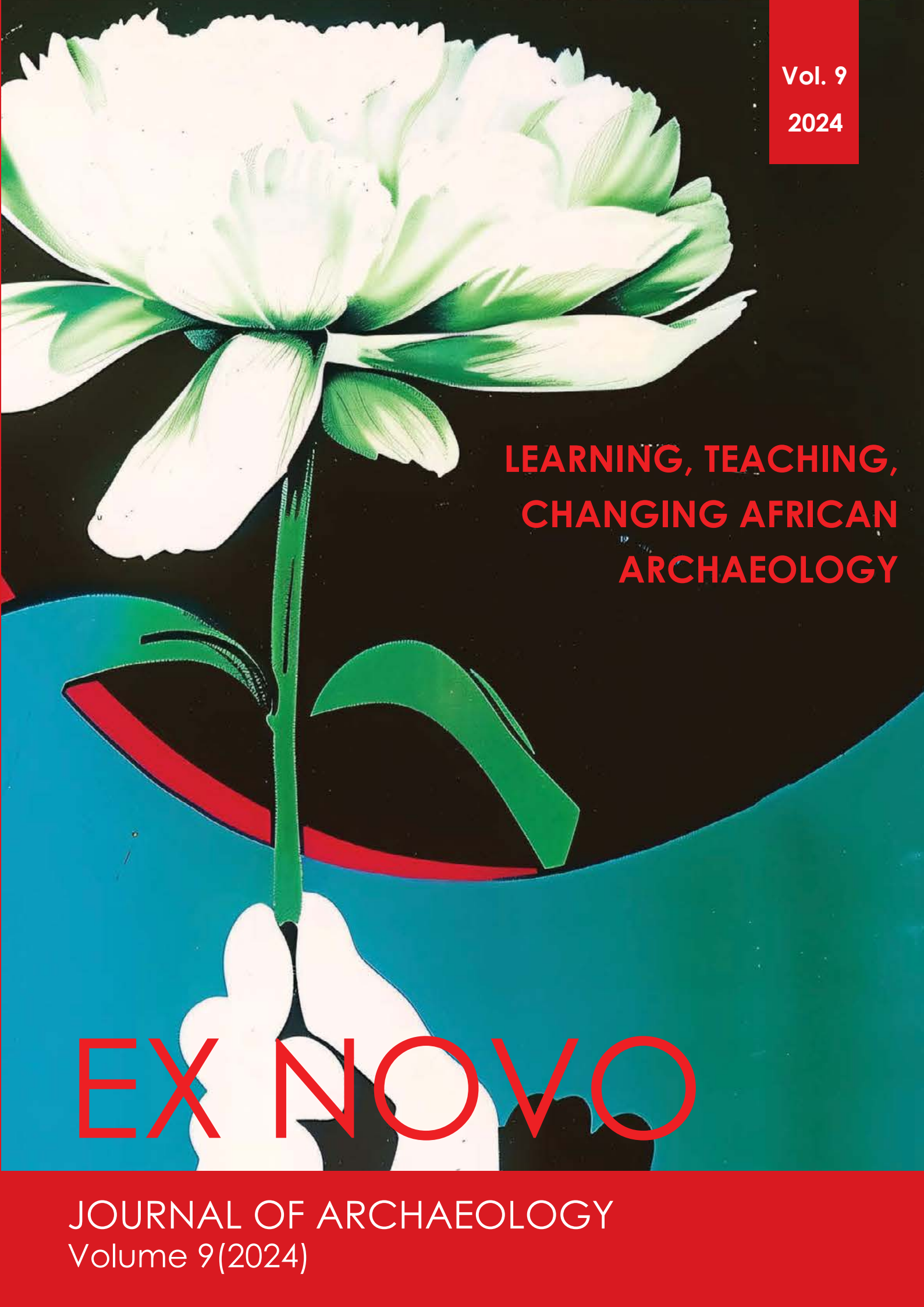




Vol. 9

2024

LEARNING, TEACHING,
CHANGING AFRICAN
ARCHAEOLOGY

EX NOVO

JOURNAL OF ARCHAEOLOGY
Volume 9(2024)

Ex Novo Journal of Archaeology

Volume 9, December 2024

LEARNING, TEACHING, CHANGING AFRICAN
ARCHAEOLOGY

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Cover Image

Artwork by Francesco D'Isa and Chiara Moresco for the exhibition AI Manifesta (2025), created in collaboration with Sineglossa for Manifestipolitici.it by Fondazione Gramsci Emilia-Romagna.

ISSN 2531-8810

ISBN 978-1-80327-719-6

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Published by ASSOCIAZIONE EX NOVO in association with ARCHAEOPRESS

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Ex Novo Journal of Archaeology

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Learning, teaching, changing African archaeology

Jesús García Sánchez¹ & Martina Revello Lami²

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DOI: 10.32028/exnovo-vol-9-pp.1-4

Archaeology in Africa continues to be shaped by a long history of asymmetrical perspectives—colonial, Eurocentric, and post-colonial—that often reduce the continent to a passive recipient of outside interpretations. However, “Africa is various”, writes Kwame Anthony Appiah (1992) and Shepherd remembers one decade later (2002). Yet, as the contributions to this issue of *Ex Novo* demonstrate, African archaeologies are anything but static. They are dynamic fields of inquiry that interweave natural and cultural heritage, confront systemic challenges, and challenge entrenched stereotypes while generating new educational and social opportunities.

Abdelkader Chergui, Said El Bouzidi, and Réda Ajaraam’s exploration of the Sebou Basin exemplifies the potential of African landscapes to tell stories of continuity and exchange across millennia. Located in northern Morocco, this region is a crossroads of civilizations—Phoenician, Roman, Mauretanian, and Islamic—whose traces remain visible in archaeological sites such as Banasa, Thamusida, and Rirha. The Sebou River itself emerges as both a natural and cultural artery, sustaining life and fostering interaction. Their call for UNESCO recognition highlights not only the universal significance of this heritage but also the pressing need for sustainable models of preservation that harmonize human activity with fragile ecosystems such as the Sidi Boughaba Reserve. In this way, archaeology becomes not only an academic discipline but also a driver of environmental awareness and local identity.

Yet heritage is not preserved or studied in a vacuum. Degsew Mekonnen, Osman Khaleel, Humphrey Nyambiya, and Nompumelelo Maringa bring attention to the lived realities of early-career African archaeologists. Their contribution underlines systemic barriers that hinder professional growth: scarce mentorship, limited funding, restricted access to conferences and publications, and uneven availability of resources. These obstacles not only affect individual trajectories but also constrain the circulation of knowledge and the sustainability of archaeological practice in Africa. By foregrounding these voices, the article insists that structural inequalities in training and opportunity remain a central issue for the future of African archaeology. Programs such as the Antiquity journal-led “Rewriting World Archaeology: Africa” aim to equip participants with the skills and

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knowledge necessary to publish at an international level. That is, providing the tools to early-career African researchers to conduct crucial investigations and engage in equal conditions with research produced elsewhere. Addressing them is as urgent as preserving monuments and sites, for without fostering new generations of scholars, heritage itself risks becoming voiceless.

Oskar Aguado-Cantabrana's essay shifts the focus to the global imaginary of Roman Africa as represented on screen. From early Italian cinema to contemporary Hollywood productions, North Africa has often been depicted through the lens of exoticism, orientalism, and colonial nostalgia. Films such as *Cabiria*, *Gladiator*, and *Those About to Die* reveal how modern political and cultural contexts shape portrayals of ancient worlds. This contribution highlights how deeply embedded stereotypes about Africa continue to circulate in popular media, influencing both public perceptions and scholarly frames. Confronting these representations is thus integral to reshaping the narratives around Africa's past. Aguado discovers that topics such as Manichaeism, exoticism, Orientalism, and presentism permeate the discourse. One should ask, therefore, how such topics permeate or do not permeate the view of present-day Western scholars when approaching the complex African past.

Finally, Belén Hernández Martín's review of the ATLAS project's final colloque; a joint enterprise of University of Hamburg, University of La Rochelle and the Institute du Patrimoine National from Tunisia; and the "Invisible Cities" exhibition reminds us that Africa's urban past—spanning Late Antiquity in southern Spain and northern Africa—offers fertile ground for revisiting how we conceptualize connectivity, identity, and heritage. The project demonstrates the value of collaborative and interdisciplinary approaches that move beyond reductive paradigms, positioning African archaeology as an initiator rather than a recipient of theoretical and methodological innovation.

The contributions in this issue underline a shared concern: how archaeology in Africa is taught, represented, and sustained. They remind us that education is not limited to classrooms but extends to museums, heritage sites, and even cinema. It is through these



channels that both local communities and global audiences engage with Africa's past. By addressing systemic inequalities, advocating for sustainable preservation, and critically reassessing cultural representations, this volume invites us to rethink African archaeologies not as peripheral but as central to the discipline's future.

Figure 1. Algerian and Spanish archaeologists at work at the foot of the funerary monument of the Royal Mausoleum of Mauretania. Credits: Tipasa Project-Palarq and Javier Rodríguez Pandozi.

Alongside the thematic core of this issue dedicated to African archaeologies, we also present two contributions in our *Off-Topic* section that, while tangential, address pressing concerns within the broader scientific community. Both pieces grapple with questions of colonialism, ethics, and responsibility, reminding us that the practice of archaeology is inseparable from the institutional, political, and cultural frameworks in which it unfolds.

Andrea Di Renzoni's *Lost in citations: Why standard metrics fail archaeology and regional scholarship* offers a timely and critical reflection on the dominance of bibliographic indexes and research metrics in evaluating academic output. Tracing the genealogy of indexing systems from early tools like *Index Medicus* to today's omnipresent platforms such as Scopus, Web of Science, and Google Scholar, Di Renzoni demonstrates how arbitrary inclusion criteria, opaque algorithms, and disciplinary hierarchies distort the visibility of research. This distortion is particularly detrimental to the Humanities and Social Sciences, and archaeology in particular, where publication practices and data outputs rarely conform to models designed with STEM disciplines in mind. Drawing on Italian prehistoric archaeology as a case study, the article underlines how citation-based metrics overlook or misrepresent regional scholarship, while also exposing the ethical dilemmas of peer review, predatory publishing, and metric manipulation. In its call for more pluralistic and context-sensitive approaches, the piece resonates widely with scholars seeking fairer frameworks for academic assessment.

In a different but complementary register, Elsa Cardoso's *A conversation between the sword and the neck: On censorship, colonialism and academic responsibility* intervenes at the intersection of scholarship and politics. Drawing on her personal decision to withdraw a book review and an article from *al-Masāq: Journal of the Medieval Mediterranean* in May 2025, Cardoso offers a deeply personal yet sharply political reflection on how academia responds—or fails to respond—to ongoing crises, specifically the war in Gaza. Her think-piece interrogates censorship, colonial structures in publishing, and the responsibilities of academics as both producers of knowledge and participants in wider society. We also include in this issue the very review Cardoso withdrew, as an archival gesture that speaks to the difficult choices scholars face when ethical concerns collide with professional obligations.

Finally, our review section closes with two further contributions. Cardoso herself reviews Eric Calderwood's *On Earth or in Poems: The Many Lives of al-Andalus* (Harvard University Press, 2023), a work that probes the afterlives of al-Andalus across literature and memory. Agostino Sotgia, in turn, offers a review of Edoardo Vanni's *L'ideologia degli archeologi: Egemonie e tradizioni epistemologiche alla fine del postmoderno* (BAR International Series 3050, 2021), a provocative exploration of epistemological traditions and disciplinary hegemonies in archaeology today.

Together, these off-topic contributions and reviews expand the scope of this issue, reminding us that archaeology is never confined to the past: it is constantly entangled with the ethical, political, and epistemological struggles of the present.

Acknowledgements

The present volume would not have been released without the fundamental effort of all reviewers involved in the process, Silvia Berrica, Gabriele Castiglia, Marina Gallinaro, , Salah Sahli e Carlos Tejerizo.

Lastly, a heartfelt thank you to Francesco D’Isa e Chiara Moresco for sharing their art with us. As per usual at Ex Novo we carefully select the image to be featured on our cover, and this year we fell in love with the powerful works by Francesco D’Isa and Chiara Moresco created for the exhibition AI MANIFESTA (2025). Curated by Sineglossa and Fondazione Gramsci Emilia-Romagna, the project has been on display in Bologna since April 2025, exhibited on the walls of the building located at Via Zaccherini Alvisi 11/2. We selected one of the 280 posters realized by reworking a selection of political and social posters from the Manifestipolitici.it database using generative artificial intelligence. Hands, flags, flowers and symbols of war are the recurring elements in the posters — signs of a visual grammar that shapes the collective political imagination.



Figure 2. Artwork by Francesco D’Isa and Chiara Moresco for the exhibition AI Manifesta (2025), created in collaboration with Sineglossa for Manifestipolitici.it by Fondazione Gramsci Emilia-Romagna.

The historic Sebou Basin: An asset of universal value.

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DOI: 10.32028/exnovo-vol-9-pp.5-20

Abstract

The Sebou Basin, located in northern Morocco, stands as a cultural and natural heritage of universal significance, demonstrating the interplay between various civilisations and a rich environment. This region is home to prominent sites such as Banasa, Thamusida, Rirha, and Mehdiya, reflecting periods from prehistory to the Islamic and modern eras. Archaeological discoveries highlight cultural exchanges among Phoenicians, Romans, Mauretanians, and Islamic dynasties.

The Sebou River, a central pillar of the region, has been pivotal in fostering the growth of early settlements, trade hubs, and agricultural infrastructure since antiquity. This area also exemplifies harmony between natural heritage and human activity, housing protected areas like the Sidi Boughaba Reserve, renowned for its unique biodiversity and its role in environmental education.

UNESCO recognition would enhance the preservation of these treasures and promote sustainable development while celebrating a rich history where nature and culture interweave.

Keywords: UNESCO Heritage, Cultural Exchange, Sebou River, Natural Harmony, Sustainable Development.

Introduction

The Sebou basin in northern Morocco is a region rich in history and cultural diversity. It is home to major archaeological and historical sites, such as Banasa and Thamusida, which bear witness to a thousand years of history and the meeting of diverse civilizations, including the Mauritanians, Phoenicians, Romans and Islamic dynasties. This exceptional

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heritage, combined with the basin's natural wealth, offers a unique opportunity for enhancement and protection as part of a UNESCO World Heritage nomination.

The potential of the Sebou basin is based on several UNESCO evaluation criteria. Firstly, its sites bear witness to an important cultural exchange between different civilizations through the ages, a central criterion for recognition as universal heritage. Secondly, the preservation of these sites reveals a harmony between natural and cultural heritage, reinforcing their exceptional value. Finally, the basin illustrates the evolution of agricultural techniques and water management methods, which are essential to understanding the history of Mediterranean societies.



Figure 1. Map of the archaeological sites identified in the Sebou Basin and its tributaries. Source: René Rebuffat, The archaeological map of Morocco, *Les Nouvelles de l'archéologie*, No. 124, September 2011.

Recognition by UNESCO would not only provide greater protection for these treasures, but also an opportunity to raise awareness of the importance of preserving this unique heritage, while promoting the sustainable development of the region.

The aim of this article is to shed light on this thousand-year-old heritage of the Sebou basin and its universal potential represented by several sites. The choice of these sites is part of a scientific approach¹ that takes into account various parameters, in particular the representativeness² of the different types of heritage that make up the historical wealth of the Gharb basin. These proposed sites do not claim to reflect the entirety of the region's

¹ This article is a scientific proposal aimed at highlighting the cultural heritage of the Sebou Basin.

² The Sebou basin and the Gharb plain are among the richest regions in the world in terms of archaeological sites discovered. As part of the Gharb archaeological mission, for example, more than 112 prehistoric sites, 735 ancient sites and 550 Islamic sites have been identified. These discoveries cover several localities, including Moulay Bou Selham, Lalla Mimouna, Arbaoua, Sidi Allal Tazi, Souq el Arba, Mechra Bel Ksiri, Kenitra, Sidi Yahia, Dar al Gaddari, Sidi Slimane, Khenichet sur Ouerrha, Oulad Aïssa, El Qansera, Sidi Qacem, Beni Ammar and other locations.

heritage, but rather to illustrate a significant part of it symbolizing its diversity and originality.

The Sebou basin is located in a strategic position: the Gharb plain³, considered geographically as a link between the north and south of Morocco, is an area that has been favorable human occupation since prehistoric times. The Gharb has important natural qualities, in particular the accessible topography and the abundance watercourses, in particular the Sebou and its tributaries: the Baht and the Inaouen. The area is also renowned for its large Mamora forest and wetlands, in particular the Sidi Boughaba, Marjah⁴ Zarqa and Marjah des Fouarat natural heritage sites.

The Sebou basin considered one of Morocco's richest areas in terms of heritage and archaeological sites. The region also boasts a rich prehistoric heritage, as evidenced by the rich material excavated in various localities, including Thamusida and Banasa. This material dates back to the Palaeolithic⁵ and protohistoric periods, including the funerary monuments of Sidi Slimane, Sidi Khelili, Sidi Mohamed el Mhid, Lalla Ghanou and others.⁶

This area encompasses the oldest urban centers in Morocco. These archaeological sites include ancient Mauritanian cities dating from the 6th century BC, in particular Banasa, Thamusida and Rirha. During the Roman period, the territory's main urban centers were very active and enjoyed great stability. The Romans equipped the plain with a defensive system consisting of military camps and watchtowers to protect the intense commercial activity.

During the medieval period and under various dynasties, the occupation of the territory expanded. Historical sources⁷ mention numerous towns and sites that formed the first nucleus of many Islamic metropolises, including al Basra, Asjen, Moulay Bousselham, al Mahdia, Ain Qarouach, and other towns such as Masna, Asâda, Masita or Masina, the locations of which have not yet been identified by archaeologists.

From the 17th century onwards, the Qasba of Mahdia played an important role in the history of Morocco. This fortress was built very close to the ocean entrance as a grandiose defensive work bearing witness to a glorious military past. In the 18th century, the Qasba of Moulay El Hassan, traces of which are still visible, became the first nucleus of the current capital of the area: the town of Kénitra. The urban centre of Kénitra underwent a great expansion during the protectorate, with the construction of the river port of Lyautey. The town is notable for its Art Deco architectural heritage and major modern urban amenities.

³ *Adrar*, also pronounced *Aẓerar*, is the ancient Amazigh name for Gharb plain, meaning plain.

⁴ Marjah in Arabic *المرجة* is a name that refers to marshes and wet expanses, one of the characteristics of the Gharb terrain.

⁵ The prehistoric material excavated from the Banasa and Thamusida sites dates back to the Middle and Upper Palaeolithic periods, as well as the Neolithic (polished axes).

⁶ Georges Souville, *Atlas préhistorique du Maroc*, 1. Le Maroc atlantique, CNRS Publishing, 1973, 368 p., Paris.

⁷ Major historical sources on the early Islamic cities of the Tingitane Peninsula (including cities in the Gharb, such as al-Basra), as well as on the geopolitical dynamics of early Muslim Morocco, include the works of al-Ya'qūbī (written in 889), al-Muqaddasī (died c. 990) and Ibn Ḥawqal (whose work was composed between 967 and 988). These authors were joined in the eleventh century by al-Bakrī, which also provides essential information on the political, economic and cultural context of the region during this period.

The Sububus as a factor of Civilization

Born in the confines of the majestic Atlas that Pliny the Elder described as “...*the most fabulous of all Africa...an immense and unknown space*”, this river is a giver of life.

None of Gharb's archaeological sites could have existed, and none of the region's history could have unfolded, without the presence of the Sebou, one of Morocco's greatest rivers. This navigable waterway, rich in fertile floods, is a veritable cradle of civilisation. It is the major vector for the foundation and expansion of centers of civilization and the development of commercial activity throughout the country.

The Sebou linked the Gharb plain to the Mediterranean trade routes via the Ocean. But more importantly, this river, renowned for its fertile and mineral floods, fertilizes the land with greenery and seeds. It is impressive to note that this aquatic link has provided the perfect conditions for continuous occupation since dawn of human history, and even more interesting is the density of sites and towns in its basin. Ancient historians, as attested by Pliny the Elder's natural history in the 1st century already knew this mythical river:

“Forty thousand paces from Lixus, inland, is another of Augustus' colonies, Babba, called Julia Campestris; and a third, Banasa, seventy-five thousand paces away, nicknamed Valentia. Thirty-five thousand paces from Valentia is the city of Volubilis, equidistant from the two seas. On the other hand, on the coast, fifty thousand paces from Lixus, the river Sububus, which flows next to Banasa, a magnificent and navigable river. Fifty thousand paces from the Sububus is the town of Sala, on the river of the same name, already close to the deserts and infested by herds of elephants and much more by the Autolole people, which you must cross to get to Mount Atlas, the most fabulous mountain in Africa.”

Location and components of the property

Banasa, Archaeological site

Located 65 km north of Kénitra and 17 km south of the centre of Machraâ Belqsiri, this Researchers know the site as a major trading post in ancient Morocco. Archaeological excavations carried out on the site have revealed material dating back to the prehistoric period.⁸

Archaeological research has also amphorae, lanterns and ornaments with Phoenician influences, indicating that the center had trade links with other centers in the Mediterranean basin prior to the 5th century BC.

Banasa was also very active commercially during the Mauritanian reign. Researchers have also uncovered many features dating back to the Roman period, such as the public square, the Roman temple and a group of buildings and houses with colonnaded courtyards and frescoed bathrooms, which can be considered among the most important monuments of

⁸ Rachid Arharbi, *La plaine du Gharb à l'époque maurétanienne: Archéologie et histoire (Contribution à l'étude la Maurétanie Occidentale avant l'annexion à l'empire romain)*, Doctoral thesis, Faculty of Human and Social Sciences, Ibn Tofail University, Kénitra, 2021, 29-31.

Roman Morocco. Some archaeological finds dating back to the fourth century AD⁹ indicate the continued occupation of the site after the departure of the Roman administration. Banasa remained an active center until the 7th century and the advent of Islamic civilization in Morocco.



Figure 2. Aerial photo of the Banasa monumental complex (Forum and temple at Cellae). Source: Conservation of Banasa and Thamusida

Thamusida archaeological site

The archaeological site of Thamusida (Sidi Ali ben Ahmed) is located on the left bank the Sebou River, 10 km north of the town of Kénitra. Initial excavations (bibliography) carried out on the site revealed a Mauretanian center with remains of dwellings dating from this period, as well as material including several pottery vessels dating from the first half of the 2nd century. Recent research has uncovered traces an earlier occupation dating back to the period between the 6th and 3rd centuries BC.

From the Mauretanian phase onwards, the inhabitants of Thamusida established trade links with a number of trading posts on the Atlantic coast and with cities in the area around the Strait of Gibraltar, as well as with the Italian peninsula. This was demonstrated by various types of pottery and amphorae unearthed on site, such as Campanian ceramics and Maña C2b¹⁰ amphorae found in the foundations of the ancient city wall. After the annexation of western Mauritania to the Roman Empire in 42-43 AD, the city of Noumea was annexed to the Roman Empire. J.C., the town of Thamusida enjoyed a new economic boom, thanks to the presence an active port - as witnessed by the many remains

⁹ Rachid Arharbi and Éliane Lenoir, "Recherches archéologiques franco-marocaines à Banasa (Maroc)", *Les nouvelles de l'archéologie*, 124 | 2011, 21-24.

¹⁰ Akerraz Aomar. Les fortifications de la Mauritanie Tingitane. In: Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres, 154e année, N. 1, 2010.

amphorae¹¹ surrounding the plateau - which must have a landing point and a Roman supply center.



Fig. 3 Aerial photo of the Thamusida site, bordered to the north by the Sububus. Source: Conservation de Banasa et Thamusida.

Rirha, archaeological site

Located on the left bank of the Baht valley, 8 km west of the town of Sidi Slimane and around 35 km from ancient Volubilis, the Rirha site covers an area of around 10 hectares. The town is mentioned in numerous ancient sources¹² under the name of “Gilda”. This name is also found in archaeological material associated with the ancient site of Souk el-Arbaa and another site at Sidi Slimane.¹³ The Rirha site was occupied from time of the Mauritanian kingdom (5th century BC) to the Merinid period (14th century AD).

In the so-called Mauretanian period, an emerging urban fabric, numerous mud-brick structures, the presence of pottery activity and high-quality artefacts (imported and local ceramics, objects made of ivory or ostrich shells, Massyle and Mauretanian coins)¹⁴ all point to a settlement perfectly connected with Mediterranean trade and, more particularly,

¹¹ Amphorae dating from the 1st century BC to the 5th century AD have been discovered at Thamusida. This includes Beltran IIB, Dressel 7/11, Dressel 16, Dressel 2/4, Dressel 30, Dressel 17, Dressel 20, Beltran 72, African I and II and Tripolitan I and II (Gliozzo E., Cerri L., Damiani D., Memmi I, Amphora production and salsamenta trade: the case of Thamusida, Italy, 2005).

¹² GILDA was mentioned in Antoninus Itinerary, in Pomponius Mela's "Description of the World" and also in Claudius Ptolemy's "Geography".

¹³ Tegulae unearthed not far from the Rirha site mention the name Gilda, which can be compared with the Libyan GLD, itself close to Amazigh word aguellid meaning "king" or "tribal chief". At the village of Sidi-Slimane, a Libyan inscription has been found, a tumulus tomb dating from the 3rd-2nd centuries BC was discovered during the first excavations.

¹⁴ Laurent Callegarin, Abdelfettah Ichkhakh, Mohamed Kbiri Alaoui and Jean-Claude Roux, Stratigraphie et Bâti, in: Rirha : Site Antique et Médiéval du Maroc. II Period Maurétanienne (5th century BC - 40 AD), Collection de la Casa de Velazquez, Vol. 151, 2016.

with the region around the Straits of Gibraltar. It was around the turn of the Christian era, even before the Claudian conquest of 41-42, that Rirha adopted several signs of Romanity.



Fig. 4 General view of the Ensemble 1 production facility during excavations. Source: E. Rocca, Ch. Carrato, M. Kbir Alaoui and A. Ichkhakh, Rirha (Sidi Slimane, Morocco). Mission report 2018, Casa de Velázquez, 2019.

Mehdia, Qasba (Fortress)

The Qasba is located on the left bank of the mouth of the Sebou River, 10 km west of Kénitra and 34 km north-east of Rabat. The Qasba of Mahdia is one of the Gharb's most important archaeological and historical sites.

The scene of several historical military events, this work bears witness to a style of Mediterranean architectural influence, in terms of its forms and components. Some research points to the possibility that the famous Phoenician centre of "Thymiaterion-Subur" was built on the same site at Mehdiya in the 5th century BC.

The Ifrenides or Béni-Ifrene, an Amazigh tribe, occupied it around 900 AD. According to some historical accounts, the town of Mehdiya was mentioned in historical sources around the middle of the 12th century, particularly during the Almohad period, and was renowned for its important commercial activity. The Portuguese established the fortress of Sao Jao Mamora in 1515, but their occupation did not last long. In 1614, the Spanish seized the site and named it "San Miguel Ultramar". Their occupation lasted 67 years until the town was liberated in 1681 by the Alawite sultan, Moulay Ismail, who gave the site the name of Mehdiya. The Qasba flourished under his reign and served also as the main residence of the local chief or Caïd representing authority in the region.



Fig. 5 Gateway to the Ismaili Qasba in Mahdia. Source: VisitRabat.com

Kenitra, Qasba (Fortress)

The Qasba of Moulay el Hassan is one of the most important monuments in the history of the city of Kénitra, and one of the few remaining Alawite Qasbas in the region.

Situated on the left bank of the Oued Sebou in a large loop, a few kilometres from the Atlantic Ocean, the Qasba is currently part of the Kénitra port domain.

Built in 1892, it was named after its founder, Moulay El Hassan, and formed the first nucleus of the town. At the beginning of the 20th century, between 1913 and 1919, after having housed the headquarters of the administration representing the Protectorate, the Qasba underwent transformations to adapt to its new function. It should be noted that Moroccan historians report that an older building, dating back to 1348 (749 AH) existed on the current site of the Qasba of Moulay al Hassan.

Al Basra, Idrissid city

The archaeological site of al Basra is located in north-west Morocco, 40 km from the Atlantic coast and 20 km south of the town of Qasr el-Kébir. It is crossed by national road no. 13, linking Souq al-Arbaa to the west and Wazan in Morocco to the east. The site is nestled in a flat area surrounded by wide plains bordered to the north by the front of the Rif mountain range.

In the 10th century, Morocco was the scene of confrontations, directly or through allies, between the Umayyads of Cordoba and the Fatimids. In 926, after being driven out of Fez, the Idrissids were able to retain power over certain territories in north-west Morocco, including the town al Basra. An expedition by General Jawhar, sent in 958 by the Fatimid caliph al-Muizz, established a small vassal Idrisid state whose capital was the town of al-Basra and which extended to the Rif and Ghomara.

