



How global is archaeological science?

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ABSTRACT

As the leading international journal for archaeological science, *JAS* not only serves as an indicator for the global state of archaeological science, but also carries a particular responsibility for the health of the field. Here, I trace the growth of archaeological science on a global scale both diachronically and geographically, offering what is a strongly positive trend of increasing research output in general, but also a markedly skewed picture of current participation in archaeological science research geographically. While the strength and distribution of archaeological science across Europe continue to increase from an already high base, and China is rapidly increasing its participation, both the UK and the US are falling behind – at least proportionately. This, however, is all par for the course and can be considered a simple re-arrangement among the wealthiest countries. The real story is in the near-absence of authors from precisely those countries whose archaeological heritage supplies much of archaeological science research: the Middle East, Africa, Latin America, Central Asia, South and Southeast Asia. Here, *JAS*, like all other journals, faces a dark reality that requires concerted efforts to change, by not only increasing access to science-based facilities and instruments, but crucially by increasing active in-country participation in archaeological science research, co-shaping agendas for the future of our discipline.

1. The context

Ten years ago, [Torrence et al. \(2015\)](#) traced the increasing spread of archaeological science practice from its traditional homeland in the UK and the US to Europe and beyond. For this, we were looking at the country of affiliation of the first author of all papers published in *JAS* from its first volume in 1974 up to 2014. While there was a clear dispersal of authorships spreading across more countries, and more evenly, from decade to decade (see [Torrence et al., 2015, Fig. 3a–c](#)), there was also an overwhelming dominance of countries of the Global North even in the most recent decade surveyed. The only exceptions to this in the top 20 countries were South Africa at # 10, followed very closely by China, at #11. How did we get there, and what has happened since then?

Throughout its existence, major changes have happened at the *Journal of Archaeological Science*. For the first twenty years

(1974–1993), *JAS* published around 25 to 50 research papers per year. There was a major uptick in the number of papers from 1994 onwards, with 1998 being the first year to see more than 100 papers published and a doubling of issues per year from 6 to 12 in 1997, i.e. moving to a monthly publication schedule. The next ten years saw a steady increase in papers to just under 200 in 2007. What happened next is just extraordinary. Within a year, the number jumped to nearly 300 – an increase by 50 % on the previous year (at the same time, rejection rates went even higher than they were before, to about 2/3 of all submissions). This heralded a further steady increase to nearly 450 papers published in 2014, for the first time exceeding 5000 print pages, more than 400 per (monthly) issue. It clearly became time to do something drastic; each of the two editors of *JAS* were now on average seeing one paper a day through to publication (assuming 220 work days in a year), with twice the number on top of that as rejections, both pre- and post-review. In 2015, *JAS: Reports* was

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launched, as a stand-alone new sister journal to *JAS*, with its own editors and editorial board.¹ Since then, *JAS: Reports* has taken the brunt of the submissions, while the number of papers published in *JAS* now hovers around a much more manageable 100 to 150 papers a year (Fig. 1).

Importantly, the growth of archaeological science publishing went well beyond one journal. *JAS* and *JAS: Reports* are now only two among many more English-language journals serving specifically archaeological science research (Killick, 2025).² However, judging by its current (2023) Impact Factor,³ *JAS* is still the *primus inter pares*. All good, then,

¹ This decision drew a lot of criticism at the time, as we struggled to define the distinction between the two journals. And indeed – the two sister journals were serving a continuum of submissions, rather than two clearly distinct groups of papers. Back in 2016, we put this in a discussion email among the editorial board members: “... we do certainly NOT consider *JAS: Reports* and the papers published in there as second-best or less significant. Manuscripts we consider mediocre we do reject outright, and certainly not recommend their transfer to *JAS: Reports*.”

Those manuscripts for which we do recommend transfer (which only on a technical level is a rejection, to facilitate transfer from one journal to another) are reporting research which is as significant as any, but in our judgement it is significant for a smaller or different audience: perhaps more specialized, more thematic, or more regional than what we are looking for *JAS*. However, among them are many important papers which provide the staple data and documentation on which future meta-studies can build, contributing to the still far-too-sketchy picture of the past even in well-studied regions and periods.”

