https://doi.org/10.51408/issi2025_114

Small Open Access Publishers: An Analysis of Visibility and Impact Patterns

Roberto Cruz Romero

cruzromero@dzhw.eu
German Centre for Higher Education Research and Science Studies (DZHW), Berlin (Germany)

Abstract

This research-in-progress addresses an often-overlooked dimension of scholarly publishing, namely, the transmission role of small academic publishers. Small publishers are commonly entrusted with a representation function, either serving as official outlets for specific scholarly societies or as linguistic or regional alternatives to mainstream global publications. Journals from small publishers are thus the face of these types of local organisations as they represent the material mechanisms of transmission. The transmission dimension is compounded by the visibility granted by open access, and the potential increase in impact that the latter facilitates and implies. Hence, this contribution takes visibility and impact as two fundamental characteristics of open access that small publishers commonly exploit in order to better position themselves in relation to large publishers. Using data from Scopus, Web of Science's Primary and OpenAlex, this contribution characterises the trends and patterns in publications from small publishers that primarily focus on open access as main output format. The exploratory analysis focuses on topics, linguistic and regional representation, as well as on authorship; the interplay of these dimensions sheds light on the transmission dynamics of these small outlets given that they represent focalised and/or specialised channels for authors in underrepresented regions. An underlying part of the analysis relates to the comparison of the three databases and their respective coverage of these publishers' journals.

Introduction

Research on the impact and relevance of small scholarly publishers is rather limited (Kaier & Lackner, 2019; Pinter & Magoulias, 2015; Stephen & Stahlschmidt, 2022). On one hand, there is little to observe when compared to large commercial publishers (Asai, 2020; Butler, Matthias, Simard, Mongeon, & Haustein, 2023; Larivière, Haustein, & Mongeon, 2015); i.e., the output of smaller publishers is only marginal vis-à-vis that of larger publishers. In addition, the scholarly trends regarding processing fees for open access (OA) or publication agreements are all focused on the latter group. On the other hand, some research has focused on the potential for diversification that smaller publishers can bring to mainstream fields of (meta-) study, such as bibliometrics and scientometrics (Barnes & Gatti, 2019; Giménez Toledo, Kulczycki, Pölönen, & Sivertsen, 2019). Further, other scholarly works have focused on understanding the role of smaller (usually independent publishers) regarding the dynamics of OA within the publishing landscape (Berger, 2021; Hawthorne, 2014; Ma, Buggle, & O'Neill, 2023).

Thus, this contribution seeks to enrich the limited approaches to the study of small scholarly publishing and its characteristics in relation to the latent relevance of their publications. Building on the approach by Cruz Romero et al. (2024), which focuses on the incursion and contribution of small publishers' journals into specific scientific

discourses, this research-in-progress (RP) looks at two foundational elements relating to the attributed relevance of scholarly items, namely, visibility and impact. The focus on these two dimensions seeks to problematise the interrelationships, and usually confounding proximities, of the dimensions of accessibility, costs and intellectual rights (e.g., Ball, 2016). The semantic and (very) material web of inherent issues that arise parallel to access also touch upon quality and assessment (Krüger & Hesselmann, 2020; Wiedmer, 2015). The debates surrounding these relationships tend to point toward the issues of *attention* and *prestige* (Wiedmer, 2015, pp. 150-151), directed both at the journals (as representation of the publishers) and the authors, as the bearers of intellectual weight in this regard. Thus, the interest to explore the role of the works published in these outlets regarding their impact in the scientific landscape and that of authorship in thematic (discipline) and regional distributions, particularly from the perspective of small publishers' journals.

Literature Review

As noted, the interest of this approach lies at the rather under-explored nature and characteristics of small scholarly publishers. Kaier and Lackner (2019) present some of the most notable research on this regard. Focusing explicitly on the side of small publishers, the authors exemplify the opinions and motivations of different sets of publishers, which express the diverging incentives that determine the scholarly landscape – specifically when assessing various disciplines, "possibly due to the fact that open access is already more widespread in the natural sciences than in the humanities" (p. 198). And in specific attention to the size dimension, the authors note that "smaller publishers are forced to be more 'conservative' and less innovative due to a lack of scope for investment, but this also makes them increasingly less competitive, which favours further market concentration" (p.195). This outlook marks one of (if not) the main lines of study regarding small publishers, which is their disadvantageous positions vis-à-vis larger ones.[1]

