

ON THE ROAD TO OPEN ACCESS: INSIGHTS FROM FRENCH ANTIQUITY JOURNALS AND DATABASES

In memory of Marie-Christine Hellmann († 2017)

1. INTRODUCTION: ARCHAEOLOGY, DATA MANAGEMENT AND PUBLISHING IN NANTERRE

Through the presentation of antiquity journals and databases conceived or prepared by two academic teams based in the university campus of Nanterre, this paper proposes a glimpse at the current evolution towards open access, as encouraged by the European Union and the French government. Founded in 1969 by René Ginouvès at the young University of Paris Nanterre, with the aim of associating Greek archaeology and information systems in an unprecedented way (<http://archaeologicalcomputing.cnr.it/itineraries/institutions/le-centre-taac-et-linformatique-en-larcheologie-classique/>), the team “Archéologie du monde grec et systèmes d’information” has not ceased to reaffirm this specificity since then (FROMAGEOT-LANIEPCE 2019). The team joined ArScAn (<http://www.arscan.fr/>) at its creation (in 1998) to participate in larger research projects, covering four continents, and a chronological span that goes from prehistory to the beginning of the modern era, on the basis of fieldwork, study of texts and images. It has thus developed digital resources answering the needs of French and international researchers, such as the *Bibliographie de l’architecture grecque* and *Chronique des verres gréco-romains*, which were originally linked to «Revue archéologique», and now need to be sustained as archives.

The Maison Archéologie & Ethnologie project was born in the late 1970s, when Eric de Dampierre set up a department of ethnology and comparative sociology, while René Ginouvès brought together teams of archaeologists interested in questions of methodology. In 1983, the Centre National de la Recherche Scientifique (CNRS) showed its interest in the project and supported the construction of a building on the campus of Nanterre for various teams in archaeology and ethnology from the CNRS, the Universities of Paris 1 Panthéon-Sorbonne and Paris Nanterre. Common services, in particular a scientific publishing service, were created. In 2020 the MSH Mondes succeeded this project in an enlarged perimeter including other fields of the social sciences and humanities. Its editorial unit (Pôle éditorial) gathers staff in charge of the editorial production of several journals in social sciences and humanities, all digitally released

and committed towards open access, to varying degrees and according to different models.

Both parties, in a collaborative approach, regularly exchange on the convergence of their practices in the fields of print and digital publishing, interactive media, and the articulation between publications and data, within the framework of research on the digital humanities. This collaboration between the numerous professionals based in Nanterre offers interesting case studies on the evolutions of practices in terms of data management and publication, in a context of Open Science where scholarly publications and data tend to be open more widely and faster. These are some of the developments, encouraged by European and more particularly French institutions, that we want to present here quickly, through examples by our units. We are also interested in similar works from other countries (FROMAGEOT-LANIERPCE 2019, 139-227; ROSSI, PARACIANI 2021 for the «Archeologia e Calcolatori»'s recent approach).

2. ARCHAEOLOGICAL JOURNALS IN THE ROAD TO OPEN ACCESS

The Pôle éditorial of the MSH Mondes is a cluster of a dozen editorial managers from CNRS, in charge of the editorial support and preparation of publications in the Humanities and Social Sciences, mainly journals (<https://www.mshmondes.cnrs.fr/revues-pole-editorial>). Each staff member is assigned to work for one or two scholarly journals, as part of the support given by the Institute of Humanities and Social Sciences of CNRS to scholarly publishing (ASCHEHOUG 2022). In exchange, these journals are committed towards the development and application of virtuous editorial practices and policies, among which Open Science holds a major, if not a central place. Nine of them are at least partially concerned with archaeology, either Prehistory, Classical or American archaeology (list sorted by founding date): «Revue archéologique» (1844; <https://www.cairn-int.info/journal-revue-archeologique.htm?contenu=about>), «Journal de la Société des américanistes» (1895; <https://journals.openedition.org/jsa/14865>), «Bulletin de la Société préhistorique française» (1904; https://www.prehistoire.org/515_p_46628/le-bulletin-de-la-spf.html), «Syria» (1920; <https://journals.openedition.org/syria/4125>), «Gallia» (1943; <https://journals.openedition.org/gallia/268>), «Gallia Préhistoire» (1958; <https://journals.openedition.org/galliap/268>), «Paléorient» (1973; <https://journals.openedition.org/paleorient/268>), «Archéologie de la France – Informations» (2003; <https://journals.openedition.org/adlf/12592>), and «Americae» (2016; <https://americae.fr/en/presentation/>). This allows us a significant glimpse at different models of periodical publications in archaeology within the context of French academic publishing (ASCHEHOUG *et al.* 2021).









