

Institution: University of Cambridge		
Unit of Assessment: UoA15 Archaeology		
Title of case study: Developing Sustainable Heritage at Tell el-Amarna, Egypt		
Period when the underpinning research was undertaken: January 2000 to December 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:
Barry Kemp	Professor of Egyptology	October 1963 to September 2007
Kate Spence Anna Stevens	Senior Lecturer Senior Research Associate	September 2007 to present September 2017 to August 2019
Gemma Tully	Research Associate	September 2017 to January 2020 & April 2020 to September 2020
Period when the claimed impact occurred: August 2013 to July 2020		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact (indicative maximum 100 words)		
<p>Amarna is one of the most important archaeological sites in Egypt and globally. The city was built c. 3300 years ago under the pharaoh Akhenaten as a centre for his revolutionary monotheistic theology. Yet the site is in a socio-economically deprived area that receives few visitors. To help improve local conditions and fully realise the potential of Amarna-focused research to promote a positive and evidence-based awareness of past and present Egyptian society, the University of Cambridge has collaborated on creation of a visitor centre (opened 2016) and has led development of high-quality educational and heritage management resources. This work is resulting in important economic, educational and heritage impacts – influencing perceptions of Egypt and ensuring the long-term sustainability and international recognition of Amarna.</p>		
2. Underpinning research (indicative maximum 500 words)		
<p>University of Cambridge research has shown Amarna to be a uniquely important site for Egyptology, World Archaeology, and the histories of ideas, religion and art. Built in the 2nd millennium BC under the pharaoh Akhenaten as the centre for his new state religion focusing on a single solar god, it is a remarkably complete survival of an ancient Egyptian city, offering an unparalleled view of how people in Egypt from across the social spectrum lived, worked and were buried. It was occupied for only 15 to 20 years, yet during this time it served as home to the royal court, the religious capital of Egypt and supported a population of approximately 50,000 people. Most archaeological sites in Egypt preserve only limited components of ancient settlements: a temple, an elite cemetery or, rarely, housing areas; all are preserved at Amarna. The short-lived nature of the site means that archaeologists can access a contemporaneous ancient urban landscape and its context, pinpointing the experiences of a single generation that lived through a momentous religious and social experiment. The site provides exceptional evidence for what many consider to be the world's first attested monotheistic religion as well as the extraordinary artwork linked to this religious change.</p> <p>Research on Amarna has been led since the 1970s by Kemp (emeritus since October 2007), with major Cambridge-based contributions also by Spence (2007 to 2020), Stevens (2017 to 2019) and Tully (2017 to 2020). Their studies of the site have focused on social archaeology, investigating the ordinary people who lived and died there: their social organisation, beliefs and</p>		

economic practices. An important dimension of the research has been urbanism and domestic architecture [R1,R2,R3]. Kemp has revealed the urban household economy at the site [R2]. Spence has demonstrated continuities between Amarna's domestic architecture and that found elsewhere in Egypt, and used experiential approaches to illuminate the social role of architecture at the site [R3]. She has also worked on palatial structures and the expression of royal power in Egypt, with emphasis on Amarna [R4]. The cemeteries at Amarna were unknown until identified by the Cambridge team from 2001 onwards, with the resulting excavations transforming understanding of the burial practices and lifestyles of ordinary people in Egypt. While employed at Cambridge, Stevens has published on how Amarna's burial grounds were components of the lived urban environment, contributing to our unique insights into the city [R5].

Between 2017 and 2020, Spence, Stevens, Kemp and Tully, together with Egyptian colleagues Hamada Kellawy and Fathy Awad Reyad, researched and wrote a comprehensive 58,000-word site management plan [R6]. It sets out the nature of the archaeological record at Amarna, the history of research, existing and future threats, the current policy context and a framework for action which conserves the site but acknowledges the inevitability and necessity of change. It is a roadmap for mitigating local conflict and balancing community, economic, access, interpretation, conservation and research interests within the available means.

3. References to the research (indicative maximum of six references)

[R1] Spence, K., 2010. Settlement structure and social interaction at El-Amarna, in: Bietak, M., Czerny, E., Forstner-Müller, I. (Eds.), *Cities and Urbanism in Egypt*, Austrian Academy of Sciences, Vienna, pp. 289-298. ISBN 9783700165910. (Invited paper for an international academy; publication available from HEI)

[R2] Kemp, B.J., 2006. *Ancient Egypt: Anatomy of a Civilization*, 2nd ed, Routledge, London. ISBN 9780415235495. (Peer reviewed monograph with an international publisher; publication available from HEI)

[R3] Spence, K., 2015. Ancient Egyptian houses: architecture, conceptualization and interpretation, in: Müller, M. (Ed.), *Household Studies in Complex Societies: (Micro) Archaeological and Textual Approaches*, Oriental Institute, University of Chicago, Chicago, pp. 83-99. ISBN 9781614910237. (Peer reviewed book chapter with an international publisher; research supported by an Early Career Fellowship from the Centre for Research in the Arts, Humanities and Social Sciences (2011) of GBP5000 to Spence for the project Comfort, Experience and Society in Ancient Egypt; REF2 submission)