The sequential line of argument in relation to small publishers is given by the dimension of access, i.e., open access. Smaller publishers tend to be regarded as more independent and less driven by effects of market pressures and incentives (Estelle, 2021; Pinter & Magoulias, 2015). Yet, as seen, some of these elements do play a role in determining the type of publication offerings they cater. Even further, the distinction between different standards is often source of broader debates regarding rights and intellectual property – "the gratis/libre distinction, which is about rights and permissions, is not the same as the Green/Gold distinction, which is about delivery" (Ball, 2016, p. 183). Siebeck presents these debates, from the perspective of publishers, in the form of six (out of twenty-four in total) theses. The bottom line for publishers, the author argues, is the further dependency on public (or private) research funds, which will incur in indirect financing of the costs for authors. On the

[1] On the contrary, see the studies by Lariviere et al. (2015) on the so-called "oligolopoly" of academic publication, referring to the largest, most dominant scholarly publishers. Similarly, Butler et al. (2023) look at the oligopolistic dynamic of prices for OA. On the latter, Delgado-López-Cozar and Martín-Martín (2024) also contextualise and discuss the role of the business transformation of OA scholarly publishing.

authors' side, Siebeck continues, OA can re-dimension the motivations and incentives giving way to a journal submission (Siebeck, 2014, pp. 42–43).
Specifically on the latter, there is little research done on the topic, leaving great room for speculation in relation to why authors choose to publish in journals from small OA publishers. Wiedmer (2015), Siebeck (2014), Ball (2016) and others since have argued that the greatest benefit comes to readers, enjoying unrestricted access to research materials and no associated costs. Yet, the fears and strategic behaviours, some noted in Kaier and Lackner (2019, pp. 200-202), have been pointed out by Knöchelmann (2023) in that the editorial-publishing perspective carries and is often laden with many parallel debates, e.g., representation and diversity (pp. 396-397). Additionally, small publishers and, as argued by Knöchelmann, the often-confounded scholar-led publications are in constant balance between dependency and autonomous relations with the scientific community and the technical backend provided by larger publishing entities. One of the main issues at hand when dangling on between these dimensions is the visibility of published works (pp. 400-401). That is, under some circumstances, the visibility of specific symbols can be referred to as a characteristic of quality. Thus, showing off these elements becomes "relevant to encourage authors to submit, although the metrics do not allow for optimal external presentation, especially in the case of new, as yet unknown OA journals" (p. 401).
Methodologically, and at closest to the intended direction of this analysis, are the works of Stephen and Stahlschmidt (2022) and Cruz Romero et al. (2024). The first one focuses on an empirical analysis to "make evidence-based recommendations to actors in the scholarly publishing system to sustain and support the bibliodiversity offered by small publishers during the transition to OA" (Stephen & Stahlschmidt, 2022, p. 1). Stephen and Stahlschmidt's study is of particular importance since it offers the methodological backbone of this analysis, in that the same parameters and filter-matching criteria are employed here (see below). The second one more directly builds upon the analysis of small publishers, with a special focus on OA, and couples its aim with the element of *bibliodiversity* (see also Barnes & Gatti, 2019; Berger, 2021). This analysis enters into the gap that size, access and diversity leave out, thus centring on small OA publishers and the thematic patterns they seem to present in a general overview.

Data and Methods

Following the work of Stephen and Stahlschmidt (2022) and Cruz Romero et al. (2024), this contribution aims to characterise the trends and patterns of published works in journals belonging to small OA publishers. To offer precision, small OA publishers refer to a list of publishers that fulfil two criteria (one regarding size and one regarding publication licensing format). Regarding **size**, publishers are classified as small if they manage and publish ten or less journals a year *or* if, out of these journals, a total of 240 or less articles (or reviews) are published yearly (see Stephen & Stahlschmidt (2022) for methodological details on these parameters). The editorial output is coupled with the journal management aspect, given the premise that small publishers act as representatives of the academic communities they speak for and on behalf of. As the authors note in their report, this size is determined by a comparison

with the average (and median) output measured in a list of publishers identified in Crossref (pp. 6-8), given that Crossref "provides a strong, publicly available foundation for identifying small publishers" (p. 7). In this sense, the threshold harmonises different approaches and techniques.

