



## Arches of Mahajah, Saudi Arabia

Across the northwestern corner of Saudi Arabia, red sandstones extend for close on 100,000 square kilometres. Some parts stand high as broad mesas and plateaux, others are buried beneath desert sands, but scattered throughout there are many places where remnants large or small have been carved into spectacular landforms. The sandstones are Lower Palaeozoic, and for the most part lie almost horizontally. They extend northwards across the frontier into Jordan, where they form the Ram Sandstone that is well known for hosting the great visitor sites of Petra and Wadi Rum. The heart of the Saudi Arabia's sandstone country is Al Ula, which is fast becoming a major tourist destination, strung out along wadis between precipitous walls of red rock. Close by Al Ula, Mada'in Salih (now also known as Hegra) has Nabataean tombs and facades carved into the sandstone cliffs; these are similar to those at Petra, though not quite as impressive. However, the natural landforms around Al Ula surpass those of Wadi Rum, with clusters of towers, monoliths, arches and pinnacles scattered across huge areas of the desert. Mahajah is just one tiny, isolated outcrop, far from any road, 150 km east of Al Ula. Its rock architecture is splendid and complex; this photo of just some of its arches was taken from inside yet another arch (note the shadow in which the silhouetted person stands). These are true arches, created in thin, vertical, joint-guided slabs of rock, known as fins, which have had their faces retreat by desert weathering below a rib rock that happened to survive as an arch. They are not bridges, which have been formed by river erosion undercutting through meander necks. What determines the exact shape of each arch is unclear, whether it is variation within the sandstone lithology, eddies in the wind, or minor fractures; for sure, the profiles at Mahajah can cause the mind to wander.

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