

Can community-based participatory research enhance our understanding of Arabian archaeology?

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Summary

We examine the scholarly and local implications of integrating traditional fieldwork with participatory approaches in Arabian archaeology through a case study of community outreach and interview research by the Bat Archaeological Project. Our work builds on research from community archaeology with the aim of building collaborations with the Bat community and designing research methodologies around local needs and interests. Bat is of international importance as a UNESCO World Heritage Site with decades of foreign mission-led archaeological research. The community holds the social memory of all archaeological work at Bat, both discoveries and their modes of practice. There is great interest and pride in the research that has taken place, but a feeling of disconnection from the findings. They are also keenly aware of the concerns of preservation and outreach. Based on our findings, we discuss models for local engagement, best practices, challenges, and how engagement can be integrated into scholarly outputs. As foreign scholars, we are in a privileged position to support local learning and opportunities. We argue that formally integrating these approaches into archaeological research in Arabia is timely and presents opportunities to both enhance research rigour and build sustainable community relationships within the region.

Keywords: community research, participatory methods, archaeological research design, outreach, Oman

Introduction

This paper examines the scholarly and local implications of integrating traditional fieldwork with approaches that encourage participation and engagement within the practice and management of Arabian archaeological research, particularly in the context of foreign researcher-led missions. By reviewing prior archaeological practices and the evolving direction of heritage research in the region, we explore how the application of community-based methodologies can reshape archaeological practice. The case study of the Bat Archaeological Project (BAP) serves as a focal point to illustrate the potential of intentionally designed and iterative community engagement. This approach aims not only to broaden the audience and increase local investment in archaeological research but also to shift the research process from one of knowledge extraction to one rooted in inclusivity, respect, and mutual benefit.

Building on lessons from previous seasons' community outreach efforts, BAP trialled a new community heritage research programme during the 2023–2024 field season. This programme was designed

systematically to monitor the project's impact on and relationship with the local community in Bat, located in north-western Oman. By incorporating local voices and preferences into both the execution and communication of archaeological research, the project aims to create a more reciprocal and responsive research environment. The data gathered through this programme will inform future engagement initiatives and allow for the continued alignment of archaeological research strategies with local interests and needs. This evolving model of participatory archaeology underscores the need for foreign-led missions to actively and systematically listen to/integrate community members and accordingly to adapt their methods and scholarly communication in ways that foster sustainable, community-centred research.

While there are undeniable challenges and cultural incongruences in implementing such participatory models, this paper contends that the approach taken through BAP has already laid the foundation for intensifying community-led research and engagement in future archaeological practice and heritage management. Rather than concluding with

a definitive answer to the question posed in the title of this paper, we call for ongoing dialogue and critical reflection, especially from predominantly Western researchers operating in the region, to ensure that local communities are centred and elevated throughout the research process.

Community-based Arabian archaeology

Our research grew out of dialogues with Oman ministry of Heritage and Tourism partners at Bat, alongside insights from scholarly literature on community-based participatory research (CBPR). Particularly influential is Sonya Atalay's *Community-based archaeology*, which provides a comprehensive framework for conducting research *with*, *by*, and *for* local communities. A participatory approach to archaeology emphasizes knowledge sharing and democratizing the research process with the local community, connected to a research site to ensure more accurate and meaningful findings (Atalay 2012). Additionally, how this research subsequently informs our actions in managing the Bat Archaeological Project draws inspiration from the scholarship of heritage justice, as developed by researchers such as Charlotte Joy (2020) and Veysel Apaydin (2020). The heritage justice framework goes beyond critiquing past heritage practices to consider compensatory mechanisms for past injustices, making it particularly relevant for sites with a long history of foreign-led research, such as Bat, which has been under continuous study by international missions since 1972/1973.

While our research builds upon CBPR literature from diverse international contexts, we recognize that this theoretical framework requires adaptation to the specific cultural contexts of the Arabian Peninsula and the distinct variations between local communities. A critical part of this adaptation involves tailoring participatory approaches to fit regional socio-cultural realities, while still striving to democratize archaeological practice and increase inclusivity. The participatory approach also presents the opportunity to critically assess and address through research management the impact of long-term foreign research on local heritage, an issue particularly pertinent to sites like Bat, which have seen decades of external archaeological influence (Joy 2020).