Regarding the **access** dimension, following the same methodological cues in the abovementioned studies, there is a set threshold for the percentage of OA items published yearly in the journals managed by the publishers. Parting from the premise that the proportion of "OA documents making up typically less than 10%, or in fewer cases, more than 90% of journals' content" follows a two-sided distribution (Stephen & Stahlschmidt, 2022, p. 22). Thus, this analysis sets the threshold at 90% OA content published yearly in every journal from small publishers. This means that publishers are classified as OA if all its journals publish 90% or more of its items (per year) in some type of OA format. An important distinction here relates to the different *types of OA*; namely, if its *gold, green or hybrid*. For the purposes of this study, the distinction will not be taken into consideration given that the research interest lies at the intersection of access (in general) and broader dynamics regarding topics, linguistic and regional representation, as well as authorship.

Following these criteria, the bibliometric data comes from Scopus, Web of Science's Primary and OpenAlex databases (all queried through the infrastructure of the German Competence Network for Bibliometrics, KB – in German). Further, as mentioned, an inherent objective of the study is to compare the extent to which data is covered in all three databases and how large is the variation between each other. For that purpose, 2019 is taken as the baseline year for identifying small OA publishers,[2] which then were searched in a five-year period (2019-2023) in order to assess the trends and patterns discussed above. The focus lies not only on the mere volume of publications (which are filtered only to *articles* and *reviews* from peer-reviewed *journals*), but also on the topic classifications assigned. For this purpose both the keywords and database typologies are used, generating a differentiating parameter between the self-declared and algorithmically assigned thematic foci (e.g., see Lu et al., 2020).

Furthermore, to assess linguistic and regional representation, the metadata relating to item language and author(s) affiliation(s) are used.[3] Finally, on a meso-level perspective, the publisher location (country and city) metadata are employed to compare and draw parallels with the regional specificity or fit. This means that the analysis looks how and to what extent do the author affiliation and publisher location correspond to a match. All the steps are recoded so as to have a uniform disciplinary comparison, and this is done according to the Organisation for Economic Cooperation and Development's (OECD) Fields of Science categories (OECD,

[2] Since the following year, 2020, saw a stark downturn in the output of scholarly works largely due to the Covid-19 pandemic. This phenomenon has been broadly explored in the recent bibliometric literature.

[3] Both the topic (discipline) and the regional classifications allow for multiple coding of single items. Yet, as seen in Cruz Romero et al. (2024), the distribution does not deviate all too much from a single coding distribution.

2007).[4] Figure 1 presents a conceptual framework that links the analytical features with the variables of interest, namely, visibility and impact. From this perspective, the analysis emphasises the analytical feature as proxy elements that characterise the two dimensions of bibliodiversity discussed. These are but approximations to the empirical elements contained in the macro-level; i.e., bibliodiversity is nurtured by a diversity of topics, expressed in distinct languages, from a broad palette of regions and by a diverse group of authors. The latter elements are mediated by how visible and how impactful they are. Figure 2, in addition, summarises the methodological steps followed in the analysis.

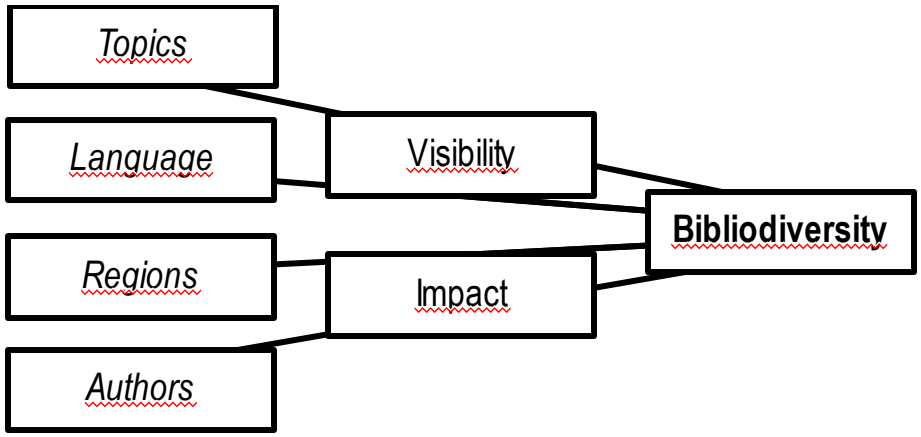

Figure 1. Conceptual Framework.