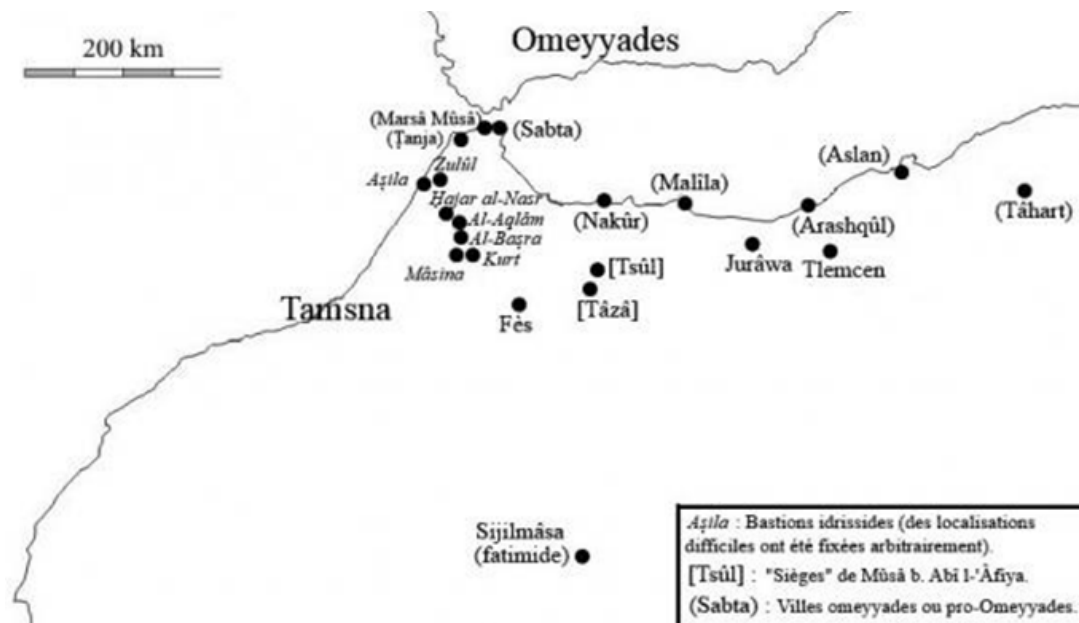


Fig. 6 Location of the town al Basra in its geopolitical context in the 10th century. Source: C. Benchakroune.

In 979, the Zirid leader Abu al-Futuh Yusuf Ibn Ziri, known as Bullugin, led his army towards Ceuta and had the fortifications of al-Basra destroyed before being repulsed by the Zenata and Andalusians of Ceuta.¹⁵

Historical accounts tell us “...al Basra had great Berber and Andalusian architecture...”¹⁶ and that it “...was inhabited by an Idrissid and Alawite population...”¹⁷ and that “there were more than 2,000 oil lamps in the city...”¹⁸ These historical accounts put great emphasis on the moral and ethical virtues of the inhabitants of al Basra, such as good conduct, moderation of character, exquisite beauty and inclination to integrity and knowledge.

It is possible that Morocco's name Basra was borrowed from the city of Basra in Iraq, as the existence of trade links between Basra, Iraq and Sijilmasa confirms Morocco's openness, since the first centuries of Islam, to influences from the East.¹⁹

¹⁵ D. Eustache, *Al-Basra, Capitale idrisside et son port*. Hespéris XLII, 1955

¹⁶ Ibn Adhari Abu al-Abbas, *Kitāb al-bayān al-mughrib fī akhbār al-Andalus wa-al-Maghrib*, Dār al-Gharb al-Islāmī. Tunis, 2013.

¹⁷ Abū al-Fidā' Ismael Ibn Ali, *Kitab Taqwīm al-buldān*, -Geography of Abulféda- Translated Arabic into French and accompanied by notes and clarifications by M. Reinaud. 3 Volumes, Imprimerie Royale, Paris, 1840.

¹⁸ Jean-Léon l'Africain (1956). *Description de l'Afrique*: Nouvelle édition traduite de l'italien par Alexis Épaulard et annotée par Alexis Épaulard, Théodore Monod, Henri Lhote et Raymond Mauny, 2 Vols, la Société des journaux et publications du Centre, Paris, 1956

¹⁹ According to Ibn Hawqal in his work *Kitab surat al-ard* (Configuration de la terre Introd. et trad., avec index, par J.H. Kramers et G. Wiet, Cahiers de Civilisation Médiévale, 1966), there is a reference confirming the settlement of merchants from Basra, in Iraq, in the Moroccan trading town of Sijilmasa: "It was inhabited (i.e. Sijilmasa) by the Iraqi people, the merchants from Basra and Kufa and the merchants from Baghdad who crossed this road. They (...) and their caravans were uninterrupted for great profits and abundant blessings". Ibn Hawqal also mentions an Idrisid foundation of the city of al Basra. Ibn Adhari, on the other hand, refers to the appointment of Muhammad and his brother as governor of al-Basra after the death of his father, Idris ben Idris, in the year 213 (of the Hegira), which indicates that the city existed during the reign of Idris II. Ibn Adhari also tells us that Abu al-Futuh ibn Ziri, known as the Bullugin or Balkin of al Basra, destroyed part of its fortifications in 368 AH/978-979 AD during the last years of the Idrisid reign in the context of the conflict over the Maghreb between the Fatimids in Africa and the Umayyads in Andalusia.

The European city that was designed to meet all the attributes of modern urban planning, whether in terms of roads, architecture, morphology or housing, facilities, safety and mobility.

The town is bordered to the south by the Maamora forest, the largest sub-area in Morocco. On a wider scale, the town lies at the mouth of the Gharb plain and the Sebou basin, benefiting from rich agricultural land.

The Sidi Boughaba nature reserve

The Sidi Boughaba Ramsar site straddles the rural commune of Sidi Taïbi and the urban commune of Mehdiya, on the outskirts of the province of Kénitra. It lies on the left bank of the mouth of the Oued Sebou, 13 km south of Kénitra and 35 km north of Rabat. The site covers 650 hectares, including 100 hectares of lake and 550 hectares of forest. It is a major biotope and one of the most remarkable natural sites in Morocco. As well as providing a green and pleasant setting for nature lovers, it plays both an educational and ecological role.

The Sidi Boughaba reserve (also called Marjah in Arabic) includes an endoreic coastal lake, 6 km long and 300 to 800 m wide, located in an interdunal furrow to the south of the mouth of the Sebou. Its waters are brackish, with salinity varying considerably both in time and space.

The lake is surrounded by a matorral dominated by red juniper (*Juniperus phoenicea*), a plant formation considered to be the last vestige of the natural vegetation that used to cover Morocco's Atlantic dunes. This particular feature gives the lake its originality, distinguishing it from the other lakes on Morocco's Atlantic coast.

The Sidi Boughaba reserve serves as a stopover and wintering site for many migratory birds using the Atlantic route, and is also one of the best nesting sites, particularly for the Marbled Teal, a species that contributed to its inclusion on the Ramsar list. What's more, this biotope provides refuge for over 210 species of plant, as well as numerous species of mammal and reptile.

The reserve is under the supervision of the Agence Nationale des Eaux et Forêts (ANEF). Aware of the importance of preserving this biotope and its fragility, this department has established a delegated management agreement with the Société Protectrice des Animaux et de la Nature (SPAN) association. The site is also home to the National Environmental Education Centre. The site boasts such exceptional flora fauna that it has been classified as a national monument. Its ecological wealth and unique biodiversity have also earned it international status and classification.²⁰

The site of the Sidi Boughaba reserve also has profound historical and intangible values, bearing witness to the heritage of past civilizations and the cultural practices of the inhabitants who have always lived in harmony with this environment.

Traditions linked to the management of natural resources and the use of this area have been passed down from generation to generation, as evidenced by the constant visits by schoolchildren and students to this site, which has become an open-air biodiversity

²⁰ The Sidi Boughaba site is one of the Ramsar Convention's Wetlands of International Importance (six classification criteria), an Area International Importance for Waterbirds recognised by BIROE in 1964 and a "Biological Reserve" in 1974 by the Moroccan Administration of Water, Forests and Soil Conservation.

classroom, further strengthening the intimate link between the local population and their nature reserve. For the inhabitants of Rabat, Salé and Kénitra, this site is a popular place for nature outings, or “el Nzaha”,²¹ a moment of relaxation and conviviality that they consider an essential part of their experience and their social imagination. In addition, the nearby marabou of Sidi Boughaba lends a ritual dimension to the site, being a place of recollection and spirituality.

Status and legal protection of the property

The historic monuments, archaeological sites and natural sites of the Sebou basin benefit from legal protection to protect them and ensure their sustainability.

Components of the good	Legislation
Banasa	Dahir of 18 June 1930 - B.O. n° 925 of 18 July 1930
Thamusida	Ministerial Decree of 05 December 2001 - B.O. no. 4964 dated 27 September 2001
Rirha	Ministerial Decree no.° 2.01.1860 of 13 July 2001 - B.O. n° 4921 dated 30 July 2001
Qasba of Mehdiya	Dahir dated 02 March 1916 - B.O. n° 176 dated 06 March 1916
Buildings in the town of Port-Lyautey (20 th century Kénitra)	Decree of minister of Culture no. 2067.06 dated 28 August 2008 - B.O. no. 5460 of 28 September 2008
The remains of the ancient city walls of al Basra	Cherifian Dahir published on 13 August 1930 - B.O. n° 932 of 5
The Qasba Moulay el Hassan and its mosque	Decree of the minister of Culture n° 1783 dated 07 June 2018. B.O. no. 661 dated 16 July 2018
The “Canton Forestier de Sidi Bou Ghaba”	Ministerial Decree (Minister Plenipotentiary) dated 15 September 1951. B.O. n° 2033 of 12 October 1951. Administrative delimitation in 1916, area of 652 ha

Since the beginning of the 20th century, many archaeological sites, historic monuments and other heritage features such as those in the Gharb²² have been listed for their cultural and historical importance, well before adoption of Law No. 22-80 in the early 1980s. Although this law represented a major step forward in

At the time, the law had shown its limitations in the face of the new challenges of preserving, enhancing and managing our heritage. Bill no. 22.33, designed to modernize the legal framework and better meet today’s requirements, will therefore replace it.

²¹ The word “al Nzaha” النزاهة is from Moroccan dialect Arabic derived from the classical Arabic word “al noouzha” النزهة which means a relaxing outing or walk in a garden or floral environment.

²² Although the sites of Banasa and Thamusida, al Basra have been entitled protection status since the 1930s, other sites such as Rirha and the Qasba of Mehdiya were listed decades later

The new law introduces updated definitions incorporate internationally recognized categories of cultural, natural and geological heritage. It also provides for the creation of a national register to record the heritage, as well as the development of contractual management plans defining the necessary strategies, programs and funding mechanisms. This modernized framework will enable the conservation and enhancement of Morocco's heritage to be brought into line with the Kingdom's international commitments, in particular with UNESCO.

The criteria for nominating a property as universal heritage

Authenticity

The Sebou Basin sites constitute an authentic group of archaeological components that bear witness to a long and ancient occupation of this basin. It also represents an excellent object of study for assessing the continuities, changes and ruptures in the way of life of the inhabitants of the Gharb plain during Antiquity, the Middle Ages and the contemporary era.

The river, its basin and its alluvial plain are vectors of civilization, from the mouth to interior of the continent, the Sububus provided favorable conditions for the establishment of the first historical centers.

Thus, the archaeological components of the Sebou plain successively trace the installation of a network of centers and landmarks that later developed into towns and major urban centers. It bears witness to an authentic know-how attested to by different cultures and civilizations, and it is in the variety and specificity of each of its components that it tells us about the common landmarks of the ancient and medieval civilizations of Morocco.

Through its components, this historic basin reveals a harmony between human activity and the basin's hospitable natural environment (waterholes, shoreline, plant cover, fauna, game, raw materials for industries and crafts, etc.), allowing for the uninterrupted development and evolution of human occupation. The chronological and cultural sequence of these sites back more than 6,000 years to the present day. The succession of knowledge and the density of centers of civilization in the basin have enriched the intangible culture of the area and its people. The characteristics of the natural environment are rich and varied, but above all rare in the North African biosphere.

In short, the four aspects of this criterion can be summarized as follows:

- The authenticity of the materials: The nature, composition and typology of the archaeological materials of the property are scientifically attested;
- Authenticity of execution: the substance and architectural technologies emanating from the sites of the property reflect local and ancestral know-how;
- Authenticity of design: the property is rich in physical evidence reflecting values of use (founding of homes, maritime trade, military installations, conquests, etc.) and intangible values (expression, rituals, etc.);
- Authenticity of the environment (fidelity of context): the components of the property are closely related to the environment of the plain and its natural features.

Integrity

The property retains its integrity thanks to the four aspects of the authenticity criterion. It reflects the pioneering implementation of trade and urban development in Morocco and North Africa, and bears witness to a remarkable unity between its human and natural characteristics (sedentarisation, foundation of urban centers, ancient navigation of the river, etc.). The Sebou basin tells the story of the great harmony between the components of the property and their natural environments (towns, rivers, plains, pastures, river mouths, etc.).

Moreover, the guarantees on the conservation and preservation of the property are attested by the classification decrees, the decrees and the decisions of inscription of the components of the property and of a possible similar procedure for other auxiliary components. The guarantees on the conservation and preservation of the property are also confirmed by the regular monitoring of the state of the components, their protection, documentation and any other scientific mission carried out by the Department of Culture in Morocco, whose representatives are the Directorate of Cultural Heritage, the two Directions -Regional and Provincial- of Culture, the Regional Conservation of Cultural Heritage, the Conservation of the Banasa and Thamusida sites and other administrative bodies such as the Wilaya of Rabat-Salé-Kénitra, the prefectures, provinces, communes, departmental directorates and territorial agencies in Kénitra, Sidi Slimane, Souk Larbaa, Sidi Yahya and Sidi Kacem.

Outstanding Universal Value

The Sebou basin is one of the oldest centers of civilization in Morocco. It is a fertile territory in terms of natural resources and a hospitable cradle, favorably conditioned to human occupation from prehistoric times to the present day. Although this Basin opened up so early to the first trade led by the Phoenicians in the Mediterranean as early as the 7th century BC, it was not until the 4th century BC that the first political organization of the country appeared in this part of northwestern Morocco: the Kingdom of Mauretania. The Sebou Basin, at the heart of this genesis, was the site of a historic urban expansion and witnessed the birth of the Moroccan nation and civilization. The Romans were quick to grasp the importance of this basin for the economic security of the empire, which is why urban expansion increased enormously after the annexation of Mauritania to Roman rule.

The Sebou and its rich plains were to play a crucial role in the continuity of the country's history, and with the advent of Islam the Sebou provided the keystone for the various dynasties to control all four corners of Morocco. Today, this territory remains as vital and necessary to the country's economy, well-being and security as ever: an inexhaustible source of water and an abundance of greenery in an Africa of the Mediterranean.

North increasingly dry. The value of this area and the civilizational melting pot that it bears witness to is undeniable. The basin was influenced by a variety of civilizations that shared a common appreciation of the hospitality of the natural environment. This same value is reflected in the historical traces that it provides the history of its sites that tell the story of the successive and continuous passage of civilization. The nomination of the sites in this basin for inclusion on UNESCO's list of World Heritage sites is therefore an obvious choice. The designer of the proposal will not have to argue the importance of a

single site in Mauritania, but rather that of several! This is the case for Roman, Islamic and even 20th century sites, all of which have a common source, a natural and historical link: the Sebou river.

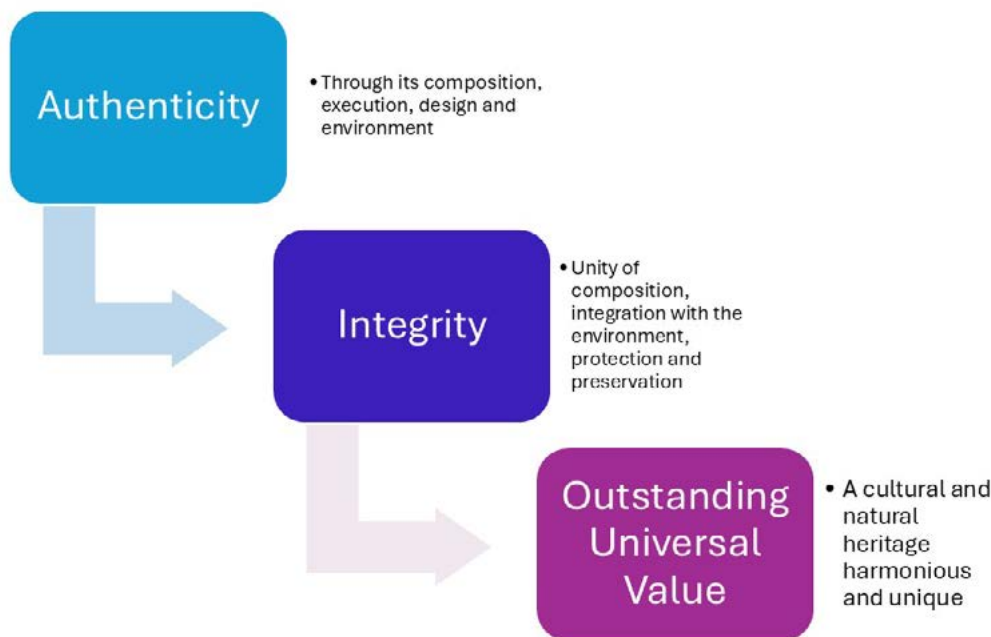


Figure 7. Graph illustrating the harmony between the criteria validating the classification of the Sebou Basin as a UNESCO World Heritage site.

Conclusion

The Sebou basin, with its emblematic historic sites and natural landmarks, is a unique heritage that illustrates the interaction between different civilisations and their adaptation to an environment that is both rich and demanding. This heritage, at the crossroads of history, culture and nature, embodies universal values that deserve to be recognised and protected worldwide.

Nominating the Sebou basin for inclusion on UNESCO's World Heritage List would be an essential step ensuring the preservation of these historical and natural treasures, while highlighting their importance for humanity. Such recognition would not only strengthen local conservation and enhancement initiatives, but would also raise the international profile of the basin, the Rabat-Salé-Kénitra region and the Kingdom of Morocco, which has existed for thousands of years.

This proposal would be particularly well suited to the cultural and historic landscape formula, as it brings together a diversity of heritages - prehistoric, ancient, Islamic and natural -, which interact and complement each other to create an exceptional whole.

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Against All Odds: An Archaeologist's Journey in Africa

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DOI: 10.32028/exnovo-vol-9-pp.21-36

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.

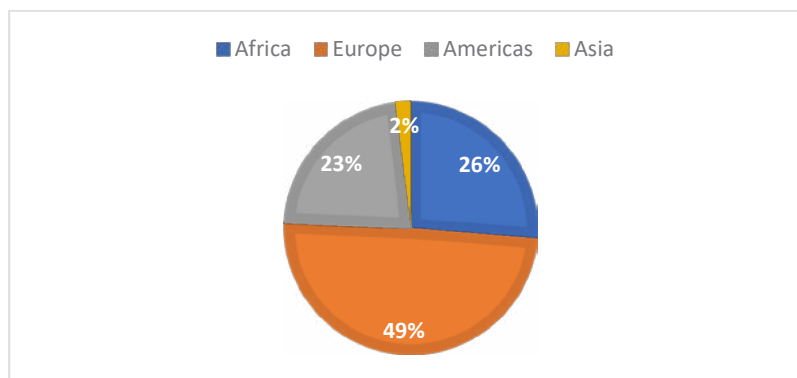


Figure 1: Authorship in AAR between 1983-2022 (modified from Gokee and Ogundiran, 2023).

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.

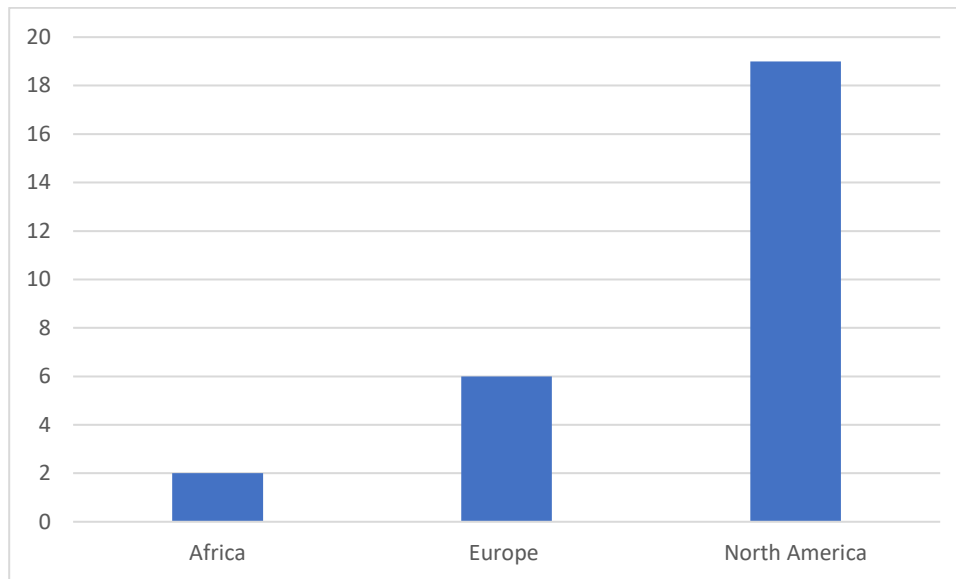


Figure 2: SAfA conference hosted by continent. Source: SAfA (<https://safarchaeology.org/>).

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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Roman Africa on screen: An exotic otherness.

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DOI: 10.32028/exnovo-vol-9-pp.37-54

Abstract

This article analyses the reception of the African territory in a limited number of films and series set in ancient Rome and produced at different historical moments. In the first section, it deals with the image of Carthaginian Africa in two Italian films from the early 20th century: *Cabiria* (1914) and *Scipione l'Africano* (1937). The second section analyses the image of Roman Africa in three more recent US productions: *Gladiator* (2000), *Ben-Hur* (2016) and *Those About to Die* (2024). This study delves into certain war-political conditioning factors and some contemporary socio-cultural trends, specific to each period of production, which may have influenced the audiovisual representation of North African territories in pre-Roman and Roman times. In this vein, I will identify some of the most recurrent stereotypes about the “African” or the “Oriental” in these productions, in relation to relevant historical issues such as colonialism, nationalism, orientalist visions, slavery –ancient and modern– and racism.¹

Keywords: Roman Africa, Carthage, Numidia, Film, Television, Classical Receptions, Orientalism, Nationalism.

Introduction

For obvious reasons, the favourite setting for audiovisual productions about ancient Rome has been undoubtedly the Urbs itself. Along with the city of Rome, other recurring cities on screen have been Pompeii, in the many different versions of its destruction, and Jerusalem, as the epicentre of the Roman province of Judaea, so often recreated in the numerous versions of the life of Jesus of Nazareth. Other places of the ancient Roman

¹ This publication is part of the I+D+i ANIHO-ANIWEH (Antiquity, Nationalisms and Complex Identities in Western Historiography: modern inequalities and new identity paradigms) international research project PID2023-150635NB-I00 funded by MICIU/AEI/ 10.13039/501100011033 and by ERDF/UE. It is also part of the UPV/EHU's research group GIU21/009. The research was carried out in the framework of the Programa Postdoctoral de Perfeccionamiento de Personal Investigador Doctor del Gobierno Vasco (2022), during a research stay at the Spanish School of History and Archaeology in Rome (EEHAR-CSIC).

Empire such as Gallia, the *Limes Germanicus* or Britannia have also been standard settings for these productions. In twenty-first century cinema and television, we can observe a particular interest in setting plots in Roman provinces, a trend that has been defined as “provincial peplum” (Cano 2014: 101-106). The most notable example is probably the British setting, with the different adaptations of the Boudica revolt, those of the supposed disappearance of the Ninth Legion or the recent series *Britannia* (2018-2021), among others.

As far as Roman Africa is concerned –understood as the area of Punic influence–, cinema and television have mainly recreated the specific period of the Punic Wars. On few occasions, scenes from the African territory have been recreated as a Roman province. In this paper, I aim to outline some general ideas of the reception of the African territory and some characters from Africa in a limited set of productions, allowing for a comparison between two different historical, geographical and cinematographic contexts. In the first section, I will deal with the image of Carthaginian Africa in two Italian films from 1914 and 1937, respectively: *Cabiria* and *Scipione l'Africano*. In the second section, I will analyse the image of Roman Africa in three more recent US productions: *Gladiator* (2000, R. Scott), *Ben-Hur* (2016, T. Bekmambetov) and *Those About to Die* (2024, Peacock). Although the impact of these productions and their reception by critics and audiences is uneven, they are all blockbusters with colossal budgets, and therefore their dissemination has been massive.² Likewise, all of them show sequences that I consider to be of notable interest for the analysis of the reception of Punic-Roman Africa as a mirror of various contemporary concerns. In this vein, I intend to address some war-political conditioning factors and some contemporary socio-cultural trends, specific to each period of production, which may have influenced the audiovisual representation of the North African territories in Roman times. With this aim, I will identify some of the most recurrent stereotypes about the “African” or the “Oriental” in these productions, in relation to relevant historical issues such as colonialism, nationalism, orientalist visions (Said 1978), slavery –ancient and modern– and racism.

As we shall see, many of these themes have served to consolidate or popularise a number of essentialist receptions of the past, in this case of Punic and Roman Africa. Thus, linear bridges were built between antiquity and the present through clichés, simplifications and ahistorical readings that are rooted in political discourses sometimes linked to modern national identities. In order to understand how and why such essentialist narratives were constructed, I will also analyse some elements of archaeological reconstruction, the portrayal of specific peoples and/or characters, the cinematic language of certain sequences, as well as the metacinematographic narratives.

Indeed, the subject is too wide-ranging for an exhaustive analysis in the following pages. For this reason, my study aims only at presenting a few examples and outlining some general reflections on the proposed subject.³ It should be noted that I follow an interpretative approach to the cinematic reception of antiquity based on the theoretical

² The limited circulation of *Scipione l'Africano* (1937) outside Italy has been compensated by the attention the film received as an important source for the study of the *culto della romanità* in the fascist era.

³ I refer to the final bibliography for further details on each of the audiovisual productions discussed here, apart from the series *Those About to Die* (2024), which due to its recent release has not yet been academically analysed.

and methodological framework developed by leading researchers such as Maria Wyke, Martin M. Winkler and Monica S. Cyrino, among others.⁴ In contrast to interesting but somewhat reductionist approaches such as “historical films are always about the time in which they are made and never about the time in which they are set” (Richards 2008: 1), I prefer to underline the fact that “(...) while these cinematic depictions may tell us more about the present than they do about antiquity, their engagement with the past is not unimportant; indeed, these productions tell us much about how and why modern audiences connect with the ancient world” (Day 2008: 4).

***Cabiria* and *Scipione l'Africano*: colonial aspirations on the big screen**

The Italo-Turkish war of 1911-1912, in which the Italians conquered the African territories of Tripolitania and Cyrenaica from the Ottoman Empire, was a decisive geopolitical event and had also an impact on the Italian cinematography of that period (Brunetta 2024: 24-31). Some films produced during and after that war combined colonial aspirations with the historiographical and archaeological narrative of the time through a new mass medium, which led to an unprecedented social impact. Italian cinema, as an incipient format, exploited aesthetic and plot references from nineteenth-century opera, paintings or historical novels, as well as from the political discourses coming from the *Risorgimento*. Back then, the discourses on *romanità*—which, according to Hobsbawm and Ranger (1983), would be an “invented tradition”—, served the purposes of nation-building and sought to justify Italy historically by means of a supposed continuity with ancient Rome. Based on this, the essentialist discourses on *romanità* were adapted to a new context of colonial expansion and a new medium of transmission (Wyke 1997: 17-20). Thus, the projection of the Roman past in Italian cinema in the 1910s “gradually developed as a discursive practice for the construction, dissemination and legitimation of an Italian national identity, an identity that was grounded in pretensions to a new Roman empire on the shores of Africa” (Wyke 1999: 189). If Roman expansionism in Africa was a model that the Italian nation sought to emulate, it was necessary to find also in the past a civilisation that embodied the otherness of that model. As Marta García-Morcillo states, “cinematic Carthage is a topic strongly influenced by 19th-century Western imaginations. The romantic and exotic visions moulded by Orientalism contributed to an image of Carthage that stood for a sort of East in the West, one that often projected stereotypical ideas of eroticism, barbarism and otherness as opposed to the civilised —Western— Romans” (2015: 136).

Directed by Giovanni Pastroni and released in 1914, *Cabiria* was the most significant film in this respect, also because of its international projection beyond Italy's borders. Set during the Second Punic War (218-201 BCE), it presents a relatively Manichean story in which the Carthaginians represent the barbaric and the cruel—the children sacrifices in the temple of Moloch being a paradigm of that cruelty—and Rome is presented as a glorious civilisation opposed to all the negative features attributed to the Punics (Wyke 1999: 200-

⁴ See Paul (2008) for a theoretical and methodological revision of this field and Paul (2010) for a state of the art. For a historiographical review of the research development in Spanish academia on this topic see Aguado-Cantabrana (2024).

204; Dávila 2021: 256-259; Pomeroy 2023: 300-308). Although this film has been studied from numerous perspectives in the last decades,⁵ the artistic and archaeological references used by Pastrone to recreate the Carthaginian material culture had not been investigated in depth until very recently. Ivo Blom (2023: 8) discovered some of the main sources of visual inspiration for the film. On the one hand, the works of two “archaeologist painters” as Frenchmen Georges-Antoine Rochegrosse (1859-1938) and Henri-Paul Motte (1846-1922), and on the other hand, Georges-Antoine Rochegrosse’s illustrations for the 1900 reprint of the novel *Salammô* (1862). Likewise, regarding the material reality of the period, Blom deepened Pastrone’s knowledge of Punic-Phoenician archaeology, mainly led by the French. He succeeded in identifying a number of objects that film’s director had access to during his visits to the Louvre Museum and the Egyptian Museum in Turin. According to Blom, the need to fill in with imagination the lack of knowledge about Punic material culture led Pastrone to take Greek, Assyrian and Egyptian artefacts as references. Most probably one of the main sources used by Pastrone was the first volume on Carthage in the series *Musées et Collections Archéologiques de l’Algérie et de la Tunisie. Musée Lavignerie de Saint-Louis de Carthage* (1900), edited by Philippe Berger (Blom 2023: 213-283).