The cultural context of the Arabian Peninsula is highly diverse, with varying attitudes towards community participation in archaeological research across different countries and regions. Community-based archaeology and outreach by foreign research teams is not new to this area. Notable projects such as the Origins of Doha and Qatar Project (Morgan et al. 2022), Karen Exell and Trinidad Rico's work on Arabian heritage (Exell & Rico 2013; 2014), and Ruth Young's ethno-archaeological study of the Bat mud-brick village (Young et al. 2018; Young 2019) are key examples of Western-led initiatives that have employed community participation and ethnographic methods, dating back to the 2010s.

Despite these efforts, the publication and dissemination of knowledge on community-based archaeology in the Arabian Peninsula remains under-represented in scholarly literature. Few studies explicitly focus on the adaptation of archaeological research to incorporate local perspectives. Even successful community outreach efforts are often under-reported, which presents a challenge for furthering discourse on participatory research in the region. Moreover, as Morgan et al. (2022) point out in their discussion of CBPR integration, achieving wider community buy-in and engagement across the entire research pipeline remains a significant challenge. The very definition of 'local community' can be highly contested, and eliciting public discussion can risk self-censorship or pose dangers to vulnerable groups (Morgan et al. 2022).

In the broader context of heritage and tourism in the Arabian Peninsula, community engagement and the recognition of local communities' value in promoting sustainable social and economic development are becoming increasingly important in national heritage strategies (Freer & Kherfi 2020; Sampieri et al. 2024). Archaeologists working in the region are, therefore, well positioned to contribute critically to these initiatives, drawing from first-hand experiences in community engagement and participatory research practices. This shift emphasizes the importance of incorporating evidence-based approaches that prioritize inclusivity and local agency in shaping the future of archaeological research.

The ability to conduct community-based research is, like any other archaeological work, dependent on

navigating support from national governments and openness from communities who may express hesitation in involvement. This research would not have been possible without long-term discussion and the specific socio-political conditions that made documenting the social impact of archaeological heritage of interest to wider stakeholders. We hope by sharing our unique experience at Bat others may be motivated to integrate and document community-based approaches in their archaeological research in the region.

Case study: Bat Archaeological Project

The Bat Archaeological Project (BAP), working within the UNESCO World Heritage Site of Bat, Khutum, and Al-Ayn in north-west Oman, has a long and complex history of foreign-led archaeological missions, deeply embedded in the community's social memory. The site's rich concentration of Early Bronze Age tombs, tower platforms, and domestic settlements has attracted international archaeologists since the early 1970s (de Cardi, Collier & Doe 1976; Frifelt 1976). This section reviews the history of research at Bat, which informs our current approach to community engagement and participatory archaeological practice.

During the 2023–2024 field season, we had the pleasure of welcoming Jens Vellev, a member of the first Danish expedition to Bat, back to the site fifty years after his initial visit. As the expedition photographer, Vellev shared photographs from his time working alongside Karen Frifelt, who led the Danish team's investigations into the funerary and settlement landscape in 1972 (Frifelt 1976; 1985; 2002). Frifelt's work continued until the site's designation as a World Heritage site in 1989. Since then, Bat has continued to be a focus for foreign archaeological teams, with British, German, Japanese, French, and American researchers contributing to the exploration and study of the site (Brunswig 1989; de Cardi, Collier & Doe 1976; Desruelles et al. 2016; Kondo et al. 2016; Schmidt & Döpper 2014; Swerida, Cable & Dollarhide 2020; Swerida, Dollarhide & Jensen 2021; Thornton, Cable & Possehl 2016).

The current Bat Archaeological Project was established in 2007 under the leadership of the late Gregory Possehl. Initially focused on the excavation of the site's Early Bronze Age tower monuments (Thornton, Cable & Possehl 2016), the project has since

expanded its research scope to include themes ranging from the Neolithic to the recent past, addressing both micro-archaeological inquiries and broader landscape studies within and beyond the oasis (Böhme & al-Sabri 2011; Cable & al-Jabri 2018; Dollarhide 2019; Swerida 2022; Swerida & Thornton 2019; Swerida, Cable & Dollarhide 2020; Swerida, Dollarhide & Jensen 2021; Swerida et al., in press, a; in press, b).

In 2013, BAP invited Ruth Young to conduct an archaeological and ethnographic study of the Bat mud-brick village and its surrounding community (Young et al. 2018; Young 2019). This project introduced ethnographic methodologies into archaeological research and laid the groundwork for further inquiry into the intersections of archaeology, heritage, and tourism.

