

Against All Odds: An Archaeologist's Journey in Africa

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Abstract

This article addresses the myriad of challenges faced by young African archaeologists. Here, we reflect on our experiences as well as those of others by focusing on the pervasive problems of inadequate mentoring, lack of funding for important professional activities such as attending conferences and publishing, as well as limited access to opportunities. This study also examines the detrimental effects of these insurmountable barriers on professional development, networking opportunities, and dissemination of knowledge within the archaeological community. In addition, we explored other relevant obstacles faced by African archaeologists in the early stages of their careers, such as limited access to resources and navigating a competitive academic landscape. By highlighting these challenges, we aim to promote a deeper understanding of the systemic issues that hinder the development and sustainability of emerging talent in paleosciences and suggest possible strategies to mitigate these barriers.

Keywords

Africa, Paleosciences¹, Young researchers, Challenges, Opportunities.

¹ While there are distinctions between archaeology and the broader field of palaeosciences, this article focuses on the areas where they overlap. For this purpose, the terms are used interchangeably, unless it is mentioned

Introduction

Africa is the cradle of both biological and cultural evolutions. Its importance ranges from the emergence of hominins such as *Sabelanthropus tchadensis* and *Orrorin tugenensis*, *Ardipithecus* and various *Australopithecus* lineages, to the appearance of anatomically modern humans on the continent (Brunet *et al.*, 2002; White *et al.*, 1994). The continent is also rich in human culture, with the earliest stone tool technologies such as the Oldowan and Acheulian, as well as Nubian core and bladelet refinement (Brown and Gathogo, 2002; McBrearty and Brooks, 2000; Semaw *et al.*, 2003).

Genetic research has confirmed that Africa is the origin of the genus *Homo*, the birthplace of *Homo sapiens* (Schlebusch *et al.*, 2017; Stringer and Galway-Witham, 2017). In North Africa, evidence for the earliest anatomically modern humans was found in *Jebel Irhoud*, Morocco (Hublin *et al.*, 2017; Richter *et al.*, 2017). An early human skull was discovered in the southeastern Sudanese region of *Sinja* in the Blue Nile state (Woodward, 1938). In Ethiopia, one of the oldest known specimens of anatomically modern *Homo sapiens*, dated 195 Kya, was found at Omo Kibish (McDougall *et al.*, 2005). In southern Africa, a hominin cranium was recovered from Florisbad (Grün *et al.*, 1996), and *Homo naledi* from the Rising Star Cave (Berger *et al.*, 2017). The rich paleontological records from Africa suggest multiple complex models for the dispersal of anatomically modern humans from Africa to other continents (Grine *et al.*, 2007; Hublin *et al.*, 2017; Nielsen *et al.*, 2017; Schlebusch *et al.*, 2017; Wadley, 2015).

Numerous events from the Middle Pleistocene to Holocene have added weight to Africa's diverse heritage sites. Among other things, the Pleistocene and Holocene records of Africa show an expansion of human symbolic actions and communication through rock art (Deacon, 2005; Le Quellec, 2018) and the development and spread of animal and plant domestication (di Lernia, 2001; Gifford-Gonzalez and Hanotte, 2011). In the recent past, the development of ranked societies, kingdoms, and states is indicative of a rich yet complex African past (D'Andrea *et al.*, 2023; Kim and Kusimba, 2008; Pikirayi, 2001; Pwiti, 2005).

Despite the rich resources of past windows, the participation of researchers of African descent in studying and interpreting this heritage remains unsatisfactory. The unequal participation of Africans in the study of their own rich heritage remains a pressing problem whose historical roots goes back to the colonial era. During the colonial era, research and documentation of African cultures and histories was mainly conducted by foreign researchers, who were guided by colonial agendas and perspectives. This led to a distorted representation of African heritage and a lack of influence of indigenous voices in shaping their own histories. Although formal colonial rule has ended, the legacy of colonialism continues to impact African participation in scientific research. African researchers are by far the fewest to conduct research in Africa compared to the rest of the world who conduct research in the continent. This lack of participation not only perpetuates the legacy of colonialism but also hinders efforts to accurately document, preserve, and interpret African heritage within the continent.