As mentioned above, *Cabiria* sets a paradigmatic example of how cinema served to massively propagate and disseminate Italian imperial aspirations towards African territory. This reality is not limited to the liberal period prior to the First World War, rather it was intensified during the Fascist period. In fact, both in liberal Italy at the beginning of the century and during Mussolini’s dictatorship, a whole series of cultural creations can be traced back. One example is the cinema itself, but also monuments, informative publications and public ceremonies were pivotal in the creation of these imperial anxieties about African territory, mediated through the reception of Roman imperialism (Agbam, 2024). An in-depth analysis of this topic would also lead us to examine the representation of Africa in Italian cinema beyond the recourse to Antiquity. It should be noted that several big screen depictions of the African continent at different historical moments helped propagate the European colonial and racial views (Zinni 2023).

In this paper we are only going to comment on the most emblematic example of fascist period cinema, *Scipione l’Africano* (1937) by Carmine Gallone. This was a blatantly propagandistic film, financed by the regime and which –like *Cabiria*– uses the setting of the Second Punic War to depict the geopolitical concerns of contemporary Italy (Giuman & Parodo 2011). The victory of the Romans over the Carthaginians is depicted as an allegory of the Italian invasion of Ethiopia –1935-1936–. The character of Scipio is presented as an “ancient Mussolini”, who even imitates his gestures and delivers long speeches on the inviolability of the state, the need for discipline and the inevitable destiny of Italy over Africa (Cano 2014: 65). Such a political approach indicates that the film Manichaeism was disproportionate even by the standards of the time and that the negative representation of the Carthaginians was even more evident than in *Cabiria* (Dávila, 2021: 259-260). While the Roman army is composed of disciplined and even cheerful and motivated volunteers, the soldiers of Hannibal’s army are shown as savage, undisciplined and prone to desertion, since –according to the fascist interpretation– they do not fight for the defence and glory of the homeland as the enthusiastic legionaries would.

⁵ Miguel Davila’s doctoral thesis (2017) constitutes a key reference.

The film was a failure at the Italian box office and had almost no international circulation. Nevertheless, the regime publicised it as good as possible and it also enjoyed the support of national film critics. It could be said that the regime's propagandistic aspirations with this film were to some extent more fruitful in the field of education of new generations.⁶ The August 1939 issue of the film magazine *Bianco e Nero* (n. 8) was a monograph entitled “*Il cinema e i bambini?*”, devoted to collecting answers from young schoolchildren on questions related to the film. This issue of the magazine includes a preface signed by Giuseppe Bottai, Mussolini's Minister of Education, and an introduction by film critic and theorist Luigi Chiarini. The latter acknowledged that *Scipione l'Africano*, despite its technical and artistic shortcomings, achieved its goals, as the children's responses would demonstrate (Chiarini 1939: 11). Although one could think of an intentional manipulation of the published content also for propaganda purposes, it is certain that the schoolchildren's responses fit perfectly in the educational and ideological framework of the time, which encouraged warmongering, patriotism and imperialism (Wyke 1997: 22; Dávila 2017: 652-656; Agbamu 2024: 187-193). To the question “What feeling did watching the film give you?” some kids' answers denote a substantial level of indoctrination, with a vision of African land –both ancient and contemporary– as a territory of conquest, at least according to the testimonies collected in the volume:

“Mentre l'esercito romano combatteva contro i cartaginesi, io pensavo ai soldati di oggi che hanno combattuto nelle stesse terre Africane e col loro sangue hanno conquistato l'Impero” (p. 38).

“Queste gloriose imprese mi fanno pensare alla guerra vittoriosa che solo da poco è stata combattuta in Africa dove l'Italia è stata ancora una volta apportatrice di civiltà [...]. Noi benché ragazzi siamo pronti a tutto ciò che il Duce comanda, ma mi sembra che, dopo aver veduto questo film sarei ancora più pronto a dar tutta la mia vita perché l'Italia sia grande e potente” (p. 41).

Roman Africa in the post-*Gladiator* (2000) era

Produced and released at the end of the 20th century, *Gladiator* (2000) would mark the aesthetics and development of the ancient epic genre in the 21st century. Ridley Scott's film relaunched the epic genre on the big screen in a new cinematic context in which the digital image was beginning to take hold. To do so, it employed as a starting point some historical paintings from the 19th century and various aesthetic and plot motifs from 20th-century epic films set in ancient Rome (Winkler 2005). Just under half an hour of footage places the spectator in North Africa, showing an idealised reconstruction of what would have been a provincial city in the Roman Empire at the end of the second century. The only accurate information conveyed in the film is that the provincial city in which this part of the plot is set is Zucchabar (fig.1). Historically attested as Colonia Iulia Augusta Zucchabar, it was a colony founded by Emperor Augustus (Mackie 1983), although in the period in which the film is set, that city would have been in the province of Mauretania Caesariensis, which is not mentioned at all. Ancient Zucchabar has been identified as the

⁶ In this vein, and beyond this film, cinema was widely employed in Fascist Italy to the purpose of educating the so-called *new Italian*. See Campagna (2023).

present-day town of Miliana, in northern Algeria. Nonetheless, the scenes were shot in Morocco, in the former fortified town of Ait Ben Haddou (Ouarzazate Province), which contains Islamic buildings from no earlier than the 17th century. It is a UNESCO World Heritage site, where films such as *Lawrence of Arabia* (1962), *Sodom and Gomorrah* (1963), *Jesus of Nazareth* (1977), *The Jewel of the Nile* (1985), *The Last Temptation of Christ* (1988) and *The Mummy* (1999), among others, were filmed before *Gladiator*.

The production designer Arthur Max claimed that this enclave “really was magic. I mean, exotic, romantic” (cit. in Landau 2000: 63). In a way, these words sum up the Orientalist vision guiding historical reconstructions of North Africa and the Middle East in Hollywood cinema. Indeed, one critic described the scenes of Zucchabar as “the Hollywood version of the Middle East: a place of mud-brick architecture and ululation, where stoop-shouldered, burnoose-clad merchants pass the days in sibilant larceny” (Klawans 2000).

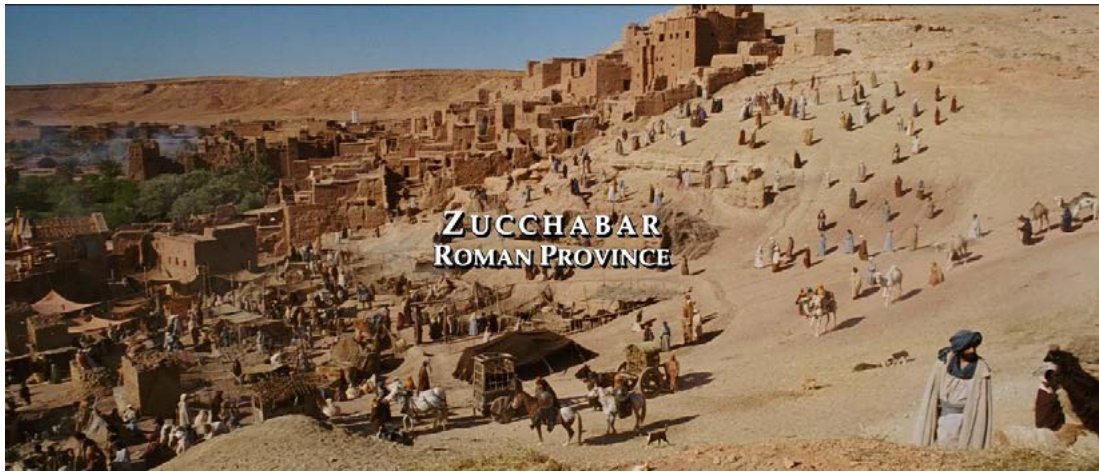


Figure 1: Screen capture from *Gladiator* (2000, dir. Ridley Scott)

Although Scott’s public statements on the supposed historicity of his film were many and somewhat contradictory, it could be argued that for Zucchabar he sought “verisimilitude not accuracy” –as he did in the recreation of the Empire’s capital–, stating that “I felt the priority was to stay true to the spirit of the period, but not necessarily to adhere to facts. We were, after all, creating fictions, not practicing archaeology” (cit. in Landau 2000: 64). Undoubtedly, the proposed recreation of North Africa is plausible from the point of view of the average Western viewer, even if it has little to do with the region’s Roman past. The chronological question is diluted in an architecture that refers to an undefined but potential ‘ancient remote past’. Another statement by the production designer about the town of Ait Ben Haddou/Zucchabar is an equally illustrative example, as it seems to refer to a timeless past: “You come up over the hill, and you’re in another time” (cit. in Landau 2000: 73).

Of course, the orientalist stereotypes present in the North African scenes go far beyond the architectural setting. Some critics have gone so far as to claim that *Gladiator* “manage to perpetuate negative stereotypes about Arabs”, pointing to the costumes of the extras, the musical notes, the slave caravans and the bazaar where the price of human merchandise is negotiated as elements of this negative representation (Shaheen 2000; Flint

2024). *Gladiator*'s historical advisor and Harvard professor Kathleen Coleman commented on the scene where Maximus is kidnapped while unconscious in his villa in Emerita Augusta (present-day Mérida, Spain), just before being taken as a slave to African territory: "I'm quite sure Arab slave-traders would not have penetrated Spain [where the scene was set] to kidnap Maximus. [...] I was under the impression that although the plot was fictitious, DreamWorks wanted the atmosphere to be authentic. But that is evidently not the case" (cit. in Shaheen 2000). The professor, who finally decided that her name should not appear in the credits, has personally narrated her experience as consultant for the film and her disagreement on many issues (Coleman 2005). Nevertheless, she raises some key reflections that can help us better frame the meaning of the sequences discussed here:

"Cinematic versions of history, however, generate their own momentum. The self-referential aspect of historical cinema may be conditioned not so much by narcissism as by the perception that the past has to be presented in a recognizable package.

[...] most of the historical distortions in cinema are probably not the result of such ignorance or arrogance. They are much more likely to be conscious decisions based upon aesthetics, pragmatism, or an estimation of the public appetite". (Coleman, 2005: 50-51).



Figure 2: Screen capture from *Gladiator* (2000, dir. Ridley Scott)

Back again to the scenography of Zucchabar and leaving aside the orientalist stereotypes, it is worth noticing that some elements somewhat related to Roman architecture were specifically added in the town. The main architectural element is the town's small amphitheatre, built by the production team using local materials and techniques to fit in with the local architecture (Landau, 2000: 73). To give it a "more Roman" look, they added columns and a classical-style pediment, as well as a triumphal arch next to the amphitheatre. Another example is a second triumphal arch that was built as a gateway to the *ludus* of the *lanista* Proximus (fig.2). The reconstruction is based on the preserved remains of the Arch of Caracalla at Volubilis, an ancient Roman city located near present-day Meknes, also in Morocco. The aforementioned production designer Arthur Max acknowledges having travelled through some of the territories of the Roman Empire to museums and sites, and in particular he visited and photographed the site of Volubilis (Landau, 2000: 60-62). The idea of placing a triumphal arch as the entrance to a private

provincial *ludus* is incoherent from the point of view of the planning of a Roman city. It is also yet another anachronistic element of the film, being this a monument built some decades after the reign of Commodus. Once again, the only aim is to include elements that the viewer can easily relate to the Roman past.

However, given that *Gladiator* presents ancient Rome as an allegory for the United States and its superpower status in the late twentieth century (Wilson 2002; Cyrino 2005; Taylor 2019), it is evident that the film's representation of Roman Africa is conditioned by a contemporary, simplified Western perspective. Thus, the depiction of ancient slavery, as in *Spartacus* (1960), is mediated by the experience of modern and contemporary slavery and its impact on American culture. The character of Juba has an important role in this regard. Played by Beninese actor Djimon Hounsou, he is presented as a Numidian slave and faithful companion of the protagonist Maximus. A few years earlier, the actor had starred in Steven Spielberg's film *Amistad* (1997), in which he played the African slave Joseph Cinqué, leader of a slave ship revolt in the 19th century. One of the screenwriters of that film, David Franzoni, also wrote the screenplay for *Gladiator*. Reportedly, references to the character of Juba as "the slave" were so constant in early versions of the script that Hounsou himself, in collaboration with the screenwriters, sought to broaden the conception of the character beyond that label (Landau, 2000: 58). Unlike *Spartacus* (1960), and although the character of Juba also has a precursor in Draba in Kubrick's film, the struggle for civil rights or against racism does not seem to be relevant in *Gladiator*.⁷ Rather, Juba seems to reflect the multiculturalism of American society, not to mention that "even now the black among the gladiators unhesitatingly accepts and appreciates the white hero's leadership qualities without question" (Pomeroy 2005: 200). In fact, Juba's submissive and helpful character, though disguised in an innocent and well-meaning friendship with the protagonist, has some possible political readings: "Here again we have a specifically Republican image of nostalgia for a lost golden age of race relations, in which blacks do not question whites and obey their white superiors" (Rose 2005: 163). And, above all these issues, the scenes of Zucchabar as a slave market reflect the collective imaginary of Africa as a land of slaves, with all the negative conditioning that this can entail.⁸

Moving closer to the present, in the latest adaptation of the classic *Ben-Hur*, released in 2016, we find a brief but interesting reference to African territory. In a sequence from the first part of the film, the main characters Judah Ben-Hur (Jack Huston) and Messala (Toby Kebbell) meet again and the latter recounts his experience as a soldier fighting for the Roman Empire. As a flashback, following Messala's narration, a series of scenes where the Roman army confronts different adversaries follow one another in a rapid montage: first in a night battle identified as Persia, then on a snowy mountain, and finally in a desert area. In this last scenario the Romans' enemies are black men who fight half-naked and are somewhat reminiscent of Zulu warriors. The red capes of the Roman army seem to reinforce this idea, if we compare it with a scene from the iconic film *Zulu* (1964), in which

⁷ On this topic see Greenhalgh (2023).

⁸ In ancient Rome, race was not an operative principle of slavery and black Africans were probably a minority of the slave labour force, most of whom came from the northernmost and easternmost regions of the Roman world (George 2003).

African warriors face the British in red uniforms (figs. 3a, 3b and 4). The three-set sequence may be a cinematically effective formula for conveying to the average viewer the idea of an empire stretching across three continents: the first identified as “Persia” would mark the eastern frontier; the second probably represents the northern frontiers of the Empire in Europe; and undoubtedly the scene under discussion represents Africa in a prototypical form.

Again, this is a simple but effective way of associating Roman imperialism with contemporary colonialism. Messala’s narrative, which is superimposed on the scenes, undoubtedly refers to a contemporary reflection on imperialism and its violent consequences:

“He reminded me of what we were fighting for. Things you and I believe in, Judah. A civilized world, progress, prosperity, stability. I battled and marched through countries and across continents I’d once dreamed of. I led men from battle to battle to the heights of glory. But crushed the freedom of innocent civilisations simply because they were different. I saw much blood spilled. More than I can describe.”



Figures 3a and 3b: Screen capture from *Ben-Hur* (2016)



Figure 4: Screen capture from *Zulu* (1964)

The rest of the film, set in Roman Judea, includes a whole series of allegories that refer to post-9/11 war contexts and the so-called “War on Terror” (Aguado-Cantabrana 2023). No further references to the African continent are present in the film, and in the rest of the scenarios –mainly Jerusalem– there is a clear aim to allude to the invasion of Middle Eastern countries by Western powers, especially the US.

Finally, I would like to comment on the recent TV series *Those About to Die* (2024), set in the last days of the reign of Flavius Vespasianus and the following reign of her son Titus (79-81 CE). The series includes in its first two episodes scenes in Numidia, described as “Roman province of Northern Africa” (fig.6a).⁹ That African setting is used to introduce some of the main characters of the series: a Numidian family consisting of mother Cala (Sara Martins), eldest son Kwame (Moe Hashim) and sisters Aura (Kyshan Wilson) and Julia (Alicia Ann Edogamhe). In this plot, one can sense the show’s effort to include a diverse and inclusive cast of actors and actresses from racialised minorities in Western audiovisual productions. This has become an increasingly normalised trend in contemporary productions in the Anglo-Saxon sphere that has generated intense public and media debates, as a relevant element within the so-called “culture wars” (Raczkowski 2023). On the one hand, broad progressive sectors see the fact that audiovisual fiction is becoming increasingly diverse and inclusive as a positive development. On the other hand, the conservative and far-right extremist reactions, which sometimes lead to racist discourses and even defence of white suprematism, criticise an alleged “forced inclusion”. However, the debate is even more complex when it comes to depicting historical figures. In this context, a recent public controversy linked to the ancient world has been that of Netflix’s docudrama on Cleopatra (*Queen Cleopatra*, 2023), based on an African-American cultural reception of the ancient Egyptian queen that is not new. The controversy mirrors

⁹ *Africa proconsularis* would be the name of the Roman province in which those scenes of the series are set, although that name is not mentioned.

contemporary concerns and prejudices around the construction of racial identities and how these are projected onto our view of the past (Rosillo 2019). I find particularly interesting to point out a specific strand of these debates, which would connect to the *Those About to Die* series. The Black Cleopatra controversy has reached national dimension in two North African countries. From a historical point of view, the skin colour of the Egyptian queen is irrelevant and given the available sources impossible to know. Nonetheless, important personalities in Egypt, including the famous Egyptologist Zahi Hawass, opposed Netflix docudrama and stated categorically that Cleopatra was not black and that such a representation was an attack to Egyptian identity (Washington 2024). It is important to notice that such nationalist appropriations are as much evidence of an essentialist revision of the past as any appropriation of Cleopatra by African-American culture. The frame of reference has little to do with the past that is being narrated.

Similarly, when Netflix announced in late 2023 that it would release a series on Hannibal Barca with starring actor Denzel Washington, a member of Tunisia's parliament urged its Ministry of Culture to take a stand on the matter and stated that: "this is about defending Tunisian identity and listening to the reactions of civil society". The Minister of Culture's response identified other more tangible interests, beyond the essentialist discourse that would connect the Carthaginian past with contemporary Tunisian identity:

"It's fiction; it's their right. Hannibal is a historical figure, even if we're all proud that he's Tunisian... What could we do? (...) What matters to me is that they shoot even one sequence in Tunisia and mention it. We want Tunisia to become a platform for foreign films again" (cit. in Tondo 2023).

The inclusion of black characters in leading roles in Western films, series or docudramas about the past is a legitimate decision that also makes up for an obvious traditional shortcoming in this regard. Furthermore, it agrees with the ethnic and racial diversity that may have existed in various territories around the Mediterranean in antiquity, and especially in North Africa. Ultimately, the available sources do not allow us to know with certainty the physical appearance and skin tone of certain emblematic figures of antiquity. However, the characterisation of these figures and the decision to portray them with dark-skinned actors and actresses is not intended to present a more accurate representation. On the contrary, the aim is to offer a more inclusive commercial product that can connect with progressive ideas, that defend the need to project, also onto the past, the cultural debates of the present regarding the representation of racialised minorities. Hollywood proposes a re-reading of the history of the African continent that can appeal to African-American identity. But this perspective, in turn, may conflict with other contemporary ethnic and national North African identities, that have their own essentialist version of their region's past, such as the Tunisian on Hannibal, the Egyptian on Cleopatra, or the Berber on the Numidian past.

The depiction of the Numidian family in *Those About to Die* is full of stereotypes linked to sub-Saharan Africa, which are mediated through the Western vision. The only reason why this series did not generate a similar controversy to the other two Netflix productions is the absence of a key historical figure that shaped the national identity of North African countries, or that had a relevant reception in the Western imaginary. On the contrary, the show is about an anonymous family whose children end up being enslaved. The mother

Cala, as well as Kwame, Aura and Julia are characters with whom the spectator empathises as victims of Roman imperialism. In fact, these characters were conceived with a clear link to current times, as they are related to the collective identities of the present. Sara Martins, who plays the role of the Numidian mother who crosses the Mediterranean to get to Rome and free her children from slavery, has stated in an interview that “Cala’s story reflects those migrant women who immigrate for the best for their family” (cit. in Stenzel, 2024). In her character, we clearly see the recent archetype of the empowered racialised woman, whose odyssey is embedded in current migration processes from Africa to Europe. The actress acknowledges that she has examples of strong women who have experienced immigration in her own family, being herself a woman born in Portugal, raised in France and of Cape Verdean descent. She also acknowledges that in the absence of information on the language spoken in Numidia, they had to invent a language for the series (Vallavan 2024). The sounds and intonations are reminiscent of the languages of sub-Saharan Africa. This lack of historical sources for the Numidian past has also been pointed out by the British actor of Yemeni descent, Moe Hashim. Some statements about the construction of his character, Kwame, are revealing and denote his own prejudices and references:

“I couldn’t actually pinpoint a North African gladiator. So in regard to that point, I kind of had to bring a bit of my own imagination involved in it. But just knowing what North Africans did and how they were seen in the research helped me build this character. (...) My dad being from Yemen kind of infused certain aspects of the role together (...). So when playing a character from that side of the world it didn’t feel too foreign to me. It could be someone like Kwame in a previous life” (cit. in Saeed 2024).



Figure 5: Screen capture from *Those About to Die* (2024, Peacock)

The search for inspiration, as we see, has little to do with any approach to Berber culture past or present. Even his Yemeni ancestry seems to serve in this amalgam of inspirations, although it is not clear what he is referring to when he speaks of “that side of the world”. The idea, as the actor recognizes in the same interview, is to introduce younger generations to models of powerful African characters, also from antiquity. The sense of belonging to the African continent is emphasised in the characters’ dialogue and interactions in the series. Kwame is presented as an expert hunter and the scenes of the first episode in which he appears hunting in a group are full of visual stereotypes referring of the tribes of sub-

Saharan Africa (fig.5). In the second episode, when Domitian, son of Emperor Vespasian, provokes him by describing North Africa as “filled with filthy vermin and dogs, pacified by my august father”, Kwame feels his pride hurt by this insult to his homeland and responds with an attempted assault on the emperor, risking his life. Likewise, in the third episode Kwame tells another gladiator that his father was from Nubia “the land of the Black Pharaohs”, underlining the importance of his skin colour. Cala, in the same vein, reaffirms his African identity through the food she prepares, pointing out that it is a “typical African dish”.

Following the same logic of depiction of the past, the recreation of North African territory in the series also includes some of the orientalist clichés already discussed with *Gladiator*. Without going into further detail, this approach is evident in the large general shot that introduces the first scenes in the province of Numidia. Accompanied by a musical composition that is very common in this type of cinematic introduction when presenting African or Middle Eastern territories, the CGI created shot presents a city that does not include any Roman elements and that is located in the middle of a large desert (fig.6a). The scenery, costumes and props of the close-up of a street within the city reinforce this relatively prototypical image of Africa from an orientalist point of view (fig.6b).



Figures 6a and 6b: Screen capture from *Those About to Die* (2024, Peacock)

Conclusion

The image of Africa and Africans in the films and series set on Ancient Rome analysed here responds to conventions inherent to the representation of Antiquity on screen: Manichaeism, exoticism, orientalism and presentism. This image is also the product of a whole series of codes of presentation of the African continent in Western audiovisual productions, which are repeated regardless of the historical moment they are intended to recreate. To further explore the issues raised here, more examples could be analysed and should be linked to recent research on the representation of Africa on screen through the lens of Hollywood (Dokotum 2020; Garrigós 2024).

Historical-archaeological research and knowledge of the Punic-Roman heritage in the region play an almost anecdotal role in these representations. What is usual is the mixture of architectural elements and material culture from very different temporal contexts, which are often not from the ancient period, or are directly the product of creators' inventions. The aim is not to provide an accurate reconstruction of this past –which would in any case require a considerable amount of invention, given our partial, fragmentary and limited knowledge. On the contrary, the aim is to connect with the spectator so that they can quickly identify a series of audiovisual codes that refer to that past and to that specific geographical context, according to the imaginaries of the time.

To conclude, it can be argued that these receptions of Punic-Roman Africa have served, in diverse contexts, to create linear connections between Antiquity and the present through essentialist and ahistorical readings, rooted in political discourses linked to contemporary national or collective identities. In contrast to the colonialist visions of the first half of the twentieth century, in the twenty-first century we find attempts to recreate Roman Africa and its inhabitants in more positive terms, seeking the empathy of the Western spectator. However, many orientalist and romantic clichés as well as the idea of Africa as a wild and exotic place still remain intact. While each of these visions is a product of its time, they all tell us a lot about how the popular Western imaginary about the Roman presence in North Africa is constructed and evolves.

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Ex Novo Journal of Archaeology

Volume 9, December 2024

Part II

Off-Topic

Lost in citations: Why standard metrics fail archaeology and regional scholarship. A critical analysis of bibliographic indexing and research evaluation.

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DOI: 0.32028/exnovo-vol-9-pp. 55-98

Abstract

This article explores the development, structure, and implications of bibliographic indexes and research metrics in contemporary academic publishing. It traces the historical evolution of indexing services from early systems like Index Medicus to modern platforms such as Web of Science, Scopus, Google Scholar, Dimensions, and OpenAlex. The study highlights how varying inclusion criteria, ranking algorithms, and citation policies among databases produce significantly different representations of scholarly output. It critically examines key metrics (e.g., Impact Factor, h-index, CiteScore, SNIP, SJR), assessing their impact on journals, authors, and institutions. It shows how current evaluation systems, including issues of classification and disciplinary bias, does not reflect the quality and impact of research outputs in the Humanities and Social Sciences, and especially in Archaeology. This is particularly evident in Italian prehistoric archaeology, explored here as a case study. The paper also addresses the ethical dilemmas linked to peer review, predatory publishing, and metric manipulation, advocating for more transparent, pluralistic, and context-sensitive approaches to scientific assessment. The final section reflects on the peculiarities of archaeological data and publication practices, underlining the inadequacy of conventional metrics for evaluating scientific contribution in this field.

Keywords: Bibliographic Indexes; Research Metrics; Citation Analysis; Scientific Publishing Ethics; Archaeology and Publishing

Introduction

Academic journals first appeared in 1665 with the publication of *Journal des Sçavans* and *Philosophical Transactions*. The former was edited by Denis De Sallo, who later founded the Académie Royale des Sciences; the latter by Henry Oldenburg, the first secretary of the Royal Society of London (Fyfe et al. 2022). Both societies quickly became central institutions in the development of modern science, fostering systematic inquiry and the public dissemination of knowledge.

Scientific papers quickly became the primary medium for sharing research, leading to a rapid expansion of academic journals. By 2007, an approximation based on Ulrich's database¹ suggested the existence of 23,750 peer-reviewed journals (Björk et al. 2008). This exponential growth is believed to have been largely driven by scientific specialization (Tenopir & King 2014: 161) that in turn led to the emergence of new journals dedicated to specific research fields and the subdivision of existing ones.

This growth was also accompanied by an increasing number of private publishers. While many early journals originated from scientific societies, commercial publishers began playing a key role as early as the Victorian era, proving more efficient in distribution. Over time, scientific publishing became an attractive market for commercial enterprises. By 2013, nearly half of all journals indexed in Web of Science were published by just five major publishing houses (Larivière et al. 2015: 5).

The expansion of academic publishing, both in the number of journals and the rise of commercial publishers, often unaffiliated with universities or research institutions, has necessitated efficient search tools and mechanisms to assess journal credibility. These needs have driven the development of journal indexing and ranking systems, which today have a significant impact on researchers' careers, institutional performance, and funding opportunities.

The discussion that follows addresses the main features of indexing systems, including their approaches to content selection, quality assurance, and research evaluation, while also considering the broader implications and criticisms associated with their use.

In the second section, I address the issue of indexing by introducing the most important databases in use. The third section analyzes the problems related to measuring scientific production, using Italian archaeology as a case study. This leads to the following fourth section, which discusses how the quality of research outputs is challenged by the push toward hyper productivity in the academic system. The final section considers the scientific process in archaeology and the need to ensure that different kinds of scientific products receive the recognition they deserve.

Indexing

Indexing is crucial for scientific journals, which constitute a fundamental part of scholarly communication. Without comprehensive and well-structured indexes, a vast portion of

¹ Ulrich's Periodicals Directory (ISSN 0000-0175, and ISSN 0000-2100) is the standard library directory and database providing information about popular and academic magazines, scientific journals, newspapers and other serial publications (definition by Wikipedia.org).

the academic literature would remain inaccessible to researchers. However, indexing periodicals presents some challenges:

- It is a continuous process, often requiring a team of indexers;
- Journal articles cover a broad and evolving range of topics;
- The terminology used for indexing must remain consistent over time and across disciplines;
- Multiple thesauri exist and selecting the most appropriate one can be challenging.

The birth of indexing

The need to organize knowledge has been recognized since antiquity. However, indexes in the modern sense, providing precise locations of names and subjects within a text, were not compiled in ancient times and remained rare before the advent of printing (Wellish 1983: 149).

A major advancement in periodical indexing came with William Frederick Poole, who, as a student at Yale and librarian of a college society, developed *Poole's Index to Periodical Literature*. This subject index (1802–1906) covered articles from 470 English and American magazines (Carlson 1928: 30).