[R4] Spence, K., 2015. Royal power in New Kingdom Egypt: The palaces and gardens of Amarna, in: Ganzert, J., Nielsen, I. (Eds.), *Herrschaftsverhältnisse und Herrschaftslegitimation: Bau- und Gartenkultur als historische Quellengattung hinsichtlich Manifestation und Legitimation von Herrschaft, Symposium 22.–24. Oktober 2014*, Lit Verlag, Berlin, pp. 13-33. ISBN 9783643998040. (Invited paper for an international symposium; publication available from HEI)

[R5] Stevens, A., 2018. Death and the city: The cemeteries of Amarna in their urban context, *Cambridge Archaeological Journal* 28, 103-126. <https://doi.org/10.1017/S0959774317000592>. (Peer reviewed international journal article; REF2 submission)

[R6] Tully, G., Stevens, A., Kellawy, H., Spence, K., Kemp, B., Reyad, F., 2020. Tell el-Amarna Site Management Plan 2020, Department of Archaeology, University of Cambridge, Cambridge. <https://doi.org/10.17863/CAM.62307>. (Comprehensive report on the past, present and future of research and heritage management at Amarna; research supported by a grant from the British Council Institutional Links Newton-Mosharafa scheme (2017 to 2019) of GBP269,364 to Spence for the project Delivering Sustainable Heritage Strategies for Rural Egypt: Community and Archaeology at Tell el-Amarna)

4. Details of the impact (indicative maximum 750 words)

Amarna is off major tourist routes and under-served by infrastructure, yet 25,000 people live on and around it. The Cambridge Amarna team and Egyptian Ministry of Tourism and Antiquities (MoTA) have recognised the importance of developing heritage infrastructure to provide:

- economic benefits, including increased tourist visits,
- educational benefits, locally and internationally,
- sustainable heritage benefits, enhancing co-existence of daily life and archaeology, while promoting international recognition.

1. Economic Benefits

The Amarna Visitor Centre (completed 2016) provides heritage infrastructure in an area with little public cultural provision (Figure 1). Both the construction and operation of the Centre represent a major socio-economic benefit to a disadvantaged area. Of EGP44,000,000 invested by the Egyptian government (approximately GBP3,400,000 based on exchange rates in March 2016, when the cost was published), over 98% stayed in Egypt. The remainder was paid to UK contractors [E1]. Construction employed local workers and the Centre employs three permanent MoTA inspectors (including the Director), four temporary MoTA inspectors and three guards.

The project architect explains that the Centre '*was inspired by the work of the Amarna Project directed by Barry Kemp*' [E1]. Its design was a collaboration between Mallinson Architects & Engineers Ltd., Cambridge University's School of Architecture, Eastwood Cook, MoTA, and Cambridge's Amarna team. Its exhibitions, including a full-scale house reconstruction, draw directly on Cambridge's research.



Figure 1. The Amarna Visitor Centre (left) and exhibition detail (right) (images: Amarna Project).

The Centre increased visits to Amarna (despite adverse geopolitics since 2010), spreading the economic benefits of Egypt's tourist industry to this area. In August 2019 (more recent reporting being disrupted by COVID), its Director noted that '*the role of the University of Cambridge in working with the Ministry of Antiquities to build and equip the Amarna Visitor Centre ... was a very good step in raising the profile and facilities of the site and increasing site visits. They doubled between 2015-2018, from 2239 (559 Egyptian; 1680 International) to 5690 (1096 Egyptian; 4594 international), and have already reached over 4638 thus far in 2019. This was a very important development for the local economy ...*' [E2].

2. Educational Benefits

The Cambridge team and MoTA worked to enhance the Visitor Centre's role in educating local and international audiences regarding ancient and modern Egyptian life [E2,E3,E4]. The Director explains how with '*training [in 2018] from your [Cambridge] team and representatives from the*

Ministry of Antiquities in Cairo regarding ways to improve local engagement, my inspectors and I began a number of initiatives. These included school visits, questionnaires and learning sessions. School visits increased sixfold *'from around 100 per month to up to 600 per month ... making us a vital free learning destination in the region'* [E2]. An exit survey of 100 Egyptian visitors (autumn 2018) demonstrated the initiatives' success: 100% would recommend the Centre to friends/family [E2]. Survey suggestions led to production of online educational films by the Cambridge team, viewed over 7,000 times [E2,E4].