We, the authors, hail from different parts of the continent (Ethiopia, Sudan, Zimbabwe, and South Africa). Although we were trained from different institutions; we share similar experiences and struggles. Our common journey motivates us to shed light on this pressing issue through an open access platform of the *Ex-Novo Journal of Archaeology*. While our reflections do not offer detailed scientific results or narratives, they underscore the persistent challenges African scientists face in pursuing their careers in archaeology and paleontology. Accordingly, this article aims to discuss the main issues surrounding Africans in fulfilling their dreams of becoming paleoscientists. Ultimately, our aim is not only to overcome these challenges but also to turn them into opportunities for positive change. In this way, we strive to shape the future of paleoscience, ensure its continued relevance and impact.

Challenges

Early-career researchers (ECRs) should see these challenges as opportunities for growth, innovation, and progress, not simply as obstacles to be overcome. These challenges are universal and exist across the continent regardless of the level of difficulty. Funding is a pervasive and fundamental obstacle in the field of paleoscience in Africa. Funding constraints result in a complex web of interconnected challenges for African researchers, including expenses such as travel costs, accommodation, conference registration fees, article processing charges, research funding, and visa applications (Smith and Brown, 2020). However, strategic interventions in the funding landscape have the potential to make significant progress across continents. Therefore, we will discuss the challenges African researchers face in conducting research as well as those faced by students.

Academic education/training

Students enrolled in tertiary institutions generally encounter several obstacles, especially when they must make decisions about their future. The main thoughts that float in their minds are stable employment to have a means of sustainable living; however, this is not always the case. Most educational institutions host career day fairs and encourage students to attend to broaden prospective employment opportunities. Common outreach vendors for these career-day fairs are from the corporate sector (accountants, lawyers, marketing, etc.), computer and software engineers, law enforcement, healthcare workers (doctors, nurses, etc.), civil and electrical engineers. Very few times there will be a stand dedicated to archaeology, heritage management, paleosciences. For students who want to pursue careers in archaeology, it is difficult to decide on their specialization. This is because students are restricted to the academic staff (lecturers or supervisors) in the department and their capabilities to navigate students in the right direction. This often leaves students with limited options such as pursuing a career they are not entirely interested in, taking a risk and going to a different institution to try something new with the little knowledge they have. Moreover, they either struggle to secure funding for a qualification they want to pursue but cannot self-fund or leave academia and seek

opportunities in contract archaeology or alternative options in the mainstream employment sector.

In the discipline of archaeology, heritage, and paleosciences, there has been a noticeable disconnect where students are unaware of the opportunities that await them. These opportunities range from scholarships, bursaries, research projects, workshops, conferences, and entry-level employment (i.e., field or laboratory assistants/technicians). The major question is, how do the students get hold of this important information? Some would think they would get this from their lecturers or supervisors, others from fellow researchers or online sources, but what about the rest of the students who do not have access to these opportunities? More especially, what about students from African countries who are willing, capable, and have a wealth of archaeology and heritage but cannot further their education or pursue it as a career because it is only taught as a subject and not something they can proceed within their postgraduate careers.

Research

It is widely recognized that Africa possesses a wealth of archaeological and paleontological resources. However, the majority of these sites have been predominantly studied and managed by foreign entities since the beginning of the twentieth century. Throughout the years, these sites have frequently been treated as personal domains of specific universities or researchers from abroad. Moreover, African researchers who have access to these sites often face the dilemma of relocating to western countries, thereby contributing to the phenomenon of brain drain. The inadequate funding of research conducted by local archaeologists in Africa is a significant challenge that impedes the ability to conduct comprehensive and impactful research. Although universities, museums, and governmental institutions may express a desire to fund such research, the allocated funds are often meager and insufficient to support extensive research initiatives.