In 1879, the *Index Medicus* was introduced by the Library of the Surgeon General's Office of the United States Army (now the National Library of Medicine). Conceived as “a monthly classified record of the current medical literature of the world”, it was later complemented by the *Index-Catalogue*, published in 1880 following an initiative by John Shaw Billings. The systematic indexing of medical literature was considered by William Henry Welch, a leading pathologist and bibliophile, to be “America's greatest contribution to medical knowledge” (Greenberg & Gallagher 2009: 108). In 1971, *Index Medicus* evolved into the MEDLINE database, which was later integrated into *PubMed* (1997), now the most important online indexing system for health sciences.

The transformation of *Index Medicus* into a digital format illustrates how the “digital revolution” has profoundly reshaped scientific publishing. The rapid expansion of the internet has further accelerated the adoption of digital formats, altering how researchers search for and access information (King et al. 2009). However, the digital era has also amplified existing challenges in the indexing process, including maintaining consistency across taxonomies, adapting to evolving terminologies, and ensuring long-term accessibility of indexed materials.

The number of journals and articles & indexes

Many efforts have been made to determine the total number of journals and articles published over time. Jinha (2010) estimated that by the end of 2009, the total number of peer-reviewed articles had reached 50 million. As previously mentioned, specialization is often considered the main driving force behind the increasing number of journals. Some authors, such as Mabe (2003), identify a clear correlation between the number of researchers and the number of articles produced, which in turn influences the growth in journal titles. Conversely, Hanson et al. (2023: 3) argue that article growth results from a

more complex interplay of factors, which they refer to as “the love triangle of scientific publishing”.

This triangle consists of three key players: publishers, researchers, and funders (institutions). Publishers, as one vertex, seek to publish as many articles as possible while maintaining a certain quality standard. Researchers, another vertex, are primarily driven by the opportunity to publish in high-ranking journals, as publication and citation metrics are crucial for employment, promotion, and funding opportunities. Institutions, the third vertex, evaluate researchers competing for funds based on these quality metrics. This push-and-pull dynamic creates a self-reinforcing system in which all actors share a common concern: quality. However, defining quality remains a challenge. The previously mentioned *Index Medicus* provides a key example of the role of indexes in quality control. It has been argued that, compared to the *Index-Catalogue*, *Index Medicus* was significantly more selective in scope, concentrating on newly published articles from selected journals, as well as specific books and theses (Greenberg et al. 2009: 109). The term “selected” is particularly revealing. Today, journal ranking metrics are largely based on citations received by articles published in “selected” high-ranking journals included in specific indexing databases. With the growing importance of metrics, journal prestige is no longer based solely on the reputation of its editorial board or affiliated institutions. Instead, indexing status has become a central, and often dominant, determinant of perceived quality.

Indexing database

The history of indexes is extensive, and their importance to the research process is unquestionable. They help authors identify relevant sources, and indexed articles are more likely to be cited. In addition, indexes facilitate citation counting, which underpins (almost) all research metrics. A recent overview of existing databases has been published in *Archeologia e Calcolatori* (Di Renzoni 2025), while a more detailed list of databases and related services operating within the academic publishing ecosystem is provided here in the Appendix. This section offers only brief notes on three major indexes, selected for their relevance to the discussion that follows.

Web of Science (WoS)

In 1955, Eugene Garfield conceived an idea that led his Institute for Scientific Information (ISI) to create the Science Citation Index (SCI) in 1964. This system, based on organizing information through citation connections, anticipated web hyperlinking and the Google Search algorithm by three decades. ISI gradually expanded its indexing scope, adding Social Sciences (SSCI) in 1973 and Arts and Humanities (AHCI) in 1978. A significant development came in 1976 with the introduction of the Journal Citation Reports (JCR), which analysed journal-to-journal citations to evaluate the influence and prestige of specific titles and map the scientific communication network. Among the various metrics introduced, the Journal Impact Factor (see Appendix) became the most influential. The organization underwent several structural changes until it concretized in Clarivate Web of Science (WoS), and in the new reboot of ISI, in 2018 (Clarivate History, 10 Feb 2025).

Clarivate's description of WoS emphasizes three key characteristics: trustworthiness, publisher independence, and comprehensiveness. Their website states:

"The Web of Science is the world's most trusted publisher-independent global citation database. [...] [The] independent and thorough editorial process ensures journal quality, [...] creating the most comprehensive and complete citation network to power both confident discovery and trusted assessment".

This emphasis reflects the crucial role of citation metrics in contemporary academic publishing and highlights the importance of selecting journals based on reliable criteria independent of publishers.

The selection process for WoS journals follows rigorous standards. And, to ensure impartiality, the criteria designed to select journals are evaluated by in-house editors who maintain no affiliations with publishing houses or research institutes, thus avoiding potential conflicts of interest. (Clarivate Editorial Selection Process, 10 Feb 2025)

Elsevier Scopus

The emphasis that Clarivate places on the separation between publishers and indexers stands in marked contrast to Scopus, a widely used index developed and managed by Elsevier, one of the world's largest academic publishers. While Web of Science builds much of its credibility on being "trusted" and "publisher-independent", Scopus cannot make the same claim, as it is operated by a commercial publishing house. Instead, Scopus highlights its commitment to "transparency" and relies on an "independent board" of subject experts who continuously review new titles using both quantitative and qualitative criteria (Scopus Selection Criteria, 10 Feb 2025).

Since 2016, journals have been ranked according to the CiteScore metrics, a family of eight indicators designed to evaluate the influence of serial titles. Elsevier emphasizes the transparency and reliability of its system, stating: "Scopus metrics are a comprehensive, trustworthy and transparent way to demonstrate your journal, article, author and institutional influence" (Scopus Metrics, 10 Feb 2025).

Google Scholar (GS)

Google Scholar (GS) is a search engine for scholarly literature that indexes publications across multiple disciplines and sources. It operates similarly to Google Search, using automated software known as "crawlers" to discover and index academic documents. However, GS does not apply expert supervision or any formal quality control in selecting scientific content. It collects research papers from across the web, including grey literature and non-peer-reviewed articles and reports.

GS employs various ranking criteria for search results, papers, journals, and authors. While the exact ranking algorithm is not publicly available, some studies (Beel, Gipp 2009: 236) have attempted to analyse its mechanisms. The main factors influencing search result rankings include: 1) the number of citations an article has received; 2) the presence of search terms in the title (GS does not consider synonyms); 3) a relatively low weighting given to the frequency of search terms in the full text; 4) a preference for more recent

articles over older ones; 5) a strong weighting assigned to author and journal names, reinforcing the so-called “Matthew Effect”².

For journal ranking, GS uses “Scholar Metrics”, updated annually. The latest release (July 2024) covers articles published between 2019 and 2023 and includes citations from all articles indexed in GS as of July 2024. Journals are ranked based on the following metrics, calculated over the past five years: h-index (see Appendix); h-core, the set of articles that contribute to the h-index; h-median, the median citation count within the h-core; h5-index, h5-core, and h5-median, the same metrics calculated based on articles published in the last five complete calendar years.

Authors are evaluated using similar metrics, including the h-index and the h10-index.

Individual papers are ranked based on their citation count (e.g., GS’s “Classic Papers” section highlights highly cited works). GS retrieves bibliographic data and citation links between papers using automated software called “parsers”. Since references are identified algorithmically, without human verification or correction, GS does not guarantee complete accuracy. Errors in citation identification can result in missing papers, lower rankings in search results, or inaccurate metrics. Citation count discrepancies are not uncommon. To illustrate these shortcomings, I provide examples from my own GS profile: Paper A: 2 incorrect citations out of 19 total; Paper B: 1 incorrect citation and 1 duplicated citation out of 13 total; Paper C: 1 incorrect citation out of 19 total. These inaccuracies highlight the limitations of GS’s automated citation indexing and ranking system.

Measuring Science: Insights on Metrics from an Italian Case Study

In the past decade, metrics’ importance has become central to securing funding and, more generally, advancing academic careers. The focus on metrics is exemplified by the prominence given to journal scores displayed on their websites or by the fact that the excessive attention paid to these metrics has been labeled the “Impact Factor obsession” (Hicks et al. 2015). Numerous metrics exist to evaluate journals, authors, and individual scientific products such as papers, patents, and datasets.

Even if non-exhaustive, the review of the metrics discussed in the appendix highlights that almost every index uses citations as a proxy, which opens a range of potential pitfalls:

- Citation count depends on the databases used, each of which covers scientific output in different ways.
- Metrics (very often) do not distinguish between positive and negative citations; some scientific works may be cited due to controversy or errors.
- Practices for producing outputs vary significantly across disciplines:
- Some formats are less likely to be included in bibliographic databases, such as in the Social Sciences and Humanities, where books and locally relevant journals are crucial but often not indexed.

² The “Matthew effect”, also known as the principle of accumulated advantage, describes the phenomenon whereby those who start with an advantage tend to gain even more benefits over time, while those who begin at a disadvantage tend to fall further behind.

- In some areas, researchers are encouraged to publish frequently, while in fields where monographs are important, such as in archaeology, publishing one book every few years might be seen as appropriate.
- While English is widely used, in some contexts, the national language may be preferred, which can reduce the likelihood that the work will be included in international databases.
- The number of authors per publication also varies by discipline, affecting the allocation of credit and the interpretation of bibliometric indicators.
- The way indexes are conceived can be misleading. For instance, the Journal Impact Factor (JIF), the most commonly used journal metric, has been criticized for its inability to properly represent individual articles (Seglen 1997).

At a more general level, some authors have raised profound concerns about the “bibliometric approach” to evaluating science. These concerns are eloquently captured in the title “Not everything that can be counted counts, and not everything that counts can be counted” (Olive et al. 2023). Authors argue that the evolution of journals has been significantly influenced by two interconnected forces: the information revolution and neoliberalism, leading to an increase in competition and managerial practices. Bibliometrics, initially designed to assist librarians in selecting journals for their collections, have now become central to the neoliberal university culture, heavily influencing academic evaluation, peer review, and promotion processes. As a result, metrics have increasingly driven the push for “hyperproductivity”, which, while boosting publication numbers, may undermine the quality of research.

The thesis expressed by Olive et al. is part of a broader debate concerning how metrics should be used more effectively, and when they should be resisted altogether (Phillips 2020). These concerns have gained traction in various declarations, manifestos, and reports that argue for a critical approach to the use of metrics. Notable examples include the “Declaration on Research Assessment” (DORA, 10 March 2025) the “Leiden Manifesto for Research Metrics” (Hicks et al. 2015), and “Metrics Tide” (UKRI, 10 Mar 2025), all of which emphasize the importance of contextualizing metrics and caution against relying on them as absolute measures of scientific value.

The following simple tests aim to highlight the problem of using metrics without proper contextualization within specific research fields. Italian archaeology was chosen as a case study because it exemplifies a system positioned between globally recognized indexes and locally developed practices, and it is also the field I know best, which ensures appropriate handling of the data.

Index comparison

Taken together, the indexes discussed above suggest that the way they are structured, particularly the varying policies on publication selection and citation management, leads to significantly different outcomes (Martín-Martín 2021). The most substantial divergence lies in the inclusion criteria adopted by each database, which range from strict, quality-based selection to broader indexing of web-crawled content. The picture becomes more

complex in disciplines where indexes hold some importance, yet bibliometric criteria are not officially adopted. This is the case for the Social Sciences and Humanities in Italy, where journal relevance is formally assessed by ANVUR, a governmental agency; nevertheless, the visibility and ranking of journals in international indexes still appear to inform evaluation practices, at least implicitly³.

ANVUR

The National Agency for the Evaluation of the University System and Research (ANVUR) is the Italian authority responsible for assessing the quality of higher education and research in Italy since 2011. Among its quality control activities, ANVUR classifies scientific journals for the purpose of evaluating scholars' National Scientific Qualification (ASN⁴) indicators. However, ANVUR does not rank journals; rather, it classifies them as either "scientific" or as "scientific journals with Class A status" (ANVUR, 30 Jun 2025). A "Classe A" journal is a scholarly publication that meets the highest standards of scientific quality within a specific disciplinary sector and is recognized within the Italian system as a benchmark for academic research and evaluation in that field. Inclusion in the "Classe A" list has significant implications for individual career advancement and institutional assessments in the Italian academic system. To obtain the National Scientific Qualification (ASN), a scholar must publish a minimum number of papers in Class A journals. Accordingly, achieving Class A status is crucial for a journal to attract submissions and gain recognition.

To be included in ANVUR's journal "Classe A" list, a publication must undergo an evaluation process involving multiple actors. A prominent role is played by the Working Group (WG), which is appointed by the Governing Board (Consiglio Direttivo, CD) and composed of qualified scholars in the relevant scientific area, chosen from a list of eligible experts. The WG assesses whether a journal meets the criteria for inclusion in the Classe A category.

Within the Italian system, archaeology is part of "Area 10," which includes antiquities, philology, literary studies, and art history. Each area is further subdivided into Scientific Disciplinary Sectors (Settori Scientifico-Disciplinari, SSDs). The list of eligible experts, as of the 2024 call, included Full and Associate Professors from Italian universities (Fig. 1a), along with scholars from three foreign institutions, representing a wide range of disciplines. Figure 1b shows the distribution of eligible experts across SSDs, revealing the underrepresentation of L-ANT sectors, with only 5 out of 88 members.⁵ This underlines the need for external experts, who are proposed by the WG and approved by the CD.

³ Although difficult to measure, the prestige of certain internationally recognized journals clearly shapes readers' perceptions of individual papers, often beyond the intrinsic quality of the research, even when national systems like the Italian ANVUR assign formal journal classifications. This leads scholars to cite papers from these journals more frequently, a phenomenon that can be termed the "journal prestige effect".

⁴ The National Scientific Qualification (*Abilitazione Scientifica Nazionale*, ASN) is a centralized evaluation process in Italy that certifies a scholar's eligibility to apply for associate or full professorships at Italian universities, based on the assessment of their scientific qualifications and research output.

⁵ Until 31/12/2027, member of the WG of area 10 pertain to the following SSD: L-ANT/09, L-ART/04, L-ANT/05, L-FIL-LET/10, L-LIN/1

In addition, an important role in the journal evaluation process is played by assistants to the WG disciplinary area groups, chosen among the eligible expert. They are responsible for evaluating general requirements, facilitating communication between ANVUR offices and experts, and assisting external reviewers in carrying out their tasks.

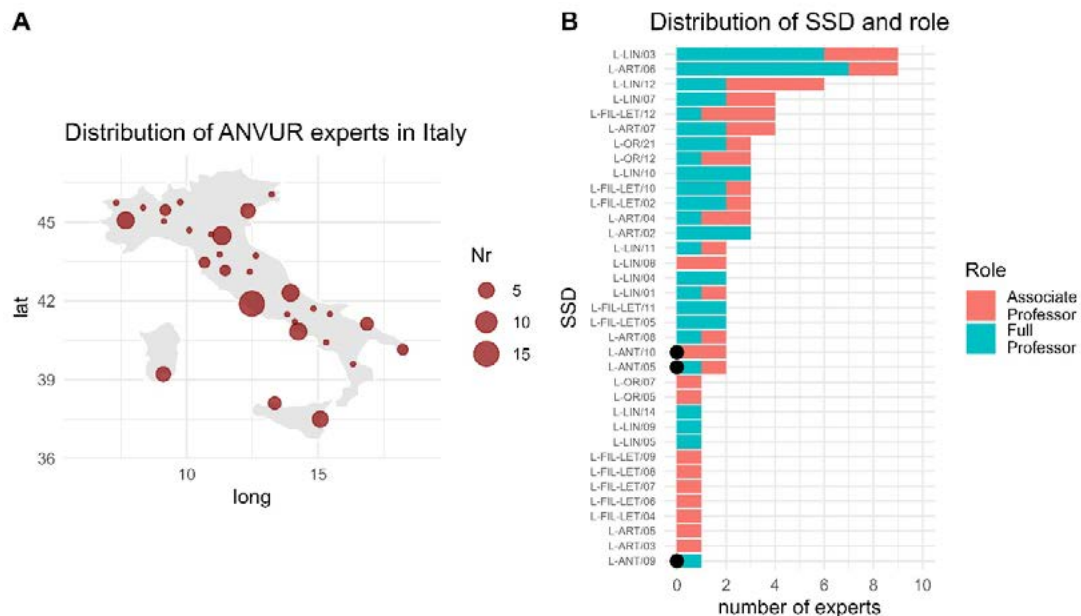


Figure 1. Geographic distribution of ANVUR eligible experts across Italy based on their affiliated universities; B: Distribution of ANVUR eligible experts by Scientific Disciplinary Sectors (Settori Scientifico-Disciplinari, SSD). Within Area 10, archaeology is represented by the following SSDs: L-ANT/01 (Prehistory and Early History), L-ANT/02 (Greek History), L-ANT/03 (Roman History), L-ANT/04 (Numismatics), L-ANT/05 (Papyrology), L-ANT/06 (Etruscology and Italic Antiquities), L-ANT/07 (Classical Archaeology), L-ANT/08 (Christian and Medieval Archaeology), L-ANT/09 (Ancient Topography), and L-ANT/10 (Methods of Archaeological Research), among others.

Comparing metrics

To better understand how the structural differences among indexes affect the representation of a specific discipline within a specific system, a comparative analysis was conducted focusing on the evaluation criteria for archaeological publications in the Italian system. I will demonstrate that the mechanical attribution of a value to a scientific article is, in many cases, misleading. The differences among the more commonly adopted databases were tested in two ways. First, the number of journals under the category “Archaeology” was retrieved from Scopus, WoS, Dimensions, OpenAlex, and Google Scholar. Data from Scopus and WoS were accessed via an institutional subscription, OpenAlex data were retrieved using its free API with a Python script, Dimensions data were queried through its web interface and copied into a spreadsheet, and Google Scholar results were manually extracted. Some clarifications are needed regarding how categories were defined in different datasets:

- *WoS* (as of 5 February 2025) lists 21,973 journals, classified into 254 categories, including “Archaeology”, which contains 165 journals.
- *Scopus* (as of February 2025) lists 43,703 journals. Users can filter using the Subject Area field. “Archaeology” appears as a subgroup in both Social Sciences and Arts and Humanities (with minor differences: 463 journals under Arts and

Humanities, 409 journals under Social Sciences, and 496 journals when searching across both categories). The latter approach was used in this study.

- *Dimensions* allows users to filter papers by type and category. “Archaeology” is part of the broader field History, Heritage, and Archaeology. The platform aggregates journals based on the number of articles classified as archaeological, resulting in 4,501 journals after filtering.
- *OpenAlex* (as of February 2025) indexes 210,023 journals, each classified into multiple topics. A single journal may belong to multiple topics, with the number of associated papers available for each. Topics are structured into subfields, which belong to fields, which in turn belong to domains. Two subfields named “Archeology” (note the missing “a”) exist, one under Social Sciences and another under Arts and Humanities. Data were retrieved via the OpenAlex API, and each journal was assigned to the subfield with the highest paper count, resulting in 2,430 journals classified as “Archaeological Journals”, ranked by OpenAlex’s h-index.
- *Google Scholar* does not provide an official API, but commercial APIs (e.g., SerpAPI) exist for search engine queries. Users can manually extract the top 20 journals in the Archaeology category, ranked by their h-index.
- *ANVUR*, the Italian National Agency for the Evaluation of Universities and Research Institutes, does not rank journals but categorizes some of them into “Classe A” journals, based on their quality. The latest list (late 2024) includes 2,314 journals in this category.

A comparison of the top 20 archaeological journals across these indexes reveals limited overlap. In total, 63 unique journals were identified across the five rankings. To compare them, a ranking score was assigned using the reversed ranked score sum, weighted by coverage (i.e., the proportion of databases that indexed each journal). The formula used is:

$$\begin{aligned}
 \text{Ranking Score} &= \sum \left((Rank_{max} + Rank_{min}) \right. \\
 &\quad \left. - Rank_{journal} \right) \frac{\text{nr indexes including journal}}{5}
 \end{aligned}$$

Notably: only 11 out of 63 journals appear in at least three indexes, and only one journal is present in all five indexes (Appendix, Table 1).

The similarity between indexes was analyzed using a modified Spearman correlation, described as follows:

- Compute the Spearman correlation (SC) between rankings.
- Normalize the correlation: $SC_n = (SC + 1)/2$ to constrain values between 0 and 1.
- Apply a weight: $SC_w = SC_n \frac{\text{Nr of shared journals}}{\text{Max nr of shared journals}}$

The resulting heatmap (Fig. 2) indicates that WoS, Scopus, and Google Scholar form a cluster of similar indexes.

One major issue affecting comparisons is the classification of journals. For example, “Forensic Science International” is categorized under Archaeology in OpenAlex due to the relevance of some articles, but Scopus and WoS classify it differently: Scopus: Social Sciences, Law, Medicine (Pathology and Forensic Medicine) WoS: Medicine (Legal). Such discrepancies can significantly affect rankings and impact metric consistency.

The classification issue also affects the comparison between the five indexes and the ANVUR list. Among the 63 journals identified in this study:

- 25 journals ($\approx 40\%$) are not listed in the ANVUR Classe A category, some of which are clearly archaeological journals.
- Overlaps with ANVUR's list:
 - OpenAlex and Dimensions share 15 out of 20 journals with ANVUR.
 - Google Scholar shares 14 out of 20.
 - WoS shares 13 out of 20.
 - Scopus shares 12 out of 20.

Interestingly, the two most selective indices (WoS and Scopus) exhibit the lowest degree of overlap with ANVUR, despite the fact that all three are formally grounded in quality-based criteria. This highlights how different evaluation methods can produce divergent outcomes. Many journals that focus on local topics or specific chronological frameworks are rarely indexed in the major international databases, whereas a system like ANVUR's takes these specificities into account by relying on experts familiar with the national academic and disciplinary context.

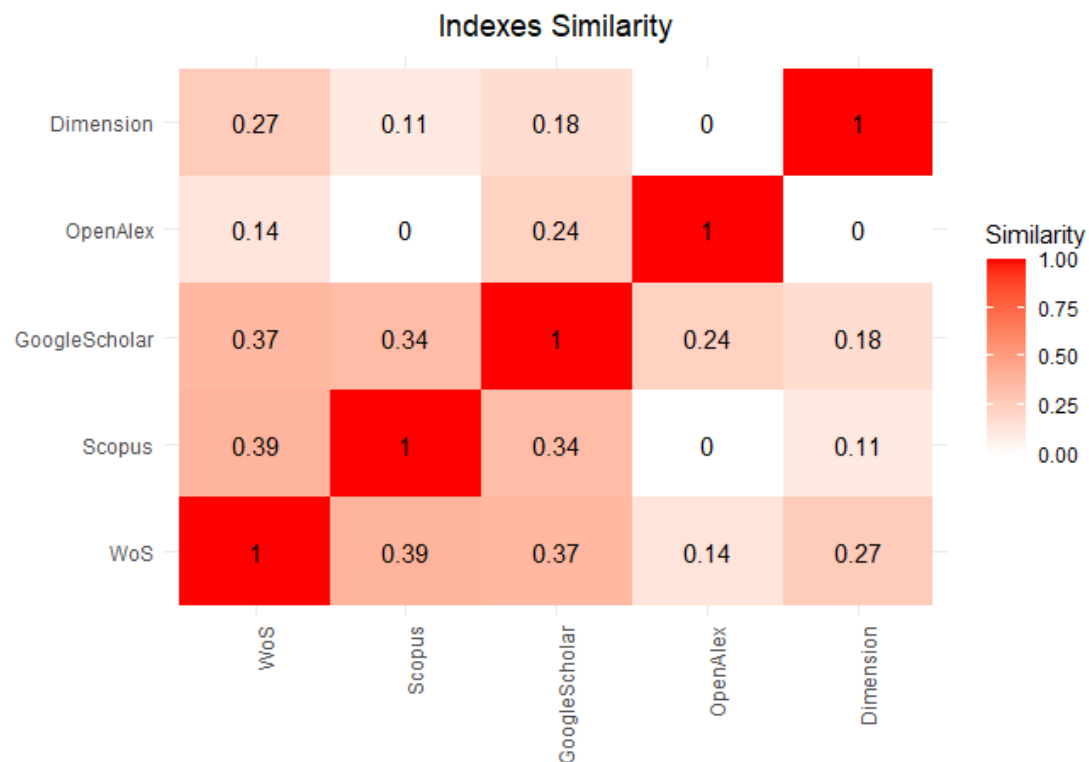


Figure 2. Heatmap of similarity across bibliographic indexes.

Testing Citation databases

The second test consists of a simple experiment comparing the citation count of the same paper across different databases. As first example I will use a paper I co-authored in 2019 published in *Scientific Reports*, a well-known journal indexed by many databases. Scopus reports 40 citations, WoS 31, Google Scholar 56, OpenAlex 46, Dimensions 40, Lens 38, CrossRef 36, and ResearchGate 49.

As a second example, I selected a paper regarded as seminal for the Middle Bronze Age in Central-northern Italy (the Terramare culture) published in 2009 in Italian in “*Scienze della Antichità*”, a journal published by Sapienza University of Rome, that therefore is rarely indexed by the main databases, but categorised as Classe A in the Italian system). The results were striking: the article is not indexed in WoS, Scopus, OpenAlex, Lens, Dimensions, or CrossRef. However, Google Scholar reports 163 citations, and ResearchGate reports 104. This simple experiment shows two great limitations of citations count: first, the importance of a paper is not directly linked to the journal in which it is published; a journal could not be indexed in the main databases but, the same, could be of great importance for some branches of the discipline it pertains to.

The issues with metrics in the humanities are well documented by Emanuel Kulczycki et al. (2018). Authors point out that traditions, publication patterns, and language strongly influence the reliability of citation indexes. In Italy and beyond, in the Arts, Humanities, and Social Sciences (AHSS), researchers produce a wider variety of outputs, such as books and book chapters, compared to the primarily journal-based outputs in other disciplines. Many of these output types are not well represented in databases, or their citation records are incomplete, making meaningful analysis difficult. Additionally, language barriers and the specific focus of research topics in AHSS fields contribute to the inconsistency of citation indexes.

They found that in many European countries, less than 50% of Social Sciences and Humanities publications are visible in WoS. Authors in these fields often choose to publish in journals with a narrower geographical and thematic scope but relevant for their discipline and country, that cater to specific sectors within AHSS fields, which can result in their work being underrepresented in global citation databases. This is particularly evident when comparing the ANVUR list with the top 20 archaeological journals identified by major indexes and the results of the simple test described above, where an important journal for Italian archaeology, such as *Scienze dell'Antichità*, is perceived as less significant than it truly deserves. Prestigious international journals often privilege broad, “catchy” themes over studies rooted in newly excavated or contextual data. Detailed datasets may be sidelined in favor of general interpretations, making it harder for context-rich research to gain visibility, while topics with wider appeal attract disproportionate international attention.

DoRA & the Leiden Manifesto

Concerns about the unquestioned use of metrics have long been felt across disciplines. The topic has been addressed by scientometricians, leading to the formulation of two important declarations. In 2012, at the Annual Meeting of the American Society for Cell Biology in San Francisco, the Declaration on Research Assessment (DORA) was

developed. DORA recognized the urgent need “to improve the ways in which researchers and the outputs of scholarly research are evaluated.” It emphasized the pressing need to reform how the output of scientific research is assessed by funding agencies, academic institutions, and other stakeholders. Among its key claims were: the need to eliminate the use of journal-based metrics, such as Journal Impact Factors (JIF), in funding, appointment, and promotion decisions; the need to evaluate research based on its own merits, rather than the journal in which it is published; and the need to take advantage of the opportunities offered by online publication

In 2015, the journal “Nature” published a comment paper titled “Bibliometrics: The Leiden Manifesto for Research Metrics” (Hicks et al. 2015), in which the authors advocated for the use of ten principles to guide research evaluation. The authors, who were scientometricians, social scientists, and research administrators, expressed growing concern about the widespread misuse of indicators in the evaluation of scientific performance. They observed how the abuse of research metrics had become too widespread to ignore and, in response, presented the Leiden Manifesto.

The emergence of these initiatives is highly significant. Over a decade ago, the “obsession with the JIF” was already identified as a problem affecting researchers’ attitudes towards science and, by extension, the quality of science itself. This international debate is reflected also in Italy.

The quality dilemma

The phrase “publish or perish”, as we understand it today, was first coined in the 1920s by Clarence Marsh Case (Moskovkin 2024). While every scholar today is familiar with its meaning, few are aware of its origins in a Jesuit proverb, which stated: “publish lest the knowledge should perish with you” (Seppelt et al. 2018). This original phrase carried a surprisingly different message from the modern interpretation, which is associated with the pressure researchers face to publish frequently, often at the expense of quality.

In a recent talk for the opening of the 2023 Academic Year at the “Accademia dei Lincei” in Rome⁶, influential Italian archaeologist Marcella Frangipane called attention to two critical aspects of research (Frangipane 2023). First, she highlighted the meaning of “innovation,” which is often equated with technical progress but should instead be understood as the “ability to look beyond mainstream issues and the current ‘priorities’ of the moment”. Second, she emphasized the need for “time” in the research process. Frangipane aligns with the “Slow Science Movement”, which opposes performance targets and advocates for research driven by curiosity rather than short-term productivity. She cites a recent article published in “Nature” (Park et al 2023), which analysed the “disruptiveness” of scientific papers and patents over time. Using the CD5 index, the authors found that while the number of disruptive articles remained relatively stable, the average breakthrough capacity had significantly declined. This trend suggests an increase in “background noise”, irrelevant or marginally relevant articles. Moreover, scientists are

⁶ The Accademia Nazionale dei Lincei, founded in 1603, is one of the oldest scientific academies in Europe. It promotes the advancement of knowledge across the sciences and humanities and brings together leading scholars at both national and international levels.

increasingly relying on a narrower range of existing knowledge, struggling to keep up with the pace of scientific production. The authors concluded that rather than a fixed “carrying capacity” for highly disruptive science, the shift towards quantity over quality confines researchers to familiar, smaller areas of knowledge. This benefits individual careers but does little for scientific progress as a whole.

