

<b>Institution:</b> University of Liverpool		
<b>Unit of Assessment:</b> UOA 13 Architecture		
<b>Title of case study:</b> Vernacular Built Heritage of Oman: Shaping Heritage Policy Implementation, Changing Design Practice, Empowering Communities		
<b>Period when the underpinning research was undertaken:</b> Jan 2000-June 2008, Sept 2015-current		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Prof Soumyen Bandyopadhyay	Sir James Stirling Chair in Architecture	Jan 2000-Jun 2008 [break] Oct 2015-present
Dr Giamila Quattrone	Lecturer	Sept 2015-present
<b>Period when the claimed impact occurred:</b> Sept 2015 - Jun 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> No		
<p><b>1. Summary of the impact</b></p> <p>This case study describes the impact from architectural research investigating historical settlement in the Sultanate of Oman (Arabian Peninsula). It advances the application of heritage theory and policy in Oman to arrest the on-going loss of vernacular settlements. Successful collaborations with government bodies and local communities have pioneered implementation of heritage policies at 3 historic sites, saving these from dilapidation, and supporting heritage-focused community cooperative development. The work has assisted ministries, museums, a financial institution, businesses and private citizens to realise sustainable heritage management goals, change heritage design practice and empower communities by raising awareness of the social and economic value of heritage sites. It has also built capacity in the cultural heritage sector amongst government employees, tourism operators and conservation professionals (Oman, Middle East, Morocco, UK).</p>		
<p><b>2. Underpinning research</b></p> <p>Research at this HEI was initially undertaken by Bandyopadhyay in 2000-2008 at the University of Liverpool (UoL), and continued from 2015, again at UoL, by Bandyopadhyay and Quattrone for the ArCHIAM research centre (Architecture and Cultural Heritage of India, Arabia and the Maghreb, <a href="http://www.archiam.co.uk">www.archiam.co.uk</a>).</p> <p>Bandyopadhyay pioneered the systematic study of vernacular settlements and architectural heritage of Oman and the Gulf, which has underpinned subsequent impact work. This began in 2001-2002 with a major exhibition disseminating research on Harat al-Bilad settlement in Manah oasis (approximately 100 panels; catalogue) held in Oman and UAE, reexhibited in 2005-2006. This detailed study developed and tested new methodological approaches to settlement documentation and analysis, identified the unique characteristics of central Omani religious, civic and domestic building types, and demonstrated the close relationship between tribal dynamics, social history and settlement morphology [3.1]. The Omani mosque type was further explored in 2003 within a wider peninsular Arabian geographical and temporal context to demonstrate its pre-Islamic 'South Arabian' origin [3.2]. A study of the impact of tribal dynamics on settlement organisation and evolution (2004) demonstrated how large oasis settlements developed a more 'cosmopolitan' character that transcended tribal divisions present in smaller, isolated settlements. This research also examined the spatial implications of social exclusion and tribe-specific craft traditions [3.3]. Analysis of settlement structure and evolution conducted in 2005 highlighted how topography, management of arable land and water, and social structure, shaped settlements in central Oman, resulting in differing settlement types and morphological processes [3.4]. ArCHIAM's impact work has drawn on this understanding of complex settlement formation and inhabitation dynamics, achieved through a holistic methodology that combined documentation, and historical and ethnographic work, to devise culturally appropriate and sustainable management and development strategies.</p> <p>From 2002 Bandyopadhyay's research informed two significant heritage management reports for the Government of Oman and UNESCO, co-authored by Bandyopadhyay in</p>		

collaboration with international consultants (Atkins; CES). The work on Bahla World Heritage Site (2002-2005) and Nizwa (2004-2005) studied the urban morphology of large inland oasis sites and the role of water infrastructure. The Nizwa report also suggested an 'adaptive reuse' approach – arguing for a shift away from a conservation-centred approach – based on sympathetic contemporary design introductions, to better align heritage assets with developmental aspirations.

