

# Case study: Petra



Petra is a unique city, with monumental façades sculpted and built out of solid rock. It is located in southwest Jordan, halfway between the Red Sea and the Dead Sea in a mountainous region named the Shera mountains. For more than 200,000 years Petra has been a place for human habitation. The façades, creating a unique outdoor art gallery, were produced by the Nabataeans, who inhabited this area between the 4th century BCE and the 1st century CE. Today, Petra is managed by the Petra Development and Tourism Regional Authority (PDTRA). Established in 2009, PDTRA manages the entire Petra Region of some 755 square km (292 square miles) including the Petra Archaeological Park (PAP) which covers 264 square km (102 square miles) of the land. The Park, a subordinate organization of PDTRA, manages the PAP. The current Park Commissioner is His Excellency Dr. Ismail Abu Amoud. Jurisdiction over archaeological research, conservation, restoration and preservation, lies with Jordan's Department of Antiquities within the Ministry of Tourism and Antiquities.

The Petra National Trust (PNT) is Jordan's national NGO institution for the protection and preservation of national cultural heritage, with a focus on the World Heritage Site of Petra. PNT "aims to instill a sense of identity and pride in Jordan's cultural and natural heritage, and inspire a commitment to preserving and protecting Jordan's significance and values by members of its local communities." Founded in 1989 under the presidency of HRH Prince Raad bin Zeid, PNT is a full member of the International National Trusts Organisation (INTO) and has a board of directors headed by HRH Princess Dana Firas, who serves as an INTO Ambassador. PNT's executive director is Abdullah Abu Rumman. Both Dr. Ismail Abu Amoud and Mr. Abdullah Abu Rumman worked with us on the development of this case study. We also relied on articles and presentations by HRH Princess Dana Firas and other materials supplied by the Petra National Trust.

The case study examines the surrounding communities and considers challenges to their sustainability. As the site welcomed 1 million visitors for the first time in 2019, all entities involved with Petra recognized the fragile nature of the resource and the negative impacts that could come with overcrowding. PNT has worked to promote and coordinate Jordanian and international efforts to preserve the unique combination of antiquities, natural environment, and human traditions in the Petra region, advocating for heritage protection and preservation as a foundation for development, responsible tourism, political identity and participation.



### Key lesson learned in the study of Petra:

*Leverage your platform with government and industry to provide a voice for those local residents who are less powerful and among the least appreciated community stakeholders.*

Another important learning emerged from our analysis at Petra:

- Fragile environments are especially susceptible to overcrowding. The environmental impacts at a large, remote, and complex site like Petra arise from various activities, many of them driven by the promotion of mass tourism. NGOs can play a leadership role in managing and mitigating those impacts.

### Brief history

With more than 200,000 years of human habitation, Petra is a well-documented site from the prehistoric periods to the later Islamic periods. Remains of Paleolithic campsites have been found in the surrounding hills and an early seasonal village was established north of Petra about 13,000 years ago. Rule of the region moved from Assyria to Babylonia, and then to Persia, when, in the 3rd century BCE it became a key nucleus of an Arab state, the Nabataean kingdom. It was the Nabataeans who made Petra their capital, constructing the spectacular buildings and carved façades we see today. They also built systems so that water flowed to the outreaches of the kingdom.

*“Petra is a unique marvel where nature and man have joined to create this extraordinary phenomenon. Its excavated sites, stone façades, monuments, and long history attract people from around the world. The region is an unusual microcosm of the broad sweep of human civilization... and stands as a dramatic testament to the art, wealth, and technological skills shared between great ancient civilizations.”*