In his 2017 article, “Is the staggeringly profitable business of scientific publishing bad for science?” (Buranyi 2017), Stephen Buranyi explores how commercial interests have shaped the field of scientific publishing. He draws attention to the industry’s extreme profitability, with margins surpassing even those of tech giants, due to the “triple-pay system” as described in a Deutsche Bank report. Governments fund research, scientists, whether as authors or reviewers, and institutions repurchase the final products at high costs. This business model, which traces its origins to Robert Maxwell’s Pergamon Press, revolutionized scientific publishing in the 1950s.

These observations are echoed by Young et al. (2008), who identify several consequences of the publishing ecosystem described above: 1) Articles published in highly competitive journals tend to present exaggerated results; 2) a small number of journals determine the visibility of most scientific discoveries; 3) scientific “herding,” or following the leader, compels authors to pursue popular research topics, often neglecting innovative ideas and independent paths of inquiry; 4) the artificial scarcity created by extremely low acceptance rates signals status, even if the content of the articles is not truly groundbreaking; 5) branding, wherein publishing in selective journals serves as evidence of a research result’s value, independent of its actual merit, becomes a key factor in career advancement.

In this environment, the long, slow, and nearly directionless work pursued by influential scientists like Fred Sanger, who published very little between his Nobel Prizes in 1958 and 1980, has become virtually unviable. Today’s system would likely have left Sanger without a position, despite his groundbreaking contributions to science (Buranyi 2017).

These structural traits give rise to serious ethical concerns, both for researchers and publishers. The concept of “quality” in research has become increasingly elusive, and its control is entrusted solely to the self-correcting mechanisms of the peer review process, which, however, is not without its flaws.

Peer reviewing

The peer review process (PRP) has long been considered the “self-correction mechanism” of science, ensuring the quality of published research since the advent of scientific journals. Peer-reviewed journal articles are seen as reliable because they have undergone independent evaluation by experts in the field. However, the confidence placed in this system appears to rest on shaky foundations, as several critical aspects of the process have been raised. In 1985, Stephen Lock, then editor of the “British Medical Journal”, published an entire book analysing the PRP, titled “A Difficult Balance: Editorial Peer Review in Medicine” (Lock 1985a). Subsequent events, including thematic congresses held by the Journal of the American Medical Association in 1989, 1993, and 1997, as well as numerous books (e.g., Godlee, Jefferson 2000) and a plethora of scientific papers, have continued to scrutinize the PRP. One example of ongoing attention to the subject is the “PEERE” Cost Action (European Cooperation in Science and Technology), which ran

from 2014 to 2018 with 31 participating countries, aimed to improve the efficiency, transparency, and accountability of peer review (PEERE, 14 Mar 2025).

Criticisms of the PRP stem from various factors:

- The definition of the PRP remains ambiguous (Smith 2006), as its mechanisms and objectives, whether for paper selection or quality improvement, are often unclear.
- The process is highly subjective, leading to a lack of consistency and transparency.
- It is susceptible to bias, including parochialism and misconduct.
- The process is costly in terms of the researchers' time, which can be quantified in economic terms (Aczel et al. 2021).
- Data regarding the PRP are generally inaccessible (Squazzoni et al. 2017).

As Smith succinctly puts it, “the practice of peer review is based on faith in its effects, rather than on facts.”.

The “quality control” role of the PRP has often been questioned. Ozonoff (2024: 3) argued, “If peer review were a research instrument, we would be very reluctant to use it” and pointed out that the evidence linking pre-publication peer review to improved quality is, at best, mixed. Studies have also shown that the reviewers' ratings do not correlate with subsequent citations of the paper (Rangone et al. 2012, Bartneck 2017). Many experiments have been conducted to test this aspect of the PRP. For example, Smith (2006) describes an experiment conducted by the editorial board of the “British Medical Journal”, in which major errors were deliberately inserted into a set of papers undergoing peer review. None of the reviewers detected all the errors, and most identified only a quarter of them. The list of “academic hoaxes” or bogus papers submitted to peer-reviewed journals is long. It ranges from the famous “Sokal Affair” (Sokal affaire, 15 Mar 2025) to the “Conceptual Penis” hoax (The conceptual penis, 15 Mar 2025), non-sensical articles that were published in peer-reviewed journals.

A significant concern regarding the PRP is its inconsistency and subjectivity. Reviewers agree only marginally more than random chance would predict. A famous experiment to assess the consistency of the PRP was conducted at the 2014 “Neural Information Processing Systems” (NIPS) conference in Montreal. To evaluate 10% of the conference papers (166 in total), the scientific committee was divided into two groups, each reviewing the same papers. The acceptance rate was set at 22.5%, but only 16 papers were accepted by both committees, meaning that more than half of the accepted papers were rejected by at least one of the committees. This high rate of disagreement (77.5%) suggests that the decision-making process may be closer to random than to a method based on expert evaluation. Among other factors, Brezis and Birukou (2016) attributed the arbitrariness to two main causes: 1) reviewers' preferences for similar ideas (homophily), and 2) differences in the amount of time reviewers allocate to evaluations.

Biases in peer review have been documented since the 1980s, including those based on author rank, gender, institutional affiliation, and research attitude (Peters, Ceci 1982; Lock, 1985a). Several studies have shown that even groundbreaking research, later awarded the

Nobel Prize, struggled to find publication due to the conservative nature of scientific communities (Campanario 2009).

Lock (Dean, Flower 1985: 1560) recalled an instance when he, as editor, responded to an author whose paper had been rejected by reviewers. He acknowledged that peer review “favours unadventurous nibblings at the margin of truth rather than quantum leaps” and suggested an experiment: to publish the paper along with all related correspondence and reviewers’ reports, so that readers could better appreciate the editorial process. This idea of revealing the peer review process was put into practice by the “British Medical Journal” in 1999, where reviews were published online alongside the authors’ original versions and responses to reviewers’ comments (Smith 1999).

The issue of transparency in peer review has gained increasing attention. Open peer review, where review reports and reviewers’ identities are published alongside the articles, has become a growing component of open science (Wolfram et al. 2020). Ozonoff (2024) argues that “real peer review happens after publication”, as the scientific community continues to evaluate publications through citations, usage, contradiction, or disregard. This view is echoed by Oransky and Marcus (2011) that highlight the importance of post-publication analysis as part of the scientific record.

The rise of preprints and pre-reviewing platforms has also contributed to the evolution of the peer review process. Repositories like arXiv (arXiv, 20 Mar 2025) allow authors to upload their works for public access and feedback before formal peer review. The Peer Community In (Peer Community, 18 Mar 2025), provides a platform for the evaluation and recommendation of research by the broader community. In the field of archaeology, the “Peer Community in Archaeology” (Peer Community Archaeology, 18 Mar 2025) offers a similar service, recommending noteworthy unpublished articles and enhancing their reliability through peer review, without the need for traditional journal publication⁷. The recommendations are published alongside all relevant editorial correspondence, including the reviews, the decisions of the recommenders, and the authors’ responses. What is worth noticing is, more than the reviewers’ names, making the review process transparent by showing what the reviewers noted about the paper, the authors’ responses, and the editors’ reasoning behind their decisions—thus providing readers with the full background of the final published outcome.

Ethics Issues

Academic Predators

The term “predatory journal” was first coined by librarian Jeffrey Beall in 2010 (Beall 2010, 2012), and since then, a significant body of literature has developed to address the issue and its potential solutions. The narrative about Predatory publishing is closely tied to the Open Access (OA) model, particularly the “author pay” system, neglecting the fact that the emergence of predatory journals is closely linked to the academic publishing

⁷ The managing board of PCArc is composed of 11 members, including 1 Italian scholar. Among the 245 recommenders (those who manage preprint evaluations and play a role very similar to that of a journal editor), 19 scholars are affiliated with Italian institutions. The countries with the largest number of recommenders are France (32), Germany (30), the UK (23), Italy (19), and Spain and the USA (16 each).

system as a whole. OA aims to democratize access to knowledge and encourage wider dissemination and impact across the global scientific community. However, some authors believe that OA, particularly the Gold OA model, opens the door for dishonest publishers to exploit the “publish or perish mentality” for profit. Jeffrey Beall has been one of the most vocal critics of this practice. He authored the blog “Scholarly Open Access”, which hosted his well-known “Beall’s List”, a blacklist of unethical journals he identified. His (controversial) views are outlined in his article “What I Learned from Predatory Publishers” (Beall 2017), written after he shut down his blog due to (alleged) pressure from his employer, the University of Colorado Denver, and fears for his job (the University of Colorado published a notice negating Beall’s insinuations). Beall’s criticisms of the OA movement are evident in his writings, where he describes the conflict of interest inherent in the author-pay model (“The more papers they accept and publish, the more money they make, meaning there is an ongoing temptation to accept unworthy manuscripts to generate needed revenue”, 2017: 275) as a major threat to science (“I think predatory publishers pose the biggest threat to science since the Inquisition”, Beall 2017: 276). He contrasts OA with the “old” subscription model, which he sees as more trustworthy, with reputable publishers ensuring the quality of articles. However, Beall’s argument is flawed in several respects. First, there is no universally accepted definition of a “predatory journal” (Cobey et al. 2018). As Kyle Siler argues, economic exploitation can exist in various business models, and the term “predatory” is often subjective and context-dependent (Siler 2020).

In 2018, Amaral (2018) argued that comparing the behaviour of “predatory journals” to “traditional” publishers (he cites as an example Elsevier) is like comparing zooplankton to sharks, both in terms of scale and greed. While high fees in renowned journals may be criticized, they are rarely labelled as “predatory”, even if their business models can be economically exploitative. This raises the question of where academic and professional gatekeepers should draw the line between legitimate and predatory publishing along this broad spectrum (Siler 2020). These findings underscore the ambiguity in academic publishing, where inequalities can exist both between and within publishing institutions, and where strong articles are published alongside more questionable content.

Beall’s List, still accessible at bealllist.net, and similar initiatives aim to combat predatory publishing by compiling blacklists and whitelists. An example is Predatoryjournals.org, managed by anonymous volunteer researchers who have been affected by predatory publishers and seek to help others identify trustworthy journals. One of the most prominent, and controversial, blacklisting services is offered by Cabell Publishing, which provides a paid database of deceptive journals and a separate list of verified ones (Cabell, 18 Mar 2025). However, it has been criticized for inconsistencies in its evaluation procedures (Dony et al. 2020; Grudniewicz et al. 2019).

On the other hand, the Directory of Open Access Journals (DOAJ) is a widely respected website that maintains a community-curated list of reputable open access journals. Launched in 2003 and managed by Infrastructure Services for Open Access (IS4OA), DOAJ aims to increase the visibility and accessibility of high-quality, peer-reviewed open access journals across the globe, regardless of discipline or region.

Although some argue that the issue of predatory publishing is overstated (Olijhoek, Tennant 2018), the problem undeniably exists, though it should not be attributed solely to OA. As discussed in earlier sections, the structural issues in academic publishing are at the root of the problem. Numerous experiments (e.g., the “Dr. Fraud” experiment or the “Bannon experiment”) have tested the vulnerability of the system, demonstrating that “suspect” journals are more prone to unethical behaviour than “controlled” journals, which, however, are not always able to guarantee quality control. A central issue in the debate is the role of peer review. Beall argues that in order to compete in a crowded market, legitimate OA publishers are pressured to promise shorter submission-to-publication times, which weakens the peer-review process. However, as discussed, peer review itself is often an opaque process, with the reputation of the journal serving as a proxy for quality and trustworthiness.

Ultimately, it seems that blacklists and whitelists are not foolproof tools but rather symbolic measures, tools we wish to believe in rather than ones that effectively address the underlying issues. In his 2018 article, Amaral provocatively claims that publishing in a high-impact factor journal is a collective illusion, promoted by funding agencies, institutions, and researchers, and that it serves as an excuse to delegate the evaluation of science to for-profit companies and anonymous reviewers, undermining objectivity. In this complex environment, researchers and institutions often rely on blacklists, whitelists, and committee guidelines without questioning the integrity of those gatekeepers, “Who watches the Watchmen?” (Strielkowski 2018). Academic publishing is both a professional and economic activity, and for it to be perceived as legitimate, a balance must be struck between these often-conflicting ideals (Siler 2020). The drive for profit by publishers is not new, as exemplified by the story of Robert Maxwell, and is not the only factor pushing science away from its meritocratic ideals. The history of scholarly publishing has long been shaped by power structures that favoured “whiteness, cis-gendered heterosexuality, wealth, the upper class, and Western ethnocentrism” shaping who was published and whose ideas were heard (Swauger 2017). These structural inequalities have historically marginalized voices from non-Western contexts and underrepresented groups, both in terms of authorship and editorial power. As a result, academic legitimacy has often been tied to institutions and journals rooted in the Global North, reinforcing epistemic hierarchies that still persist. In this context, predatory OA publishers are often associated with publishers from the global south (Beall 2012). However, the role of some journals in promoting research on regionally significant topics should not be overlooked (Cobey et al. 2018: 30).

Thinner Slices, More Papers: “Salami Publishing”, Plagiarism, and Self-Plagiarism

Unethical practices are not limited to publishers alone; authors can also engage in questionable behaviour. Some of these practices have become so widespread that they have been the subject of specific studies and publications.

Plagiarism is one of the most common and perhaps the most pervasive form of misconduct on the part of authors. It can take various forms. As forensic plagiarism investigator Barbara Glatt describes (Lawrance 2024) it, plagiarism can be: Direct, copying word-for-word without attribution; Indirect, the wholesale theft of ideas; Mosaic, altering

some words while copying others; Honest mistakes, unintentional errors of omission or execution.

Academic plagiarism often involves power dynamics, such as those between professors and students or across gender lines, where individuals in positions of authority may exploit their power to appropriate the work of others without proper credit. One of the more subtle forms of plagiarism is what I refer to as “secondary plagiarism”, which operates at a structural level. This occurs when credit for a scientific idea, despite the work being published with all authors acknowledged, is attributed to a single author. “Secondary plagiarism” could have a much greater impact on researchers’ careers (and mental well-being) than one might imagine.

Plagiarism is deeply ingrained in academic culture, with even prominent scholars being accused of it (e.g., former Harvard President Claudine Gay, Lawrance 2024). Several studies have sought to quantify the extent of plagiarism, with findings that suggest between 3% and 7% of scholars admit to having stolen ideas at least once. Even more striking, 30% admit to knowing colleagues who have plagiarized (Pupovac, Fanelli 2014; Xie et. al 2021; Allum 2024; Brooker 2024). This problem may intensify with the widespread use of generative AI tools, which have made rephrasing easier than ever. More concerning, authors who misuse such tools may inadvertently plagiarize, often without understanding whom they are plagiarizing or realizing that they are doing so. ChatGPT, for example, is a widely used language model designed to create original outputs, but it does not actively verify whether the generated text matches existing sources, and, as a result, it may unintentionally reproduce commonly cited phrases or well-known passages. (OpenAI, 18 Mar 2025).

The increasing prevalence of plagiarism checkers underscores the widespread nature of this issue. For example, CrossRef offers the “Similarity Checker”, which helps members prevent scholarly and professional plagiarism. Other services, such as “Grammarly” and “Scribbr”, are also commonly used to detect and prevent plagiarism.

While plagiarism is generally recognized as unethical, what happens when an author plagiarizes their own work? Scholars like Vesna Šupak-Smolčić (e.g. 2013) have written extensively on self-plagiarism, arguing that it can artificially inflate an author’s productivity. In response, the “Committee on Publication Ethics” (COPE) has issued guidelines for handling self-plagiarism. Šupak-Smolčić and Bilić-Zulle (2013), following Miguel Roig, classify self-plagiarism into four types, as shown above in table 2.

Research by Wager et al. (2015) highlights that highly prolific authors may publish more than one paper every 10 working days! In Archaeology and the Social Sciences, the most common forms of self-plagiarism are duplicate publications and text recycling, along with self-repetition. However, self-repeat plagiarism can be transparent and honest or deceptive, depending on the context.

Type of plagiarism	Description
Duplicate publication	When manuscripts are nearly identical, often involving the publication of the same article in different languages (some plagiarism checkers, such as “Turnitin”, can detect these duplicated translations)
Salami slicing	A form of redundant publication common in experimental disciplines. This occurs when multiple papers are published from the same dataset or experiment, but each paper presents only a fraction of the overall findings. These papers may share similar hypotheses, methodologies, or results, but differ in text composition, making them harder to detect by software.
Augmented publication	Similar to salami slicing but involves adding new data to previously published work. These additions may appear modest but can artificially increase the number of publications based on a single study.
Text recycling	The simple reuse of previously published text, often through copy-pasting.

Table 2. Classification of plagiarism types, as defined by Šupak-Smolčić and Bilić-Zulle (2013) based on Miguel Roig’s framework.

The factories of fake science: Paper Mills, Citation Mills, and the Industrialization of Academic Fraud.

Among the most unethical practices in scientific publishing, paper mills and citation mills are undeniably the worst offenders.

Paper mills are defined by COPE as “profit-oriented, unofficial, and potentially illegal organizations that produce and sell fraudulent manuscripts (containing fake and/or plagiarized data) that mimic genuine research. They may also handle the submission of articles to journals for review and sell authorship to researchers once the article is accepted for publication. Indications that manuscripts may have been produced by a paper mill are more apparent at scale, as they often share similar layouts, experimental approaches, and identical or altered images and figures (COPE paper mill, 18 Mar 2025).

A recent estimate suggests that at least 400,000 papers published between 2000 and 2022 may have been produced by paper mills, with only 55,000 of them being retracted, according to “Retraction Watch” data (Candal-Pedreira et al. 2022). Alarming, papers produced by paper mills are often widely cited, which complicates efforts to identify them. These papers can appear perfectly legitimate to reviewers and editors, but image analysis tools can sometimes detect image manipulation or duplication, though this remains a significant challenge. Software like “Problematic Paper Screener” may identify unusual phrases that hint at scientific misconduct. COPE has also published a list of common indicators to help identify suspicious papers.

Paper mills are most commonly associated with open-access journals, but they also infiltrate journals indexed in major databases Candal-Pedreira et al. (2022). However, the

key issue lies on author side. As Cameron Neylon (2015) points out, researchers act out of rational choice within the competitive environment they themselves helped to create.

Review mills & Citation mills. In addition to paper mills, review mills and citation mills are emerging as related unethical practices. Review mills generate fake reviews using vague and repetitive formulas, undermining the peer-review process. Similarly, citation mills manipulate citation counts, often pressuring authors to cite specific articles. A study by Ibrahim et al. (2025) demonstrated how citation manipulation occurs. They found groups of scientists who received large volumes of citations from specific papers, raising concerns about the authenticity of these citations. In some cases, a paper consisting of just two pages would reference a particular author 29 times in its bibliography, with the main text containing only one citation. Authors even contacted “citation-boosting services” that sold batches of citations for prices ranging from \$300 for 50 citations to \$500 for 100 citations. Illicit citation sellers assured authors that the citations came from peer-reviewed journals indexed in Scopus, including some published by well-known houses like Springer and Elsevier, with impact factors as high as 4.79. Notably, the effectiveness of these citation-boosting services decreases dramatically when journals indexed in Scopus or WoS are involved.

A Virtuous Approach: Addressing Scientific Malpractices through Openness and Community Involvement

The scientific community is well aware of the dangers posed by malpractices, as evidenced by the growing body of research dedicated to the topic. While there are no simple solutions, and merely listing the good and bad practices does little to resolve the issue, several approaches show promise. One such path involves fostering openness in scientific products and encouraging wider participation from the scientific community in the “quality control” process. Several initiatives and models of scientific interaction are worth highlighting in this regard.

PubPeer is one such platform, created in 2012 to enable its community to discuss and review scientific research post-publication (PubPeer, 20 Mar 2025). Users can interact with one another and with the authors themselves, who have the opportunity to respond to comments. A study by José Luis Ortega (2022) analysed 17,244 commented publications. The study found that 12,687 (approximately 73.6%) of these publications showed signs of data manipulation or publishing fraud. Of these, 21.7% received editorial notices, and many were subsequently retracted. Notably, articles from Social Sciences and Humanities were less frequently flagged for issues (3.2%) compared to other disciplines.

An emerging model of scientific publishing is the **overlay journal**, which combines comments and published material in an innovative way. Overlay journals are a type of open-access academic journal that does not produce its own content but instead selects from texts that are already freely available online. Editors may formally republish the article with an explicit approval statement, add a note to the text or its metadata, or simply link to the article through the overlay journal’s table of contents. Another approach involves grouping scattered articles together into themed issues, which allows for a focused exploration of relatively obscure or newly emerging topics.

Indexes and (what matter in) Archaeology

In an always growing body of publications, indexes absolve three main functions: 1) they help researcher in gathering information about their own scientific field; 2) they act as guarantor of quality; 3) they measure scientific world actors (scholars, journals, institutions). It is out of doubt their immense utility and, at the same time, they are part of a system that should foster scientific advances but, instead, it is thought to be an obstacle to it because of the over production of poor significative papers, the homologation of ideas, the pushing through unethical and even illicit behaviours. It is beyond my competence and capacity to discuss how the scientific world should be organized but some consideration can be given to. The first function of the indexes, helping to search for data, does not need to be explained, we have just to keep in mind that the result of our searching depends on where we are searching, and that the selection operated by some indexes, that we can define the “trusted indexes” (namely Scopus and WoS that are considered in many institutional evaluation of scientists) can effectively be considered, to a certain extent, a quality control (as the firewall function against Citation Mills seem to indicate). Function 3 is a more complex point to discuss. As it has been stated in the preceding paragraph, metrics have a profound effect on scholar’s careers in many disciplines. Metrics quantify quality largely based on citations. Thus, we should agree on what is relevant citations to be counted, what is meaningful for the advance of a discipline. It could be an endless task addressing this topic, we can therefore just consider some issues about Archaeology.

The nature of data and data-collecting in Archaeology

Data collection is the process of systematically gathering and measuring unorganized facts or figures. This data enables researchers to test hypotheses or develop new ones. Once analysed and possibly combined with other data, it transforms into meaningful “information”, providing context and insight. Although methods vary across disciplines, accurate and honest data collection is universally essential.

In archaeology, however, the nature of data collection becomes more complex. What constitutes “raw data” or “interpreted data” can sometimes be difficult to distinguish, especially depending on the scale of observation. Modern excavations are typically organized around the concept of Stratigraphic Units (SUs) (or more in general layers or contexts), whose definitions are highly subjective and require specific expertise (De Guio 1988). The SU (in the form of maps and compiled sheets) enter in the archaeological literature as data but they can be considered “type 1 information”, a product of an analytical process. Similarly, cultural objects found during excavation, such as pottery, also undergo a similar transformation. A sherd, the data we use in building chronological sequences, quantification, distribution, etc., can be considered the result of an analytical process rather than raw data. Its definition, which in most cases passes through the process of “archaeological drawing” and formalized description, that is how the “raw data” is presented in the literature, is the result of a subjective operation depending on the expertise of the individual archaeologist and can therefore considered “type 1 information”.

In broader archaeological analysis, what is used are not samples of the “real world”, but representations of it, produced through the analytical activities of researchers.

In archaeology, monographs are often the best, and sometimes the only, format for publishing archaeological data or “type 1 information”. The production of these publications is time-consuming, as they result from extensive fieldwork and long-term data elaboration, and too often are considered merely descriptions, catalogues or lists of objects. This makes them poorly suited for the fast-paced “publish or perish mentality” prevalent in other disciplines.

Recent years have seen a shift towards more quantitative approaches in the Humanities and Social Sciences, often inspired by the “hard sciences” (defined by the use of mathematic). The rise of data modelling techniques, exemplified by the increasing use of programming languages like Python or R, marks a significant step forward for the field.

Consider mobility studies in archaeology. Researchers employ various analytical methods, from network analysis to complex statistical models, to reveal patterns of movement and interaction. But what exactly constitutes the foundational data for these analyses? In network analysis, archaeologists often map connections between sites (nodes) based on shared material culture (edges). Yet this seemingly straightforward approach conceals layers of interpretation. What we call a “site” already represents processed information; what we might term “type 1 information”. This interpretive process extends further when establishing connections between sites. The “shared items” linking two locations aren’t simply objects, but typological categories. The journey from individual artifacts (e.g. ceramic vessels) to established “types” involves complex analytical work. Here, “type 1 information” becomes the building material for a higher level of abstraction: “type 2 information”.

An illustrative case from Italian Prehistory

The Bronze Age archaeology of Italy provides a compelling example of this process in action. In her influential work, Emma Blake (2014) relies on typologies established in the *Prähistorische Bronzefunde* (PBF) series to map connections between communities. PBF organizes bronze objects from a given country into typologies. Although it is a German project, many Italian scholars contributed, resulting in several volumes in which Italian bronze objects are classified into types and dated according to a relative chronological sequence based on their occurrence in different types and contexts. These typologies, carefully constructed classifications of bronze objects, serve as the author’s network data, allowing her to identify specific clusters in the Late Bronze Age network, which she interprets as precursors to the ethnic groups that emerged in later phases.

The creation of such typological frameworks is intellectually demanding and time-consuming, traditionally appearing in comprehensive monographs rather than journal articles. Looking ahead, emerging technologies offer promising pathways. Machine learning approaches to artifact classification (Cardarelli 2024) may revolutionize how we generate and share this essential “type 2 information”, a critical but currently undervalued component of archaeological knowledge production. These developments could fundamentally reshape not just how we analyse archaeological data, but how we publish and evaluate archaeological research.

Reimagining Metrics for Archaeological Innovation

What Drives Archaeological Discovery?

Innovation, elusive to define and challenging to quantify (Nadal et al. 2020), manifests in archaeology through three interconnected dimensions: conceptual breakthroughs, methodological advances, and new empirical foundations. These elements form a dynamic ecosystem: fresh theoretical frameworks inspire novel methodologies and demand previously unexplored data; innovative techniques unlock access to untapped evidence and catalyse conceptual evolution; and newly discovered data can fundamentally challenge established paradigms.

The Unique Epistemic Landscape of Archaeological Data

When we consider the distinctive nature of archaeological data discussed earlier, their production emerges as fundamentally important to the discipline for several compelling reasons. First, archaeology operates under conditions of unrepeatable observation, we cannot simply reconstruct the excavation that yielded our initial dataset. Second, identical methodological approaches can produce dramatically different results, also when applied to contemporaneous sites within the same region (“same experiment can give different results”). Third, as Wallach (2019) sharply observes, “inferences from absence [in archaeology] have an epistemic standing that is comparable to other empirical inferences”.

The unique nature of archaeological data necessitates scientific outputs that are deeply focused on specific contexts and research questions, both chronologically and geographically. These highly specialized studies form the essential building blocks for broader interpretative frameworks and synthetic narratives.

Some archaeological subfields, such as Palaeolithic research, often address themes with wider appeal and broader relevance, making them more likely to be accepted by high-impact journals. In contrast, Italian research tradition tends to adopt for later epochs, like the Bronze Age, a micro-scale and regional approach, resulting in detailed and focused investigations that are less frequently published in major journals. This discrepancy reflects the challenges faced by specialists working in complex, heterogeneous fields where the value of meticulous, context-dependent research may be underappreciated in the competitive landscape of academic publishing.

Recognizing this dynamic is crucial to understanding the epistemic foundations of the production of prehistoric archaeological knowledge, and the need for diverse publication formats that accommodate both specialized case studies and synthetic overviews.

Archaeological interpretation advances toward stability only when we achieve a “critical mass” of classified specimens, that threshold where additional examples no longer necessitate the creation of new typological categories, allowing us to construct increasingly robust hypotheses.

Toward Archaeological-Specific Metrics: Lessons Learned from Italian Prehistoric Archaeology.

These considerations as shown by the Italian case study demand a fundamental recalibration of how we measure scholarly impact in prehistoric archaeology (and perhaps archaeology in general):

Elevating Monographs: Indexing systems must incorporate monographs, particularly those published in series with rigorous quality protocols comparable to peer-reviewed journals. Works often dismissed as mere “catalogues” should be recognized for their crucial role in generating type 1 and type 2 information. Citation metrics should track the most widely used datasets, identifying truly groundbreaking contributions to the field.

Recognizing Regional Specialization: Indexes must account for journals focused on specific regions and chronological periods, publications that provide the deep contextual understanding essential for interpreting the fragmented evidence that constitutes archaeology’s empirical foundation.

Embracing Digital Transformation: As a discipline, we should champion the creation of digital repositories for type 1 and type 2 datasets, indexed with the same rigor as traditional monographs. These collections could pair with specialized journals publishing papers that examine metadata structures and data curation methodologies.

Valuing Depth Over Volume: To effectively utilize metrics based on these reimagined indexes, we must consider the scope and magnitude of individual contributions rather than simply counting outputs. While the logic of hyperproductivity has faced widespread criticism across academia, archaeology faces a particular truth: in our field, it’s “Time” that ultimately counts.

Conclusions

This comprehensive examination of bibliographic indexing and research metrics, as it is shown by the case study, reveals a scientific publishing ecosystem reveals an ongoing conflict between its foundational mission, advancing human knowledge, and the structural forces that increasingly govern it. The evolution from early indexing systems like *Index Medicus* to contemporary platforms such as Web of Science, Scopus, and Google Scholar reflects not merely technological progress, but a fundamental transformation in how scientific value is conceptualized, measured, and distributed.