In 2015 the ministries of Heritage and Culture, and Tourism commissioned ArCHIAM to develop three documentation and research reports employing a consistent methodology. Here, Bandyopadhyay and Quattrone's research shed light on the nature of single-tribe settlements and the impact of Indian Ocean trade on ports and inland oasis settlements [3.5]. The Gulf Architecture Project (GAP, 2019-2020), funded by the Qatar National Library (GBP737,000), has helped expand this understanding across the Arabian/Persian Gulf region. Comparisons across the Gulf region have identified new building types and thrown light on variations of the religious and domestic typologies [3.6]. The research has continued to highlight the need to frame the questions surrounding preservation and tourism in the Middle East within a wider sustainable development discourse.

### 3. References to the research

- 3.1 Bandyopadhyay, S.** 2001. *Manah: A Gift of God. The Architecture of a Deserted Omani Settlement*. Muscat: Bait Al Zubair Museum (April-September 2001); Sharjah: American University at Sharjah (March 2002) [available from the institution on request]
- 3.2 Bandyopadhyay, S. & Sibley, M.** 2003. The Distinctive Typology of Central Omani Mosques: Its Nature and Antecedents. *Proceedings of the Seminar for Arabian Studies* 33: 99-116 (ISSN 0308-8421/ ISBN 2-503-50632-1) [peer reviewed journal paper] [https://www.jstor.org/stable/41223756?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/41223756?seq=1#page_scan_tab_contents)
- 3.3 Bandyopadhyay, S.** 2004. Harat al-Bilad (Manah): Tribal pattern, settlement structure and architecture. *Journal of Oman Studies* 13: 183-263 (ISSN 0378-8180) [peer reviewed journal paper] [https://www.academia.edu/202414/Harat\\_al-Bilad\\_Manah\\_Tribal\\_pattern\\_settlement\\_structure\\_and\\_architecture](https://www.academia.edu/202414/Harat_al-Bilad_Manah_Tribal_pattern_settlement_structure_and_architecture)
- 3.4 Bandyopadhyay, S.** 2005. Diversity in unity: an analysis of settlement structure of Harat al-'Aqr, Nizwa (Oman). *Proceedings of the Seminar for Arabian Studies* 35: 19-36 (ISSN 0308-8421/ ISBN 2-503-50632-1) [peer reviewed journal paper] [https://www.jstor.org/stable/41219366?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/41219366?seq=1#page_scan_tab_contents)
- 3.5 Bandyopadhyay, S., Goffriller, M.S. & Quattrone, G.** 2016. *Dhofar Governorate Documentation and Heritage Management Plans: Mirbat, Salalah al-Wusta & Gharbiya* [government reports] [https://issuu.com/archiam/docs/20170908\\_hmp\\_mirbat](https://issuu.com/archiam/docs/20170908_hmp_mirbat) [https://issuu.com/archiam/docs/20170908\\_hmp\\_salalah](https://issuu.com/archiam/docs/20170908_hmp_salalah)
- 3.6 Bandyopadhyay, S. & Quattrone, G.** 2019. *Gulf Architecture Project*. Doha: Qatar National Library (October-November 2019) [available from the institution on request]

### 4. Details of the impact

The main strand of impact is on shaping heritage policy implementation through planning and design interventions with complementary strands of impact on culture and creativity, practitioners and professional services and society.

#### Shaping heritage policy implementation through master planning:

Bandyopadhyay and Quattrone have developed ten heritage management masterplans and strategy documents covering all geo-climatic regions of Oman, securing combined governmental investment of over GBP650,000. In 2016-2017, following the delivery of Heritage Management Plans for Mirbat and Salalah [3.5] and Misfat [5.1], ArCHIAM was commissioned to implement design interventions at 2 of these sites (Salalah, Misfat), significantly advancing the implementation of the 1980 Omani Royal Decree on the Protection of National Heritage. The management plans a) produced implementable, fully economically costed masterplans, integrating development with conservation, and b) shifted focus away from isolated monuments to settlements. Crucially, they helped the Misfat Cooperative – Al Misfat Al Ahlia – Bank Muscat and private stakeholders visualise and develop tangible partnerships in integrated tourism and economic development through design interventions. The National Heritage Council adopted the plans and disseminated these to stakeholder

