

Impact case study (REF3)

Institution: University of Edinburgh		
Unit of Assessment: UoA 29 (Classics)		
Title of case study: Conservation, Management and Capacity Building for Prehistoric and Early Historic Egyptian Heritage		
Period when the underpinning research was undertaken: 2016 - 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Joanne Rowland	Senior Lecturer in Archaeology	2016 – ongoing
Period when the claimed impact occurred: 2016 – 31 December 2020		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact		
<p>Rowland's research into two prehistoric sites, Merimde Beni Salama and Naqada, provides new insights into the processes that led to the establishment of Egypt as the world's first nation-state. This research underpins a rescue mission to save these sites from destruction by physically protecting them and by enhancing local government's ability to protect, preserve and interpret them. It has been used to raise awareness among heritage professionals, the Egyptian public, and visitors - from Egypt and the wider world. Its importance was recognised in 2020 with PI Rowland's shortlisting for the prestigious Newton Prize for research impact in the developing world.</p>		
2. Underpinning research		
<p>Rowland's research explores the history of peoples and settlements of the north-eastern corner of Africa, before the formation of the first Pharaonic state of Egypt around the year 3000 BC. She leads a diverse international team of stone tool experts, geologists, archaeobotanists and geoarchaeologists, studying two important sites which played a crucial role in Egypt's development and in broader human history: Merimde Beni Salama in the Western Nile Delta of lower Egypt (where she directs the fieldwork), and Naqada in the south of the country, north of Luxor (where she is deputy director of a project initiated by the late Dr Geoffrey J. Tassie).</p>		



Map showing the locations of the two main sites of Rowland's research: Merimde Beni Salama and Naqada (Nubt)

Rowland conducted the first ever 'holistic survey' of Merimde Beni Salama, combining fieldwalking, geophysical surveys, excavations and a review of archive materials from previous archaeological investigations of the site. This yielded valuable new insights into how farmers exploited resources in what is the oldest known farming village in North Africa, dating back perhaps as far as 5000 BC. Rowland's research also helped to date the establishment of human habitation in the area – and with it new evidence for the direction of human migration out of Africa – to the Middle Palaeolithic, between around 120,000 and 57,000 years ago. A survey by Rowland of an area adjacent to this site (on the Wadi el-Gamal) revealed fresh signs of Neolithic activities: grinding, cooking and hunting. She also found evidence at Wadi of interweaving water channels, their locations shifting over time. These could have supported a wooded environment, offering shelter alongside access to water for wild animals. New finds of worked stone tools (non-lithic) revealed the diversity of local and non-local stones being used. Finally, Rowland located the first ever *in situ* material in this area dating from the Middle Palaeolithic, confirming the presence of tool-working activities during that period. This era had previously been understood only on the basis of surface finds [3.1, 3.2].

Rowland's research has also examined the least explored of three proto-states which played a pivotal role in Egypt's early history: Naqada (Nubt), situated between its better-known neighbours, Abydos (Thinis) and Hierakonpolis (Nekhen) on the western banks of the Nile in what is now the southern part of the country. Much is known about these two other sites, thanks in large part to substantial and sustained excavations down to the present day. In contrast, the role that Naqada played within Egypt's processes of state formation remains poorly understood, with no significant work having taken place at the site since the 1980s. Rowland and colleagues' investigations are beginning to change all this, shedding light on Naqada's contribution to the rise of the Egyptian state. Alongside archival research, these investigations include field surveys, which have revealed large quantities of early pottery in the vicinity of the temple site, together with new evidence of quarrying and stone-working directly to the west of a Third Dynasty pyramid. This shows that although the inhabitants of Naqada did not ultimately become the rulers of the newly unified Egypt in c. 3000 BC, the site nevertheless retained its religious importance under the new regime. Thanks to its geographic position, it also remained central to trade and exchange [3.3].

3. References to the research

3.1. J. Rowland, and L.C. Bertini (2016). The Neolithic within the context of northern Egypt: New results and perspectives from Merimde Beni Salama. *Quaternary International*, 410(A), 160-172. <https://doi.org/10.1016/j.quaint.2016.02.014>

3.2. R. Bernbeck, U. Cubasch, A. Gass, E. Kaiser, H. Parzinger, S. Pollock, J. Rowland, E. Russo, W. Schier and G. Tassie (2016). Notes for a Political Ecology of Non-Sedentary People. In G. Grasshoff and M. Meyer (eds). *ETopoi Journal for Ancient Studies. Special Volume 6 (2016): Space and Knowledge. Topoi Research Group Articles*, 45-73. <http://edition-topoi.org/articles/details/1090>