This analysis demonstrates that the apparent objectivity of citation-based metrics masks significant epistemological challenges. The comparative study of archaeological journals across multiple indexes reveals how varying inclusion criteria and algorithmic approaches produce dramatically different representations of scholarly output within a single discipline. When only one journal appears in all five major indexes examined, and when highly cited works remain invisible to “trusted” databases, we must question whether current evaluation systems truly capture scientific significance or merely reflect the biases embedded in their selection mechanisms.

The disciplinary analysis of archaeology illuminates broader issues affecting Humanities and Social sciences. The underrepresentation of regionally focused journals in international indexes, the inadequate handling of monographs, archaeology’s primary vehicle for publishing empirical data, and the mismatch between citation patterns and actual scholarly influence all point to fundamental limitations in applying standardized metrics across diverse knowledge domains. The concept of “type 1” and “type 2”

information reveals how disciplines with unique epistemic foundations, as it is archaeological research, require correspondingly specialized approaches to evaluation.

Perhaps most concerning is the evidence of how metrics have begun to reshape scientific practice itself rather than merely measuring it. The documented decline in disruptive research and the rise of unethical behaviours represents symptoms of a system that has prioritized measurability and quantity over meaningfulness and that require, above all, a cultural change. The “publish or perish” mentality, originally conceived as “publish lest the knowledge should perish with you”, has been inverted into a productivity imperative that may actually impede the preservation and advancement of knowledge.

The peer review process, positioned as science’s primary quality control mechanism, emerges from this analysis as a system operating more on faith than evidence. The documented inconsistencies, biases, and limited effectiveness of traditional peer review, combined with the promising developments in open peer review and post-publication evaluation platforms, suggest that quality assurance in scientific publishing requires fundamental reconceptualization rather than mere refinement.

Yet this analysis also identifies pathways toward more equitable and effective evaluation systems. The principles articulated in DORA and the Leiden Manifesto provide frameworks for contextualizing metrics rather than abolishing them. The emergence of overlay journals, preprint repositories, and platforms like PubPeer demonstrates the scientific community’s capacity for self-correction and innovation.

For archaeology specifically, and for Humanities and Social sciences more broadly, the path forward requires embracing disciplinary specificity while maintaining scholarly rigor. This means developing indexing systems that account for monographs and regional publications, creating metrics that value depth and contextual significance over volume, and fostering digital repositories that make specialized datasets accessible for citation and reuse. The field’s unique relationship with unrepeatable data and its dependence on accumulated evidence demands evaluation criteria that recognize the long-term, collaborative nature of knowledge building.

Ultimately, this study argues for a more nuanced, pluralistic approach to scientific assessment, one that recognizes that meaningful evaluation cannot be achieved through metrics alone, but requires human judgment informed by disciplinary expertise and contextual understanding. The goal should not be to eliminate quantitative measures, but to deploy them more thoughtfully within evaluation frameworks that tribute the diversity of scientific practice and the complexity of intellectual contribution.

The transformation of scientific publishing and evaluation will require sustained effort from all stakeholders: researchers who must resist the temptation of gaming metrics while advocating for fair assessment; editors and publishers who must balance commercial viability with scholarly integrity; institutions that must develop promotion and tenure criteria reflecting the full spectrum of academic contributions; and funding agencies that must support both high-risk, innovative research and the foundational work that enables future breakthroughs.

As the Italian case study demonstrates, national evaluation systems like ANVUR can play crucial roles in recognizing regional scholarship and disciplinary specificity, but they must remain vigilant against reproducing the limitations of international indexes at a local level. The challenge lies in maintaining scientific standards while ensuring that evaluation systems serve science rather than constraining it.

In closing, this analysis suggests that the current crisis in scientific publishing and evaluation may ultimately prove catalytic, forcing a necessary reckoning with systems that have outlived their utility. The emergence of alternative models, from overlay journals to post-publication peer review, indicates that the scientific community possesses both the will and the creativity to develop more equitable and effective approaches to knowledge dissemination and assessment. The question is not whether change will come, but whether it will be guided by principles that truly serve the advancement of human understanding. The path forward requires acknowledging that science, at its best, remains fundamentally a human endeavour driven by curiosity, collaboration, and the patient accumulation of knowledge across generations. Any evaluation system worthy of this enterprise must reflect these values while adapting to the realities of contemporary academic life. In archaeology, as in all disciplines, the ultimate measure of our success should not be the efficiency with which we produce publications, but the depth and durability of the understanding we create.

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Appendix

Lexicon

- **Abstracting database:** A database that provides structured summaries (abstracts) of academic articles, reports, or other documents. These summaries allow users to assess the relevance of a document without reading the full text.
- **Indexing database:** An organized collection of documents, assigning subject terms, keywords, and other metadata to facilitate retrieval. Indexing improves discoverability by enabling users to search for documents based on structured criteria rather than full-text searches.
- **Aggregators:** Platforms that collect and distribute scholarly content from multiple publishers, databases, or academic institutions. Aggregators provide centralized access to a wide range of scientific products, often through subscriptions or institutional licenses.
- **Citation index:** A specialized type of bibliographic database that tracks citations between published works.
- **Abstracting and indexing service (A&I service):** A commercial or institutional product that provides both abstracting and indexing functions. These services are offered by publishers, academic institutions, or specialized information providers.

Indexes & Other Services

Main indexes, databases & services

The number of databases and A&I services has grown rapidly with the spread of the internet, aiming to link scientific data and publications and, importantly, to manage citations among papers. Among the major indexing services, such as Scopus, Web of Science, and Google Scholar (described in the text), there are also other notable platforms worth mentioning.

Microsoft Academic was a free, AI-driven academic search engine developed by Microsoft Research. It provided access to a vast collection of scholarly publications, authors, institutions, and research topics, leveraging natural language processing (NLP) to extract and analyze metadata. It played a key role in academic discovery until its shutdown in December 2021, after which its data (Microsoft Academic Graph, containing billions of entities, including papers, authors, journals, citations, and more, organized as a relational graph) contributed to the development of OpenAlex and other research indexing projects (Microsoft Academic, 10 Feb 2025).

OpenAlex is a free and open catalogue of global scholarly research aimed at indexing academic outputs. It allows users to search using various metadata fields. Works are ranked solely by citations. Its primary data source is Microsoft Academic Graph. Data can be accessed via a free API (OpenAlex, 13 Feb 2025).

CrossRef is a nonprofit organization providing open digital infrastructure for the scholarly research community. It is the largest Digital Object Identifier (DOI) Registration Agency of the International DOI Foundation. Rather than hosting full-text scientific content, CrossRef facilitates links between distributed content on external sites through open metadata and persistent identifiers. It manages citation linking and offers services such as “Similarity Check”, a plagiarism detection tool. (CrossRef, 13 Feb 2025).

Dimensions is a comprehensive research data infrastructure that enables users to explore connections across various scholarly outputs. It integrates a wide range of linked data, including grants, publications and datasets. Publications are ranked based on: 1) total citations received from any publication type; 2) Field Citation Ratio; 3) recent citations, the number of citations received in the past two years; 4) Altmetric Attention Score. Publications and datasets can be browsed with a free account, while some features require a subscription (Dimension 13 Feb 2025).

AMiner is a free online service for indexing, searching, and mining scientific data. Users can browse content using metadata filters. Unlike other platforms, AMiner does not develop its own research metrics (AMiner, 15 Feb 2025).

The Lens aggregates metadata and full-text content, integrating scholarly works, patents, and biological sequences with management tools (The Lens, 13 Feb 2025).

Scilit is a multidisciplinary, free scholarly database and aggregator that indexes scientific literature by harvesting up-to-date metadata from sources such as CrossRef, PubMed, and other repositories. It offers users tools to rank and evaluate editors, journals, preprint servers, and institutions using a variety of metrics, facilitating discovery and assessment of scientific output (Scilit, 15 Feb 2025).

Semantic Scholar is an AI-powered research discovery platform that enhances academic search through natural language processing (NLP) and machine learning. It extracts key insights, summarizes findings, and identifies influential papers across millions of publications. Semantic Scholar prioritizes context and impact analysis rather than simple keyword matching. The platform covers a wide range of disciplines, with a strong emphasis on computer science, biomedical research, and AI-related fields (Semantic Scholar, 20 Feb 2025).

COCI (OpenCitations Index) is an open and freely accessible index of citation data derived from CrossRef. It provides structured bibliographic and citation metadata. COCI follows open data principles, allowing unrestricted reuse of its content. Users can access

and query COCI data via SPARQL endpoints, REST APIs, and bulk downloads, making it a valuable resource for bibliometric analysis and scholarly network exploration (COCI, 20 Feb 2025).

Academic Social network

Among the major indexing services such as Scopus, Web of Science, and Microsoft Academic Graph, platforms like ResearchGate and Academia.edu, although not formal indexing databases, contribute significantly to the dissemination of research and, in some cases, provide their own forms of author and paper rankings.

ResearchGate is a social networking platform designed for researchers and scientists to share their work, collaborate, and engage with the global academic community. It allows users to upload publications, ask and answer research-related questions, and track citation metrics. It does not function as a formal indexing service. Instead, it serves as a repository where researchers can disseminate their work and connect with peers, complementing traditional academic databases and indexing platforms. ResearchGate generates its own citation index based on full-text documents found by its web crawler and those uploaded by users. Citations, along with other indicators, are used to calculate the Research Interest Score.

In addition to RIS, ResearchGate uses two versions of the h-index (discussed below) to rank authors, one that includes self-citations and another that excludes them. The h-index is calculated solely based on the publications listed in users' profiles (ResearchGate, 8 Feb 2025).

Academia.edu is an online platform that enables researchers to share their publications, follow topics of interest, and engage with the academic community. It serves as a repository where scholars can upload their work, discover relevant research, and track readership metrics. While Academia.edu enhances visibility and networking opportunities, it is not a formal indexing service. Unlike traditional academic databases, it operates on a freemium model, offering additional analytics and promotional features to paying users. Academia.edu provides engagement metrics such as profile views, document count and downloads, and mentions. However, it does not have a proper scoring system (Academia, 8 Feb 2025).

Other services

In addition to indexing databases and academic social networks, there are several specialized tools and services that support scholarly publishing by facilitating citation analysis, seamless access to full-text articles, and monitoring publication integrity. Notable examples include Publish or Perish, Get Full Text Research (GetFTR), LibKey, and the Retraction Watch database.

Harzing's Publish or Perish is a software program that retrieves and analyses academic citations from multiple data sources, providing a range of citation metrics such as the

number of papers, total citations, and the h-index (Harzing's Publish or Perish, 10 March 2025).

Get Full Text Research (GFTR) is a service that provides researchers with direct access to online journal articles by leveraging existing access technologies, such as IP-based authentication and federated access. This allows users to eliminate the need for researchers to manually log into their institution's library system beforehand. Recently, GetFTR introduced a browser extension that researchers can install themselves. (Kwangil Oh 2023; GFTR, 10 March 2025)

LibKey is a tool designed to provide seamless full-text access for researchers. It provides users with smooth and reliable full text linking experience by leveraging artificial intelligence to select sources, generate PDF links, and interpret open access (OA) availability. It offers intelligent link classification and manages user authentication (Libkey, 10 Mar 2025).

Retraction Watch Database is a tool that tracks retracted articles, many of which are withdrawn due to unethical practices. Created by Ivan Oransky and Adam Marcus, it provides an updated record of retractions and, since its acquisition by Crossref in September 2023, is maintained with daily updates and made available as a downloadable CSV file via GitHub. (CrossRef GIT).

Metrics

Journal Metrics

The Journal Impact Factor (JIF) is perhaps the most widely recognized metric for evaluating journal performance, although its reliability has been increasingly questioned in recent years (Larivière, Sugimoto 2019). Introduced by Eugene Garfield in 1964, the JIF remains a key tool for ranking journals and is published annually in the Journal Citation Reports (JCR), a service currently managed by Clarivate Analytics. It is extensively used by academic communities worldwide.

The JIF is calculated each year by dividing the total number of citations received in the current year by articles published in a journal during the previous two years by the total number of citable items published in that journal over the same period. Citable items typically include research articles and reviews but exclude editorials, letters, and abstracts. Citations contributing to the JIF come from various document types, including papers and other scholarly works.

Related metrics include the 5-year Impact Factor, which considers citations over a five-year period rather than two, and the Immediacy Index, which measures citations received within the same year as publication.

An alternative metric, the Impact Factor without self-citations (IFwoSC), excludes citations that a journal receives from its own articles. A significant discrepancy between the standard JIF and the IFwoSC can lead to a journal's removal from the JCR list, as this serves to prevent citation manipulation.

The JIF varies widely across disciplines due to differences in citation practices and publication speed. Therefore, specific metrics are published for each field. The Median Impact Factor (MIF) represents the JIF of the journal positioned in the middle when all

journals in a discipline are ranked by JIF. The Aggregate Impact Factor (AIF) is the ratio between total citations received by all papers in a discipline's journals and the total number of citable papers published in that discipline over the previous two years.

Despite its popularity, the JIF has been criticized for favoring disciplines with rapid citation cycles and for potentially encouraging practices aimed at inflating citation counts rather than reflecting research quality.

Cited Half Life (CHL) & Citing Half Life. CHL is a metric that calculates the median age of the citations received by a journal during the JCR year. The age of a citation is determined by subtracting the publication year of the cited item from the publication year of the citing item. For example, if a journal has a CHL of 6, it means that half of the citations refer to items published more recently than 6 years ago, while the other half refers to older items. It focuses on the citations a journal makes to other works. The CHL provides insight into a journal's relationships with its peers, indicating which journals it cites most often and how far back those citations reach (Kim, Chang 2018: 17).

Cite Score is calculated using data from the Scopus database. It is an index similar to the JIF, and it represents the average number of citations received per published paper in a specific journal over the previous three years. Both the numerator and denominator include all document types, not just research articles (Scopus Metrics, 10 Feb 2025).

Source Normalized Impact per Paper (SNIP), developed at Leiden University, measures a journal's contextual citation impact by considering the characteristics of its defined subject field. Specifically, it accounts for the frequency with which authors cite other papers in their reference lists, the speed at which citation impact matures, and the extent to which the database used for the assessment covers the field's literature (Moed 2010). SNIP is calculated by dividing the "raw impact per paper" (RIP) by the "relative database citation potential" (RDCP). RIP is the number of citations received in the year of calculation by papers published in the previous three years in a specific journal, divided by the total number of papers published. RDCP is determined as follows: Consider the references of papers that cited articles from the journal in the year X, where the cited papers were published in the previous three years. Among these references, include only those published during the same 3-year period. Divide the total number of those references by the number of citing papers.

Only citations from journals in the Scopus database are included, while citations from outside the database are ignored. The RDCP is then normalized by dividing the DCP by the median DCP of the database (Kim, Chang 2018: 19).

The **Scimago Journal Ranking (SJR)** indicator, developed by a research group from the Consejo Superior de Investigaciones Científicas (CSIC), University of Granada, Extremadura, Carlos III (Madrid), and Alcalá de Henares, uses data from the Scopus database. Similar to Eigenfactor, the SJR indicator is based on eigenvector centrality from network theory, where the importance of a node (journal) is determined by its connections to other high-scoring nodes.

The SJR calculation proceeds as follows: 1) Assign an initial score to each journal; 2) in iterative steps, the prestige of journals is redistributed through citations; 3) the iteration process continues until the difference in prestige values between consecutive iterations is smaller than a specified minimum threshold (Kim, Chang 2018: 19).

Eigenfactor (JES). The core concept of the JES is that journals are considered influential when they are frequently cited by other influential journals. This follows a procedure similar to the PageRank algorithm used by Google. JES is based on the eigenvector centrality algorithm, and represents a simple model in which researchers follow citations as they move from one journal to another. The process is as follows: 1) randomly select a journal article; 2) randomly choose one of the citations from the article; 4) proceed to the cited work; 5) select a new citation from this article; 6) repeat the process continuously. The frequency with which each journal is visited reflects its importance within the academic citation network. Researchers tend to read journals that are highly cited by other influential journals. This iterative ranking model assumes that a single citation from a high-quality journal may carry more weight than multiple citations from less influential journals. The importance of a journal is thus measured by the influence of the citing journal divided by the total number of citations appearing in that journal (Berstrom 2007).

The Eigenfactor score of a journal indicates the percentage of time that journal is visited within the citation network. For example, if a journal has an Eigenfactor of 3.0, it means that 3% of the time, a researcher would be directed to this journal through the citation network.

Eigenfactor Scores tend to overestimate larger journals: the more articles a journal has, the more frequently it is expected to be visited. However, larger journals are not necessarily the most prestigious. To account for this, the Article Influence Score (AIS) is used. This index measures the influence of journals by considering citations per article and is directly comparable to the Journal Impact Factor (JIF). The AIS is calculated by dividing the Eigenfactor Score of a journal by the number of articles published, normalized so that the average article in the Journal Citation Reports (JCR) has an AIS of 1 (Kim, Chang 2018: 19).

Powered by scite_, **Smart Citations**, using deep learning models, categorizes citations based on their context. This feature provides a deeper understanding of journals, highlighting not only supportive mentions but also those that dispute or challenge the findings (Nicholson et al. 2021).

Although the **Acceptance Rate (AR)** is not typically used as a primary metric for ranking journals, many scholars consider it a straightforward measure. Journals with lower ARs are often perceived as more “prestigious”. However, it is important to note that several factors can influence this index: 1) different journals may calculate AR in various ways, such as how they treat resubmissions, whether items like invited papers, special issues, and book reviews are included or excluded, and the timeframe considered; 2) some journals allow editors to select which manuscripts are even sent to the editorial team, and calculate their AR only based on these selected manuscripts, which is often less than the total number of submitted papers; 3) the number of submitted manuscripts may not be accurately recorded by editors; 4) highly specialized journals typically have a lower acceptance rate.

Some publishers, such as Wiley, display AR on their journal websites, but in many cases, this information must be requested from the editors. A 2020 study (Herbert 2020) of data from 2,300 journals, mostly published by Elsevier, analysed this metric and found the following: 1) the average AR is around 32%; 2) larger journals tend to have lower AR than smaller ones (ranging from 10% to 60%); 3) high-impact journals have relatively low AR,

although there is considerable variation (from 5% to 50%); 4) gold open-access journals generally have higher AR than other types of open-access journals; 5) no clear relationship was found between a journal's scope and its AR, though STEM disciplines typically have lower ARs than journals in medicine or life sciences.

3.2 – Articles and authors metrics

Citation number. The most direct way to evaluate an article's impact is through the number of citations it receives. However, this number can vary significantly depending on the databases used to count citations. This metric is influenced by various factors, with some of the most significant being the discipline to which the paper pertains and the language in which it is written.

The **Altmetrics Attention Score (AAS)**, calculated by the Altmetric company, estimates the attention an article receives from non-traditional sources. It is designed to help identify how much and what types of attention a research output has garnered from different sources of attention, such as policy documents, news, blogs, social media. The score for an article increases as more people mention it. Different types of mentions contribute different base amounts to the final score. For example, a newspaper article contributes more than a blog post, which, in turn, contributes more than a tweet (Altmetric, 20 Feb 2025).

The **Consolidating or Disruptive index (CD index)** evaluates the impact of a paper on the discipline it pertains to, considering two possible outcomes: 1) some contributions enhance existing knowledge, thus consolidating the status quo; 2) some contributions disrupt existing knowledge, rendering it obsolete, and driving science and technology in new directions. It measures this distinction based on the premise that if a paper is disruptive, the subsequent work citing it is less likely to also cite its predecessors. Conversely, if a paper is consolidating, subsequent work that cites it is more likely to also cite its predecessors. The CD index ranges from -1 (consolidating) to 1 (disruptive).

The index is typically evaluated over a 5-year period from the paper's publication, as studies have shown that annual citations for most papers reach their peak within this time frame (Funk, Owen-Smith 2017).

The Field Citation Ratio (FCR) developed by Dimension is an article-level metric that indicates the relative citation performance of a publication when compared to other articles published in the same year within its subject area. A value greater than 1 indicates that the article has received more citations than the average for other articles published in the same subject area and year (Dimension, 13 Feb 2025).

Author level metrics

The H-index, proposed by Hirsch in 2005 (Hirsch 2005), is an author-level metric calculated using all of an author's papers, arranged according to the total number of citations they have received. The H-index is defined as the number of publications for which the author has been cited by other authors at least that same number of times (e.g., an H-index of 10 means the researcher has published at least 10 papers, each cited at least 10 times). The H-index can also be applied to journals using the total number of citations. However, the H-index has two major issues: since it is based on the total number of citations for each paper, it increases monotonically over time, even without the publication

of new papers; researchers with a small number of very influential papers may have low H-indices.

To address these limitations, the G-index was proposed (Egghe 2006). It is calculated by arranging articles in decreasing order of citations and finding the largest number such that the first “g” papers together have at least “g²” citations. For example, a G-index of 10 means that the top 10 papers by an author have received at least 100 citations.

Another similar metric provided by Google Scholar is the i10-index, which is the total number of papers authored by a researcher that have been cited at least 10 times.

The **Research Gate Interest Score (RIS)** combines reads by unique ResearchGate members, recommendations, and citations to provide a measure of an author’s research impact. It focuses on individual research items and researchers’ interactions with them. When a ResearchGate member reads, recommends, or cites a research item, that item’s RIS increases according to the following weighting system: Read: 0.05; Full-text read: 0.15; Recommendation: 0.25; Citation: 0.5. RIS excludes self-citations, author reads, reads by non-ResearchGate members, multiple reads and recommendations by the same researcher within a single week, as well as interactions from bots, crawlers, and other automated systems (ResearchGate, 8 Feb 2025).

Table 1 . Ranking of the archaeological journals as calculated in the “index comparison”

Journals	Score	WoS	Scopus	Dimen.	Open Alex	GS	ANVUR
Nr Tot		165	516	2430	4501	na	2314
Journal of Archaeological Science	75,0	7	8	3	9	3	A
Journal of Cultural Heritage	52,0	3	4	11	0	1	A
Journal of Archaeological Method and Theory	40,8	4	6	0	15	8	A(2019)
Journal of Archaeological Research	32,4	1	2	0	6	0	A
Journal of World Prehistory	25,2	2	14	0	5	0	A(2019)
Antiquity	21,6	13	0	7	0	7	A)
Archaeological and Anthropological Sciences	20,4	8	19	0	0	2	A(2017
Journal of Anthropological Archaeology	16,8	10	0	0	14	11	A
American Antiquity	14,4	6	18	0	0	15	-
Science and Technology of Archaeological Research	12,8	5	5	0	0	0	-

Journals	Score	WoS	Scopus	Dimen.	Open Alex	GS	ANVUR
Radiocarbon	12,4	0	1	0	0	10	A
Vegetation History and Archaeobotany	10,8	0	13	0	19	13	A
Quaternary Science Reviews	7,6	0	3	0	20	0	A
Archaeometry	7,2	0	0	10	0	14	A
Digital Applications in Archaeology and Cultural Heritage	7,2	0	12	0	0	12	A(2018)
International Journal of Heritage Studies	7,2	0	0	20	0	4	-
Journal of Field Archaeology	4,4	0	0	12	0	19	A
Journal of Paleolithic Archaeology	4,4	14	0	0	0	17	-
Man (Journal of the Royal Anthropological Institute)	4,0	0	0	1	0	0	-
PNAS	4,0	0	0	0	1	0	A
American Journal of Physical Anthropology	3,8	0	0	2	0	0	A
Annual Review of Anthropology	3,8	0	0	0	2	0	A
Science	3,6	0	0	0	3	0	A
Cambridge Archaeological Journal	3,6	19	0	18	0	20	A
Journal of the American Oriental Society	3,4	0	0	4	0	0	A
Nature Communications	3,4	0	0	0	4	0	A
Heritage Science	3,2	0	0	0	0	5	-
Journal of Forensic Sciences	3,2	0	0	5	0	0	-
Virtual Archaeology Review	3,2	18	16	0	0	0	-
World Archaeology	3,2	16	0	0	18	0	A
Journal of Archaeological Science: reports	3,0	0	0	0	0	6	-
The Journal of Roman Studies	3,0	0	0	6	0	0	A
Frontiers of Architectural Research	2,8	0	7	0	0	0	-
Science Advances	2,8	0	0	0	7	0	-
American Journal of Archaeology	2,6	0	0	8	0	0	A
The Anatomical Record	2,6	0	0	0	8	0	-

Journals	Score	WoS	Scopus	Dimen.	Open Alex	GS	ANVUR
Archaeological Prospection	2,4	9	0	0	0	0	A(2019)
Boreas	2,4	0	9	0	0	0	-
Heritage	2,4	0	0	0	0	9	A(2018)
The Journal of Hellenic Studies	2,4	0	0	9	0	0	A
Current Anthropology	2,2	0	10	0	0	0	A
Nature	2,2	0	0	0	10	0	A
African Archaeological Review	2,0	11	0	0	0	0	A
Journal of Computer Applications in Archaeology	2,0	0	11	0	0	0	-
Journal of Human Evolution	2,0	0	0	0	11	0	A
Advances in Archaeological Practice	1,8	12	0	0	0	0	-
Forensic Science International	1,8	0	0	0	12	0	-
Environmental Archaeology	1,6	0	20	0	0	18	A
Evolutionary Anthropology Issues News and Reviews	1,6	0	0	0	13	0	-
The South African Archaeological Bulletin	1,6	0	0	13	0	0	-
Dumbarton Oaks Papers	1,4	0	0	14	0	0	A
Ethnoarchaeology	1,2	15	0	0	0	0	-
International Journal of Osteoarchaeology	1,2	0	0	15	0	0	A
Journal of Agrarian Change	1,2	0	15	0	0	0	-
American Journal of Biological Anthropology	1,0	0	0	0	16	0	-
Archaeological Research in Asia	1,0	0	0	0	0	16	-
Studies in Conservation	1,0	0	0	16	0	0	A(2018)
Journal of Island and Coastal Archaeology	0,8	0	17	0	0	0	-
Journal of Mediterranean Archaeology	0,8	17	0	0	0	0	A
PLOS One	0,8	0	0	0	17	0	A
The Journal of Egyptian Archaeology	0,8	0	0	17	0	0	A

Journals	Score	WoS	Scopus	Dimen.	Open Alex	GS	ANVUR
Journal of the Economic and Social History of the Orient	0,4	0	0	19	0	0	-
Paleoamerica	0,2	20	0	0	0	0	-

A conversation between the sword and the neck: On censorship, colonialism and academic responsibility.

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DOI: 10.32028/exnovo-vol-9-pp.99-104

Prologue

In May 2025, I withdrew a book review and a separate article from *al-Masāq: Journal of the Medieval Mediterranean*, published by Taylor & Francis, which focuses on cross-cultural dynamics in the premodern Mediterranean world. This decision was not made lightly, and I feel compelled to share the reasons behind it, especially at a time when many of us are grappling with how academia responds (or fails to respond) to the ongoing genocide in Gaza.

The Facts

The editor of *al-Masāq* refused to publish my review unless I deleted a short passage that referred to the Israeli colonial project and apartheid. The sentence which was demanded to be erased was:

“The chapter also discusses the Israeli publishing house Andalus, which translated Arabic literature to Hebrew. However, this is a residual cultural interest in Israeli society and unfortunately usually part of an agenda presenting both parts as equals, in an intent of whitewashing the Nakba (the catastrophe) and the Israeli colonial project and apartheid.”

This comment came in the context of reviewing a chapter from Eric Calderwood’s *On Earth or in Poems: The Many Lives of al-Andalus* (Harvard University Press, 2023), which discusses Andalus, an Israeli publishing house (2000-2009), which translated Arabic literature into Hebrew.¹ Founded by Yaël Lerer, the project invoked al-Andalus – the Iberian Peninsula under Muslim rule – as a model of coexistence and was intended as a response to Israeli racism and xenophobia, as well as a form of resistance to the

¹ The review appears in the next section of this volume.

occupation. Lerer, also a co-founder of the pro-Palestinian party Balad party, later became active in French politics, running in the 2024 legislative elections with the left-wing New Popular Front alongside Gazan-born Salam Ismail.² A supporter of Boycott from Within,³ resulting from the BDS movement,⁴ Lerer has condemned Israeli military operations in Gaza, which she has described as a ghetto under Israeli apartheid.⁵ She has also criticized the use of essentialist narratives linking all Palestinians to Hamas' homophobia and rejected the framing of criticism of Israel as anti-Semitic,⁶ practices associated with what has been termed pinkwashing and whitewashing of Israeli state policies, particularly in light of ongoing military operations against Gaza and the continued establishment of settlements considered illegal by the United Nations. My review highlighted the significance of this framing while also offering a critique of how presenting cultural initiatives like Andalus as exemplary can be co-opted into broader discourses that obscure systemic violence. For Calderwood, while projects such as Andalus are not entirely anomalous within Israel, they did run counter to the dominant Israeli politics of the 2000s, which prioritized the expansion of Israeli occupation. In this context, al-Andalus was also invoked by marginalized groups, such as the Mizrahim (Eastern Jews), as a counter-symbol—a response to the prevailing Ashkenazi-Zionist ideology that framed Israeli identity as exclusively Western (pp. 198–201).

The editor's response was that my sentence "implies questioning the existence of a state and can be seen as an incendiary attack on its citizens," and "simplify historical circumstance." The review would not be published unless that sentence was removed entirely. According to the editor, while individuals may hold "strong opinions," the journal could not publish such language "without any further context, where a strong opinion and perspective is seemingly presented as an acknowledged fact."