ministries (in Arabic/English), and directly to the public through the Heritage and Culture bookshop. 2000 bilingual booklets prepared by ArCHIAM were distributed to raise popular awareness of these initiatives, supported by national media coverage and state radio interviews. Following the Council's recommendation, the Ministry of Tourism then invited ArCHIAM to develop a Heritage and Tourism Development Plan for the mountain oasis of Misfat al-'Abriyin [5.1]. The Plan "provided a well-considered approach to showcase this heritage for tourists, and to facilitate appreciation through the development of tourism infrastructure and facilities for its stakeholders" and, once fully implemented, would "generate annual net gain in revenues of over GBP6,000,000" (Undersecretary, Tourism) [5.2.1]. The momentum around the Misfat masterplan has "assisted in driving an increase in the total number of guests stays to Ad-Dakhiliyah governorate [the administrative region] of 43.3% from 127,000 in 2017 to 224,000 by the end of 2019, as well as increased visitation of 28.8% to the...key regional attractions" (Undersecretary, Tourism) [5.2.1]. Additionally, it has encouraged the Ministry of Tourism to earmark 2 more sites for development (Birkat al-Mawz; Izki), which ArCHIAM had previously master-planned, and the Office of the Minister of State and Governor of Dhofar to invite a tender for consultancy services for development and rehabilitation of two traditional quarters, one of which – Salalah al-Wusta – was also master-planned by ArCHIAM. This is expected to prompt "other ministries to take the initiative" for other heritage sites (Expert, Tourism Services) [5.2.2]. The Misfat masterplan encouraged the Oman government to select Harat al-Bilad as a pilot project for heritage privatisation under its National Programme for Enhancing Economic Diversification, also known as Tanfeedh, "to develop with the local community and the other stakeholders" (Director General, Tourism Development) [5.2.2].

ArCHIAM identified potential private partners in Misfat's heritage development and mapped these against available governmental support [5.1]. To secure private funding for heritage management implementation (a national first), ArCHIAM worked closely with Al Misfat Al Ahlia and Bank Muscat. The momentum generated around Misfat in 2016-2017 prompted Bank Muscat to fund the Phase-1 implementation through its Corporate Social Responsibility Programme, increasing an initial commitment of GBP300,000 to GBP500,000 in recognition of the importance of this project's contribution to national heritage and local development. The Misfat Phase-1 implementation by ArCHIAM represented a pioneering public-private initiative. This was the "first investment done by a bank in Oman" in heritage tourism development "to drive tourism to these heritage sites, encourage all other private sectors to look into these national projects as the impact is for the whole country" (Head of Branding and Innovation, Bank Muscat) [5.4.3]. The Ministry of Tourism is now "fully encouraging the approach adopted for developing Misfat al-'Abriyin" as a "role model" to communities and private stakeholders at other rural heritage sites (Director General, Tourism Development) [5.2.2].

#### **Changing professional practice through design implementation and training:**

In 2016, Salalah masterplan led to the private commission to restore and reuse the 19<sup>th</sup>-century Ghassani merchant family house (Bait as-Sail), an excellent example of Salalah domestic architecture, as an interpretation centre. The intervention (a) introduced new approaches to local heritage design practice, showcasing both public-private collaboration (ministry, private owner); (b) is the first adaptive reuse project in Oman, and (c) has helped to steer mainstream design and conservation practice in Oman towards sustainable development and sensitive contemporary design interventions in heritage sites. The Ghassani House conversion ([view the Ghassani House brochure](#)) has also changed design and procurement practice in the Omani private sector by creating a self-sustaining private-initiative-led model for the interpretation centre. It stimulated over GBP400,000 private investment and employed a local SME contractor (Mosha Trading Establishment).