In 2020, BAP launched its 'Beyond the Oasis' research objective, seeking to incorporate perspectives from outside the ancient oasis centre into the broader understanding of the site (Swerida et al., in press, a; in press, b). To facilitate this, Assistant Director Reilly Jensen and outreach coordinator Cindy Srnka initiated a programme of outreach activities, including community days, art-based events, and collaborations with local schools. These initiatives have fostered connections with a wide range of stakeholders and have contributed to a growing interest in community engagement at Bat (see preliminary season reports: Dollarhide et al. 2022; Swerida et al. 2023).

The success of these outreach efforts, combined with increased local interest in promoting tourism and economic investment, prompted BAP to develop a new phase of research titled 'Beyond the Oasis and Within the Community.' This initiative, supported by the Oman Ministry of Heritage and Tourism, focuses on deepening community-based research for the future. Bat, a site of immense historical importance, has been continuously researched by foreign archaeological teams for over fifty years. In light of ongoing debates around the decolonization of archaeology, this history invites critical reflection on the often extractive nature of foreign-led research. Such critiques highlight the lack of community engagement, limited knowledge sharing, and the potential strain placed on local resources. Responding to these challenges, BAP has incorporated community-based research and outreach activities into its management practices in an effort to address these wider critiques of archaeological

practice. The research questions which guide this research are as follows:

1. How has long-term archaeological research influenced community identity and heritage in Bāt?
2. What are the perceived social, economic, and environmental impacts of long-term archaeological research?
3. How could future research, community outreach activities, and tourism projects improve engagement and support the local community?

This phase has been marked by a series of community engagement efforts, including an interview project conducted during the winter 2023–2024 field season. The project aimed to evaluate the impact of past archaeological research on the community and to gather insights into local perspectives on future research and tourism development. Through a series of interviews with adult residents, participants were asked about their perceptions of past research and their aspirations for the way that archaeology and tourism could shape Bāt in the future.

These interviews were designed to help BAP evaluate its community outreach efforts and adapt future research strategies accordingly. By engaging meaningfully and openly with the local community, BAP aims to create a model to show how large-scale international research projects can adopt a participatory and reflective approach that not only advances scientific knowledge but also supports community regeneration efforts. This work underscores the potential of archaeological research to engage with local stories and priorities, ultimately contributing to more sustainable and mutually beneficial outcomes.

Research design and methodology

As a new programme, BAP's community-based research was designed to ease both us and the Bāt community into this style of research by continuing outreach activities and conducting interviews with structured and unstructured questions to establish a basic understanding of how our project is perceived and to gauge how the community envisions how archaeologists and the site can better serve their needs. Our community

interviews had three primary objectives: 1) to evaluate the cultural (identity, community relations, economic role) impact of long-term archaeological research at the UNESCO World Heritage Site of Bāt (Sultanate of Oman) on local residents; 2) to ensure community stories and priorities are captured in planning for tourism/visitor infrastructure; 3) and to establish a continuous practice of integrating community voices into BAP's archaeological research management.

Participant selection: we aimed to conduct interviews with up to twenty adult residents of the town of Bāt during the course of active excavations (2–15 January). Although not yet a representative sample of the roughly 2500 resident population of Bāt, this project represents the first season of a longer-term project aligning with the aim of working towards a more representative sample during subsequent excavation seasons.

We endeavoured to make the composition of the small participant cohort as representative of different demographic groups as possible. Target participants were full-time residents (in contrast to holiday visitors) who have lived in the town for at least five years, encompassing the period of the recent study conducted by BAP. We aimed to include an equal number of women and men as well as represent younger adults (18–30 years), middle-aged adults (30–50 years), and older adults (50+ years) in order to capture a diversity of perspectives within the community.

Inviting participants: participants were recruited by word of mouth (through existing contacts and neighbours, speaking with walking groups around the site, at Friday gatherings, and sports events) and the distribution of bilingual (English/Arabic) flyers, posted on community boards and social media. To accommodate gendered preferences in recruitment, our male research assistants (J. Burgess and A. Das) supported recruitment at event settings consisting of men, while the two women interviewers (N. Al-Aati and S. Nugent) approached women contacts, neighbours, and walking groups. The adverts provided contact details (email and phone) of the research team so that potential participants could ask questions before committing to an interview. When participants contacted the team, we temporarily collected their contact information (first name, email, or phone) for interview scheduling and consent withdrawal purposes. Study materials, including the Study Invitation Flyer, Participant