Petra National Trust website

In 106 CE Petra became part of the Roman Province of Arabia. Petra continued to have prominence after the transfer of the capital of the Roman Empire to Byzantium in 330 CE. By the 5th century, Petra served as the administrative center of the Byzantine province of Palaestina Tertia. While going through a slow decline due to the redirection of trading routes to sea lanes, Petra remained a prosperous and important center as a provincial capital through the 6th century CE. In the next century with the Islamic take-over of the region, trade routes were further redirected hastening Petra's decline. After the withdrawal of the Crusaders in 1189, Petra dropped out of Western consciousness. With the abandonment of Petra itself and the destruction of the water collection and supply systems that enabled settlement further down the valley, the only stable settlement remained in the mountainous areas, along the circle of springs in the traditional villages surrounding the Petra Archaeological Park. There people continued to use the traditional stone houses, to cultivate the land on terraces and to keep the water supply system working. It was not until 1812 that Petra was once again visited by a Westerner, when the Swiss explorer Johann Ludwig Burckhardt came to the area.







## Archaeology, preservation, environmental, and conservation work

Archaeological investigations in Petra and the surrounding areas date from the 1930s, with both national and international teams working at Petra every year. The Department of Antiquities (DOA) owns all the archaeological sites in Jordan and is the government agency responsible for granting permission for excavations. The size and nature of the site continues to unfold. In 1994 UNESCO identified 800 monuments in Petra, but more recent surveys show that the actual number of monuments is far greater.

Beginning in 1990 and continuing through today, PNT has coordinated preservation studies and projects on several important elements of the historic site. In coordination with DOA, the Trust executed an archaeological project for the excavation and clearance of the Zurraba area, revealing a Nabataean workshop complex built in the early 4th century CE. The project is important from the perspective of sustaining communities as PNT and DOA worked to boost the local economy through the employment of horse owners and other laborers within the region during the First Gulf War, a time when tourism came to a halt. Regional conflicts and events continue to have impacts on tourism to the site.

PNT has also been active in several restoration projects over the past 30 years.

- Surveys and restoration projects from 1997 to 2003 studied the Nabataean hydraulic systems and the floor of the Siq (the main entrance to the ancient city). Following those studies, PNT restored the original floor and slope, constructed a dam to reduce the impact of flash floods on visitors and monuments in the Siq, and undertook the restoration and consolidation of hydraulic features which were exposed as a result of excavations to remove the rubble accumulated over two millennia. PNT has published a book on its findings and restoration entitled *The Petra Siq, Nabataean Hydrology Uncovered*.
- From 2006 to 2010, the Trust, in coordination with DOA and a team of specialists from the Courtauld Institute of Art in London, undertook the cleaning, consolidation and preservation of unique paintings in Siq al-Barid, which were in an advanced state of decay.
- PNT first surveyed and then excavated the basin area and rehabilitated the Wadi al-Jarra dam in the Khazne courtyard from 2010 to 2014. The restoration of the dam — the first of five dams and important hydraulic features included in the project — is a step toward the rehabilitation of the Nabataean hydraulic and flash flood prevention system. Completion of the full project is necessary to control the erosion in the Khazne courtyard, and to ensure visitor and monument safety from flooding.

The other major focus of the on-the-ground work by PNT addresses the issues of environmental protection and sustainability. Studies of the geophysical stability of the Siq were initiated as a collaboration between PNT, UNESCO and Jordanian and international specialists. Work has also been undertaken on issues such as seasonal flash floods and water supply systems to support sustainable development.

## International tourism and the impacts of regional events

Petra is used to seeing steep patterns of rise and decline in the number of tourists, as the international component of visitation is heavily influenced by outside events. The First Gulf War and the Arab Spring uprisings are examples of events that diminished international tourism to the site, and Covid-19 is only the most recent such occurrence. At Petra, international tourists accounted for more than 90% of total visitation in the decade prior to 2020.

Throughout Jordan, tourism makes up 15% of the GDP and the travel industry is heavily promoted by the national government. In 2010, 4 million international tourists visited the country, before the number dropped in the early part of that decade. Slow increases in international visitation were seen from 2015 to 2017, while strong growth in international tourism in general — and at Petra in particular — began in 2018. Petra passed a major milestone with 1.2 million total visitors in 2019. With a 25% increase in January and February of 2020, Petra was poised for another strong year before the pandemic closed international travel. For the year, international tourism at Petra is down more than 99% over 2019.





