypt. Nabateans have adapted a script with a slightly modified Aramaic shapes after centuries of economic relations with neighboring urban centers. The Nabatean's variant of the Aramaic script evolved from the angular shape of the original to a more cursive style with ample use of ligatures to join the letters of words together. Despite living under Roman rule, the Nabataeans continued to write with their script well into the 4th century AD, at which time the language behind the script shifted from Aramaic to Arabic. Nabataean is therefore considered the direct precursor of the Arabic script. (Naveh J., 1982)

Archeologists and linguists have analyzed and studied the Nabataean inscriptions that represent the advanced transitional stage toward the development of such Arabic scripts as the Um al-Jimal, dating from about 250 A.D., and the Namarah dating from 328 A.D. Another inscription from Um al-Jimal, dating from the 6th century, confirms the derivation of the Arabic script from the Nabataean and points to the birth of distinctive Arabic writing forms. This date is considered by many scholars to be the date that Nabataean script "became" the Arabic script. (ConnorM. 1986).

The following chart illustrates and compares the Aramaic, Nabataean, and Arabic alphabets.

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All Arabic letters are isolated forms, except * denotes final form, and ** denotes initial form.
The archaeological site of Umm Al-Jimal in North East Jordan. It is the largest and best preserved archaeological site in North East Jordan, this part of Jordan is called also the Jordanian part of Hawran. Many inscriptions were found in this area specially Greek and Latin inscriptions and Nabataean.

Nabataean Inscription 1 | Hawran, North East Jordan | 4th century AD | basalt | h.74, w.43, th.24, dimensions of letters: 10-14 cm | Yarmouk University Museum

The inscription can be translated as: “This is the grave stele of Hy’l”

This inscription is engraved on a rectangular shaped stone. It is a grave stele and the inscription mentions here only one name, some steles have more than the name of the deceased, for example it mentions the age and his/her father’s name.

The letters is not deeply engraved and some of them are deteriorated and the stele itself is complete.

We can notice from studying the inscription that the Nabataean letters: Peh, Shin, Yood, are similar to the letters in both scripts Arabic and Aramaic.
The inscription is engraved on a black stone with rhombus shaped support. Because of the break this inscription has only two letters on it and the information’s that could not conclude much information from it. So the inscription and the stone carrying the inscription are both not complete.

An engraved Nabataean inscription on a black stone that is broken, the letters are relatively tall and the inscription is deeply engraved it is formed from two lines and have one name as we can conclude from reading and analyzing the text it is a dedicatory text for Khsh.

The second name Amrw is used in Arabic too, from studying the letters Kaf, Shen, Mem, Reash, and Waw we can notice that they have almost the same characteristics as the same letters in Arabic and Aramaic.
Nabataean Inscription 4 | Hawran, North East Jordan | unknown date | stone | h.44, w.38, th.8, dimensions of letters: 7-11 cm | Yarmouk University Museum
The inscription is engraved on a basalt stone support in two lines and the support is broken. The last letter in the first line is also broken and it is difficult to read. The inscription is dedicatory. We notice from studying the inscription letter by letter that the letters Kaf, Waw, Youd, and Shen is similar to the same letters in Arabic and also in Aramaic.

Nabataean Inscription 5 | Hawran, North East Jordan | unknown date | stone | h.44, w.38, th.8, dimensions of letters: 7-11 cm | Yarmouk University Museum
Translation: Hagar daughter of hayyan m.
A rectangular shaped stone that used as a grave stele and have a two lines engraved Nabataean inscription upon it mentioning a female name with her father’s name. From this inscription we can notice the use of the word Brt which means daughter it is close to the word bent in Arabic same meaning. Another not is the letters Bet, Gem, and Rysh. These letters have the same characteristics as in Arabic and Aramaic.
A rectangular shaped stone used for a dedicatory inscription and have a one line engraved Nabataean inscription which has a female name with her father's name, the letters is small and deeply engraved in the stone.

From this inscription it is noticed that the use of the word "Bt" which means daughter it is close to the word bent in Arabic same meaning.

In addition we can notice that the letters Bet, Gem, and Rysh. These letters have the same characteristics as in Arabic and Aramaic script.

The name Malkw is a common name in Nabataean and Arabic.

1. Both names, mentioned in this inscription are of Semitic origin the first one was used in modern Arabic Hayan.
2. It is noticed in this case that the Nabataen Waw is almost identical with the modern Arabic Wow.
The “Mysterious and Innovative Nabateans” Exhibition at the Museum of Jordanian Heritage, Yarmouk University is organized as an activity of the ENPI Joint project “Mediterranean Network for the valorization and fruition of inscriptions preserved in museums” “MEDINA”.

The exhibition presents 52 exceptional Nabatean objects arranged in three categories: Inscriptions, Decorative architectural elements and Pottery. The remains uncovered from various Nabatean sites in Jordan, mainly Petra, are evidence of Nabatean prosperity and economic success resulting from their position as middlemen in the incense and spice trade, especially during the Hellenistic and Roman periods. Their economic success influenced their culture and way of life – converting them from their nomadic traditions to life in permanent settlements and cities. Drawings, and prints from several well-known Nabatean monuments such as the kha’khna and the Monastery will be displayed alongside the objects. The extraordinary objects, coupled with the immersive exhibition design, will showcase important aspects of the Nabateans’ mystery and amazing technological innovations and cultural openness and diversity in a uniquely challenging setting, revealing their technological and artistic virtuosity which enabled Petra to prosper for centuries as the epicenter of the ancient world’s thriving commerce. The exhibition highlights three themes that demonstrates the cultural and technological advancement and openness of the Nabateans: “Nabatean Script, the origin of Modern Arabic Writing, “East Blends with West in Nabatean Architecture and Decoration” and Nabatean Innovative Pottery Technology.”
The exhibition demonstrates how desert was transformed by the Nabateans into a bustling metropolis with monumental tombs carved directly into the red sandstone hills and thousands of other structures. Through a complex system of water channels and reservoirs, skilled Nabataean engineers developed and maintained an elaborate network of damming, terracing, and irrigation that allowed them to maximize the agricultural potential of the surrounding plateau. The development of Nabataean writing coincided with and facilitated urbanization, and the rich cultural life of the city reflected a confluence of Eastern and Western styles and traditions blended with innovative local cultural traditions.

The exhibition re-creates many aspects of the impressive Nabatean culture using, inscriptions, artworks, photographs, and actual architectural elements to tell the fascinating story of life of the Nabateans.

We hope that the exhibition will give visitors a sense of the peacefulness and ingenuity of this ancient civilization of very diverse peoples, and will help to foster cultural understanding at this critical time in world events.
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Useful links
- Arabic, in Ancient Scripts [http://www.ancientscripts.com/arabic.html]
- The Origins of Arabic Calligraphy, in The World of Calligraphy [http://www.worldofcalligraphy.com/article1.html]
- The History of the Arabic, in The Calligraphy Society [http://leedscalligraphy.blogspot.it/2010/10/history-of-arabic-alphabet.html]