عربي	English
أخبرنا عن ارتباطك ببات القديمة؟ يرجى أن تشعر بالحرية في مشاركة القصص.	1 Tell us about your connection to old/ancient Bat? Please feel free to share stories.
كيف تعتقد أن البحث الأثري قد أثر أو شكل هوية البلدة؟	2 How do you think archaeological research has influenced or shaped the town's identity?
ما هو فهمك للبحث الأثري المستمر في بات؟	3 What is your understanding of the ongoing archaeological research at Bat?
كيف تشعر بوجود الأثريين والباحثين في بلدنك؟	4 How do you feel about the presence of archaeologists and researchers in your town?
ما هي الفرص التي تود أن تراها نشأت من البحث الأثري؟	5 What opportunities would you like to see arise from archaeological research?
هل لاحظت أي تغييرات في مجتمع بات بسبب وجود الأثريين أو مشاريع التراث؟	6 Have you noticed any changes in the Bat community due to the presence of archaeologists or heritage projects?
كيف تفضل أن يتم مشاركة البحث الأثري مع المجتمع؟	7 How do you prefer archaeological research to be shared with the community?
هل ترغب في رؤية المزيد من الفرص لمشاركة المجتمع في تعزيز أو الحفاظ على تراثه الثقافي؟ إذا كان الأمر كذلك، ما الذي قد تكون مهتمًا بالقيام به؟	8 Would you like to see more opportunities for community involvement in promoting or preserving its cultural heritage? If so, what might you be interested in doing?
ما هي تطلعاتك وآمالك لمستقبل علاقة بات مع تراثها الثقافي والبحث الأثري؟	9 What are your aspirations and hopes for the future of Bat's relationship with its cultural heritage and archaeological research?
هل هناك مشاريع أو مبادرات محددة تود رؤيتها في المستقبل؟	10 Are there specific projects or initiatives that you would like to see in the future?
هل هناك أي أسئلة محددة تود أن تبحثها الأبحاث الأثرية؟	11 Are there any specific questions you would like archaeological research to investigate?
ما هي الموارد والمعلومات التي تود رؤيتها لمجتمع بات في مركز زوار بات المقترح؟	12 What resources and information would you like to see for the Bat community at the proposed Bat Visitor Centre?
هل تود المشاركة في مركز زوار بات عندما يفتح؟ إذا كان الأمر كذلك، ما الذي قد تكون مهتمًا بالقيام به؟	13 Would you like to participate in the Bat Visitor Centre when it opens? If so, what might you be interested in doing?
من تأمل أن يزور موقع بات الأثري؟	14 Who do you hope will visit the archaeological site of Bat?
ما الأجزاء التي تود رؤيتها مفتوحة أو مغلقة للسياح في موقع بات الأثري؟	15 What parts of the Bat archaeological site would you like to see open or closed to tourists?

FIGURE 1. Core study questions for all interview participants.

Information Sheet, Consent Form, and GDPR Privacy Notice, are available to download on an Open Science Foundation (OSF) repository (Nugent 2024).

Interview structure: interviews took place in the Bat office of the Ministry of Heritage and Tourism, in the meeting space of the BAP excavation house, or in a private room/space in the interviewee's home, depending on the

preference of the participant. The co-authors conducted interviews, which were approximately 1 hour in length and covered various questions related to perceptions of archaeological research and expectations for future heritage research and tourism projects. Interviewers took hand-written notes and audio recordings on a hand-held recording device (for transcription purposes). The

interviews took place in Arabic with a native speaker (N. Al-Aati) leading the interview. In some instances, follow-up discussions took place in English, following the lead of the participant. Some respondents expressed English as a preference for discussing certain topics and we wished to accommodate this communication choice, noting each instance that a language transition took place.

Each interview began by reviewing the objective of the interviews and encouraging open conversation around the themes presented. Structured questions were framed as a starting point to an unstructured dialogue and participants were invited to openly discuss their experiences and thoughts stemming from each question. Interview questions were designed to cover several themes, including: 1) community history and identity; 2) perceptions of archaeological research; 3) economic and social impact; 4) cultural heritage and preservation; 5) collaboration and communication; 6) concerns; 7) community involvement; 8) changing dynamics; 9) hopes and aspirations; and 10) plans for the Bat Visitor Centre. Figure 1 highlights our core study structured questions, asked of all participants. Further questions in our question bank, including tailored follow-up and draft questions are available for download at our OSF repository (Nugent 2024). In order to make questions accessible to all participants, the interviewers took time when asking each question to explain questions in plain language or clarify any concepts according to the needs of each individual participant before they responded with their answer.

Data management: audio recordings of interviews were initially fully transcribed into Arabic and translated into English. Arabic language in transcripts and audio recordings was then reviewed for accuracy before being fully anonymized for coding. All names presented in this paper are pseudonyms.