“... What are review papers going to review, if there is no growing and evolving body of data and knowledge that keeps growing? What new thought and breakthrough can be achieved, if not on the basis of reliable data-rich papers adding incrementally to the body of knowledge? All this, of course, requires that those ‘working horse’ papers are of the same data quality and documentation standards as any other good paper, so that they are compatible and can actually be combined into overview and progress papers, as well as stand on their own. Securing those standards is the role of the Editors, supported by the Reviewers.”

“... the flood in manuscripts we experience is simply a reflection of a growing field: certainly better than a stagnant field, or a shrinking one. In any growing field there are inevitably fewer experienced colleagues (=reviewers) and more new ones (= eager authors) which still need mentoring and support, incl. constructive reviewer feedback. If we don’t like that, then we must all stop teaching, stop writing grants and stop hiring next generation scholars: is that what we want, just so that we can read and review fewer papers? Are those fewer papers then really better on average?”

“... Wanting only ‘4-star’ high impact papers published is almost as distorting the record of the past as excavating only the elite burials, while ignoring all those 99.9 % of past populations whose work and lives actually provided for those elites to have the riches and social complexities which we archaeologists then so cherish. You may only wish to ‘read’ the elite burials – but one way or the other you need the ordinary population, too, in order to get those elite burials – even those people who were never given a burial.”

“... it is important to make it clear that there is no room and reason for looking down at *JAS: Reports* – they do us all a massive service, and we mean it when we say in the transfer letter that the standards are the same for *JAS* and for *Reports*. Without *Reports*, we (as readers and as authors) would be left indeed with a choice of long delays in publication, of hidden papers, of 2nd and 3rd rate editors and reviewers, and lesser standards of publication quality. That all journals (beginning with *Science* and *Nature*, and clearly including *JAS*) make mistakes in what they accept is a different story.”

² During the last few years, *JAS: Reports* published around 450 to 500 papers per year, followed by *Archaeological and Anthropological Sciences* with around 200 to 250 papers per year, and *JAS* and *Archaeometry* each with around 100 to 125 papers per year.

³ Of course, the (commercially managed, biased) Impact Factor of a journal is an unsuitable measure of quality of papers published within that journal. However, it does offer an admittedly crude measure of reputation and academic standing of that journal overall. The latest IF for *JAS* stands at 2.8, followed by 2.3 for *Archaeological and Anthropological Sciences*, and 1.5 for both *Archaeometry* and *JAS: Reports*.

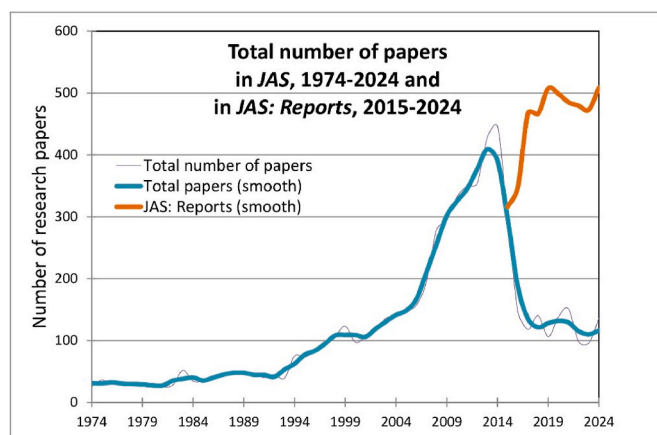


Fig. 1. Number of total research papers published in *JAS*, 1974–2024 and in *JAS: Reports*, 2015–2024. The ‘smooth’ curve represents the moving average per year over three years. The launch of *JAS: Reports* led to a significant redistribution of papers between the two journals. For the past few years, *JAS* has published around 120 papers per year, while *JAS: Reports* publishes around 500 per year.

for *JAS* and global archaeological science practice?

2. A geography of archaeological science practice

In the previous section, I focused on the quantity of archaeological science papers published in *JAS*, revealing a major surge for the 15 years or so, from 2000 to 2015, that forced the spawning of a sister journal to take much of the increasing volume,⁴ and a general trend of increasing number of papers overall published in archaeological science journals. This, however, cannot be cause for satisfaction or complacency, as we shall see.

