

Institution: University of Lincoln		
Unit of Assessment: 13 – Architecture		
Title of case study: The Architecture of Heritage and Sustainability: Developing Regeneration Strategies for Communities, Private Enterprises and Non-Governmental Organisations in Egypt		
Period when the underpinning research was undertaken: 2008 – 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): ELNOKALY Amira	Role(s) (e.g. job title): Associate Professor	Period(s) employed by submitting HEI: 20 Jun 08 to date
Period when the claimed impact occurred: 2012 - 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact <p>Research by Elnokaly addressing the importance of cultural heritage in urban regeneration led to her being consulted by a leading Egyptian property development company to advise on the redevelopment of historic buildings in Alexandria. The research also raised awareness of heritage-led approaches to regeneration amongst policymakers, helping Egypt to address the UN Development Plan for Sustainable Cities and Communities-2030. Three international workshops on heritage-led regeneration were organised bringing together academic and non-academic stakeholders. These resulted in new initiatives involving tribal communities in Aswan and Nuweiba. In 2017 Elnokaly received an Egyptian presidential award for women in STEM for her contribution to sustainable development in the country.</p>		
2. Underpinning research <p>The underpinning research was carried out by Elnokaly between 2008 and 2020. A catalyst for the research was the demolition of the historic <i>San Stefano Hotel</i> in <i>Alexandria</i> and subsequent redevelopment of the Hepastadion area in the city, which highlighted a lack of awareness and consideration of cultural heritage and the value of historic city centres in regeneration planning (R3.1). The new development ignored how traditional architectural approaches met the needs of locals, worked with the environment and added to the value and culture of the city. An analysis of regeneration strategies applied in the historic centres of <i>Barcelona</i> and <i>Istanbul</i> was carried out by Elnokaly (R3.2). She concluded that successful regeneration requires the adoption of a community- and heritage-based approach in which the essential character of a city is preserved and that governments and the public need to recognize the deep connection between historic city centres and their wider contexts.</p> <p>Another study by Elnokaly focussed on the historic <i>Fouad Street</i> in old Alexandria via quantitative analysis of key performance indicators of people and footfall, diversity and vitality, consumer and business perception and Economic characteristics, to measure the development potential and character of the street (R3.3). It concluded that revitalizing downtown Alexandria required an empowering of its identity, cultural and archaeological heritage, promotion of independent stores and marketing of its unique Euro-Mediterranean heritage to outside visitors. Overall, the importance of quantifying the economic benefits of heritage-based regeneration is emphasised by Elnokaly and she argued that quantifying this dimension is particularly important in encouraging the adoption of conservation-based approaches in developing countries (R3.4).</p> <p>Elnokaly <i>et. al.</i> (R3.5) adopted a case study approach using six successful international urban regeneration projects that have been acknowledged through the Aga Khan Award for outstanding architectural projects in communities where Muslims have a significant presence. These were the <i>Al Darb Al Asfar</i> and <i>Darb Qirmiz Quarter</i> Projects in old <i>Cairo</i>, the conservation and reconstruction of <i>Hafsia Quarter and Sidi Bou Said Village</i> in <i>Tunisia</i>, and the restoration of <i>Bukhara old city, Uzbekistan</i> and <i>Hebron Old town, Palestine</i>. The study concluded that to</p>		

maintain the sustainability of urban conservation the essential qualities of the historic areas and communities residing there need to be maintained. Public participation and awareness at an early stage of projects are essential and planners should clearly define project objectives by asking the questions *what* (urban character/way of life), *why* (enhanced economic activity/tourism) and *for whom* (current residents/the country as a whole) the conservation work was being carried out.

As well as analysing approaches to urban regeneration, Elnokaly's research has also addressed the importance of cultural heritage in architecture for developing sustainable "eco-tourism" strategies in rural regions. Elnokaly *et.al.* (R3.6) conducted an analytical review of vernacular architecture in the hot arid region of Siwa and recommended the climatic design of buildings using passive design techniques to provide comfort to the occupants whilst promoting and reviving the natural beauty and architecture of the Siwa Oasis. The development of well-planned and ecologically sensitive facilities or "Eco-lodges" in key areas of Egypt was recommended to support eco-tourism.