Analysis and interpretation: interview notes and transcriptions were analysed using NVivo software for coding, labelling, and thematic and content analysis.

Results

Between 2 January and 15 January 2024, we conducted interviews with thirteen Bat residents, including seven men and six women, representing all target age categories (Fig. 2). Response was lower than expected

(originally expected to be around twenty respondents). Our recruitment numbers were probably limited due to the brief time available to advertise the project on the ground and the need to build wider awareness of a new interview project. These results represent preliminary qualitative findings, highlighting major themes that emerged across the interviews.

Pseudonym	Gender	Age category	Length
Kaseem	M	Middle	00:36:59
Fiza	F	Middle	00:54:47
Tamir	M	Young	00:34:06
Amima	F	Middle	00:15:21
Ramza	F	Middle	00:32:19
Raza	M	Young	00:28:39
Fadil	M	Young	00:28:39
Yasira	F	Elderly	01:07:24
Jaleelah	F	Middle	01:07:24
Cemal	M	Elderly	00:19:31
Ayra	F	Middle	00:38:23
Haidar	M	Young	00:25:22
Faisal	M	Middle	00:25:22

FIGURE 2. Anonymized summary of structured interview participants.

Heritage, identity, and perceptions of archaeological research

Unsurprisingly, given that the town named its championship-winning football team 'The Archaeologists' (Fig. 3), our findings revealed a broad and deep sense of interest and pride in Bat's archaeological heritage. While many residents initially expressed modesty about their knowledge of Bat's ancient past, once engaged they provided rich narratives about the site's tombs, towers, and mud-brick village. Several participants even recalled specific details about material culture unearthed during past excavations, including those from Karen Frifelt's mid-twentieth-century expeditions.

Two areas emerged as particularly significant to the community: the Early Bronze Age funerary monuments



FIGURE 3. *The Bat Archaeologists Football team pitch demonstrates how deeply connected to and knowledgeable of archaeology the community is, through years of archaeological research taking place in their backyard.*

and Ḥiṣn al-Wardi. Residents expressed a strong desire for more focused archaeological research and outreach concerning these sites, indicating their cultural and historical importance to the local community.

Despite this strong connection to Bat's heritage, there was a notable sense of disconnection from the archaeological research itself. Residents felt excluded from past findings and interpretations, a gap attributed to the timing and nature of communication between researchers and the local community. Many remarked that by the time they realized archaeological fieldwork was underway, the researchers were already preparing to depart. This lack of timely engagement led to a sense that archaeological discoveries were happening without their involvement.

In response to these concerns, several recommendations were made. Participants suggested that researchers should engage the community before fieldwork begins, utilizing local communication platforms more familiar to residents. This would allow greater awareness and opportunities for involvement throughout the season, rather than limiting community interaction to post-excavation reports. The importance

of having open days or drop-in sessions where residents could visit the site and witness the research in progress was also highlighted.

As one young participant, Tamir, critically noted:

'We do hear that every year historical information is being updated, but there isn't that much of a development that makes us feel that there is something new being discovered at Bat.'

This reflects a broader community desire for more accessible and visible engagement with ongoing archaeological work.

Heritage management and outreach

Restoration and preservation emerged as key concerns among participants, particularly regarding the impact of climate change and catastrophic flooding on Bat's archaeological landscape. Of particular focus was the Ḥiṣn al-Wardi, the mud-brick village, where there was a strong desire for support in maintaining community ownership and collective conservation efforts. Residents voiced apprehension about the vulnerability of the



FIGURE 4. Residents hoped that preserving and celebrating traditional crafts would be featured alongside ancient heritage as a multi-faceted reflection of Bat community identity within the new Bat Visitor Centre.

village's structures to environmental forces, with one resident, Ramza, highlighting the issue:

'The dust [...] through wind, it collapses if it is strong wind, it collapses [...] and the rain it collapses the same thing. Because they are old, they don't have lots of maintenance, they collapse...'

How preservation would be financed did not arise in conversation and remains an unanswered question, potentially risking the long-term survival of the Ḥiṣn. However, several respondents expressed interest in repairs being undertaken by local contractors who could be trained in mud-brick restoration.

Additionally, participants expressed the importance of preserving intangible contemporary heritage, such as traditional crafts, which they felt had been overlooked in the focus on ancient monumental heritage (Fig. 4). There was a clear call for heritage management efforts to balance the protection of archaeological sites with the preservation of living traditions that are integral to Bat's cultural identity.