These approaches were scaled up to a settlement level when Bank Muscat awarded the Misfat Phase-1 detailed design to ArCHIAM, who were supported by Muscat-based consultant Architectural Wall Systems (2017-2018). To introduce effective stakeholder participation in design for the first time in Oman, ArCHIAM and the Misfat Cooperative organised a two-day community design workshop in Misfat (July 2018; participation: 40; male/female: 65%/35%, age range: 6-44 years; covered by press in Arabic and English) [5.3.1]. These sessions recorded requirements and aspirations using models and montages that informed the

eventual design and long-term revenue generating strategies for a shop/info point, bakery and small restaurant. This public engagement initiative was publicised as a model for effective stakeholder participation in design nationwide and represented “a great opportunity for the local community to participate and give their opinions on how to safeguard, protect and develop their neighbourhood” (91% would like to participate again) [5.3.1]. The rehabilitated buildings featured in 2020 in a Bank Muscat-commissioned video screened at the Misfat tourism development initiative completion ceremony in the presence of the Under-Secretary of Heritage Affairs, the Bank’s CEO and the press [5.4.1: [watch the video](#); 5.4.2]. “In 2020 three local Omani youth opened the Rogan Café in the restaurant building, responding to a national call for interest launched by Al Misfat Al Ahlia. The business employs 7 locals and has been generating a gross revenue of approximately GBP5,690 per month” [5.5.1].

ArCHIAM’s pioneering adaptive reuse design was acknowledged as “different” and “added to [local] experience” (Project Manager, Bank Muscat) [5.4.3]. Its implementation between January and December 2019 was supervised to completion by ArCHIAM/ AWS. It has enhanced the professional capacity of AWS, which had no previous heritage or adaptive reuse expertise. The practice “learnt...how to do design of heritage buildings, incorporating modern fusion into the projects”, and has since applied adaptive reuse in other private projects in Oman, supporting skills development in Omani architectural practice (Senior Architect, AWS) [5.4.3]. The contractor, Omani Services Establishment, which too had no previous adaptive reuse experience, employed on site 9 staff and personnel and 34 labourers and operators (headcount: 43), and learnt about community-orientated implementation practice by involving, liaising and taking advice from the community, as well as fusing “modern and traditional concept [of construction]”, their “main achievement...from this project” (Project Engineer, OSE) [5.4.3; 5.4.4]. ‘Misfat Old House’, the only local B&B until recently, has seen a 25% increase in guest figures between 2016 and 2019 [5.5.2]. “On the back of the site development, 5 additional heritage style B&Bs have commenced operation in Misfat, with a further 2 under development” and “several additional activities have also emerged in the village including: a museum, a local honey and grocery store and a café selling local craft items” (Undersecretary, Tourism) [5.2.1].

Global heritage conservation practice was enhanced through two further initiatives. The Getty Conservation Institute’s inaugural Middle Eastern conservation course included an ArCHIAM-led week-long training workshop at Harat al-Bilad settlement, in Manah oasis, on urban conservation and reuse approaches (November 2018; 22 professionals from 12 countries). Bandyopadhyay was “involved in the visioning, development and delivery of the first course” at Harat al-Bilad (Head, Buildings and Sites, GCI) [5.6.1], “enhancing knowledge and shaping methodology for similar cultural sites” (Participant, GCI course) [5.6.2]. This marked a clear departure from established Getty practice of focusing entirely on buildings by moving the programme towards urban-scale conservation and reuse training. Similarly, ArCHIAM’s role in the earthen architecture workshops in M’Hamid oasis, Morocco, led by Quattrone with the NGO Terrachidia (2017 & 2019; 45 students/ professionals from 14 countries), “was instrumental in teaching...heritage development approaches and principles, participatory design strategies and methods, thus effectively complementing Terrachidia’s hands-on training in traditional earthen construction techniques” (President, Terrachidia) [5.6.3]. ArCHIAM’s work was globally disseminated (2,256 views, 81 countries, 5 continents) through an award-winning documentary film, “very useful for architects and architecture students”, to “recommend to anyone about restoration and workshops” (Coordinator, Istanbul International Architecture and Urban Films Festival) [5.6.4: [watch the film](#)].

#### **Empowering communities through outreach and public engagement:**

ArCHIAM helped structure the Misfat Cooperative (Al Misfat Al Ahlia), the first heritage cooperative constituency in Oman, earlier a small 5-member company of young community members now formally approved with a 50-plus household membership. Through the Misfat masterplan ArCHIAM successfully argued and developed guidelines for cooperative formation in consultation with the local community, and attended conflict resolution meetings organised by the local sheikh [5.1]. The Cooperative formation enabled the development of sites under complex ownership, making Phase-1 implementation possible within the agreed timescale. Growing publicity surrounding Misfat masterplan attracted the Prince of Wales to visit Misfat

(5 November 2016), which, along with an Al Jazeera documentary in Arabic (2017), enhanced the international visibility of the Cooperative. Today it advises the government on potential site development, as well as other rural communities about “how to convince people, how to change the culture, from where you start, what obstacles people have to take into consideration, how to tackle them in a professional way” (Chairman, Al Misfat Al Ahlia) [5.2.2].