3.3. G. Tassie, J. Rowland and J.F.L. Wetering (2020). The past, present and future of the Naqada region. In A. Stevenson and J. van Wetering (eds). *The Many Histories of Naqada: Archaeology and Heritage in an Upper Egyptian Region*, 157-171. Golden House Publications. [Book chapter] ISBN 9781906137694 (Can be supplied by HEI on request)

4. Details of the impact

Generating around 12 per cent of GDP each year, tourism is hugely significant to Egypt's economy [5.1]. This vitally important sector strongly influences strategic choices made by the country's Ministry of Tourism and Antiquities (MoTA), in prioritising its allocation of scarce resources to protect and promote historical sites. As a result, while internationally renowned Pharaonic sites, tombs, temples and pyramids receive significant support, MoTA has traditionally overlooked prehistoric sites including Merimde Beni Salama and Naqada, despite their scientific and historical importance. Construction and agriculture have been permitted to encroach onto these two sites, destroying a large portion of their archaeology. Rowland has led an archaeological rescue mission to protect these sites, enhance MoTA's understanding of and ability to preserve them, and support MoTA in educating the public on their critical importance to the history of Egypt and the world.

Naqada: Protecting and interpreting a significant yet overlooked prehistoric site

When Rowland and colleagues visited Naqada for the first time in 2017 they found a site that was being seriously encroached upon, having been left unprotected since excavation work was last carried out in the 1980s. The same year, Rowland was awarded funding of GBP131,821 from the Newton Institutional Links Programme for a two-year project. This, together with other funds awarded to Rowland, made possible a range of activities including the construction of an on-site station from which MoTA security guards could monitor the Naqada site, together with public information signage in Arabic and English explaining the site's significance [5.2]. In consultation with MoTA, Rowland and her team created a site management plan for Naqada in 2018 which included the building of a protective wall. This structure functions both as protection for the site and as security for future excavations [5.2, 5.3]. The signage was erected at Naqada in August 2020 and featured information on a Third Dynasty pyramid in the area that includes an architectural reconstruction drawing alongside general information about pyramids of this era in Egypt [5.2b]. The sign also makes clear Naqada's importance prior to the unification of Egypt in c. 3,000 BC. This is the first information about the early site ever to be made accessible to people living in the area. Thanks to this information, and the involvement of members of the local community in working at the site, its significance for residents – younger ones especially, between the ages of 19 and 35 – has steadily grown [5.4]. In recognition of the significance of Naqada, MoTA officials agreed in May 2019 to start the process leading to the opening of this archaeological site to the public. This requires the comprehensive mapping of the site by MoTA in collaboration with Rowland and her team, who have identified previously unknown

areas as being of archaeological significance and therefore requiring protection. The mapping was scheduled for 2020, but was delayed by COVID-19.

Providing professionals with new skills to preserve and interpret prehistoric sites across Egypt

In 2018 Rowland secured approval from MoTA's training department to conduct and deliver a month-long training programme to 20 inspectors drawn from across Egypt, to enhance their knowledge and skills in Egyptian prehistory and cultural heritage management. This is vital in building MoTA's capacity to better preserve these prehistoric sites. The first round of training was held in April and May 2019. Rowland helped to select a gender-equal list of participants, and ran the training herself on-site at Naqada and Merimde Beni Salama, with contributions from a number of specialists on her team. Participants came from areas in the far north of Egypt, close to Cairo, down to Luxor and Aswan. This geographical spread was decided upon with the distribution of prehistoric sites around Egypt in mind, and to ensure that the training reaches a broad geographical range of MoTA offices. Participants were introduced to research on prehistoric Egypt, including Rowland's own work [3.1 - 3.4]. The programme taught artefact recognition, handling and conservation skills, and empowered MoTA inspectors to detect and evaluate the characteristics of prehistoric sites. It also gave guidance in writing and implementing the initial stages of site management plans, drawing on research work at Naqada by Rowland and her former colleague Geoffrey J. Tassie [3.3].