Regarding existing outreach opportunities, participants who had engaged with these programmes

reported positive experiences and encouraged their continuation. Hands-on activities and experiential learning, particularly for young people, were strongly supported as effective means of engaging the community with their heritage. This feedback underscores the value of interactive and inclusive outreach initiatives in fostering a deeper connection between the local population and the archaeological research conducted at Bat.

Social and economic needs

Economic need and youth education emerged as key concerns regarding how archaeological research at Bat could better serve the community. A recurring topic of discussion was the long-delayed tourism infrastructure, such as the Bat Visitor Centre, which has been a source of anticipation and controversy among local residents. The numerous setbacks in its construction have led to a sense of missed opportunity to attract visitors, who could boost the local economy and improve access to the expansive Bat archaeological landscape through the development of roads, rest areas, and facilities for



FIGURE 5. *Students visiting excavations at Rakhat al-Madrh during the 2024 School Day Event.*

both visitors and residents, which was also captured by Benkari's (2018) interviews with the Ministry of Heritage and Culture and Bat residents on the heritage management of the Bat, Khutum, and Al-Ayn World Heritage Site.

Business owners, young people, and parents voiced frustrations that, without a tangible and accessible visitor centre, decades of archaeological research and UNESCO protections might do little to directly benefit the community. Specifically, they highlighted issues such as supporting small businesses, addressing youth underemployment, and influencing educational content in local schools. There was a perception that foreign archaeologists could play a larger role in addressing these needs. Participants noted that instances of archaeologists making a tangible impact were few and far between.

As one resident, Amima, a teacher in Bat, emphasized:

'The student should not only study theoretical things. They are not theoretical students. [...] So when we came to the archaeological site, they [archaeologists] did not fall short. Meaning, the archaeologists gave information to the students and their knowledge expanded. They asked with eagerness [...] they witnessed the process of excavation and increased their knowledge, their awareness, and increased their pride [...] and belonging to their homeland.'

Similarly, a young man, Haidar, suggested that archaeologists could contribute by creating job opportunities for the local youth, 'by employing the unemployed youth in assisting the archaeologists in excavating or tidying the archaeological areas.' There was no mention of the impact of archaeologists currently employing adult residents as excavators in the context of economic benefit and it is not clear if this is due to not perceiving this form of employment as beneficial or to a lack of awareness.

Discussion

What do Bat residents teach us about foreign-led archaeological practice? We begin our discussion by emphasizing that our study results are preliminary and part of ongoing longer-term research and we therefore do not wish to make broadly generalized conclusions at this stage. However, our initial findings and their contrast with our approach to the management of the Bat Archaeological Project raise important issues that require further investigation and reflection.

These insights underscore the community's desire for archaeological research to contribute more directly to local socio-economic development, particularly in terms of education, employment, and small business support.

Our interviews were met with an unexpected level of candidness and constructive criticism from the Bat residents. Contrary to expectations that we would face scepticism or polite reserve as a new initiative, we were met with openness and an eagerness to contribute. This challenges initial assumptions that CBPR approaches in this context would require extensive long-term trust-

building efforts, especially in a heritage landscape where, as literature suggests, top-down institutional control often prevails (Ataya & Page 2022; Morgan et al. 2022). Although continued trust-building is important, our findings suggest that the local community is already primed for a more active, community-led research role, shifting the onus onto us, as foreign practitioners, to catch up with their desire for involvement. This should serve as an encouraging lesson for other projects facing similar hesitations, demonstrating that perceived barriers to CBPR may potentially not be as insurmountable as initially assumed.

That said, there are challenges ahead. Integrating the perspectives of non-Omanis living in Bat, or those who do not fit neatly into the 'local community' framework, remains complex. This challenge is echoed by other researchers, such as Morgan et al. (2022), who also point to the difficulty of aligning CBPR intentions with local social realities (2022).

Bat residents further remind us of the significant privilege we hold as researchers, benefiting from large funding resources, powerful institutional backing, and valuable skills that we can leverage to uplift the communities whose heritage we study. They explicitly identified the skills and resources they recognize in us, providing a clear opportunity for mutual benefit, as long as we are willing to listen.

Finally, we recognize that much work remains to be done. This is both necessary and encouraging, as it would have been a dull project indeed if we could have wrapped everything up in a single season. The dialogue with the community must not only continue but grow in openness, adapting iteratively as we move forward.

How do we respond as project directors/researchers?

There has been a long-term commitment to understanding and preserving the archaeology at Bat since 1972. As we entered 2024 we felt it was long overdue that archaeological practice had the disciplinary space to welcome an equal commitment to understanding and supporting the needs and desires of those whose lives and identities have been shaped by the heritage and the culmination of years of scientific research.