This situation highlights a concerning trend where the custodianship of Africa's rich cultural heritage is frequently entrusted to external entities, while the expertise and perspectives of the local community are overlooked. In most instances, local archaeologists may find themselves acting as interpreters for the local population or bogged down with bureaucratic tasks, rather than being able to focus on substantive research. These power imbalances have perpetuated this disparity, resulting in a disconnection between the communities that inhabit these areas and the research conducted there. Furthermore, the scarcity of adequate funding exacerbates the reliance on external funding sources, which marginalizes local researchers and institutions. This hampers efforts to build capacity and develop sustainable research programs that are rooted in the local context and address the pressing research questions and challenges facing African paleosciences.

However, it is crucial to recognize that the issue lies not with the participation of foreign researchers *per se*, but rather with the lack of equitable collaboration and respect for local knowledge and agency. Genuine progress in the study and conservation of Africa's heritage can only be achieved through partnerships that are

characterized by mutual respect, shared decision-making, and meaningful engagement with local communities.

Publishing

In the modern landscape of scientific inquiry, the journey from data collection to impactful dissemination is a crucial one. While venturing into the field and gathering data marks the initial steps of research, it is the subsequent publication of findings that truly propels knowledge forward. Publication not only serves as a conduit for sharing discoveries but also acts as a platform for researchers to gain recognition and credibility within their respective fields. The financial challenges faced by young paleoscientists embarking on their academic lives and publishing their work in open-source journals can be significant and complex. Open-source journals typically operate on a model where authors or their institutions are charged Article processing Charges (APCs) to cover the costs of peer review, editing, and publication (Solomon and Björk, 2016). For young African paleoscientists, these fees can be a barrier to publication for several reasons.

First, young paleoscientists often have limited financial resources or lack access to sufficient funding or institutional support to cover the APCs associated with open-access publication (Pinfield *et al.*, 2017). This is in contrast to established researchers who may have funding or departmental support. Furthermore, the high cost of APCs may discourage early-career researchers from submitting their work to open-access journals, especially if they are unsure about the quality or impact of their research (Xia, 2010).

However, for many young researchers in Africa, particularly those navigating the complexities of academic pursuit, the path to publication is riddled with financial obstacles. The stark reality is that the costs associated with publishing, including APCs and other related fees, often loom as insurmountable barriers. These expenses, which are standard in scholarly publishing, pose significant challenges for individuals whose financial resources are limited, especially for researchers based at most institutions in Africa. There are three major journals focusing on African archaeology, i.e., *Journal of African Archaeology*, currently published by Brill; *African Archaeological Review*, published by Springer; and *Azania: Journal of Archaeological Research in Africa*, published by Routledge. While these journals offer the possibility of publishing freely, such papers are not open access, implying that readers who need these papers need to purchase them. In the event that authors publish open access, article processing charges apply and these start from US\$ 1400 for the *Journal of African Archaeology*, US\$ 3290 for *African Archaeological Review*, and US\$ 2990 for *Azania: Journal of Archaeological Research in Africa*. The budgets of most African institutions are meager; paleoscientists based in Africa are thus confronted with the daunting reality that their work may remain unseen and unrecognized due to financial constraints beyond their control. Institutions of most researchers based in Europe cover article processing charges, but this is not the case for their counterparts based at most African institutions. In essence, the issue of publication fees transcends mere financial considerations; it is a matter of equity, accessibility, and the democratization of knowledge. Consequently, the inability to

afford publication fees not only hinders the dissemination of valuable research but also perpetuates a cycle of underrepresentation and marginalization within the academic sphere.