Journals with print and digital versions					
					
Publisher	PUF	CNRS Éditions	Presses de l'Ifpo	Société des américanistes	Société préhistorique française
Print diffusion	Private scholarly publisher		Public publisher	Learned societies & associations	
Digital diffusion	Cairn	OpenEdition Journals			Own website
Digital-only journals	<i>AdUFI</i>				
Publisher	Ministère de la Culture / InSHS				Association Americae

Fig. 1 – The archaeological journals prepared in Nanterre: choices of medium for print and digital diffusion (G. Coqueugnot, CNRS).

While all the journals from the Pôle éditorial are now available online, in a fully digital format, and engaged into the road to open access, they indeed correspond to different economic models, and follow different paths towards Open Science. These differences are partially explained by their different historical background, with creation dates ranging from 1844 to 2016, and an engagement in digital diffusion more or less recent, mostly throughout the 2010s and early 2020s. The journals' histories are linked to a variety of criteria, such as their status, their partnerships with public or private publishers, and their choices in terms of diffusion (Fig. 1).

Among the archaeology journals in the Pôle éditorial, we can find almost the whole range of scholarly journal diffusion possible today, excluding those still exclusively in print, subscription-only journals and preprints journals. This includes journals published by public or private publishers or directly by the learned societies they belong to, available in both print and digital versions or


Digital libraries	Gallica (until 1951) JSTOR (after 3 y.)	Persée (after 2 y.); JSTOR; Gallica	Persée (before OpenEdition) JSTOR (after 1 to 5 y.)	Persée; JSTOR	not applicable
					
Model of digital diffusion	Subscription Open Access after 2 y.	Green Open Access (on HAL) + Subscription	Diamond Open Access		
			Freemium model - HTML in Open Access - PDF downloads for subscribing institutions	Full Open Access (HTML and PDF)	

Fig. 2 – The archaeological journals prepared in Nanterre: presence in digital libraries and models of digital diffusion (G. Coqueugniot, CNRS).

born-digital journals. The first digital diffusion, usually for the issues predating the 2000s or 2010s, is usually linked to digital libraries such as the French public platforms Persée and Gallica, or the American JSTOR (Fig. 2). More recent issues, with a natively digital, HTML version, are mostly hosted in one of the French scholarly publishing platforms born in the 2000s, such as the public infrastructure OpenEdition Journals (<https://journals.openedition.org/6438>) or the private academic platform Cairn (<https://www.cairn-int.info/about.php>), while others still operate independent websites (on the different digital platforms in France, see ANHEIM, FORAISON 2020, 81-88, 239-241).

The archaeological journals of our panel also present a diversity in the degree of openness of their digital version, in correlation with their economic models (Fig. 2). Institutional incentives and requirements have resulted in a steep acceleration in the last decade of the process towards the opening of the journals' contents, although the debate remains open between public and private publishers on the sustainability of the different economic models (ANHEIM, FORAISON 2020, 233-272; MOCHON, VIALLE 2022). A first step was the reducing of the period of embargo under which journals were only accessed through subscription, from five years in the early 2010s to two years in 2018.

Thus, for example, the «Revue archéologique», although it provides immediate open access to some of its sections (such as the books reviews), is today a journal under a two-years subscription wall on the platform Cairn, while the «Bulletin de la Société préhistorique française» has adopted in 2022 a green open access path – that is the immediate deposit of the preprint version of the articles on the institutional archive HAL-SHS – in parallel to its subscription editor’s version. Current European and French governmental policies, followed by CNRS, strongly encourage the so-called diamond open access model, which provides readers with immediate, free access to the edited text (at least in its HTML version) without charging the authors with APC fees (BECERRIL *et al.* 2021; BOSMAN *et al.* 2021). This move from print-only to digital open access is illustrated by the journal «Syria», which gained a digital version in 2016, initially with a two-year embargo period, on the publicly-funded platform OpenEdition Journals; this embargo period was then reduced to one year in 2021, and finally abandoned in summer 2022 to adopt the Diamond Freemium model.

3. DATABASES AND THEIR ASSOCIATION TO JOURNALS

Two bibliographies, providing a systematic and critical analysis of literature in thematic fields, were published in review articles for almost 30 years in the «Revue archéologique», one of the journals already mentioned above. The articles are freely available in the digital version hosted by the scholarly platform Cairn. Marie-Christine Hellmann, specialist of classical architecture, worked on the *Bulletin analytique de l’architecture du monde grec* from 1991 until 2008, firstly in the research unit Institut de recherche sur l’architecture antique (IRAA), then in ArScAn. She coordinated this publication by collecting over 400 review notes written by 30 experts and published every two years in the «Revue archéologique» (AA.VV. 1992-2008). There is no need to stress the difficulties of this kind of collaboration.