3. References to the research

- 3.1 Elnokaly, Amira and Elseragy, Ahmed (2012) Historic city centres as catalysts for wider sustainable urban regeneration. In: *Requalifying the Built Environment: Challenges and Responses*. Advances in People-Environment Studies. Hogrefe Publishing GmbH Merkelstr. 3, 37085, Göttingen, Germany, pp. 30-49. ISBN 9780889374300, 0889374309 Available on request.
- 3.2 Elnokaly, Amira and Elseragy, Ahmed (2011) Sustainable urban regeneration of historic city centres: lessons learnt. In: *World Sustainable Building Conference*, 18-21 Oct 2011, Helsinki.
<http://eprints.lincoln.ac.uk/8490/1/SB2011-2%20historic%20Regeneration%20V3.pdf>
- 3.3 Elseragy, Ahmed and Elnokaly, Amira and Sabbagh, Magdy (2017) Revitalizing Alexandria through its symbolic significance of heritage, urban form, and the distinctive spirit of place. *Proceedings of the International Conference on Changing Cities III Spatial, Design, Landscape & Socio-economic Dimensions*. pp. 1819-1834.
<http://eprints.lincoln.ac.uk/27824/1/Changing%20Cities%20III%20Revitalising%20Alexandria%20.pdf>
- 3.4 Elseragy, A and Elnokaly, Amira and Abul-Ela, M (2018) Heritage-led Urban Regeneration as a catalyst for Sustainable Urban Development. In: *6th International Conference on Heritage and Sustainable Development*, 12th - 15th June 2018, Granada, Spain.
http://eprints.lincoln.ac.uk/32830/1/HERITAGE2018_Elseragy_Elnokaly_AbuELa_2018_Final.pdf
- 3.5 Elnokaly, Amira and Elseragy, Ahmed (2013) Sustainable heritage development: learning from urban conservation of heritage projects in non-western contexts. *European Journal of Sustainable Development*, 2 (1). pp. 31-56. ISSN 2239-5938
<http://www.ecsdev.org/ojs/index.php/ejsd/article/view/39/33>
- 3.6 Elkaftangui, Mohamed and Elnokaly, Amira and Awad, Yasser and Elseragy, Ahmed (2015) Demystifying cultural and ecotourism in the vernacular architecture of Siwa oasis Egypt. In: *Thai Society of Higher Education Institutes on Environment*, 17 - 19 June 2015, Bangkok, Thailand.
<http://eprints.lincoln.ac.uk/19586/1/19568%20Paper-V7-Bangkok.pdf>

4. Details of the impact

Building on her research into Heritage conservation and sustainable economic development Elnokaly organised a series of workshops and symposiums attended by community groups, businesses, planners and architects, government officials and academic researchers to promote sustainable heritage-based architecture and planning internationally. She also worked closely

with Sigma properties, a major property developer in Egypt, advising them on a series of development projects and assisting them to develop a business model which integrates the value of cultural and heritage-based perspectives into their commercial property developments. Together, these initiatives produced:

Improved strategic engagement between community revitalisation stakeholders

Two workshops were held in Egypt to bring together key stakeholders and researchers to work on developing ideas and frameworks for resilient development in their communities. These resulted in a better commitment to development programs and higher levels of engagement and interest from both communities and city council officials.