On censorship, colonialism and academic responsibility

This decision is deeply troubling. First, because the language objected to is grounded in legal and scholarly frameworks—including UN reports⁷ that have, since 2007, described Israeli policies as consistent with colonialism and apartheid.⁸ The most recent UN findings go even further, identifying patterns that constitute genocidal conduct.⁹ Second, the review is a genre of academic writing that necessarily reflects the voice of the reviewer. It includes interpretation and perspective. It is not a neutral summary of content. The editor also emphasised that there is a big difference when terms such as "whitewashing,"

² <https://yaellerer.fr/>

³ https://www.lemonde.fr/idees/article/2010/11/17/boycotter-israel-une-lutte-pour-une-paix-juste_1440957_3232.html

⁴ <https://bdsmovement.net/>

⁵ <https://mondoweiss.net/2021/05/200-israeli-jews-call-for-external-intervention-to-stop-israeli-aggression-work-towards-decolonization/>

⁶ <https://www.marianne.net/agora/tribunes-libres/associer-tous-les-palestiniens-a-lhomophobie-du-hamas-est-essentialiste>

⁷ <https://digitallibrary.un.org/record/593075?v=pdf>

⁸ <https://www.theguardian.com/world/2007/feb/23/israelandthepalestinians.unitednations>

⁹ <https://www.un.org/unispal/document/anatomy-of-a-genocide-report-of-the-special-rapporteur-on-the-situation-of-human-rights-in-the-palestinian-territory-occupied-since-1967-to-human-rights-council-advance-unedited-version-a-hrc-55/>

“colonial project,” and “apartheid” are used by Jewish Israeli, “or whether this is used uncritically by non-Jewish authors, in an act of appropriation, to question the right of the state of Israel to exist”. The implication that certain terms can only be used by particular identities is not only academically untenable but professionally inappropriate – especially when, as in this case, my identity is simply unknown to the editorial team. These kinds of speculative readings, and the decision to gatekeep vocabulary based on assumed identity, have no place in rigorous scholarly publishing.

As pointed out, the terms “colonial project” and “apartheid” are widely used within critical scholarship,¹⁰ international legal frameworks and institutions, and human rights discourses – including by Jewish Israeli scholars, journalists, and organizations.¹¹ The same goes for the term “whitewashing,” which has been widely used in media worldwide, including Israel.¹² Calderwood engages this very body of discourse throughout his book. Even if he would not have used those exact terms verbatim, my responsibility as a reviewer is precisely to analyse, to draw out the implications of the text—not to merely paraphrase it. To suggest otherwise and reject it on the basis that it contains a critical perspective is to fundamentally misunderstand the nature of scholarly review.

Third, and most importantly, framing this type of critique as “incendiary” or as a danger to civil discourse is part of a wider attempt to silence conversations about Palestine – particularly when they are voiced from within institutions in the Global North. We must ask why so many editorial and academic spaces cannot accommodate critiques of apartheid or settler colonialism, especially at a time when international bodies are documenting war crimes and crimes against humanity.

The editor assumed the role of the journal as a place to “build bridges”: “Being very careful with terminology used in articles is a crucial part of our commitment to avoid language that can be viewed as racist, sexist, or homophobic, and to give guidance about vocabulary with potential Islamophobic or antisemitic overtones, or any hate speech in general.” I find it alarming that the invocation of antisemitism is being used here to police academic critique of a state and its policies. This tendency to conflate critique of Israel with antisemitism not only stifles debate—it also ironically reinforces the very frameworks of apartheid and colonialism that my review sought to address. It is precisely this kind of discursive strategy that renders critical scholarship vulnerable to censorship, and that confirms the structural asymmetries my review tried to name. The insistence that the term “apartheid” is not adequate to describe the treatment of Palestinians disregards the work of countless scholars, human rights organisations, and South African activists who have drawn precisely this parallel. To censor the use of this language in a review—especially when it reflects a widely acknowledged analytical framework—is not a neutral editorial act. It is a political choice that undermines both the reviewer’s scholarly judgment and the lived reality of the people on the ground. It also underlines how the debate about these terms is not possible, because when they are brought forward, they are automatically

¹⁰ <https://www.aljazeera.com/opinions/2018/5/14/israel-and-palestine-in-2018-decolonisation-not-peace>

¹¹ <https://www.cnbctv18.com/world/israel-hamas-conflict-noam-chomsky-to-henry-siegmans-famous-jews-who-have-strongly-opposed-israel-18003421.htm>

¹² <https://www.haaretz.com/middle-east-news/2025-03-06/ty-article/bds-no-other-land-normalizes-israeli-oppression-of-palestinians-whitewashes-apartheid/00000195-6c6f-d46d-a3f7-edef284d0000>

silenced. In that sense, this editorial intervention doesn't contradict my reading of Calderwood's book – it vindicates it.

I made the decision to withdraw not only the review but also an article I had previously submitted to a special issue of the journal. This decision is not based on personal disagreement with the editors, but on a refusal to be complicit in censorship. I cannot accept that a historical journal would block analysis that aligns with well-documented research and international findings, particularly when this analysis was directly relevant to the book chapter under review.

I would like to share a concern I raised regarding institutional affiliations. The journal's editor, Esther-Miriam Wagner, is also director of the Woolf Institute, whose partners¹³ include institutions funded by the Israeli government, such as the ISGAP (The Institute for the Study of Global Antisemitism and Policy) – offering grants¹⁴ and undisclosed funding¹⁵ from the Israeli government – or the Dangoor Education – whose centre is based at the Bar Ilan University, in Israel.¹⁶ Wagner is also Vice-President of the Society for the Medieval Mediterranean, with which *al-Masāq* is affiliated. While I do not claim a direct link, the entanglement of funding structures and institutional gatekeeping deserves open scrutiny, especially when it comes to questions of censorship and boycott of Israeli state institutions and funding.

In the exchange of emails, my aim was not to “discredit” the institute, as it was suggested, but to highlight the broader networks of affiliation that shape knowledge production. The suggestion that the Institute has no links with Israeli government funded institutions is, at best, misleading. Some of its partner institutions are indeed beneficiaries of Israeli state funding, and this information is publicly accessible, as mentioned above. Denying these connections, or framing their mention as “irresponsible,” undermines transparency and accountability, especially in an era where institutional complicity is under increasing scholarly scrutiny. I did not suggest that the Woolf Institute receives funding from these partner institutions – or whether they are merely “friend” or partner institutions – but it is a fact that some of these institutions are themselves funded by the Israeli government.

Epilogue

Finally, I would like to end on a note that speaks to the broader stakes of this exchange. When I read the exchange of emails, the words of the Palestinian political theorist and writer Ghassan Kanafani echoed in my mind. He once said that so-called peace conversations with Israel are “a conversation between the sword and the neck.”¹⁷ He was not speaking in metaphors. Kanafani – along with his young niece – was assassinated by the Mossad in 1972. His words remain tragically relevant. Silencing critique – especially under the guise of civility, neutrality, peace, or institutional policy – often masks the power dynamics at play. When the occupier insists on the terms of dialogue while silencing the occupied and massacred, who are then simultaneously demanded to speak “responsibly”,

¹³ <https://www.woolf.cam.ac.uk/about/partners-and-funders>

¹⁴ <https://thecjn.ca/news/ngo-looks-to-combat-anti-semitism-through-academia/>

¹⁵ <https://forward.com/israel/453339/israel-antisemitism-isgap-think-tank-foreign-funding/>

¹⁶ <http://www.dangooreducation.com/>

¹⁷ <https://www.youtube.com/watch?v=oHgZdCJOuAk>

it becomes difficult not to see such conditions as part of the broader machinery of domination.

The editor assured that the aim of the journal was to “to keep bias at bay and to avoid the judgement of historical circumstance”, while being “very careful not to conflate justified outrage against the war crimes committed in Gaza with attacks on the state of Israel itself”. But let us not be mistaken: even if the existence of the state of Israel was not discussed at any moment in my review, the state was created through successive colonial waves into Palestine. In 1917, Palestinian Jews comprised less than 10% of the population of Palestine; the majority were Muslim (80%) and Christian Palestinians (10%)¹⁸ who were displaced by Jewish colonial settlement, especially from Europe. Even leading Zionist thinkers explicitly framed their project as colonial. Theodor Herzl referred to the Zionist movement as “a rampart of Europe against Asia, an outpost of civilization as opposed to barbarism”.¹⁹ Ze’ev Jabotinsky, in his 1923 essay *The Iron Wall*, openly acknowledged that Zionist colonization could only proceed by force, against the will of the native population.²⁰ David Ben-Gurion, too, spoke of the Jewish state as a temporary stage to facilitate further expansion.²¹ These are not radical reinterpretations – they are the words of the very architects of the Zionist movement – regardless of whether one supports or opposes it. To critique this history, and its ongoing repercussions, is not antisemitic. On the contrary, to suppress that critique through veiled accusations is to refuse historical accountability, and to reproduce the very structures of silencing and domination that Kanafani warned us about.

I hope this exchange contributes to a necessary conversation about editorial ethics, scholarly responsibility, and the role of critique in moments of humanitarian crisis. This experience has reaffirmed my conviction that speaking up is not about politicizing scholarship – it is about human responsibility. Silence is not neutrality. In moments like this, silence protects power.

Post Scriptum

I would like to thank the editorial team of *Ex Novo* for their commitment to editorial ethics and academic responsibility. I am especially grateful to Martina Revello Lami for the opportunity to publish this piece.

¹⁸ <https://www.un.org/unispal/document/auto-insert-206581/>

¹⁹ Theodor Herzl, *The Jewish State, English translation* (New York: Dover Publications, 2008), 96.

²⁰ <https://www.gutenberg.org/files/25282/25282-h/25282-h.htm>

²¹ chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://en.jabotinsky.org/media/9747/the-iron-wall.pdf

²¹ Cited from Nur Masalha, *Imperial Israel and the Palestinian. The Politics of Expansion* (London: Pluto Press, 2000), 8 (Protocol of the Jewish Agency Executive meeting of 7 June 1938, in Jerusalem, confidential, Vol. 28, No. 51, Central Zionist Archives (CZA); Ben-Gurion’s memorandum dated 17 December 1938, S25/7627, CZA).

Ex Novo Journal of Archaeology

Volume 9, December 2024

Part III

Reviews

Exploring Late Antiquity through cities in southern Spain and northern Africa, and beyond: A review of ATLAS' final colloque and the “Invisible Cities” exhibition.

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DOI: 10.32028/exnovo-vol-9-pp.105-112

Introduction

Late Antiquity has been, and continues to be, on the rise amongst scholars from different fields, having been largely overlooked until the late 20th century.¹ However, in the present day it has become a prolific area of research that encourages an interdisciplinary approach. It is in this context where the project “ATLAS – Late antique cities in the South of the Iberian Peninsula and North Africa during the 3rd to 8th centuries” has emerged, led by the Universität Hamburg (Germany), the La Rochelle Université (France) and the Casa de Velázquez – School of Advanced Hispanic and Iberian Studies (Madrid, Spain). With Sabine Panzram and Laurent Brassous as PIs, it has gathered a substantial network of researchers who focus on this extensive period in order to shed light on specific towns scattered across the ancient Roman provinces of *Baetica* and *Africa Proconsularis*. The aim of the project is threefold, as it has created a GIS where all the information gathered has been included, a publication or “companion”, and a travelling exhibition under the title “Invisible Cities”.

The final meeting of ATLAS took place from March 20–22, 2024, at the Casa de Velázquez in Madrid. Researchers attended a series of conferences titled “The Cities of Late Antiquity put to the Test of a Comparative Analysis”. In them, scholars unaffiliated with the project presented case studies on similar periods in different regions, providing counterpoints to ATLAS researchers and fostering lively debate.

As well as the inauguration of the final meeting, on the 20th of March was launched the exhibition “Invisible Cities. Towns of Late Antiquity in Southern Iberia and Northern Africa (300-800)”. It is available digitally on the project's website and as a physical travelling exhibition, displayed at the Casa de Velázquez at the time of writing. “Invisible

¹ Peter Brown's referential work *The World of Late Antiquity* was published in 1971.

Cities” explores the restitution of a series of late antique buildings and spaces belonging to some of the towns studied by the ATLAS and is expected to reach a wide audience.

Comparative analysis as a tool for understanding the urban fabric in Late Antiquity

Throughout their introduction to the event, Panzram and Brassous restated the main aims of ATLAS and its contribution to updating and making knowledge about the period more accessible. Terms such as the crisis of the 3rd century AD or “decadence”, which have been shed by scholars long ago, have given room to explore how transformation took place in the cities. In the case of this project, this had been done through research groups and discussions, which were expected to be emulated during the presentations of the forthcoming days. Following their introduction, Jean François Bernard and Titien Bartette gave a brief overview of the innovative methodology applied to the creation of the digital models of “Invisible Cities”. These models incorporated techniques such as photogrammetry, mapping, bibliographic analysis, and earlier reconstructions, along with detailed architectural and archaeological reflections for each 3D model. To conclude the first day of the conference, the attendees visited the exhibition, guided by the two specialists.

The following day began with Mateusz Fafinski’s presentation about his research on post-imperial cities in a post-transformational world, which aimed to change the paradigms in which the city in Late Antiquity is understood. Fafinski initiated the debate around the definition of a late antique city, which continued throughout the rest of the conferences, and suggested an analysis of these spaces based on an ecosystem that, not only responds to its larger environment, but also has agency in its decisions. Questions regarding terminology, one of the initial focuses of ATLAS, arose as the attendees debated on the definition of “city”, “roman”, “transformation” and “adaptation” amongst others. Fafinski’s intervention set the tone for the rest of the conferences and touched upon important topics that were capital for the ATLAS network. Antonio Felle devoted his presentation to the evolution of Christian epigraphy in Rome during Late Antiquity, posing a question about how to interpret rupture and/or continuity; he noted how the epigraphical habits of the city changed along with its morphology: the techniques, who commissioned the texts, as well as an increase in icons, amongst others, denoted that the political powers as well as the morphology of the urban fabric shifted in Rome. This prompted a series of questions about language and alphabet, while other specialists reflected upon how this very same phenomenon manifests in other regions of the former Roman Empire. The last lecture of the morning was given by Edward Schoolman, who, through a series of analysis that included textual sources as well as paleo-environmental studies, presented three Italian case studies on how landscape changed in relation to its nearby cities and the behaviour of its inhabitants. The most striking one, that of the *ager* that surrounded Rieti, reflected an increase in silvopastoralism in the 600 AD that barely left any recorded traces. Schoolman stressed the importance of locality and periodization, and how they need to be observed parallelly in order to understand the late antique transformations in the Italian peninsula. Jesús García Sánchez and David Stone, whose research also focuses on territory and landscape, presented some of their own investigation regarding the topic on their respective geographical regions. Through the discussion arose two interesting aspects of Schoolman’s intervention, which seemed to

engage the attendees' attention: Arce revisited the economic aspect of a city and how that transformed it, using the Crypta Balbi in Rome as an example, while Stefan Ardeleanu wondered about the actual impact of broader environmental phenomena such as the Little Ice Age on specific areas.

The afternoon was set off by Gideon Avni's presentation, which was intended to serve as an update on Hugh Kennedy's "From Polis to Madina" (1985) through several case studies from the Eastern Mediterranean (specifically Israel), each with a set of very specific characteristics. From the archaeological point of view, they displayed, just as in the Italian case, a great regional variability, and generally denoted an increasing distance between them and the academic notions popular before Kennedy's work (namely, a sharp and destructive entrance of Islam in the region). Avni's talk inspired a series of questions from the ATLAS network that sought to compare his examples to theirs: Ardeleanu asked about the funerary world, while Panzram extended the question to the outskirts of the city and its productive and/or religious areas. The second day concluded with Pascale Chevalier's intervention regarding the meridional and western Balkan cities. They all shifted in their morphology with the foundation of Constantinople, intensifying their activity significantly in the coast, and showed a strong imperial presence through the late antique centuries. In them, the increase in Christian buildings was noted by Chevalier as one of the driving forces for change, as well as the privatisation of public spaces, such as theatres and amphitheatres: she emphasized the reuse, *réemploi*, of areas that fell in disuse. The contrast between the number of contemporarily active churches surprised Arce, which led to a discussion between him and Panzram about the lack of knowledge that exists (according to her) about this topic in cities like Mérida. Another point that was stressed by Brassous, and mentioned by Avni in his lecture as well, was the multiplication of gardens and agriculture within the city: Chevalier explained that the spaces that were left vacant in the urban fabric ended being taken by burials and gardens, repurposed by the inhabitants.

José Remesal Rodríguez inaugurated the third and last day with an intervention related to the interdependence between the provinces and the Roman Empire, and specifically how it evolved through the reign of the different emperors. Particular emphasis was placed on the spread of the municipalisation of towns during the Flavian dynasty, which implied oftentimes the building of "empty" cities that were unsustainable in the long run. This notion was stressed during the debate as well, by Rubén Olmo López and Arce, who reminded the attendees the difference between *urbs* and *civitas*, and the importance of *villae* as time progressed. Jerusalem became a protagonist during Anna Gutgarts presentation, which discussed what the perception of the crusaders was of the city of Jerusalem and its layout during the Latin Kingdom. The scholar examined how they grappled with the past of their newly-acquired town and how they reorganised it based on a new W-E axis that did not exist before their arrival. This created a certain memory-scape that appeared hinted, not only in the city, but also in the oral tradition which was recorded at different moments of history. Many fascinating points arose during the dialogue after Gutgarts' talk: Sonia Gutiérrez Lloret suggested looking into how each period inherited their predecessor's urban fabric and took their presence into account in their own memory-scape. Fafinski reflected on the perception of decline that the Latin Kingdom had on the textual sources and how the dichotomy between the bad shape of a city and an imposition of a *renovatio imperii* was possible. The conclusions of the conference, and more broadly of

ATLAS, were brought by Arce's expertise, who reminisced about capital authors for Late Antiquity² and how this project inherited that brand new mentality and scientific solidarity with its work and extended discussions within its research groups. He focused his closing statements around three different definitions of what a "city" was during the 2nd, 4th and 7th centuries AD; two aspects came to the forefront of the definition: specific infrastructure such as walls or water supply, and a political power. These statements led, once again, to a debate around terminology regarding the terms "city" and "town" in different languages and moments of history. This branched into two different discussions: the first one, brought by Panzram, regarded methodological setbacks, such as what happens when an undeniable city does not follow the specific characteristics of what a "city" is; which aspects are unnegotiable in a late antique city, and which are not? How much flexibility should there be in this definition? The second one, touched upon by Fafinski and Olmo López, is the lack of certainty about what authors from a certain period defined as a city: sometimes even primary sources debate when something is a city, and when it might have stopped being one as its infrastructure started decaying, more so taking into account that the term is nowadays polysemic. Gutiérrez Lloret included in the dialogue the issue of chronology, stating that certain characteristic infrastructure of a city might have been unnecessary in the 2nd c. but essential in the 7th: she assessed that it was the political (or alternatively religious) power what was a requisite. Although many other topics were brought up, such as city renaissance or the role of the kingdom of *Toletum*, and the conversation would have gladly continued, it was concluded on the hopeful note that there is still a lot of work to be done.

Overall, the ATLAS conferences succeeded in creating a space for debate on the various examples presented by the network and external speakers. The focus on the urban fabric in Late Antiquity, which was fairly clear, allowed an exploration of the different areas of research that seemed to rouse everybody's interest. However, the wide range of cities, geographical locations, and chronologies sometimes made it challenging to draw meaningful comparisons. Yet, the recurrence of several themes, many of which revolved around terminology and academic perception, resulted in particularly interesting considerations that historians, archaeologists, and other specialists studying this chronology should always take into account.

Visualising the "Invisible Cities" of Late Antiquity

As mentioned before, it was during the initial day of the conferences when the exhibition "Invisible Cities. Towns of Late Antiquity in Southern Iberia and Northern Africa (300-800)" was inaugurated, which presents a selection of 3D restitutions based on the research carried out by ATLAS, aiming to reach a broader and less specialized audience than other outputs of the project. This has been done specifically through two different channels of communication, digitally and physically, maintaining one of the main aims of the ATLAS, which is to make all the materials as accessible as possible. The travelling exhibition will be displayed at the Staatsbibliothek in Hamburg, the Museo Arqueológico Nacional de

² Other than Peter Brown, from Henri Pirenne and A.H.M Jones, to Stephen Mitchell and Efthymios Rizos were mentioned, as well as the work of the programme "Transformations of the Roman World".

Madrid (MAN), the Museo de las Excavaciones de Baelo Claudia (Cádiz), the Casa Árabe in Córdoba and the National Heritage Institute of Tunisia for the time being,³ alongside its initial location at the Casa de Velázquez. It was created through a collaboration with the renown French company ICONEM, which specialises in the digitalisation of cultural heritage in 3D, to which Bartette belongs, while Bernard is part of the Institut de Recherche sur L'Architecture Antique, from the Université de Pau et des Pays de l'Adour. Given the breadth of ATLAS's research, the focus has been put on four specific towns, two from each region, Baelo Claudia, Mérida, Carthage and Makthar, and on some of their most representative buildings, districts and urban areas. The great achievement of this exhibit resides on how it was created, requiring, not only a constant exchange of ideas between different specialists, but also a symbiotic relation between on-site documentation and modelling. On the one hand, the sites were digitalised through photogrammetry; while, on the other, models were created, often based on plans and sections amongst others: merging these two while doing extensive research implied, in itself, an act of interpretation which is adequately communicated through the exhibition. This interpretation had the aim of representing the different recurrent areas of the ATLAS, touched upon during the conferences: change in use, evolution of spaces, new structures and their solutions and locations, and so on.

The shape that this project takes online is as a multilingual website (available in Spanish, English and French, spoken as well during the conferences, acting as the three official languages of ATLAS) composed of an introduction followed by two sections. The introduction, a short text on the art of restitution, points at the history of the discipline and what the next segments display, although without discussing any of the changes that happen in the urban fabric during Late Antiquity: it is required from the viewer to move forward to understand what they are and how do they manifest. Scrolling down, a six-minute film appears, summarising the work and giving little context on each building and city, but displaying them in a scenic way that allows, amongst other things, to understand how they are inserted in the urban areas of each town. The last section is devoted to the nine individual models created for the exhibition. Each of them is available to handle by the viewer and, more importantly, accompanied by a series of important resources: a short description, some plans and sections, explanations of interpretative choices (which is one of the most notable aspects of this section), a bibliography, and, finally, some images. It is relevant to consider what spaces have been chosen to be modelled, as this decision has been taken with great care: they cover different chronologies and time spans, and types of buildings and cities. There are two habitats, the Casa de Los Mármoles in Mérida and the Maison de la Rotonde in Carthage, which demonstrate different types of occupation of previously existing structures from the 5th century onwards, giving extremely different results in the aspect of their 3Ds. Three churches have been selected, the basilica of Hildegundus in Makthar, that of Santa Eulalia in Mérida and the Silla del Papa (much smaller in size) near Baelo Claudia, in Tarifa, to offer a varied view of how this “new” building spawned in different locations with somewhat similar plans but unique solutions.

³ Some of these institutions have an established relation with the project and some of their researchers are part of the ATLAS network, e.g. National Heritage Institute of Tunisia, where the last meeting of the group took place in May 2023.

Other constructions show a much more uncertain and debated function, such as the “monument à auges” from Makthar: that ambiguity is part the archaeological and historical disciplines, and it is stimulating to see it appear in an exhibition of these characteristics. Emerita Augusta and Carthage are the two cities modelled in full, where the viewer can see how buildings are evolving and appearing in the urban fabric and its immediate surroundings: these also display that lack of knowledge around how most of the city looked, which is shown through a transparency for all the structures that remain unknown, offering approximate volumes without any invention. Lastly, the one remaining model built happen to be one of the most illuminating ones: the southern sector of the forum in Baelo; it is composed of three different 3Ds which show how a public space, having lost its function, is abandoned and then transforms into private ones. Overall, the collection of pictures or tableaux, as they call them, convey beautifully this evolution shown in late antique towns and the uncertainties that it often carries for scholars.



Figure 1. Exhibition as displayed at the Casa de Velázquez.

The physical exhibition complements the digital one but does not fully overlap in content: this not intended as a critique, precisely because it shows the understanding that each of them will probably have different audiences and, hence, information must be displayed differently. However, some of the aspects that are most interesting in the physical version are lacking in the online one (assumed to be understood from the general website of the group): for example, the former begins with an extended panel that covers, explicitly, what ATLAS research and how it relates to what is presented in the exhibit. Likewise, the following panel offers the visitor an overview of all the models with their brief descriptions and chronologies (which are much more diffuse online), conveying well the choice of 3Ds. A remarkable aspect that runs through the itinerary is the use of QR codes accompanying each of the pictures, which are linked to the online version, where the more artistic decisions are discussed. The display is concluded with the six-minute film, which in this case acts as a summary of the project itself. Sharing images and text without fully overlapping in content, both exhibits seem to be complementary.

Altogether, the two exhibitions, and the project itself, show great innovation by using cutting edge techniques, and a will to represent thoroughly and artistically these areas and how they are studied. The focus on the different buildings and spaces provides an illustrative view of how cities were transformed by their inhabitants, how they changed and evolved in Late Antiquity, and not simply “declined”. Although the audience of each format may understand this transformation differently, and might lack some context, the accessibility of the research ensures inclusivity for all viewers: simply following a QR code and/or clicking on the ATLAS website unlocks numerous resources that highlight the extensive investigations conducted by the project. But most interestingly, anyone engaging with the exhibit will gain insights into how historians, archaeologists and other specialists study and interpret the urban fabric during this often misunderstood period, Late Antiquity.

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Eric Calderwood, “On Earth or in Poems: The Many Lives of al-Andalus”, Harvard University Press, 2023

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DOI: 10.32028/exnovo-vol-9-pp.113-118

In this book, Eric Calderwood, Professor of Comparative Literature, explores the diverse uses of al-Andalus in contemporary culture. The book encompasses literature, cinema, television, music, tourism, and political discourse, in Arabic, Spanish, French, and English. Calderwood takes a great research opportunity focusing on Arab and Muslim visions, usually dismissed in contemporary perspectives, to address nostalgic views of al-Andalus. This innovative approach is one of the highlights of the book, as al-Andalus can be either manipulated as a historical gap by the Catholic-nationalist discourse on the *Reconquista* or pictured as a model society in the framework of Convivencia theories.

The book, as the author underlines, is not a history of al-Andalus. Rather, it deals on how al-Andalus has been imagined as a model for contemporary societies. Calderwood considers this nostalgic view on al-Andalus, popularized by modern Arabic literature as *al-firdaws al-maqfud* (the lost paradise), in the framework of what he calls “al-Andalus futurism” (p. 10). How do writers, artists and their audiences position themselves with respect to al-Andalus, and how are they positioned by al-Andalus? This question reflects the two main methods of the book, metonymy and position, used to examine the different perspectives on al-Andalus, exploring how writers, artists, and communities establish relationships with the Andalusí heritage, depending on their contexts.

Another of the book’s highlights is its thematic structure, examining how different ways of approaching al-Andalus emerge to respond to different aspirations worldwide. Chapter 1 The Arab al-Andalus analyses the view of al-Andalus as an Arab phenomenon, from the 19th century to its impact contemporarily, usually supported due to Umayyad rule of al-Andalus (8th – 11th cents.), a dynasty arriving from Damascus. It argues that this view served to present al-Andalus not only as Arab but also as whiter, downplaying the North African and Berber influence. Arabness of al-Andalus was especially emphasized by the

Nahda (renaissance) discourse and pan-Arab ambitions in the 20th century, shadowing the Muslim identity of al-Andalus. A 1966 concert of the renowned Lebanese Christian singer Fayruz, in Kuwait, stresses an Arabness uniting different Arab nations, through the performance of her album *Andalusiyyat*, in which she recites verses of the Andalusí poet Ibn al-Khatib. The chapter focuses on the novels about al-Andalus authored by the Christian Lebanese Jurji Zaydan.

Various examples raise issues on the author's knowledge of Andalusí sources and contemporary state of the art. He argues how Zaydan relied on European literature emphasizing Arab contributions to al-Andalus (p. 27-28), however the examples described by the author are also accounted in historical sources. In other occasions, Calderwood seems to point out literary liberties of Zaydan to stress Arabness. For example, he asserts that in the novel *'Abd al-Rahman al-Nasir* (1910), the Umayyad Caliph 'Abd al-Rahman III is significantly called "the ruler of the Arabs of al-Andalus," in a letter sent by the Byzantine emperor, which Calderwood criticizes, as the caliph was rather "the ruler of a diverse society with multiple ethnic, religious and linguistic communities" (pp. 34-35). But, in fact, this letter is described by the 11th century Andalusí historian Ibn Hayyan, through the transmission of the 17th century chronicle of al-Maqqari, which mentions this title, an episode that has been studied in secondary literature. This example also raises concern about 19th century essentialist views on whether the ethnic diversity of al-Andalus should or should not be considered part of an Arab identity. Issues about the methods of survey and collection of case studies are also at stake, if they respond to adequate quantitative and qualitative methods and how the material is selected.

It would have been useful to explore how the tendency of underling the Arabness of al-Andalus is shaped or even inherited by the discourse prevailing in medieval Andalusí sources. He also points out how the narratives on Arabness explored in the book are based on the 19th century Dutch historian Reinhardt Dozy (p. 21). While Calderwood stresses that Dozy promised a history of Muslim Spain but narrated a history focused on the Arabness of al-Andalus, he does not look critically on the concept of Muslim Spain versus Arab Spain (e.g., Marín 2014). Furthermore, ideologically, Dozy does not stress so much the Arabness of al-Andalus, but rather an Andalusí identity forged by the mixture of previous ethnic groups, in the 10th century. This tendency will be followed by historians such as Lévi-Provençal or García Gómez, to impose a Spanish proto-national identity on al-Andalus.