2.1. Shifting archaeological science centres

Ten years ago, we celebrated the increasing diversification of authorship (Torrence et al., 2015, Fig. 3), driven by the massive rise of papers written by (non-UK) Europe-based authors (Torrence et al., 2015, Fig. 2). This trend has continued unabated in the decade since, but hides an ugly truth: this diversification is restricted to an elite group of countries, and masks an overall concentration of published archaeological science research onto this elite group (Fig. 2). In fact, for most of its history, only about 20 % of all papers were not 1st-authored in the US, UK or continental Europe. Some of the recent decline of that figure is in part compensated for by the surge of papers from authors based in China, which rapidly evolves into another well-funded ‘Global North’ country, despite its insistence overall to remain classified as a developing country.⁵

Thus, while the increase of archaeological science publications (and hence practice) shows an unabated growth, there are some global shifts. The proportion of UK-based authors has almost continuously declined, from over 50 % in the first year to around 15 % most recently.

⁴ Henceforth, I will predominantly use percentages rather than absolute numbers of papers published in *JAS*, to offer a better view of long-term trends. I hasten to add that the following data is restricted only to papers published in *JAS*; it would be presumptuous to assume that *JAS* is representative of the global practice of archaeological science, given the existence of several strong regional journals in our field and the large number of papers now published outside *JAS*. A truly global bibliometric study might reveal a different and certainly more nuanced picture.

⁵ Undoubtedly for pragmatic economic reasons, outweighing any political prestige that may come from shedding this label.

Contributions from US-based authors have initially risen steeply, reaching a dominating 30–40 % for the period from 1988 to 2003, but has been steadily declining ever since to similar levels as the UK. The proportion of authors based in continental European countries began relatively low, but since about 1994 has seen an almost uninterrupted surge, and scholars from that region are now contributing more than 40 % to *JAS* publications. Undoubtedly, they are benefitting from the unprecedented levels of public blue-sky research support afforded through the successive European *Framework* and *Horizon* programmes.

2.2. In-country archaeological science practice

An interesting measure for the strength of archaeological science in each country is the total number of papers presenting research on that country's archaeology, and the proportion of authors doing this research that are based in this country. As before, I am using only data from *JAS*, and only the affiliation of the first author of each paper; thus, the picture is only an approximation, but should still reflect broad trends.

There are 63 countries in the *JAS* database used here which have ten or more papers devoted to their archaeology, covering together about 4900 papers out of the total of about 6150 papers so far published in *JAS*.⁶ Of the remaining 1250 papers, about 550 have no geographic focus but are methodological papers or otherwise geographically non-specific, about 400 are covering broader regional topics, while the remaining about 300 papers relate to all other individual countries. A first glimpse at the country-specific data shows that research geographically focussed on the USA and the UK not only dominates the total number of papers, by a wide margin; these two countries are also the only ones where more than 90 % of the 1st authors of those papers are based in the country of interest. The next most commonly researched countries in *JAS* papers are Spain (313 papers), Italy (248), France (211), Israel (210), South Africa (207), and China (204) (Fig. 3).

A relatively small group of 18 countries with particularly strong archaeological activity is covered by between 50 and 250 papers (Fig. 4). Of these, only four exceed 75 % of in-country 1st authors (Sweden, Australia, Argentina and Canada), while on the other extreme end, countries including Peru, Egypt and Turkey have fewer than 20 % of their papers written by 1st authors based in the country.

Countries covered by between 10 and 50 papers, i.e. with on average of only 1 paper per year or less published in *JAS*, form the largest group (Fig. 5). Among these 42 countries a clear split is apparent in the percentage of in-country 1st authors. Roughly 1/3 of these countries (13) have 57 % or more in-country 1st authored papers, while 2/3 of the countries (28) have 31 % or fewer in-country 1st authors.

2.3. Economic factors

Much of this difference in in-country authorship is clearly driven by macro-economic factors; of those with the majority of papers 1st-authored within the country, only three are not (yet) considered developed countries: Argentina (78 %), China (64 %), and Brazil (63 %). Of those 23 countries with fewer than one fifth in-country 1st-authored papers, only one is considered a developed country: Iceland, with 5 % in-country papers.