In a similar model, the *Chronique des verres gréco-romains* consists of review articles in the field of Greco-Roman glass. Marie-Dominique Nenna has studied glass and Egyptian faience collections in many museums and she led excavations in Egypt in search of glass workshops (<https://ccj.cnrs.fr/spip.php?article2598>). She wrote the review articles to draw attention to the development of these studies and to help the specialists of various regions who didn’t have easy access to publications (NENNA 2001-2015).

This kind of data sets are not new practices in themselves, but they were rarely included in journals and not easily searchable in their print form, despite several attempts and experiences in the 20th century. Anne-Marie Guimier-Sorbets, professor emerita of Greek archaeology and history of art at the University of Paris Nanterre and a specialist in architecture and architectural

decoration, is a specialist of archaeological databases design. In 1980s and 1990s she worked closely with Paola Moscati on the thematic issue of multimedia systems as unitary platforms on which methods and practice of data acquisition, analysis, interpretation, and communication can converge (for an overview, CARVALE, MOSCATI 2021). She proposed the development of web-databases in parallel to the printed bibliographies. The journal's publisher, les Presses universitaires de France, accepted this principle.

The databases were consequently designed and distributed online for almost 15 years, in free access. The *Bibliographie de l'architecture grecque* website includes the notes published in the *Bulletin d'architecture*, and, from 2009, new bibliographical notes exclusively online, while the printed *Bulletin* was replaced by overview articles (GUIMIER-SORBETS, FROMAGEOT-LANIEPCE 2006, 19-20; HELLMANN 2009-2015). The *Chronique des verres gréco-romains* website reproduces all the reviews published by M.-D. Nenna in her chronicles. Neither thematic articles nor databases were taken over and updated after 2015; each website had thus become an archive.

4. AUGMENTED PUBLICATIONS AND THE PRESERVATION OF DIGITAL DATA

Another example of a database originally intimately linked to a journal appears in the 1980s: the journal «Gallia» initially included a presentation of new data from both planned and rescue excavations in France. This chronicle quickly took the form of a database reproduced first in an annual CD-ROM, and then on the web. It gained its autonomy as the digital-only companion of the journal: «Archéologie de la France – Informations» (ASCHEHOUG, COQUEUGNIOT, COQUET 2021; COQUET *et al.* 2021, 8). In the road towards the increased open access of scientific results, institutions are now encouraging the development of new models of journals, associating additional material previously difficult to include in print, such as 3D models or large sets of research data, often hosted by Huma-Num, a French public research infrastructure with international reach devoted to the Social Sciences and Humanities (<https://www.huma-num.fr/about-us/>). This has been made easier by the adoption of digital-native editorial processes, which allow a greater interactivity within the journals and in the scholarly world as a whole.

Thus, the transition of the journal «Gallia» towards an “augmented journal” was accelerated by the launch of its digital version in 2018 on Open-Edition Journals and the creation of a companion website in 2020, linking the journal's articles to additional data hosted in Huma-Num servers: inventories, catalogues, etc. (COQUET *et al.* 2021, 9-10). Alongside these new publications, using cutting-edge technologies, the community also has the mission of maintaining past digital resources. The bibliographical web-databases on architecture and glass developed in ArScAn are still hosted on the university

server of Nanterre with the solution MySQL-PHP initially designed by our colleague Eric Gimel from CNRS. The disappearance of our IT department has forced us to migrate the MySQL-PHP system in Huma-Num servers, after Eric Gimel updated the PHP scripts to ensure its sustainability. This migration has led to a change of url (<https://verresantiques.huma-num.fr/>) without changing the architecture of the databases (Fig. 3). The user can type in a search form string in French like “coupe” or “bouteille” (“cup” or “bottle”) and he gets all the records in the database which are associated with these subject keywords. He can obtain a page of matching results with summaries which are only available in French. The website devoted to glass has a more elaborate search tool that is bilingual on various subject fields, supporting both English and French (Fig. 4). The new website gives the possibility to update the contents.

We are also thinking of a low-tech proposal and a self-archiving practice. We could export all data into a structured text file and make it available with precise metadata and a list of field names, in a repository such as the Huma-Num’s platform Nakala, already used by online journals.

5. CONCLUSION

At that time, when the libraries of retired researchers are being donated and integrated into our institutional library, it is important to do the same for the data files. We are engaged in seeking ways to preserve these samples for two reasons: on one hand, the bibliography exists over a long period of time, and on the other hand, that kind of contributions are disappearing from printed journals. In parallel to the transition towards open access, our time is very concerned by a better consideration of the fragility of digital productions on the long-term scale of archaeological research.

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REFERENCES

- AA.VV. 1992-2008, *Bulletin analytique d’architecture du monde grec*, «Revue archéologique», 1992, 273-365; 1994, 347-462; 1996, 293-410; 1998, 311-420; 2000, 341-453; 2002, 291-406; 2004, 301-417; 2006, 307-412; 2008, 293-441 (<https://www.jstor.org/journal/revuearch>).
- ANHEIM É., FORAISON L. (eds.) 2020, *L’édition en sciences humaines et sociales: enjeux et défis*, Paris, Éditions EHESS (<https://doi.org/10.4000/books.editionsehess.28728>).