Cambridge's team developed a children's book, *Amarna: Life Under the Sun*, for use in the Visitor Centre, nationally and internationally (Figure 2). It has served as a teaching resource since 2018 and is now published (May 2020) [E5]. The Chief MoTA Inspector of Mellawi describes it as *'a vital resource for spreading understanding about the site, engaging local and international audiences'* [E3]. Between November 2018 and January 2020, workshops using excerpts were held at: the Visitor Centre (30 7-10 year olds), Awlady orphanage in Cairo (15 8-11 year olds), British International School in Cairo (BISC) (87 10-11 year olds), and a Cambridge primary school (86 7-8 year olds). It has proven effective in impacting children's perceptions by challenging negative views of the modern Middle East and stereotypes of ancient Egypt (demonstrated by before/after analysis of pupils' meaning maps) [E6]. Uniquely for a children's book regarding Egyptian archaeology, it compares ancient and modern Egyptian life; with English and Arabic versions. It both dispels misconceptions among audiences in the global north and promotes the coexistence of thriving present communities and unparalleled archaeology in Egypt. Teachers and students confirm the book's importance in helping marginalized communities value their contemporary lives alongside their ancient heritage [E7]. As one BISC pupil explained, *'We need to tell the world we don't live in mudbrick houses, we have a rich environment and culture, we have some similar words from ancient Egyptian but we don't write with hieroglyphs ... our lives are like modern lives all over the world!'* [E7].



Figure 2. The Amarna children's book, with scenes of ancient and modern daily life (image: Amarna Project).

3. Sustainable Heritage Benefits

Amarna is overlapped by three growing modern towns and consequently under great threat, leading MoTA to work with Cambridge to develop (2017 to 2020) a Site Management Plan (SMP), first submitted to the MoTA in January 2020 (see Section 2). The development of the SMP has had major heritage impacts. It provides a *'clear vision for the site for the next 5-10 years, which includes a bid for UNESCO World Heritage status'* [E3]. This was *'one of the first collaborations of this kind that has happened between the Ministry of Antiquities and a foreign research team'* [E3]. It was funded by a grant to Spence and Egyptian colleague Yasmin el-Shazly of GBP269,364 (2017 to 2019) from the British Council Institutional Links Newton-Mosharafa scheme (supported by the UK Department for BEIS and the Science and Technology Development Fund in Egypt). Collaboration enabled the MoTA *'to bring more visitors to the area, enhance the visitor experience, raise awareness of the importance of the site and enhance site*

protection' [E3]. The SMP facilitates impact assessment of integrity and interconnectivity of the site as a whole (including its modern community). *'It takes into consideration the needs of contemporary communities, environmental issues and tourism alongside the traditional elements of conservation and preservation, and provides a clear list of actions and review processes'* [E8].

The Programme Specialist for Culture, UNESCO Regional Bureau for Sciences in the Arab States, reports that, as a direct impact of the SMP, in *'February 2020, Amarna was put forward by the MoTA as an independent site for addition to the Egyptian Tentative World Heritage List'* [E9]. UNESCO engaged Cambridge's team to produce a *'working paper that outlined the conservation, tourism and management status of Tell el-Amarna, alongside its Outstanding Universal Value and how it meets UNESCO's World Heritage criteria'* [E9]. It was presented in June 2020 *'at a UNESCO-led online seminar ... in order to lay the groundwork for the MoTA to begin preparing Tell el-Amarna's World Heritage dossier'* [E9]. The working paper is now approved [E10], and Cambridge invited to help prepare the final dossier [E10], confirming MoTA and UNESCO recognition of the team's contribution to the international impact of Amarna's exceptional heritage.

5. Sources to corroborate the impact (indicative maximum of 10 references)

[E1] Testimonial: Mallinson Architects and Engineers Ltd. (Architect for the Visitor Centre)

[E2] Testimonial: Director (November 2014 to November 2020), Amarna Visitor Centre

[E3] Testimonial: Chief Inspector of Mellawi, Egyptian Ministry of Tourism and Antiquities

[E4] Website: Downloadable Amarna school resources and links to educational films, <https://www.arch.cam.ac.uk/research/projects/current-projects/life-ancient-egypt-amarna-resources-schools>. N.B. viewing figures in section 4 above are to 31 July 2020

[E5] Book: Tully, G., Kellawy, H., Spence, K., Stevens, A., Hussein, H., and the children of Amarna, 2020. *Amarna Life under the Sun. An Egyptian Story and Activity Book*, BLKVLD, Zandvoort. ISBN 9789492940094. N.B. Arabic version and excerpts of the English version are freely downloadable at <https://www.arch.cam.ac.uk/research/projects/current-projects/life-ancient-egypt-amarna-resources-schools/life-under-sun-story>

[E6] Report: 2020. *The impact of archaeological workshops using the Amarna children's book for teaching primary school pupils about ancient and modern Egypt*, Outreach Organiser, Museum of Archaeology and Anthropology

[E7] Testimonial: Primary and Secondary Teacher, British International School in Cairo

[E8] Testimonial: Head of International Organisations, Egyptian Ministry of Tourism and Antiquities

[E9] Testimonial: Programme Specialist for Culture, UNESCO Regional Bureau for Sciences in the Arab States

[E10] Email: Invitation to serve on the Committee of Experts preparing the Amarna UNESCO World Heritage nomination, on behalf of the Department of International Organisations, Egyptian Ministry of Tourism and Antiquities