However, national research traditions also play a role, as can be seen for the five countries Argentina, Brazil, Chile, Mexico, and Peru (Table 1). Their GDP per capita is relatively similar, they are all represented by between 38 and 101 papers, while their percentage of in-country 1st authors spans widely from 0 to 78, one of the highest

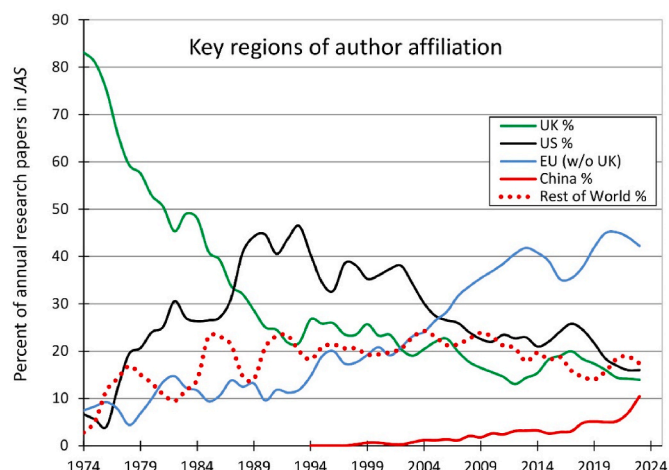


Fig. 2. Percentage of papers with 1st-author affiliations in the countries and regions listed. There are clear long-term trends, as discussed in the text, most notably the continuous decline of the percentage of papers by UK-based authors, the recent rise of Chinese-based papers, and the overall concentration of papers written by authors in the three big countries/regions, UK, US and Europe.

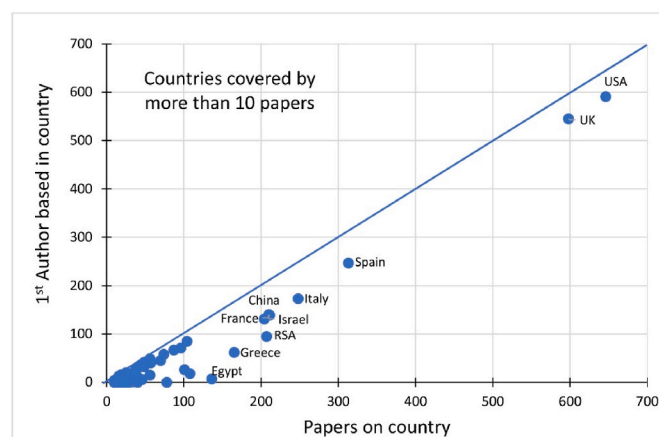


Fig. 3. Number of papers published in *JAS* since 1974 per country covered (X-axis) compared to the number of 1st authors of those papers based in that country (Y-axis). The dominance of research covering either the USA or the UK is obvious, as well as the strong dominance of local 1st authors based in these countries.

percentages overall.

3. The real story

The real story, though, is two-fold: the rise of China (see Fig. 2, red line), and the number of authors based in the Global South more broadly.

3.1. The rise of China

The rise of papers published by authors based in China is not unique to *JAS*; the journal *Archaeometry* reports on its website for 2024 that 23 % of its authors in 2024 were based in China, well ahead of the UK with 10 % as the next dominant country of author's affiliation. An even more striking example of this increasing trend for Chinese-authored publications is the journal *Heritage Science*, established in 2013. Over the past five years, its total number of papers published per year has increased from around 100 to around 400, outpacing the *Journal of Anthropological*

⁶ In particular in the early years, a significant proportion of papers in *JAS* were book reviews; here, we are only considering research papers, i.e. no book reviews, editorials etc. The data used here was manually collected first in 2014 and then updated in 2024 using the online Tables of Contents for all journals covered. The data is available as online supplementary material.

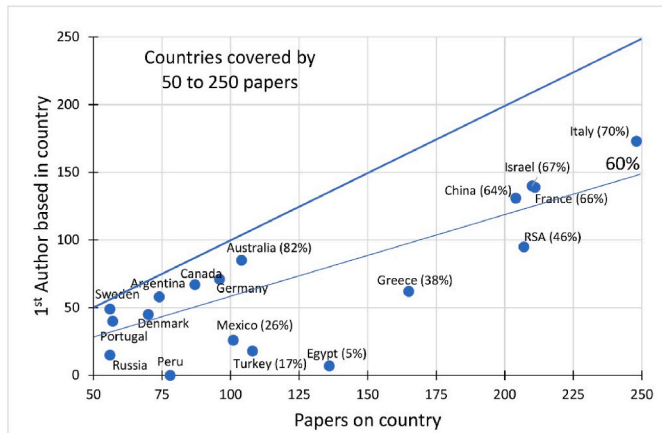


Fig. 4. Eighteen countries are covered by between 50 and 250 papers published in *JAS* since 1974 (X-axis); twelve of these have 60 % or more of papers where the 1st authors are based in that country (Y-axis).