As project directors our response to these initial findings is to use this evidence to develop an intentional

and organized strategy for specific actions through theory of change. A theory of change is a method that explains how a given intervention, or set of interventions, is expected to lead to a specific change, drawing on a causal analysis based on available evidence (Connell & Kubisch 1998). This approach emerged in the 1990s in social policy as a field in programme design and evaluation and is now widely used by NGOs and those working in development. We feel this is particularly fruitful to integrate into archaeological research management because theory of change is designed to support collective visioning, foster a shared understanding between stakeholders, and bridge thought-styles and different ways of knowing. Further aligning with a long-term field research project, this approach begins not with its intervention but with long-term goals and outcomes and then works backward in time toward the earliest changes that need to occur. In the context of Bat, if our goal is to ensure our work bolsters youth employability or preserves endangered heritage, we need to adjust our current strategies for seeking funding as well as integrate evidence-based advocacy efforts seeking governmental financial support for those initiatives. This means balancing or even shelving some of our academic and professional goals and centring community needs.

Our long-term vision is to transform BAP into a 'living lab' for participatory engagement in heritage. A living lab being a real-life or third space environment for collaborative innovation, which enhances participatory research, fosters local innovation, and promotes sustainable practices (Bergvall-Kareborn & Stahlbrost 2009). We will develop this through continuing and regular formal and informal interviews, integrating community research priorities into season plans, applying for funding with explicit budgeting allocated to community initiatives, providing a variety of outreach activities adapted through regular feedback, and opening field research and training opportunities to anyone who is simply curious and to those who wish to be citizen scientists. One example of this is a project designed to monitor the structural stability and preservation of the Ḥiṣn al-Wardi, which is not only an opportunity to address interest in mud-brick heritage preservation, but also provides the opportunity to teach valuable skills in modelling, data analysis, and risk assessment, which are transferable well beyond the limits of archaeology.

This has been initiated on a small scale using the Penn Museum Director's Field Funds of the University of Pennsylvania, but a larger, more sustainable initiative will require supplementary creative fundraising efforts. Another example includes adapting our communication and outreach plans to host pre-season informational gatherings and informational documents, allowing the community to actively engage with our research in line with their own schedules during our field season. These undertakings address key themes in interview results.



FIGURE 6. *Students drawing/colouring during their visit to Rakhat al-Madrh during the 2024 School Day Event.*



FIGURE 7. *Students excavating during their visit to Rakhat al-Madrh during the 2024 School Day Event.*

In response to feedback from students and teachers at the event, as well as information from community interviews, we aim to continue developing our contributions for engagement with children in Bat. Providing practical, child-friendly experiences was seen as rewarding and an enjoyable way to learn about history (Figs 6 & 7).

Opportunities and challenges for Arabian archaeology

We return to our broader original question for archaeologists in this region: can community-based participatory research enhance our understanding of Arabian archaeology? While community-centred approaches are gradually being adopted across the Arabian Peninsula, there remains limited literature on the subject compared to other regions. Our ability to conduct community-based studies, much like the rest of archaeological research permission, hinges on support from national governments, which can be hesitant to integrate grassroots approaches into existing institutional approaches to heritage, or from authorities which may not have deemed archaeological projects as relevant mediums for conducting such studies. In many cases, governmental decisions about research permissions are out of our hands as archaeologists. From our experience at the Bat Archaeological Project, this type of study would probably not have been permitted a few years ago and has been possible due to the fortunate confluence of several factors both within and beyond our control. Within our control was the way we interact with government and community representatives, including long-term trust building through engagement activities and informal discussion, flexibility to adapt research proposals to respect local boundaries, and using research dissemination towards supporting community engagement goals set out by national and intergovernmental bodies. Outside our control were public responses to building new tourism infrastructure around the world heritage site and shifts in international and national heritage management policies encouraging more community involvement (see Freer & Kherfi 2020; Sampieri et al. 2024). Beyond the context of Bat, we feel that we are also still missing a critical support system connecting community-based approaches between different international



FIGURE 8. View from the Bat Archaeological Project excavation house facing the Bat necropolis, with children playing football.

teams working within the region. This lacuna presents an opportunity for the field to grow by expanding its methodologies, sharing best practices, and contributing more actively to global dialogues in archaeology — especially as Arabian archaeology is often under-represented outside conflict-related contexts.