To further illustrate the imbalance in the academic sphere, the Journal of Archaeological Sciences published 550 papers on African topics between 1977 and 2023. From these papers, the overwhelming majority were authored by European or North American scholars, rather than African or African-based scholars (Mitchell *et al.*, 2024). Similar research conducted by Gokee and Ogundiran (2023) in African Archaeological Review (AAR) revealed a notable discrepancy, despite this journal's predominance in African archaeology. Their research examines the thematic and demographic transformations within AAR's publications spanning four decades from 1983 to 2022. Their analysis of authorship frequencies in peer-reviewed AAR publications revealed that researchers of African origin contributed only 269 publications as authors and co-authors, a figure that falls short of expectations (Figure 1). In contrast, European researchers significantly surpassed this, with 506 articles credited to their authorship (Gokee and Ogundiran, 2023). This observation underscores the ongoing disparities in authorship representation within the field of African paleosciences.

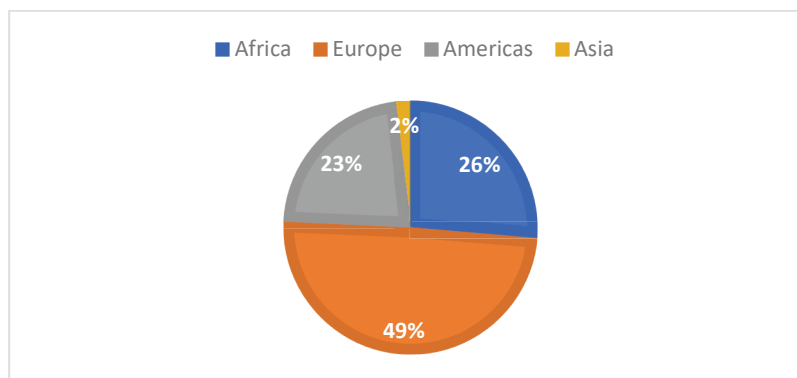


Figure 1: Authorship in AAR between 1983-2022 (modified from Gokee and Ogundiran, 2023).

Overcoming the difficulties young African paleoscientists face in paying for open access journals requires a concerted effort by academic institutions, funding organizations, and scholarly communities. Providing financial support and resources specifically geared towards underwriting publication fees for young scholars can help reduce the barriers to open access publishing and promote greater inclusivity and diversity in archaeological scholarship. In addition, raising awareness of open access publishing opportunities and advocating for more equitable funding models within the academic publishing landscape can empower young archaeologists to share their research and contribute to the advancement of the discipline.

Conferences

Conference participation is one of the most important events that provide paleoscientists with authentic opportunities to share their research with others and develop professionally (Smith *et al.*, 2019). These events serve as vibrant centers where archaeologists come together to exchange ideas, present discoveries, and

explore new trends and methods in their field (Walkington *et al.*, 2011; Smith *et al.*, 2019). By actively participating in these meetings, archaeologists not only contribute to the collective knowledge base but also learn from their peers, enriching their research endeavors (Jones, 2020). However, the opportunity for African-based paleoscientists is not as it should be. While regional or continental conferences hosted by African institutions exist such as the Eastern African Association of Palaeoanthropology and Palaeontology (EAAPP), the Association of Southern African Professional Archaeologists (ASAPA), and the Pan-African Archaeological Association (PAA), participating in international conferences for African-based paleoscientists is challenging.

Apart from the costs associated with attending conferences, such as travel expenses, registration fees, visa fees, and extensive requirements, accommodation and living costs in the host country often present overwhelming obstacles for young researchers (Smith and Brown, 2020). Applying for visas for African-based archaeologists to attend conferences is always complicated and full of challenges (Jones and Brown, 2020). The requirements vary greatly from country to country. In some regions, it is even more complicated as they are required to submit extensive documentation, which is always related to the political situation in the countries (Miller and Nguyen, 2020; Wang and Kim, 2019), as well as prohibitive fees and unpredictable processing times (Garcia and Brown, 2018; Chen, 2021). Uncertainty over approval and potential rejections lead to additional anxiety and logistical hurdles that often thwart plans and lead to further financial losses (Johnson, 2017). These barriers emphasize the need to take equal measures, at least for scientists worldwide, to promote inclusivity in academic and professional meetings (Gupta and Patel, 2021).