and *Archaeological Sciences* (Fig. 6, see also Brereton, 2025 for a more nuanced discussion of the former journal's development). During this time, the number of papers in *Heritage Science* where the first author is based at a Chinese institution has risen from zero in 2017 to well over 260 in 2024, about 2/3 of the total. It is no secret that the last fifteen years or so have seen a massive increase in investment in archaeological science research across multiple institutions in China, coupled with strong incentives to publish in leading international journals and a sustained engagement of Chinese-based authors with their international peers. The fruits of this are clearly visible in the bibliometric data. A similar development, however, is lacking for large parts of the Global South, with some growth emerging in India, but hardly anything visible in Africa.

3.2. Archaeological science in the Global South

Killick (2025) already pointed out the problem with lack of archaeological science research in the Global South, under the heading of *Unequal access to archaeological science*. He uses the highly imbalanced global distribution of AMS laboratories and the often-prohibitive cost of ^{14}C analyses as a case in point. Here, I would like to add a subtle distinction to the discourse: not only should we be looking at *access* to archaeological science, implicitly in Killick's paper referred to as *access* to high-end expensive equipment, but more generally to the *practice* of archaeological science. A great deal of excellent archaeological science research can be done without expensive equipment; indeed, ten years ago Killick (2015) has already identified archaeobotany and zooarchaeology as effective low-cost approaches, and in many areas of the globe, ceramic petrography is more powerful than NAA for ceramic research. Like micromorphology, it can be done even in the field or excavation store room (Goren, 2014), with minimal resources.

Above, I have commented on the long-term decline in the proportion of UK-based authors among the contributors to *JAS* and the rise and fall of US-based authors; both groups now each contribute around 15 % of the total authors. In contrast, the share in the number of authors based in continental Europe has risen to above 40 %, with an estimated 20 % originating in what was termed the 'Rest of the World', as well as most recently around 10 % based in China (Fig. 2). Who, exactly, are this 'Rest of the World'? Are they possibly an indication for an equitable global spread of archaeological science practice? Unfortunately, not. In fact, most are from the Global North, the likes of Australia, Canada, Israel etc. There are, however, three exemptions from that rule, namely China with 131 1st-authored papers, South Africa with 95, and Argentina with 58. All other countries in the Global South have contributed together only 171 papers to half a century of *JAS*, fewer than 4 per year on average,

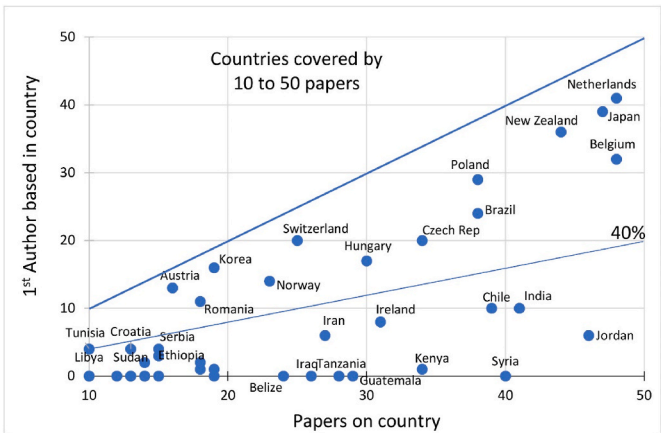


Fig. 5. Forty-two countries are covered by between 10 and 50 papers published in *JAS* since 1974 (X-axis); for only about one third of these is the 1st author based in the country of interest. The cluster at the lower left corner includes Iceland and Indonesia (19 papers each), Ethiopia and Mongolia (18 papers each), Bulgaria, Cyprus and Thailand (15 each), Bolivia, Papua New Guinea and Ukraine (14 papers each), Cambodia and Sudan (13 each), Ecuador (12 papers), and Libya and Polynesia (10 papers each); none of these have more than three papers 1st-authored within the country.

Table 1

Comparison of five selected countries with similar GDP per capita as a measure of economic strength, and widely varying percentage of in-country 1st authors as a measure for the strength of archaeological science within the country.

