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Casting New Light on Petra

Posted By [Robin Ngo](#) On March 28, 2014 @ 3:53 pm In [News, The Ancient Near Eastern World](#) | [No Comments](#)

The famous rock-cut monuments of Petra in Jordan may have been constructed with [the movements of the sun in mind](#).^[1] According to a recent study published in the [Nexus Network Journal](#)^[2], the Nabataeans took into account how the sunlight would illuminate their major buildings during specific times in the year when erecting their towering capital city.

The setting sun casts light on the altar of Petra's Monastery during the winter solstice. *Photo: Juan Antonio Belmonte, Ph.D.*

Originating as a nomadic tribe in northern Arabia, the Nabataeans settled into semi-permanence in the area of Petra in the late fourth century B.C. As described in the *Bible History Daily* feature ["Solving the Enigma of Petra and the Nabataeans,"](#)^[3] the Nabataeans rose to prominence in the ensuing centuries with their involvement in the lucrative South Arabian frankincense and myrrh trade:

By the first century B.C., Petra had become a full-fledged capital city, its rulers raking in considerable profits from an international spice trade that now extended from India to Rome. With such wealth and position, the Nabataean kings had to present both themselves and their city as equal partners in the international community, which at the time meant adopting the styles, tastes and the mores of "western" Hellenistic civilization. Petra, much like Jerusalem under the Herodian dynasty, was to be built as a first-order Greco-Roman city ruled by western-looking kings.

Other than Israel, no country has as many Biblical sites as Jordan: Mount Nebo, from where Moses gazed at the Promised Land; Bethany beyond the Jordan, where John baptized Jesus; Lot's Cave, where Lot's family sought refuge; and many more. Delve into this legendary land rich with Biblical history with [the free eBook Exploring Jordan](#)^[4].

A statistical analysis of the palaces, temples and tombs at Petra conducted by scientists from Spain and Italy suggests that the Nabataeans were guided by such astronomical events as equinoxes and [solstices](#) in building their monumental capital city.

One of the most breathtaking examples occurs during the winter solstice, which the Nabataeans may have associated with the birth of their chief god, Dushara. As the sun sets during the week before and after the winter solstice, its light shines through the gate of Ad Deir, the Monastery of Petra, illuminating the sacred altar within.

"The astronomical orientations were often part of an elaborate plan and, possibly, a mark of the astral nature of their religion, which showed incredible 'hierophanies' or demonstrations of the sacred on monuments related to cultic times and [worship](#)," [said Juan Antonio Belmonte, lead author on the published study](#)^[5].

While the study offers a fascinating theory for how monumental architecture was conceived at Petra, [some researchers caution](#)^[6] that we still do not have enough textual and archaeological information to [confirm](#) whether or not the Nabataeans constructed their major monuments to align with astronomical movements.

[Read more on the study conducted on Petra's monuments.](#)^[5]

[Learn about how Roman emperor Augustus's Altar of Peace was constructed with the alignment of the sun's beam in mind.](#) [7]

Read more about Petra and the Nabataeans in *Bible History Daily*:

[Solving the Enigma of Petra and the Nabataeans](#) [3]

[Cyber-Archaeology at Petra](#) [8]

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[1]

The setting sun casts light on the altar of Petra's Monastery during the winter solstice. *Photo: Juan Antonio Belmonte, Ph.D.*

The famous rock-cut monuments of Petra in Jordan may have been constructed with [the movements of the sun in mind.](#): <http://www.biblicalarchaeology.org/wp-content/uploads/Petra-Sun.jpg>

[2] Nexus Network Journal: <http://link.springer.com/article/10.1007%2Fs00004-013-0164-6>

[3] "Solving the Enigma of Petra and the Nabataeans,":

<http://www.biblicalarchaeology.org/daily/ancient-cultures/ancient-near-eastern-world/solving-the-enigma-of-petra-and-the-nabataeans/>

[4] the free eBook Exploring Jordan: <http://www.biblicalarchaeology.org/free-ebooks/exploring-jordan-the-other-biblical-land/>

[5] said Juan Antonio Belmonte, lead author on the published study: <http://phys.org/news/2014-03-celestial-events-great-nabataeans.html>

[6] some researchers caution: <http://news.nationalgeographic.com/news/2014/03/140317-petra-jordan-nabatean-sun-civilization-ancient-culture/#>

[7] Learn about how Roman emperor Augustus's Altar of Peace was constructed with the alignment of the sun's beam in mind.: <http://www.biblicalarchaeology.org/daily/news/ara-pacis-illuminated/>

[8] Cyber-Archaeology at Petra: <http://www.biblicalarchaeology.org/daily/news/cyber-archaeology-at-petra/>

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