Post-training surveys revealed a wide range of benefits to participants. They gained 'new knowledge about prehistory', became more 'interested [in] know[ing] about these historic sites' and acquired a determination to 'try to save [such sites] and protect them from any molestation' – alongside an awareness that 'the first step to achieve this goal [of protection] is raising awareness of these sites' [5.5]. At a more technical level, respondents highlighted the important new skills they had picked up in 'reconstruct[ing] shards of pottery', 'classifying' different types, making reference drawings, using the results to gain an 'idea about the dating of the sites' and appreciating 'that climate... shapes the culture and development of industrial methods' [5.5]. They had picked up new techniques in 'photography' and 'GIS' (geographic information system mapping). They had learned how to 'set a plan for [a] site': 'building [an] enclosure wall and a guard house', and 'creat[ing] a communication network among [local people] and local inspectors' using 'small books about the site' and explaining how its development could be 'good for their children [sic] future' [5.5]. Finally, they had learned how to prepare these sorts of sites for tourism: establishing an 'access road', creating 'good panels and signs' and 'models', offering an 'open exhibition' featuring 'the most important archaeological pieces', thinking about 'opening hours' and 'ticketing', 'invit[ing] some TV channels to the site', and finally 'workshops for visitors' featuring products made by local residents which the visitors can buy and take home (thus tying the imperative for preservation to tourism and the health of the local economy). Asked how this training would influence the inspectors' work, a common response was that it was the sort of knowledge that they could and would pass on to their colleagues, including senior management, when they returned home [5.5].

The main components of the training programme were video-recorded, and have been made available to MoTA in structured modules using the open source Xerte educational platform. Each themed video lecture/practical activity is accompanied by an advice sheet, in English and Arabic, detailing its Aims and Learning Outcomes. The purpose is to enable Rowland's training programme to become self-sustaining within the Ministry [5.6]

In August 2020, Rowland and her team extended their rescue mission by supplying MoTA with a database of 822 at-risk prehistoric and early historic sites across Egypt, as a reference tool for ministry officials. It can be used for guidance when assessing permit applications for construction and other development projects, and when MoTA carries out its own heritage and archaeological work. The database contains information on specific threats to each site, both natural and human-made, the evidence to back these concerns, and further resources for understanding each site. It has been designed in such a way that it can be expanded as MoTA's understanding of these important sites grows.

Educating the Egyptian public on the critical importance of prehistoric sites

Prehistoric and early historic sites such as Naqada and Merimde Beni Salama form an important part of Egyptian heritage. But this is a heritage that is largely omitted from the school curriculum and hence largely absent from public awareness. An important strand of Rowland's impact activities has been the raising of awareness about the forgotten history that these sites represent, both in and beyond local communities. Rowland collaborated with the British Council in August 2019 to share her research findings with an audience of 120 11- to 13-year-old school pupils from across Egypt [5.7]. Part of the British Council's Science Café series, the event was the first ever cultural heritage-themed Science Café, and was held in collaboration with the Academy of Scientific Research, Cairo. Alongside the children, the event attracted more than 30 professional delegates, including the Director of the British Council, archaeologists, and university lecturers [5.7]. In an email to Rowland on 29 March 2020, the British Council Science Programmes' officer wrote that 'the children were really engaged', and the event was 'one of the most successful Science Café' events they had held [5.7]. In order to reach a wider Egyptian public, Rowland produced a documentary film exploring the importance of prehistoric Egyptian farming communities to the broader history of humankind. The film draws on her research at Naqada and Merimde Beni Salama, features interviews with experts drawn from Rowland's circle of colleagues and has been produced in a bi-lingual Arabic/English format. It was scheduled to premiere at the British Council in Cairo, in the summer of 2020, but due to COVID-19 it has been scheduled for 2021 instead.

Rowland's achievements in all these areas were recognised in autumn 2020 with her shortlisting for the Newton Prize 2020. The award 'celebrates outstanding international research partnerships that play an important role in addressing challenges in developing countries and around the world' [5.8].

5. Sources to corroborate the impact

5.1. Statistics on the value of tourism to the Egyptian economy,

<https://tradingeconomics.com/egypt/tourism-revenues>.

5.2. Images of protective walls, guardians' stations and information signage at Naqada.

5.3. *Director of the Qena Antiquities Region*. (testimonial letter addressed to Rowland's former colleague Dr Geoffrey Tassie (University of Winchester)).

5.4. Email testimonial from resident in the Naqada area who works as foreman at the site (testimonial email, 7 January 2021).

5.5. Sample of post-training session survey responses from MoTA inspector participants, collected immediately after the training in May 2019.

5.6. Further online training material for the inspectors,

https://xerte.cahss.ed.ac.uk/play.php?template_id=1765#page1.

5.7. Science Programmes officer. *British Council*, Cairo (testimonial email, 29 March 2020). Email evidencing the event and explaining its impact on the audience.

5.8. Newton Prize shortlist website, <https://www.newtonfund.ac.uk/news/latest-news/newton-prize-2020-shortlist-announced/>.