Country	# papers	GDP per capita (US\$)	% in-country 1st author
Chile	39	17,000	26
Argentina	74	14,200	78
Mexico	101	13,800	26
Brazil	38	10,300	63
Peru	78	7900	0

and never exceeding 5 % of the total annual publication output (Fig. 7).

This correlation between economic prosperity and research activity in archaeology is of course not restricted to archaeological science, but is apparent for this discipline generally. Fig. 8 shows the 'heat map' of the nearly 380 authors of the 2nd edition of Elsevier's *Encyclopedia of Archaeology* (Nikita and Rehren, 2024) by their country of affiliation. Again, the US and the UK lead by a wide margin; the strong showing of China and relatively strong presence of authors from Latin America and Central Asia reflects the active effort in this edition to give voice to researchers active in their own country. The glaring lack of authors based in Africa, Arabia and much of Southeast Asia is despite all efforts of the editorial team behind this Encyclopedia.

4. The way forward

The most important issue in archaeological science where more work needs to be done, in my view, concerns a much more balanced coverage not of countries, but of the geographical affiliation of researchers and authors in archaeological science. Killick (2025) highlights the ongoing, even worsening unequal access to archaeological science facilities for countries of the global South, as exemplified by the (lack of) access to AMS labs for even basic ^{14}C dating. Instead, archaeological science research in many countries is restricted to low-cost approaches, such as ceramic ethnohistory, archaeobotany and archaeozoology, not by choice but out of necessity. How does this manifest itself in the data?

Money, of course, is a major driver for any sort of research. This, however, needs to be nuanced by considering socio-political priorities. The US has invested collectively a much higher proportion of their GDP (around 3.5 %) into research, development and education than the

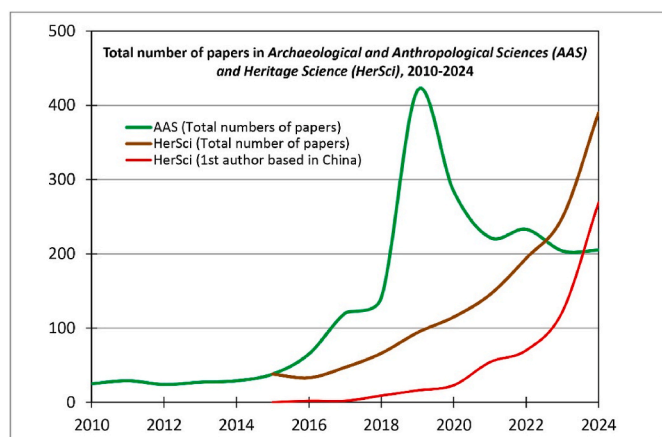


Fig. 6. Number of papers published in *Archaeological and Anthropological Sciences* and *Heritage Science*, respectively, and the steep increase in China-based authors among the *Heritage Science* authors during the past five years.

average Eurozone countries (2.2 % of GDP); and yet, for the past twenty years it has fallen behind in funding for archaeology, and archaeological science in particular. Clearly, national funding policies favour different areas of research. Similarly, some countries in Central, South and Southeast Asia and in the Arab World have a relatively comfortable GDP, and yet, do not prioritise archaeology or archaeological science research. While few of us ever question the societal value of our profession, we need to understand that it is not universally, or even widely, seen as something important. Here, the archaeological science community has their work cut out – not by preaching to the converted, but by building capacity and (co-)developing research agendas in countries with different research priorities. Which minister of finance, of research, of tourism or education will care about archaeology and archaeological science if it is done by foreign missions, in foreign laboratories, and published in foreign journals? Let alone allocate funds for it? The proposition has to be that this is work that can be done in the country by scholars from the country, addressing research agendas set by the country and by researchers in its institutions. Then, perhaps, we can start making the case to those in power that this may actually be worthwhile, even if seen in competition to spending on military, on health, on engineering, on fighting climate change, on basic education etc.