- **The International Workshop on Rebuilding Communities for Resilient and Sustainable development: Eco-Cities** was held in Aswan Egypt in collaboration with Cairo University (13-18 December 2015), supported by a grant awarded to Elnokaly from the British Council Newton Fund (**G1**). The workshop was attended by the Mayor of Aswan and representatives from the Egyptian ministry of tourism, the local Nubian Community, local craft guilds and business groups. Also attending the workshop were 44 international researchers from the UK and Egypt. 20 researchers came from 14 different Universities in the UK and 24 from 13 universities in Egypt (**E5.1, E5.2, E5.7**). The key output of the workshop was a set of **specification of Key Performance Indicators (KPI) of Sustainable development in Aswan based on the UN 2030 Targets that were adopted by relevant authorities (E5.2)**. These were: Affordable and Safe Housing; Clean Public Transport; Greenery and Biodiversity; Safeguarding all Heritage sites; Improving Urban and Rural Links; Empowering Local Marginalised Groups and Safeguarding Local Skills. (**E5.1**). The workshop **led directly to the establishment of the College of Archaeology and Cultural Heritage in Aswan (E5.4)**, which ensures the principles and KPI's arising from this research are now followed in Aswan by developers, planners and ministry of antiquities on projects in Aswan to preserve cultural heritage.
- **An International Workshop on the Cultural Heritage and Livelihood of Bedouins of South Sinai** was held in collaboration with Ain Shams University in Cairo in Nuweiba (20-28th of October 2017) supported by another award from the British Council Newton fund (**G2**). The event was attended by the mayor of the Nuweiba region, local council members and the head of the local Bedouin community, the local member of parliament, local businesses including 2 of the most active and oldest non-governmental organisations in Nuweiba, the Habiba Community Farm and Basata Eco-Lodge Resort, together with 40 academic researchers from 13 different UK Universities and 12 Egyptian Universities (**E5.3**). A key recommendation of the workshop was preserving organic farming and local skills of the Bedouins of the region; new resorts to be constructed only following Ecological strategies (Eco-lodges and Ecotourism); expanding the boundaries of the city of Nuweiba to include the mountains where the Bedouin community predominantly live to transform the Bedouin's role in society from 'Powerless spectators' to 'Adaptive managers'. The findings were translated into Arabic and distributed to all attendees so that the findings could be applied to future projects. Habiba farm subsequently applied the findings of the workshop including through implementation of organic farming and providing support for education classes for their communities, they are also currently in discussion with Dr Elnokaly at Lincoln to sign a Memorandum of Understanding and raising awareness in Nuweiba (**E5.5**).

Preservation of architectural heritage in property development

Elnokaly has worked as a consultant to Sigma Properties in Alexandria where she advised their heritage property management section on projects reutilizing heritage buildings to turn them into key pieces of urban infrastructure. For nearly three decades Sigma had been acquiring unique Euro-Mediterranean heritage properties in Cairo and Alexandria to become the leading developer of historic properties in Egypt. The framework developed by Elnokaly in collaboration with the company research team ensures that the economic revitalization of property never

comes at the expense of architectural identity, learning lessons from Elnokaly's project on "Energy-efficient building envelope for low-income housing in Egypt" (**G3**). Two key projects in Alexandria were Shelter and La Passage buildings on Fouad Street opened in 2018 and 2019 respectively. Elnokaly was invited to deliver a talk at the Alexandria Opera house entitled 'Working with our Heritage' and 'Embracing the Past: Heritage and Identity; 'The lost treasures of Alexandria' summarising the work she had undertaken with the team at Sigma. She was also given an award of recognition for her work with Sigma by the Managing Director of Sigma Properties (**E5.6**). In collaboration with Sigma and the Engineering Consultant group 3 workshops for early-career architects on heritage-based approaches to architecture were also delivered (**E5.6**). In July 2017 in recognition for her work with Sigma and in Aswan and Nuweiba, Elnokaly was given the Egyptian President award for women in research for her contribution to achieving UN sustainable development goals in Egypt.

In addition to her impact on heritage-based sustainable development in Egypt. Further engagement activities on heritage projects have taken place by Elnokaly in Thailand where she mentored 'the International Workshop: Water-based settlements, flooding adaptation and heritage management in Thailand, in partnership with Naresuan University in Bangkok (8th-12th November 2015) (**E5.8**) supported by a British Academy Newton Fund award.

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

- 5.1 Support letter for Aswan workshop – **(a)** From the Chair, UN-Habitat University Partnership Initiative (Habitat UNI).
- 5.2 Support letter for Aswan workshop - **(b)** From the CEO of MS- Consultancy of Physical Development Urban Design and Housing Consultant, General Organization for Physical Development (GOPD), Egypt; City Planning Consultant, The Egyptian Syndicate of Engineers, Egypt; Land and Shelter Consultant, Habitat | The United Nations Development Program (UNDP).
- 5.3 Support letter from Nuweiba Workshop – **(c)** From the Director General Department of International Organisations for Cultural Heritage at Ministry of Tourism and Antiquities, Egypt.
- 5.4 Support letter for Aswan workshop - **(d)** From the Acting Dean of the College of Archaeology and Cultural Heritage, Arab Academy for Science, Technology and Maritime Transport, Egypt.
- 5.5 Support letter from Habiba Farm.
- 5.6 Two letters of support and recognition from the Managing Director of Sigma Properties.
- 5.7 Aswan Workshop attendance list and feedback forms.
- 5.8 Website for International Workshop, Bangkok (8th-12th November 2015).