At a recent IASA seminar, concerns were raised about how to safeguard Arabian archaeology amid broader trends in educational policy that devalue the discipline. Our interviews highlight a related issue: we have, perhaps, been too narrowly focused on traditional audiences and lost sight of the wider community (Fig. 8).

CBPR thus offers the promise of a better way of connecting with and expanding our audience and our relevance beyond academic circles. With new audiences come new ways of thinking and the opportunity to break from traditional practice and theoretical frameworks to explore new avenues of research. For sites like Bat, where the history of Western-led excavation has often been extractive, CBPR offers a chance to repair past inequities and co-create a future that benefits both researchers and the local community (Atalay 2012).

However, this approach comes with challenges. Although foreign archaeological missions have dominated the region historically, applying CBPR in Arabia requires careful navigation to ensure meaningful community engagement. Furthermore, the double-edged sword of our privilege is that traditional archaeological funding pathways are shifting and narrowing, and community-based projects are often not compatible with traditional funding sources. As a result, the presence of foreign-led missions may (and should) lessen in the upcoming years as locally led teams are well prepared to discover and preserve Arabian heritage. As more Western funders focus on demonstrating societal impact, ongoing international research teams that are embedded within the community are in a prime position to measure and demonstrate these desired outcomes. Community-based research also puts us in a better position eventually to withdraw or step back from research that most certainly could and should be directed by our local colleagues. More reflective and reflexive exercises during excavation field seasons provide tangible evidence of our limitations as international scholars and help us to

justify using funds for enhancing and financing local capacities.

There is still more work to be done to recognize CBPR as a core part of practising archaeology, as opposed to an addendum or an extension of heritage management. The seminar, as well as regional publication outlets, constitutes some of the venues where it is essential to establish these dialogues.

Concluding remarks

BAP demonstrates the potential for CBPR to reshape the practice of archaeology in Arabia by fostering deeper connections with local communities. Our experience underscores the value of this approach, not only in generating more robust and inclusive research but also in addressing long-standing challenges of local engagement and representation in archaeological work. By integrating the perspectives of Bat residents, we have been able to gain richer insights into both the heritage of the region and the community's needs and aspirations, which have historically been overlooked.

As foreign scholars, we acknowledge the privileged position we occupy, with access to funding, resources, and international platforms. It is our responsibility to leverage these advantages to support local learning, capacity-building, and opportunities for involvement. BAP has sought to bridge the gap between research and the local community by embedding community voices into its methodology and engagement practices. This not only ensures a more sustainable and mutually beneficial relationship but also enhances the rigour of our work by incorporating local knowledge and perspectives.

The integration of CBPR into Arabian archaeology is a timely opportunity to move beyond extractive research practices toward more collaborative and ethical forms of knowledge production. However, the challenges of implementing CBPR in Arabian archaeology should not be underestimated.

As other projects across the Arabian Peninsula consider similar frameworks, we hope that our experiences at Bat can contribute as a case study to a broader conversation about the future of archaeology in the region. Formalizing these approaches presents an opportunity to advance the field while supporting the long-term sustainability of the communities whose heritage we study.

Acknowledgements

We would like to thank His Excellency Undersecretary for Heritage Affairs, Mr Salim bin Mohammed Al-Mahruqi; Advisor to the Minister of Heritage, Mr Sultan al-Bakhri; Director General of Archaeology and Museums, Ms Yousra al-Subhi; Director of World Heritage Sites, Ms Ibtisam al-Mamari; Director of Excavations and Collections, Mr Ali al-Mahroqi; and Mr Ibrahim al-Maqbali, Ms Samia al-Asmi, and all the staff members of the Department of Excavations and Archaeological Studies, the Ministry of Heritage and Culture, Sultanate of Oman, for their wonderful support of our mission. We are also grateful to the ministry staff members working in the field and offices, particularly to the Ministry of Heritage and Tourism representatives at Bat, in particular Mr Mohammed al-Kaabani, Mr Mohammed al-Essai, Mr Suleiman al-Jabri, Mr Badr al-Badi, and Ms Sumaia al-Marmarri.

Our project was financially supported by the Omani Ministry of Heritage and Tourism, the US National Endowment for the Humanities (grant RFW 279340-21), and the Penn Museum Director's Field Funds of the University of Pennsylvania. Logistical support was provided by Lauren Ristvet and the Near East Section of the Penn Museum, University of Pennsylvania. We are also grateful to our research assistants, Jack Burgess and Achint Das, who supported us in sharing the project with Bat residents.

We are especially grateful to Bat's residents for their hospitality, friendship, and partnership in learning from the region's deep past.

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