In the meantime, even when thinking globally, we need to act locally – and holistically. Sponsoring training of future researchers, through formal stipends and scholarships to benefit from a Global North education has long been seen as an important step – but where does this lead? Does it really build capacity in the source communities, or does it not more often than not lead to instant brain drain, further worsening an already dire situation? Without suitable positions, a functioning academic ecosystem, and acceptable salaries in those countries that are currently mainly serving as ‘source countries’ for material to be analysed in the Global North, this can only ever be the second-best option. A bottom-up approach might be more effective, in the medium and long run, of developing in-country infrastructures, both physical and through academic networks and communities of practice. These, then, are likely to develop and evolve research agendas that are actually relevant and feasible within the local context – and this is where journals such as and including *JAS* need to be sensitive and sensible in accepting papers for publication that are outstanding in their quality and originality **in their local context**. The norms and questions of the Global North are not globally applicable, not globally relevant, and must not be used as straightjackets for scholars working elsewhere. Initiatives such as the Museum of West African Art in Benin City, Nigeria, set up with private sponsorship as a hub for West African archaeological research, represent one possible scenario. MOWAA has its own laboratory and research unit,

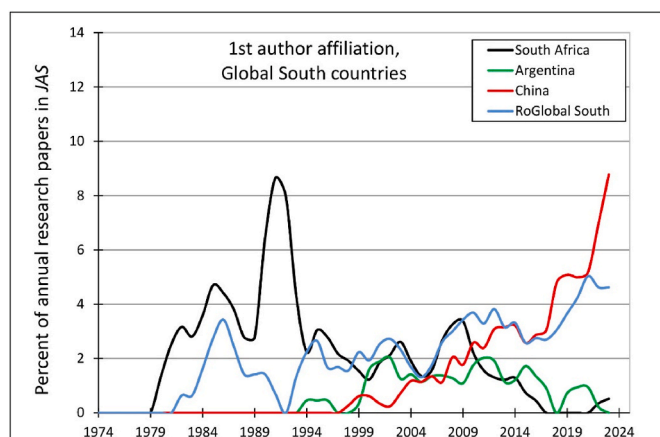


Fig. 7. Percentage of papers published in *JAS* where the 1st author is based in the Global South. Note the early prominence of South Africa, the later emergence of Argentina, and the recent rise of China. All other countries of the Global South collectively contribute less than 5 % of the annual published papers in *JAS*.

the MOWAA Institute, to act as nucleus and testbed for a localised practice of archaeological research, scientific or otherwise. Staff training and laboratory design are heavily supported by various UK institutions, but led by African scholars. Similarly, the new Grand Egyptian Museum near Cairo has a Conservation Center with numerous specialized laboratories supporting both object conservation and archaeological science research, already leading to a flow of publications by its staff. As in MOWAA, the research priorities at the GEM-CC are developed by in-country scholars, building on and developing training offered by various international bodies. Many other such initiatives exist in multiple countries, and taken together can reach the critical mass of scholars needed to forge their own agendas.

As much (or as little?) as we have learned to accept that archaeological science is an integral part of archaeology, and not an afterthought, as much should it be incorporated from the outset in the future practice of archaeology, world-wide. The conceptual basics and quality safeguards of scientific research need to be the same, regardless of where this research is done. The practical tools, the aims and topics of research, and the foundations on which this research builds, however, will have to be different and appropriate for each societal context – not better or worse, just different. Arguably, the stronger emphasis of archaeological research and heritage management in many countries of the Global South on the economic exploitation of their heritage, often as part of sustainable tourism initiatives, has a stronger societal overall impact than the purely academic focus of much archaeological science research undertaken in the Global North. I hope that *JAS* can play an active role in facilitating this broadening of archaeological science practice globally, not by imposing Northern views, but by being culturally sensitive and supportive in demanding quality research for its publications that is novel and thought provoking. The rest is then up to the researchers based ‘elsewhere’, to set their agendas, develop their approaches, and to become 1st authors submitting their research to *JAS*. A fuller analysis of the relationship between geographic foci of papers and their dominating 1st-author affiliations is beyond the remit of this contribution, but would certainly reveal a strong legacy of past colonial histories and ongoing political dependencies. De-colonising global archaeological science practice cannot be done by promoting and perpetuating approaches developed for the Global North, but has to focus on the realities, needs and demands of the Global South, driven by the ingenuity and creativity of its scholars.