For African-based paleoscientists, these obstacles significantly limit their participation in important gatherings such as The Society of Africanist Archaeologists (SAfA). SAfA is one of the largest gatherings where researchers interested in African archaeology and related disciplines showcase their findings. For African researchers, having the opportunity to participate and present their research at SAfA would be immensely valuable. Despite its potential value for African researchers, the opportunity to participate and present their research at SAfA remains elusive for African-based paleoscientists, young researchers, and students due to the aforementioned issues as well as the fact that the majority of these conferences were organized outside of Africa. For instance, since its inception in 1971, SAfA has been held in Africa only twice in 2010 and 2014 (Figure 2). On both occasions, it was organized as a biennial conference alongside PAA. The rarity of holding SAfA conferences in Africa creates barriers for African researchers, limiting their ability to engage fully in the global scientific discourse.

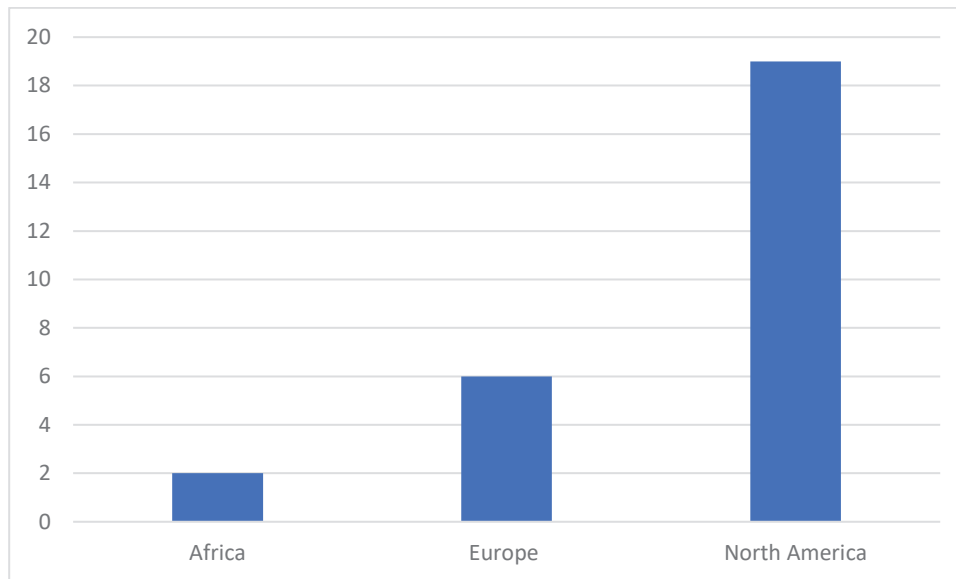


Figure 2: SAfA conference hosted by continent. Source: SAfA (<https://safarchaeology.org/>).

Post-COVID, most conferences began to have a hybrid program via Zoom, in which organizers now have at least two hubs for live transmission of the conference. However, it is important to note that conferences, other than showcasing research, are also a venue to communicate. It also helps to make connections with other researchers and pave the way for potential collaborations (Garcia and Brown, 2018). In this case, the hybrid conference format may not facilitate these aspects effectively. Once again, this presents a disadvantage for African-based paleoscientists and students.

The impact of global politics

The impact of global political sanctions on some African countries makes the lives of students in these countries very complicated, even for those studying abroad. These include economic instability and hardship in the affected countries, difficulties in accessing the necessities of life such as food, health care, and labor (Hufbauer *et al.*, 2007). This economic strain can take the form of difficulties in covering educational costs, including tuition fees, housing, and living expenses for students studying abroad, and sometimes they are faced with the blocked or limited international banking system, making it difficult to transact.