Museum content development for the National Museum on Omani traditional architecture and water management systems (*aflaj*) has raised awareness, enhanced perception and disseminated knowledge of the country’s history and heritage. ArCHIAM contributed to the Museum’s two prominent permanent galleries, ‘Civilisation in the Making Gallery’ and ‘Aflaj Gallery’, through a curated feature wall of images and artefacts, digital visualisations and physical reconstructions, as well as touch screen interpretive material on the *aflaj* [5.7.1: [view the National Museum of Oman brochure](#)]. The feature wall was regarded as “impressive” and yet “straightforward” to comprehend by curators and guides, while the bilingual interactive touch-screen display of the ‘Aflaj Gallery’ “is a focal point” for the Museum’s French language guides and Visitor Services Specialists. The majority of the nearly 250, gender balanced, visitors surveyed (72%) were young students and professionals who felt inspired to undertake further research (53%) and attend talks and workshops (32%) following their visit to the galleries. For 77% of participants the touchscreen content as well as the knowledge presented on traditional architecture was very informative [5.7.2]. Funded by Research England (UK) and the National Museum, two workshops on Oman’s traditional architecture and *aflaj* irrigation system (July 2019) [5.7.3] engaged 40 schoolchildren, 7-17 years old, through craft activities and quizzes that raised awareness and broadened knowledge of Oman’s history and cultural heritage amongst the younger generation. Approximately 80% of participants learnt about Omani traditional architecture for the first time at this workshop and expressed a desire to learn more about the subject by attending other workshops (38%), visiting traditional sites/ buildings (26%), watching documentaries/ visiting other exhibitions (15% each), and reading (6%). 90% of participants thought the workshop on the *aflaj* irrigation system substantially increased their knowledge on the subject [5.7.4].

## 5. Sources to corroborate the impact

### 5.1. Al-Hamra: Misfat al-Abriyin Heritage and Tourism Development Plan

[https://issuu.com/archiam/docs/misfat\\_al-abriyin\\_hmp\\_22.02.2016](https://issuu.com/archiam/docs/misfat_al-abriyin_hmp_22.02.2016)

Government report demonstrating the acceptance of a sustainable and integrated tourism development and heritage management policy – a first in Oman.

### 5.2. Misfat al-‘Abriyin: stakeholder testimonial and interviews from the Undersecretary, Ministry of Tourism, and the Director General, Tourism Development; Expert, Tourism Services; Chairman, Al Misfat Al Ahlia, demonstrating the recognition of the impact of the Tourism Development Plan and its implementation on stakeholders.

### 5.3. Misfat al-‘Abriyin: stakeholder participation

Misfat Community Design Workshop - participant survey statistics, interviews and press coverage demonstrating raised awareness and stakeholder participation in design.

### 5.4. Misfat al-‘Abriyin: design and implementation

Misfat Tourism Development Initiative Completion - promotional videos and press coverage demonstrating national recognition of the pioneering initiative implementation, plus construction progress report evidencing workforce strength.

### 5.5. Misfat al-‘Abriyin: tourism business development

Testimonial letters demonstrating the seizing of the opportunity offered by the Tourism Development Plan and its Phase-1 implementation.

### 5.6. Impacting global conservation practice: testimonials and film

Testimonial letters from the Head of Buildings and Sites, Getty Conservation Institute, a participant in the Getty Conservation Institute course, and the President of Terrachidia, plus *M’Hamid Oasis Morocco* documentary film/ testimonial evidencing the change introduced to heritage professional practice, and community empowerment.

### 5.7. National Museum: content development and public engagement

Brochure, statistics and interviews demonstrating the impact of curatorial work in two of the museum’s permanent collection halls, and public engagement for awareness.