5. Conclusions

The evolution of the community of authors publishing in *Journal of*

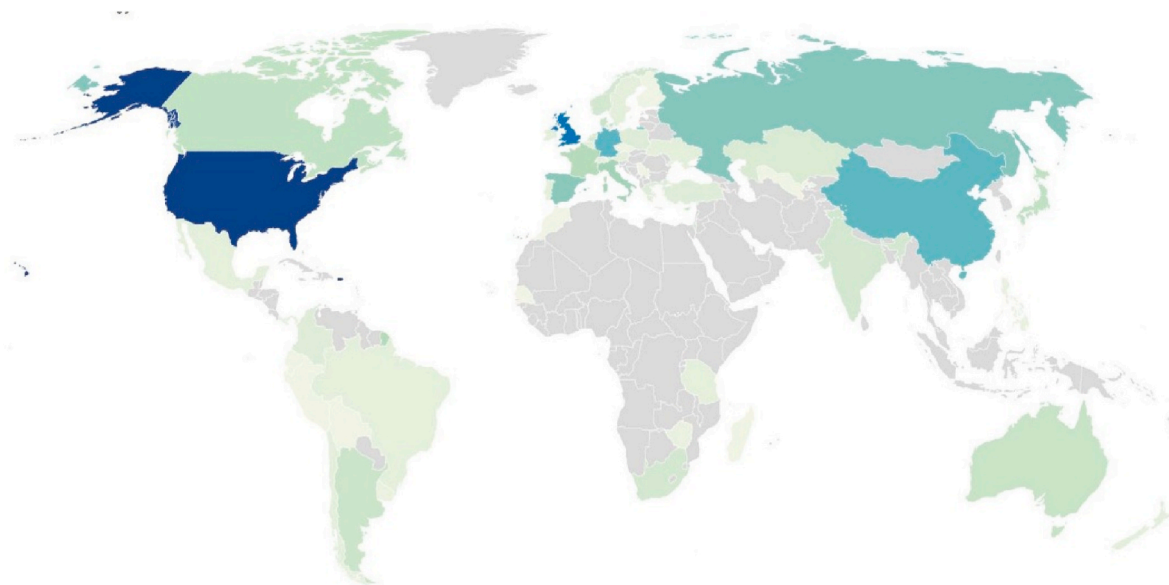


Fig. 8. Heat map of the academic affiliation of the 378 individual contributors to the *Encyclopedia of Archaeology*, 2nd edition (Nikita and Rehren, 2024). Both the United States and the United Kingdom benefit from significant inward migration of scholars born elsewhere. The map also reflects the dearth of professional positions in archaeology in much of Africa, in addition to the biased network of the editorial team. The deeper the colour hue the more authors are based in that country; countries showing in grey are not represented with any author. From: Biehl et al. (2024). (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

Archaeological Science spans now half a century. This period has seen a continuous shift in broad geographical patterns, from a UK and USA-dominated early phase to the more recent rise of continental Europe as the most contributing region, and the rapid ascent of China-based authors in the last five years. This pattern of a much broader and balanced collective of authors hides, however, the near-absence of papers written by 1st authors based in Africa (except for South Africa), Arabia, Latin America (with the exceptions of Mexico, Argentina and Brazil), and most of Central, South and South-East Asia, as well as the Pacific Island nations. This is the main challenge that I see for the future survival and prosperity not only of *JAS*, but for archaeological science, and archaeology more generally. Changing this disparity will require creative and indigenous solutions matching relevant regional realities and priorities, and cannot be imposed from the outside. As new communities of scholars develop research foci tailored to their own interests and agendas, they can only enrich the global practice of archaeological science – a discipline with a proud tradition of incorporating new approaches to its canon.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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and insight with the editors of *JAS*, for no financial gain and often at the expense of their own research time. The roughly 6150 papers published in *JAS* so far would have benefitted from an estimated 15,000 individual reviews, not to mention a similar number for all rejected papers – or maybe 500 reviews per year on average, for an average of 125 papers published per year.⁷ I am most grateful to Bojana Živković, Giulia Fogarizzu and Giulia Albertazzi for populating the database of *JAS* papers, and the funding bodies that have facilitated this work, namely Qatar Foundation and more recently the A. G. Leventis Foundation. Helpful comments from two anonymous reviewers are gratefully acknowledged; all opinions and interpretations expressed here are my own.

Appendix A. Supplementary data

Data Availability: All raw data has been provided as Supplementary data which can be found online at <https://doi.org/10.1016/j.jas.2025.106254>.

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⁷ Assuming 2.5 reviews for each published paper, and between 1 and 2 for each rejected one. The flip side of these numbers is that each author should be willing to do about 4 reviews for each paper they have published as 1st author.