## KEY CHALLENGE:

Over-reliance on the tourism economy in Jordan threatens the protection of Petra. Current government policies promote an imbalance in favor of tourism over conservation.

## KEY LESSON LEARNED:

Leverage your platform with government and industry to provide a voice for those local residents who are less powerful and among the least appreciated community stakeholders.

## Challenges. Responses. Lessons learned.

Speaking during the 2020 INTO/Victoria & Albert Museum webinar on the risks to heritage tourism, Princess Dana noted that tourism in Jordan is a delicate balance that all parties struggle to manage. In Wadi Musa, the community surrounding Petra, 80% of the residents depend on tourism for their economic livelihood. With that context, it is clear that Covid-19 has had a marked, and negative, impact. While the numbers of tourists can come back in a positive sense, PNT — and ultimately the site — need changes in current government policies that hinder refocused tourism models and the drive for sustaining local communities. That speaks to the first challenge at Petra.

As sites become over-reliant on tourism, the local communities, government, travel industry, NGOs, and other stakeholders must focus on new ways of managing the imbalance. The local economy cannot be sustained without diversification of income and businesses away from a sole reliance on visitation to places such as Petra.

Clear articulation and understanding of the value of new models of tourism and the positive effect on the sustainability of the local communities is critical. NGOs such as PNT have platforms to make that case. Changes to the local economy that promote sustainability, expand the base, and help support protection of the site will require new government strategies and approaches, ranging from the structural to the policy level.

As the country looks to bounce back from the negative economic impacts of the pandemic, worries are rising that the delicate balance between tourism and cultural heritage protection might be unsettled, at the expense of cultural heritage. As the government seeks economic recovery, policies that have been put in place to protect the site may be relaxed or changed, to the detriment of protection. In one sense, residents of the local communities are simply looking for benefits to feed and clothe their families. Conversations around conservation as an ideal do not have the same impact as efforts that demonstrates how local individuals, communities, and economies benefit by developing more sustainability tools.

The over-reliance on tourism in the economy of the Petra region comes, in part, from government policies that favor international tourists and promotes large-scale visitation. Nevertheless, even the regional authority recognizes that those policies need revision. Covid-19 has shown once again the importance of nimbleness and partnerships. Both are required in an effort to change harmful government policies that will be resisted by powerful interests.

There is work to be done with the local community to help broaden the understanding of the value of Petra to the local residents and to the wider public. Without diversification of income and businesses away from a model that relies solely on visitation to Petra, all the regional economic pressure will remain focused on the site.

### **ADDITIONAL CHALLENGE:**

Fragile environments are especially susceptible to overcrowding.

### **OTHER IMPORTANT LEARNINGS:**

The environmental impacts at a large, remote, and complex site like Petra arise from various activities, many of them driven by the promotion of mass tourism. NGOs can play a leadership role in managing and mitigating those impacts.

PNT has used the time during Covid-19 to revise their educational programs and sustainability efforts, focusing them on the development of skills to engage with their own communities and supporting conversations with local residents and younger generations built around beliefs and values that support protection and sustainability. PNT and PDTRA are both working with stakeholders in making more collective decisions. Sharing decision-making among the local community and stakeholders leads to shared responsibility and outcomes that benefit the broader base.

Using the platform provided by the INTO/Victoria & Albert Museum webinar, Princess Dana suggested that the single biggest policy change the government could make to help balance protection for the cultural assets with the economic fortunes of the citizens would be a restructuring so that the municipal development functions were separated from the cultural site management functions within the Authority. Both structural and policy level changes are necessary to support continuing sustainable tourism efforts at Petra.

Environmentally, the fall-off in visitation in 2020 has given the site some space to breathe; it has provided an opening for efforts to re-engineer management of tourist traffic flow at the site and to increase educational efforts with local residents around with value of new tourism models. PNT has long been concerned about the carrying capacity of the site and has worked with PDTRA, UNESCO, the national government, and others on various projects and studies. Both PNT and PDTRA suggested that the 1 million visitation level was a clear sign that new steps were needed.