In addition, political sanctions can also affect the availability and quality of educational resources and infrastructure in the destination country. Reduced funding and resources for educational institutions can lead to overcrowded classrooms, outdated teaching materials, and limited access to state-of-the-art technology and research facilities (Pape, 1997). As a result, it can be difficult for local students to gain access to quality education and realize their academic potential.

Furthermore, political sanctions can also have long-term consequences for the academic and professional opportunities of students studying abroad. Restrictions on international collaborations, research partnerships, and exchange programs can limit students' access to academic resources, networking opportunities, and career prospects both during their studies and after graduation (Doorenspleet, 2007).

Overall, the impact of political sanctions on civilians and students studying abroad emphasizes the need for humanitarian considerations and support mechanisms to mitigate the negative effects on education, well-being, and future prospects. International cooperation, diplomacy, and advocacy are essential to address the root causes of political tensions and promote peace, stability, and opportunity for all people affected by the sanctions (Archer, 2016).

Gender disparity in archaeology

Gender inequality persists as an issue in science and academia (Tushingham *et al.*, 2017). Men outnumber women in the workplace, with women often facing stereotypes and underrepresentation (Xu, 2008). The societal expectation that women should manage households while men are breadwinners contributes to hindering women's progress in the workplace, alongside issues such as bullying, harassment, strict laws, and sexism. Historically, girls were often discouraged from education and prepared for domestic roles (Niang, 2023). In West Africa, girls may work for domestic help due to economic stress (Niang, 2023), while in Sudan, recent restrictions limit women's participation in archaeological fieldwork (Elzein, 2023). Conversely, boys are encouraged to pursue education for better employment prospects (Elzein, 2023; Niang, 2023), making it easier for men to enter tertiary institutions and secure leadership roles.

Efforts have been made to address gender imbalances in archaeology, including mentorship programs and recognizing women's contributions (Claassen, 1991; Nelson, 1997). However, challenges persist, with women still underrepresented in leadership positions and facing issues, such as harassment and discrimination (Díaz-Andreu and Sørensen, 2004). Intersectionality with race, ethnicity, and socioeconomic status complicates diversity efforts (González-Ruibal 2008).

To address this, communities must be encouraged to support girls in STEM careers through campaigns and the involvement of academic and governmental institutions. Senior researchers can include women in projects and help secure funding. Such changes aim to create a balanced and inclusive academic environment.

The way forward and future perspectives

In the wake of globalization and development in most African countries, several African ministries, government agencies, and organizations have begun investing in talented minds, providing financial support, and ample opportunities for young researchers to attend conferences. For instance, The Palaeontological Scientific Trust (PAST), South African Department of Science and Innovation (DSI), Sudanese General Administration for Training of the Ministry of Higher Education and Scientific Research, and Qatar-Sudan Archaeological Project (QSAP) are examples of intra-African and Arab government agencies that provide funding for African students. These institutions can help alleviate the financial burden and ensure greater inclusivity within the archaeological community. Such initiatives not only allow young scholars to contribute actively to the field but also encourage diversity of perspectives and ultimately enrich the discipline with new insights and innovative research endeavors. Overcoming the funding barrier thus opens the

doors to a more vibrant and dynamic archaeological community that advances the understanding of human history and cultural heritage. International universities and research institutions should extend their support beyond conferences and provide financial assistance and scholarships to foster mutually beneficial collaborations rather than simply offering admission for the sake of demography and diversity.

The future with Student Societies

Students often face difficulties when navigating career options and planning their futures, as not all have access to career guidance counsellors or mentorship. Academic staff, though present, may be unable to provide personalized guidance to large groups of students due to their own commitments. This creates a gap in inclusivity, leaving some students without adequate support. One solution to bridge this gap is through the establishment of student societies, where students with similar interests can support each other in advancing their studies and securing employment opportunities.