- ASCHEHOUG A. 2022, *Regard sur le soutien aux revues à l'InSHS: résultats de la campagne 2020-2021*, «La Lettre de l'InSHS (Institut des Sciences Humaines et Sociales – CNRS)», 75, 19-21 (<https://hal.archives-ouvertes.fr/hal-03611927>).
- ASCHEHOUG A., COQUEUGNIOT G., COQUET N. 2021, *Archéologie: le tournant numérique en (re)vue*, *Journée d'étude La publication archéologique en environnement numérique*, ArScAn (UMR 7041), blog «ArcheoNum», 22 janvier 2021 (<https://archeonum.hypotheses.org/888>).
- BECERRIL A., BOSMAN J., BJØRNSHAUGE L., FRANTSVÅG J.E., KRAMER B., LANGLAIS P.-C., MOUNIER P., PROUDMAN V., REDHEAD C., TORNY D. 2021, *OA Diamond Journals Study. Part 2: Recommendations* (<https://doi.org/10.5281/zenodo.4562790>).
- BOSMAN J., FRANTSVÅG J.E., KRAMER B., LANGLAIS P.-C., PROUDMAN V. 2021, *OA Diamond Journals Study. Part 1: Findings* (<https://doi.org/10.5281/zenodo.4558704>).
- CARAVALE A., MOSCATI P. 2021, *La Bibliografia di informatica archeologica nella cultura digitale degli anni Novanta, 30 anni di informatica archeologica*, 1, Sesto Fiorentino, All'Insegna del Giglio (<https://www.insegnadelgiglio.it/wp-content/uploads/2021/09/FA-4-ebook-v3.pdf>).
- COQUET N., MAINES E., MONTEIL M., VERARDO V. 2021, *La revue Gallia: politique éditoriale et science ouverte*, «La Lettre de l'InSHS (Institut des Sciences Humaines et Sociales – CNRS)», 73, 8-10 (<https://hal.archives-ouvertes.fr/hal-03354334>).
- FROMAGEOT-LANIEPCE V. 2019, *Les pratiques de la recherche en archéologie à l'heure du numérique*, «Archeologia e Calcolatori», Suppl. 12 (<https://doi.org/10.19282/acs.12.2019>).
- GUIMIER-SORBETS A.M., FROMAGEOT-LANIEPCE V. 2006, *Les ressources d'information archéologiques sur Internet: le point de vue de l'utilisateur*, «Archeologia e Calcolatori», 17, 7-24 (http://www.archcalc.cnr.it/indice/PDF17/01_Guimier.pdf).
- HELLMANN M.-C. 2009-2015, *Chronique d'architecture grecque*, «Revue archéologique», 2009, 265-282; 2011, 63-84; 2012, 313-333; 2015, 35-48 (<https://www.cairn-int.info/journal-revue-archeologique.htm>).
- MOCHON J.-P., VIALLE S. 2022, *Médiateur du livre, Projet d'avis du 18 mars 2022 sur l'édition scientifique dans le contexte des politiques en faveur de la science ouverte. Rapport* (<http://mediateurdulivre.fr/publications/avis/projet-davis-du-18-mars-2022-sur-ledition-scientifique-dans-le-contexte-des-politiques-de-la-science-ouverte/>).
- NENNA M.-D. 2001-2015, *Verres de l'antiquité gréco-romaine: cinq ans de publication*, «Revue archéologique», 2001, 303-342; 2006, 83-166; and *Verres de l'antiquité gréco-romaine: trois ans de publication*, 2009, 283-336; 2012, 63-129; 2015, 49-118 (<https://www.cairn-int.info/journal-revue-archeologique.htm>).
- ROSSI I., PARACIANI N. 2021, *IT applications to archaeology and the OA diamond journals' challenge. Enhancing access and reuse of textual and visual resources*, «Archeologia e Calcolatori», 32, 325-347 (<https://doi.org/10.19282/acs.32.1.2021.18>).

ABSTRACT

This paper proposes an overview of practices ensuring the gradual transition of printed archaeological journals, already internationalised, to new models of online scientific publishing. It also examines the economic and organisational means that guarantee the sustainability of these models. Our two research units, the Pôle éditorial of the Maison des Sciences de l'Homme Mondes and the team Archéologie du monde grec et systèmes d'information of the ArScAn équipe, are both based in the campus of Nanterre, and collaborative discussions between the numerous professionals based there give us a precious glimpse at the evolutions of practices in terms of data management and publication, in a context of Open Science where scholarly publications and data tend to be open more widely and faster.