Chapter 2 The Berber al-Andalus is perhaps the best accomplished and documented of the book. It examines the efforts, especially of North African writers, scholars, and filmmakers to reclaim the contributions of Berbers to al-Andalus, especially under the North African dynasties of the Almoravids and Almohads, seen as the unifiers of al-Andalus. These narratives also reshaped Moroccan nationalism, shifting from Arab-Islamic to Berber identities and perceiving the Almoravids and the Almohads as Moroccan dynasties part of the national discourse. For example, in Ahmad Balafríj and Muhammad al-Fasí's discourse against French colonialism. Writers such as 'Abd Allah Gannun are analysed in the chapter, placing for example the speech of Tariq b. Ziyad to his troops preparing for the conquest of al-Andalus as the foundation for Moroccan oratory and literature (p. 72). This also meant a shift from the importance of Arabic to Amazigh, as stressed, for example, by the positions of Muhammad Shafik, a leading figure in the

Amazigh cultural movement who hailed for the recognition of Amazigh as an official language, which he saw as logical if, as he asserted, this was the language of the Almohad court (p. 97-98).

While the interconnected analysis of this chapter is remarkable, between national anti-colonial discourse and literary narratives, works which have studied the negative vision of Berbers, e.g. Helena de Felipe (2020) or Alejandro García-Sanjuán (2020), would have been useful. When presenting the Alhambra exhibition on the Zirid Granada and the Berber Universe (2019), organized by Antonio Malpica, Calderwood speaks of “a radical reimagining of Granadan, Iberian and Mediterranean history,” as a “novel narrative” (pp. 60-63). He concludes that until recently the Berber al-Andalus was a vision that did not enjoy much representation in European and Middle Eastern institutions (p. 105). But the traditional vision of Arabs, Berbers and their agency in shaping the conquest and society of al-Andalus was already questioned in the 70’s by Pierre Guichard (1972, 1976), carrying a renewal in historiographical visions which for long have been abandoned.

Chapter 3 The Feminist al-Andalus explores how al-Andalus represents a model to Arab and Muslim feminists, since the late 19th century, to articulate an indigenous feminism independent of the history of feminist movements in Europe and the United States. It examines works by women writers and artists who have imagined al-Andalus as a place of freedom and creativity for Arab and Muslim women, remarkably intersecting debates about gender, religion, and ethnic identity. Calderwood points out how this movement was seen by personalities such as the Egyptian writer and scholar Layla Ahmed as a reaction to European colonial manipulation of feminism to promote the culture of the occupiers. The author traces the genealogy of this discourse, starting with the writings of women in the late 19th and early 20th centuries, e.g. Zaynab Fawwaz and Maryam al-Nahhas al-Yaziji, who focused on Andalusí women such as the poets Wallada, Aysha bt. Ahmad or Buthayna.

These views were also a reaction to Orientalism which characterized Islam as a religion systematically oppressing women, while at the same time opposing to these religious tendencies an environment of freedom specific of the indigenous Andalusí identity. It would have been interesting to further develop this idea, as al-Andalus was manipulated as less of a result of Islam or Arabness and more as a construction of a superior native identity. On this aspect, essentialist views on ethnic diversity are again a concern. Calderwood points out how Subh – the wife of Caliph al-Hakam II – is considered by Fawwaz as one of the most famous Arab women, which he finds surprising as she “was actually of Basque origin” (p. 122). But, in fact, the Umayyad entourage or the Arabic language were also part of her identity and sources do not seem to raise identitarian issues on her diversity. In chapter 1 the author had already found critical to equate Andalusí with Arabness for Subh’s identity (pp. 48-49), when describing a re-taking of al-Andalus as an Arab identity. When approaching the lectures of the Syrian writer Salma al-Haffar al-Kuzbari, Calderwood then shifts and compares her perspective with that of the Moroccan scholar Fatima Mernissi. For him, while the first emphasized the Arabness of the feminist al-Andalus, the second focused on the question of women in Islam (p. 128). However, while the first has a literary or dissemination objective, the second has a scholarly approach. The comparison is unfounded and might be perceived as a reduction of gender

perspectives of history to something ideological and less academic, as something women do, regardless of their approach.

On the issue of sources, again Calderwood attributes to the authors he analyses the views on Andalusí women which are rather accounted by historical sources. For example, he attributes to Fawwaz the assertion that Wallada did not rely on a powerful husband for her fame (p. 116), when this in fact should be attributed to sources, such as al-Maqqari.

Chapter 4 *The Palestinian al-Andalus* explores how Palestinian writers and intellectuals have invoked al-Andalus to reflect on the Palestinian experience of displacement and loss, thus presenting an interestingly brave and uncommon approach in academia. The chapter analyses works by poets like Salma Khadra Jayyusi and Rashid Hussein, as well as Mahmoud Darwish, one of the most renowned Palestinian poets. The author examines how al-Andalus serves as a metaphor for the lost homeland and to denounce occupation and cultural erasure, to call for resistance and to warn how Palestine is endangered of becoming an elegy like al-Andalus. But, while al-Andalus is a far nostalgic metaphor for poetry and a lost paradise, “Palestine is the aesthetics of al-Andalus, it is the al-Andalus of the possible.” In Darwish’s words, “was al-Andalus here or there? On earth or in poems?”, a sentence which significantly gives the book its title. The chapter also discusses Israeli uses of al-Andalus, especially focusing on the publishing house Andalus, which translated Arabic literature to Hebrew, between 2000 and 2009. However, this is a residual cultural interest in Israeli society and unfortunately usually part of an agenda presenting both parts as equals, in an intent of whitewashing the Nakba (the catastrophe) and the Israeli colonial project and apartheid.

In this chapter, despite looking critically at views which see the end of the Umayyad Caliphate as the end of the united al-Andalus, Calderwood sometimes seems to share this perspective when simplifying the *taifa* period(s) (independent principalities) as merely internal strife and territorial loss, stretching from the 11th century to the conquest of Granada in 1492 (p. 160).

Chapter 5 *The Harmonious al-Andalus* examines how the musical legacy of al-Andalus has been used to promote ideas of cross-cultural harmony and coexistence. The author explores how flamenco in Spain and fado in Portugal have been ideologically seen as inheritors of musical traditions of al-Andalus, despite lack of proof, designing a time continuum between Andalusí music and contemporary traditions. This was used, in the case of flamenco, by Blas Infante to forge contemporary Andalusian nationalism, based on the Andalusí identity. Calderwood voices unreliable theories that attribute Arabic etymologies to the words flamenco and fado, considering them dubious, while scholars have stressed the inconsistency of such ideas.

The chapter also looks at how contemporary musicians such as Enrique Morente and Jalal Chekara, who worked on musical fusions of flamenco and Moroccan music, attempt to engage with the musical heritage of al-Andalus.

On the musical genres of hip hop and rap, Calderwood focuses on a well-known trap artist from Granada, Khaled (pp. 243-251). Calderwood attributes to Khaled the intention of making a “provocative statement” by declaring in “Los Foreign” – a theme performed as a member of the Pxxr Gvng – “al-Andalus es mi raza” (“al-Andalus is my race”). But the intentions and awareness of Khaled are uncertain. This is the only reference to al-Andalus in all of Khaled’s repertoire that Calderwood finds to conclude how al-Andalus

is the framework for his self-proclaimed mestizo identity, floating between Granada and Tangier, Spanish and Arabic, flamenco and trap (p. 243). Calderwood appears to project his own expectations onto Khaled's lyrics, rather than relying on a solid comprehension of the social and artistic context of the rapper. In Arab communities and countries, the term al-Andalus is used frequently as a synonym for Andalucía (the southern region of Spain), due to etymological connections, without a significance or reminiscence of a nostalgic medieval Islamic past. The concern of essentialist views is yet again raised considering Khaled's origins. Being the son of Moroccan and Spanish parents, singing about gypsies and Muslims living in Granada with the Alhambra on the back, due to ethnic diversity or immigration, are part of the reality of the city, rather than a reference to a nostalgic al-Andalus. While Calderwood claims that the varied languages and cultural references in Khaled's music are "aimed at an audience that does not exist but might be on the horizon" (p. 250), in fact this multi-ethnic diversity is not uncommon nor in Granada nor in Spain and is surely not unique.

Calderwood closes the book with an epilogue centred on the example of the mosque and Islamic centre of Illinois in his neighbourhood, which reproduce Umayyad architecture resembling the mosque of Cordoba. Inasmuch as al-Andalus could serve as a method for thinking across borders and challenging fixed categories of identity, as Calderwood suggests, it should be so provided we consider how either essentialist, negative or nostalgic views can be equally historical manipulations. Al-Andalus should be so much approached as what it is: a historical period and territory in its own Iberian, Muslim and Mediterranean framework. Although the book is not a history of al-Andalus, much of its analysis on novels, music or films is based on inaccurate interpretations of Andalusí history, which demand a deeper knowledge of its sources and literature. To conclude, the innovative approach of the book is a good first step for more in-depth research and consistent methodology.

Edoardo Vanni, “L'ideologia degli archeologi: Egemonie e tradizioni epistemologiche alla fine del postmoderno”, BAR International Series 3050, Oxford 2021

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DOI: 10.32028/exnovo-vol-9-pp.119-126

Introduzione

Per Edoardo Vanni, giustamente, la disciplina archeologica è una delle più adatte a misurare e quindi potenzialmente a comprendere lo stato di salute della società contemporanea.

Tale assunto può sembrare a primo acchito un po' forte, tuttavia, questo diviene immediatamente condivisibile se si considera il rapporto che l'archeologia ha col passato, con la costruzione dell'identità e con la conservazione del patrimonio storico-culturale di una comunità. È innegabile, infatti, come questi temi – intimamente connessi con l'archeologia – siano alcuni degli elementi fondamentali con cui una società si riproduce come tale. D'altronde – come evidenzia l'autore – l'archeologia non è solo una disciplina tecnica o un modo di fare storia, ma bensì è una visione del mondo, una filosofia e forse addirittura uno stile di vita dotato di una propria sensibilità.

Proprio in virtù di queste precise e particolari caratteristiche, inoltre, la nostra disciplina ha potuto superare “più o meno” indenne la tempesta epistemologica generata dalla nascita del post-moderno prima, e dalla sua “rapida” fine poi. Momenti questi individuati da Vanni come punti utili per effettuare un necessario discorso d'aggiornamento e riflessione circa le epistemologie (plurale non casuale) proprie dell'archeologia e sul suo far storia. Infatti, se c'è una lezione che possiamo salvare del postmodernismo è proprio quella legata alla definizione della storia come costruzione arbitraria. Esistono, infatti, diverse storie scritte ‘nel’ e soprattutto ‘per’ il presente, con la contemporaneità che influenza prepotentemente il nostro modo di pensare, ricostruire e progettare la narrazione di quello che è occorso e di quello che avverrà. Necessario è quindi riflettere a livello concettuale circa quello che facciamo quando affrontiamo lo studio delle cose

antiche, la loro tutela nonché la divulgazione di esse tanto tra specialisti quanto – e soprattutto – con il resto della collettività.

Questo lavoro abita, quindi, quel campo di studio – ahimè oggi considerato da molti inospitale o demodé – che si occupa di definire l'insieme di idee e riflessioni che compongono un qualsiasi discorso teorico sull'archeologia.

In altri termini, come nota anche l'autore, è sempre più difficile trovare interesse circa questo aspetto della disciplina o farlo senza esser tacciati di “bluffing archaeology”. Schiacciati come siamo dall'iper-specialismo metodologico, tecnico e/o tecnologico che i tempi contemporanei ci impongono.

Ma ciò – come detto – non rende lo scrivere di teoria meno necessario, e bisogna sempre apprezzare chi testardamente si ostina a farlo.

L'organizzazione del volume

Dopo una premessa contenente le riflessioni appena illustrare, il libro è organizzato in otto capitoli che presentano le coordinate teoriche, i materiali utilizzati, nonché le riflessioni e le conseguenti conclusioni sullo stato dell'archeologia frutto dell'analisi svolta da Vanni.

Nel primo capitolo vengono inquadrati dal punto teorico e presentati nel dettaglio, secondo il punto di vista di numerosi autori che su di essi si sono interrogati, i concetti di modernità e postmodernità. Tutto ciò viene fatto concentrandosi molto sulla descrizione del portato di queste correnti filosofiche nella comprensione di concetti fondamentali (anche per il pensiero archeologico) quali: il tempo e la sua periodizzazione, il ruolo dell'individuo e delle cose nel rapporto soggetto-oggetto, nonché sulle generali potenzialità della conoscenza scientifica come modalità d'accesso alla verità del mondo. D'altronde si assiste con l'avvento della post-modernità alla messa in discussione di alcune delle principali categorie del pensiero occidentale (Vanni parla di questo come de “la crisi della Ragione”) e soprattutto viene proclamata la fine della Storia.

È evidente il disagio che tale affermazione provoca negli archeologi abituati a rapportarsi con i resti materiali di epoche precedenti, che sono tangibili ed evidentemente prodotti in uno spazio ed in un tempo “altro” rispetto al nostro. Se non è Storia, che cosa è?

Da qui la necessità imprescindibile di definire nuovi paradigmi.

Segue un secondo capitolo in cui si evidenziano le coordinate teoriche delle principali correnti di pensiero dell'archeologia anglo-americana: processualismo da un lato e vari post-processualismi dall'altro. Si illustra come i concetti tipici di modernità e post-modernità sono stati analizzati, introiettati e digeriti nel dibattito proprio dell'archeologia, generando quelle due grandi posizioni che – semplificando all'estremo - possiamo definire come “oggettiva” (ammiccante alle scienze dure) e “relativista” (vicina alle scienze sociali). I due paradigmi, che dovrebbero essere noti ad ogni archeologo, vengono riassunti egregiamente in questo capitolo, che ha quindi il pregio di poter esser letto anche da chi poco avvezzo alla “teoria pura” e vuol capire meglio il dibattito archeologico degli ultimi trent'anni.

Per verificare nel concreto quanto teoricamente postulato nelle sezioni precedenti, l'autore opera una ricognizione, catalogazione tematica e un confronto tra gli articoli apparsi tra il 1980 e il 2010, all'interno di otto riviste scientifiche d'archeologia.

I giornali selezionati sono i seguenti: Papers of the British School of Rome; Accordia Research Papers; Cambridge Archaeological Journal; European Journal of Archaeology; Journal of Mediterranean Archaeology, Mélanges de l' école Française de Rome; The Annual of the British School at Athens e Journal of Roman Archaeology.

Per ogni rivista sono state analizzate le trasformazioni occorse a cinque macro-tematiche (nazionalità dei ricercatori, periodi studiati, obiettivi delle ricerche, materiali utilizzati, metodi e aree geografiche d'interesse) che per Vanni permettono di seguire – empiricamente – i rivolgimenti e i posizionamenti epistemologici ed ermeneutici in seno all'archeologia.

I risultati di questo survey sono illustrati per l'intero insieme nel capitolo 3 e specificatamente per il Journal of Roman Archaeology nel capitolo 4.

Dall'analisi emergono spunti interessanti per alcune riflessioni. Analizzando la nazionalità degli autori e le lingue usate, ad esempio, possono emergere informazioni circa l'egemonia culturale esercitata dal mondo anglofono o circa lo stato di “internazionalizzazione” della ricerca archeologica. Così come attraverso le variazioni nei periodi studiati o delle tematiche affrontate è possibile seguire il lento declino d'interesse per l'Archeologia Classica *strictu sensu* (tema specifico per l'autore) o più in generale i “paradigm shift” legati alle tematiche dominanti. Infine, le altre macro-tematiche, ossia materiali utilizzati e metodi e aree geografiche di interesse, permettono di evidenziare come questi cambiamenti non siano da leggersi solo in chiave “filosofica” ma anche dal punto di vista “concreto” del modo di operare della nostra disciplina nel mondo. Da un lato, vi è un preponderante spostamento dallo studio dei fenomeni economici verso quelli più culturali e ideologici. Dall'altro ci si sforza di dare ragione dell'azione dell'individuo e non della struttura (termine non casuale) in cui è inserito. Il tutto, risulta inserito nella cornice – decisamente in linea con gli studi postcoloniali – della fine dell'interesse esclusivo per l'area mediterranea in favore anche di altre zone precedentemente considerate periferiche.

Nel quinto capitolo, Vanni seleziona due “recenti” (anche se ormai il 2007 non è più così vicino) teorie archeologiche: quella simmetrica e quella visuale. Esse ben incarnano a livello “epistemologico” lo “shift” riscontrato all'interno degli articoli delle riviste sui concetti legati al rapporto tra sociale e culturale, tra uomini e cose, circa l'agency dell'individuo, nonché sul linguaggio migliore per esprimere l'esito delle nostre ricerche.

I temi nuovamente sollevati da queste tendenze teoriche, quindi, permettono all'autore di tornare sul dibattito filosofico su modernità-postmodernità e aggiornarlo, andando - cito il titolo del sesto capitolo - “oltre il post, il neo e l'iper”. Il punto centrale della riflessione esposta è il legame del pensiero moderno con i lavori di Kant, Hegel, Marx, e soprattutto dell'uso che è stato fatto o meno dei concetti e delle categorie di quest'ultimo. Mediante quindi una interessantissima riflessione sul rapporto tra ideologia e struttura – inserendo nell'equazione anche la non secondaria variabile Foucault – viene illustrata la deriva epistemologica che ha percorso l'archeologia nell'era postmoderna. Deriva, che nelle sue espressioni più estreme “banalizza” gli eventi (intesi come semplici lineari e nella forma in cui li si incontra) e riconduce la Storia all'imprevedibilità dal caso (Max Weber docet).

Ma l'archeologia classica, come ha reagito a quanto illustrato nel testo del libro sino ad ora? L'autore se lo domanda nel capitolo 7 - mediante l'analisi del rapporto con le fonti,

con l'approccio storiografico e in generale con gli altri "grandi temi" dell'archeologia - quando questa branca della disciplina "viene messe alla prova dei fatti".

Chiude il bel libro, un ultimo capitolo contenente una riflessione che - partendo dai concetti di democratizzazione del sapere, autorità nelle Accademie e significato/ruolo del passato - si interroga sulla funzione etica e civile dell'archeologia e di chi la pratica.

Riflessioni (personali) finali

Alla pagina XIV del libro si richiama esplicitamente il sacrosanto dovere di dichiarare, in ogni tipo di ricerca, il proprio posizionamento disciplinare. Questo perché la teoria che la sottende è - a tutti gli effetti - uno dei dati che concorrono alla produzione stessa di un'idea. Per tale ragione devo ammettere che questa recensione al libro non può che risentire della mia non troppo velata adesione alle posizioni più processualiste ed una leggera idiosincrasia (negli ultimi tempi appena attenuata) verso tutto ciò che ha il prefisso post- nel nome. Così come la mia formazione pre-protostorica (specificatamente su tipologie e modelli) sicuramente mi ha fatto entrare in sintonia più con le parti legate alle riflessioni teoriche generali, piuttosto che con quelle specificatamente dedicate alla peculiare sensibilità dell'Archeologia Classica, mondo a cui mi sono sempre rapportato un po' di sbieco.

Ora, poiché l'autore (p.77), giustamente, evidenzia come le recensioni dei libri siano uno strumento di reale propagazione egemonica (producono e influenzano le opinioni intorno certi temi e non ad altri), mi piacerebbe finire questo testo con la seguente frase:

È ancora una volta evidente, dalla ricerca svolta, come l'idea post-processualista esce sconfitta e l'archeologia può (e deve) continuare ad indagare linee di tendenza storiche e fenomeni complessi su ampia scala.

Tuttavia, non è così semplice.

Questo perché il lavoro svolto da Vanni ha, infatti, il pregio di permetterti di seguire agilmente il ragionamento post-moderno (nonostante lui non lo sposi) e (volente o meno) a osservare il dissolversi della Storia e a fare i conti con le ricadute sul pensiero archeologico che questo implica.

Superata, infatti, la bellezza tipica (ma effimera) di ogni gesto iconoclasta e decostruente, ci resta la consapevolezza che il postmoderno ha distrutto le convinzioni radicate nella e della modernità, con quel modo di fare, veloce e irrefrenabile, squisitamente tipico della nostra società capitalistica.

È necessario quindi imparare quanto prima a vivere in queste macerie, soprattutto se vogliamo articolare una qualsivoglia riflessione teorica sull'archeologia contemporanea ed essere coscientemente all'interno delle dinamiche di essa.

Per fare questo, quindi, si può provare a seguire la ricetta proposta dall'autore che - parlando dei vari paradigmi archeologici - scrive: "se la loro utilità ha perso di forza dobbiamo impegnarci a costruirne di nuovi secondo nuove sensibilità, nuove prospettive e soprattutto nuovi dati (p.107)".

Lavoro non privo di insidie, ma affrontabile anche grazie a libri come questo di Edoardo Vanni.

Introduction

For Edoardo Vanni, archaeology is one of the most suitable disciplines for assessing and potentially understanding the health of contemporary society. This assertion may seem somewhat strong at first glance; however, it becomes immediately comprehensible when considering archaeology's relationship with the past, identity construction, and the preservation of a community's historical and cultural heritage. Indeed, these themes—intimately connected with archaeology—are fundamental elements through which a society reproduces itself. Furthermore, as the author highlights, archaeology is not merely a technical discipline or a way of doing history; rather, it is a worldview, a philosophy, and perhaps even a way of life with its own unique sensibility.

Precisely because of these distinctive characteristics, our discipline has managed to weather, “more or less” unscathed, the epistemological storm generated first by the advent of postmodernism and then by its “rapid” demise. Vanni identifies these moments as key opportunities for necessary updates and reflections on the epistemologies (a plural form used intentionally) that shape archaeology and its approach to history. If there is one lesson to be salvaged from postmodernism, it is the recognition that history is an arbitrary construction. There exist multiple histories, written ‘within’ and especially ‘for’ the present, with contemporary realities exerting a strong influence on how we think, reconstruct, and design the narrative of what has happened and what will happen. Thus, it is essential to reflect conceptually on what we do when we engage with the study of ancient objects, their preservation, and their dissemination—not only among specialists but, more importantly, among the broader public.

This work, therefore, inhabits a field of study—unfortunately now considered by many to be inhospitable or outdated—that seeks to define the set of ideas and reflections that compose any theoretical discourse on archaeology. In other words, as the author also notes, it is becoming increasingly difficult to find interest in this aspect of the discipline or to engage with it without being accused of practicing “bluffing archaeology.” We are constrained by the hyper-specialization—methodological, technical, and/or technological—those contemporary times demand of us.

However, as stated, this does not make writing about theory any less necessary, and we must always appreciate those who persistently dedicate themselves to this task.

Organization of the volume

After an introduction outlining the reflections just illustrated, the book is structured into eight chapters that present the theoretical coordinates, the materials used, as well as the reflections and conclusions regarding the state of archaeology, based on Vanni's analysis. In the first chapter, the concepts of modernity and postmodernity are theoretically framed and presented in detail, drawing from the perspectives of numerous authors who have examined them. This is done by focusing on how these philosophical currents have influenced the understanding of fundamental concepts—relevant even to archaeological thought—such as time and its periodization, the role of the individual and objects in the subject-object relationship, and the general potential of scientific knowledge as a means of accessing the truth of the world. With the advent of postmodernity, some of the main

categories of Western thought have been questioned (Vanni refers to this as “the crisis of Reason”), and above all, the end of History has been proclaimed.

It is evident how unsettling this statement is for archaeologists, who are accustomed to dealing with the material remains of past epochs—tangible artifacts that were evidently produced in a space and time “other” than our own. If it is not History, then what is it? From here arises the essential need to define new paradigms.

The second chapter then highlights the theoretical coordinates of the main schools of thought in Anglo-American archaeology: on one side, processualism, and on the other, various strands of post-processualism. It illustrates how the typical concepts of modernity and postmodernity have been analyzed, absorbed, and debated within archaeology, giving rise to two major positions that—oversimplifying—can be defined as “objective” (leaning towards the hard sciences) and “relativist” (aligned with the social sciences). These two paradigms, which should be familiar to every archaeologist, are excellently summarized in this chapter, making it accessible even to those less accustomed to “pure theory” who wish to better understand the archaeological debate of the last thirty years.

To empirically verify the theoretical postulations presented in the previous sections, the author conducts a survey, thematic cataloging, and comparison of articles published between 1980 and 2010 in eight scientific archaeology journals. The selected journals are: *Papers of the British School of Rome*; *Accordia Research Papers*; *Cambridge Archaeological Journal*; *European Journal of Archaeology*; *Journal of Mediterranean Archaeology*; *Mélanges de l'École Française de Rome*; *The Annual of the British School at Athens*, and *Journal of Roman Archaeology*.

For each journal, Vanni analyzes the transformations that have occurred in five macro-themes (the nationality of researchers, periods studied, research objectives, materials used, and geographical areas of interest). These, according to the author, allow for an empirical tracing of the epistemological and hermeneutic shifts within archaeology. The results of this survey are presented as a whole in Chapter 3 and specifically for the *Journal of Roman Archaeology* in Chapter 4.

From this analysis, some interesting reflections emerge. Examining the nationality of the authors and the languages used, for example, can reveal information about the cultural hegemony exercised by the Anglophone world or the level of “internationalization” of archaeological research. Likewise, variations in the periods studied or the themes addressed allow us to trace the gradual decline of interest in Classical Archaeology *stricto sensu* (a specific concern for the author) or, more broadly, the paradigm shifts related to dominant themes. Finally, the other macro-themes—materials used, methods, and geographical areas of interest—highlight that these changes should not only be read in a “philosophical” key but also in terms of the “concrete” ways in which our discipline operates in the world. On one hand, there is a marked shift from the study of economic phenomena to more cultural and ideological ones. On the other, there is an increasing effort to account for the actions of the individual rather than the structure (a term used intentionally) in which they are embedded. All of this aligns with postcolonial studies and the decline of exclusive interest in the Mediterranean area, favoring the inclusion of other regions previously considered peripheral.

In the fifth chapter, Vanni selects two “recent” (although 2007 is no longer quite so recent) archaeological theories: symmetrical archaeology and visual archaeology. These theories, on an epistemological level, embody the shift observed in the journal articles regarding concepts related to the relationship between the social and the cultural, between humans and objects, the agency of the individual, and the most effective language for expressing the outcomes of archaeological research.

The issues raised once again by these theoretical trends allow the author to return to the philosophical debate on modernity and postmodernity and to update it, going—citing the title of the sixth chapter—“beyond the post, the neo, and the hyper.” The central point of the discussion concerns modern thought’s connection with the works of Kant, Hegel, Marx, and, in particular, how the latter’s concepts and categories have been used or neglected. Through a highly engaging reflection on the relationship between ideology and structure—also introducing the significant variable of Foucault—the author illustrates the epistemological trajectory that archaeology has followed in the postmodern era. This trajectory, in its most extreme expressions, “trivializes” events (considered as simple, linear, and encountered as they are) and reduces History to the unpredictability of chance (as Max Weber theorized).

But how has Classical Archaeology reacted to the trends outlined so far? The author addresses this question in Chapter 7 by analyzing its relationship with sources, historiographical approaches, and, more generally, with the “major themes” of archaeology—testing this branch of the discipline against the realities of practice.

The book concludes with a final chapter containing a reflection that—starting from concepts of knowledge democratization, academic authority, and the meaning/role of the past—questions the ethical and civic function of archaeology and those who practice it.

Final (Personal) Reflections

On page XIV of the book, the sacred duty of declaring one's disciplinary stance in any kind of research is explicitly highlighted. This is because the theory underlying such research is, in effect, one of the factors contributing to the very production of an idea. For this reason, I must admit that this review of the book cannot help but be influenced by my rather overt adherence to more processualist positions and a slight idiosyncrasy (which, in recent times, has been somewhat softened) towards everything that carries the prefix “post-” in its name. Similarly, my pre-historic training (specifically focused on typologies and models) has undoubtedly made me more attuned to the parts of the book that engage with general theoretical reflections, rather than those specifically dedicated to the sensitivities of Classical Archaeology, a field with which I have always had a somewhat oblique relationship.

Now, as the author rightly points out (p. 77), book reviews are a real tool for hegemonic dissemination (they produce and influence opinions on certain topics while excluding others). I would therefore like to conclude this text with the following statement:

Once again, it is evident from the research conducted that the post-processualist idea is defeated, and archaeology can (and must) continue to investigate historical trends and complex phenomena on a large scale.

However, this is not so simple. This is because Vanni's work has, in fact, the merit of allowing one to easily follow the postmodern reasoning (despite his lack of endorsement)

and, whether willingly or not, to observe the dissolution of History and come to terms with the implications for archaeological thought that this entails.

Once the typical (yet fleeting) beauty of every iconoclastic and deconstructive act is surpassed, we are left with the awareness that postmodernism has destroyed the deeply rooted convictions of modernity, with its fast-paced, uncontrollable manner, which is distinctly characteristic of our capitalist society.

It is therefore necessary to learn as soon as possible to live in these ruins, especially if we wish to develop any theoretical reflections on contemporary archaeology and be consciously engaged within its dynamics.

To do so, one may attempt to follow the recipe proposed by the author, who, speaking of the various archaeological paradigms, writes: "If their utility has weakened, we must commit ourselves to constructing new ones based on new sensitivities, new perspectives, and, above all, new data" (p. 107).

A task not without pitfalls, but one that is made more approachable thanks to books like this one by Edoardo Vanni.