At Petra, most tourists travel the same path down the spine, which means that it can be very crowded and the extensive foot traffic can erode the sandstone. Furthermore, not all visitors are coming to tour the ruins, meaning that the site has to be able to handle activities other than historical/archaeological tours. PDTRA decided to re-engineer the management of the tourist flow after citing studies that placed the carrying capacity at 2,000 to 3,000 visitors present in the archaeological park at one time. Abdullah suggested that PNT is seeking donors to help support studies and surveys that help identify current carrying capacity and the environmental and social impacts of tourism on the site. The re-engineering of management strategies is also leading PDTRA to divert visitors to other ruins open for visitation.

There are a number of environmental impacts that threaten Petra's conservation. Speaking at the INTO/Victoria & Albert Museum webinar, Princess Dana suggested that the most important one is the fact that the urban development surrounding the site (e.g., housing, commercial structures, and roads) has departed from traditional methods and is now being built with impervious materials, resulting in increased flooding in the valley where Petra is located. PNT has worked closely with a variety of stakeholders over the past three decades on projects designed to reduce the frequency and negative impacts of flash flooding.

PNT and its leadership use the organization's status as Jordan's primary NGO for the protection and preservation of national cultural heritage to speak to the environmental impacts of overtourism, but more broadly to the needs of the residents of nearby communities, who are highly dependent upon Petra for their livelihood.





## **Leverage your platform: Other voices and views**

Beyond the efforts of the Petra National Trust, we uncovered others involved in the study and work of leveraging available platforms to push for change, especially as a voice for the underserved and under-represented.

We see numerous instances of NGOs using their unique platforms to speak up for the residents of local communities and for the preservation and understanding of difficult histories.



- INTO is partnering with its member organizations the National Trust for Georgia and Rempart in France on a two-year project to restore the Tsiskarauli Tower in the Republic of Georgia. The generous support of the International Alliance for the protection of Heritage in Conflict Areas (ALIPH Foundation) will allow for the restoration of this site, damaged by a jet in the 2001 Chechen War. The project is enabling the Trust to stabilize the tower, with support from working holidays volunteers, and work with the community to develop new eco-tourism opportunities.



- In the Channel Islands, the National Trust for Jersey (NTJ) has used their platform for a similar type of challenge, fighting development proposals. Beginning in 2000, the NTJ successfully campaigned to have a stretch of beautiful coastline, blighted by a series of holiday camps and slated for development into residential units, returned to nature. Around the same time, the Trust also contested planning applications to first redevelop, then demolish six listed 18th century town houses in the capital, St Helier. Again, the NTJ worked with the local community in debating, demonstrating and raising money to buy and restore this site.





- In China, Professor Ruan Yisan, an urban planner and campaigner for heritage preservation, established the country's first heritage NGO and INTO member, the Ruan Yisan Heritage Foundation. Professor Ruan's groundbreaking work in and around Shanghai saved many architectural treasures. But there are now new threats. As legal protections for heritage can be unclear, there is always a danger of destruction by developers. And historic towns preserved by Professor Ruan have been dealing with overtourism and loss of spirit of place.



- We have all recognized that societal changes are affecting people's ability and willingness to volunteer, a key element of the Trust model. In response, several INTO members are offering working holidays that leverage the desire for hands-on experience to the advantage of both the Trust and the local community. While the program has been mothballed due to the pandemic, the concept is one that National Trusts have embraced with enthusiasm in the recent past. Meanwhile, in the UK, the National Trust is developing a new, more flexible volunteering offer. This includes one-day "visiteering". Micro-volunteering, or helping out during a normal visit to a heritage site can make it easier for people with limited availability to participate. "Visiteering allows the Trust to target the demographics missing from its volunteer base like, for example, parents of young children" notes INTO Secretary-General Catherine Leonard. "By giving these new audiences an insight into its work, allowing them to see behind the scenes and participate in vital conservation work, the Trust is able to build vital public engagement."