Student societies offer various benefits, which include providing a supportive community for students to interact, share opportunities, stay updated with recent publications, and build confidence and skills. An example of this is the Southern African Archaeology Student Society (SAASS), established in 2013 (Harcombe *et al.*, 2020). SAASS hosts workshops focusing on introducing new skills and developing others, introducing new research, conducting experiments, teaching transferable skills, student presentations, and team-building activities. The society caters to students in the SADC region and collaborates with organizations like the Association of Southern African Professional Archaeologists (ASAPA), Genus Paleosciences and the Palaeontological Scientific Trust (PAST) to sponsor events and workshops.

Similarly, the Society of Black Archaeologists (SBA), established in 2011, focuses on the needs and concerns of Black archaeologists across the diaspora. These organizations aim to address challenges faced by students and professionals in the discipline.

Encouraging students to join or create societies fosters a sense of responsibility and courage, expanding opportunities for specialization and success. By breaking down barriers between inclusivity and exclusivity, these societies empower future researchers and contribute to the advancement of science. Embodying the philosophy of Ubuntu², they demonstrate that the future of the discipline lies in collaborative efforts and collective action.

Community archaeology

According to Moser *et al.* (2002), community archaeology involves collaborating with local communities throughout the research process, encouraging their active involvement in both exploration and the presentation of historical narratives. This

² Ubuntu is a Bantu African-origin concept meaning “I am because you are.” It embraces the idea that humans cannot exist in isolation. We depend on connection, community, and caring — simply, we cannot be without each other.

approach aims to diversify perspectives contributing to historical understanding, fostering a shared educational journey between archaeologists and communities (Tully, 2007).

Despite its potential importance and utility, community archaeology in Africa has not received as much attention as other aspects of archaeological research (Bendrey *et al.*, 2019). While engagement between professional archaeologists and indigenous groups aligns with the spirit of community archaeology, its full potential and challenges remain insufficiently explored and understood (Atalay, 2012). Factors contributing to this lack of attention may include a resurgence of traditional archaeological academic goals and limited resources for community engagement initiatives (Perry and Beaudry, 2015).

There is a pressing need for greater academic recognition of the importance of community archaeology as a method to bridge the gap between local communities and archaeologists, along with further research addressing its challenges and potential contributions to archaeological practice and heritage management. In most instances, the role of local communities in archaeology and related disciplines has been limited to cheap labour during research projects. Genuine collaborations with local communities could lead to more formal training opportunities for local communities in paleoscience.

Conclusion

Future research efforts could prioritize the development of standardized Pan-African approaches and best practices for community engagement in archaeology, ensuring consistency and rigor across projects while considering the unique contexts and needs of different communities. African national students should engage with this topic, because interpreting heritage from an indigenous perspective is crucial for understanding its cultural significance and spiritual value within indigenous communities. Heritage serves as a living expression of cultural identity and connection to the land, serving as a model for future generations. Local community archaeologists, who are often respected, play a vital role in cultural heritage management, with language unity serving as a key facilitator. The inclusion of indigenous perspectives enriches our understanding of cultural heritage, promotes cultural appreciation, and fosters respectful relationships among different communities.

Addressing these challenges requires a multi-faceted approach. This includes empowering African researchers through increased funding, capacity-building initiatives, and establishing collaborative partnerships with international institutions. Efforts should also focus on decolonizing educational curricula and promoting indigenous methodologies and perspectives in heritage research.

Ultimately, achieving greater African involvement in researching their own heritage is not only a matter of equity and representation, but also essential for fostering a more inclusive and accurate understanding of Africa's diverse cultural legacies. By overcoming the challenges inherent in colonialism and investing in the capacity of African scholars, it is possible to ensure that the study of African heritage truly reflects the continent's rich and multifaceted history.

Declaration of competing interest

The authors declare that they have no known competing interests.

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