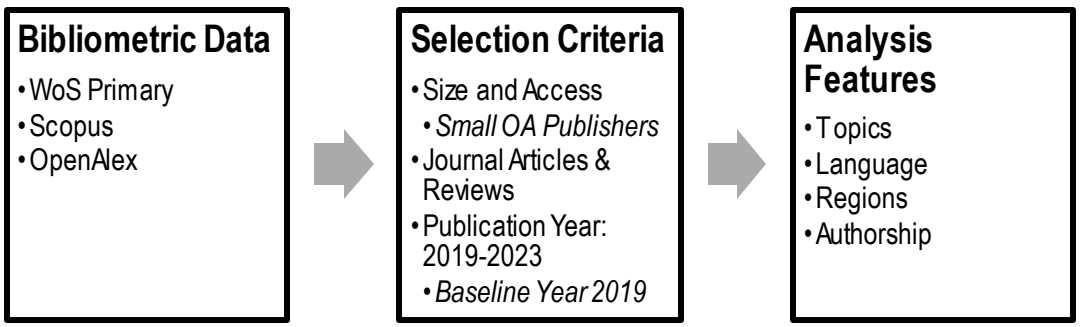

Figure 2. Methodological Flow Chart for Bibliometric Data and Analytical Framework.

Insights

An initial exploration of the data gives out a count of a total 3,145,653 *unique* items, from a total of 16,290 *unique* journals, belonging to a total of 8,691 *unique* publisher identifiers. The emphasis on the unique count is made due to the multiple counts that

[4] Social Sciences, Humanities, Agricultural Sciences, Engineering and Technology, Natural Sciences and Health and Medical Sciences.

different authoring numbers allow. That is, a single item may be single-authored; yet another item may be multi-authored. This count varies greatly within the sample, as there a mean number of authors per item of 4.1, and a median of 3 authors per item. Similarly, the collaboration of knowledge production (an intersection of physical and cognitive mobilities) is shown through the counts of institutional affiliations. In this case, there is a mean (and median) of 1.9 (1) institutional affiliations per item. In addition to these, a relevant factor for this research relates to the international affiliation differences, which can be seen in the country counts per item; again, a mean (and median) different country affiliations of 1.2 (1) per item. These figures show diverging patters in that it is inferable that a) there is a strong multi-authorship in items published in this type of outlets (journals from small OA publishers), b) the inter-institutional cooperation remains stable, yet c) scholarly cooperation seems to be nationally confined – i.e., OA journals do not seem to attract publications from international teams. This latter finding opens numerous avenues for further research. Table 1 presents a disaggregated count of these elements in the five-year period observed (2019-2023). Counterintuitively, it seems that the pandemic effect pushed the level of co-authorship (or multiple authorship) upwards, in that an evident change in the years pre- and post-pandemic occurred, driving the mean number of authors significantly (ca. 25% from the baseline 2019).[5] Furthermore, it seems that inter-institutional cooperation did increase, yet to a limited extent. It then seems as if small OA journals attract cooperation-intensive research to their pages, potentially reflecting a sector-wide phenomenon of intensive cooperative research. Yet, over 90% of items accounted for were published by teams with less than ten researchers, and the long right tail dilutes the remaining 10% 10 and over 2.000 researchers. In summary, around 20% of all items accounted are single-authored items.

Table 1. Descriptive Statistics for Bibliometric Data (Item Level).

Year	***Published Items (Unique)***	***# of Author***		***# of Institutions***		***# of Countries***	
		Mean	*Median*	*Mean*	*Median*	*Mean*	*Median*
2019	536.996	3.7	3	1.9	1	1.2	1
2020	587.664	3.9	3	1.9	1	1.2	1
2021	594.360	4.0	4	2.0	1	1.2	1
2022	579.691	4.1	4	2.0	1	1.2	1
2023	564.338	4.3	4	2.0	1	1.2	1

Moving on to the topic of linguistic and regional representation, Table 2 accounts the top ten languages and countries listed for each item. These two features differ,

[5] A small number of items account for a rather large number of authors (>2.000). This count is nonetheless correct for items authored by a multinational consortium named the ATLAS Group, with researchers from over 100 institutions worldwide. Thus, beyond one specific case in which a manual check indicated that the actual number did not match that which was registered in the database, this extreme co-authorship seems to have persisted through the pandemic years, with a series of specific publications on a narrow spectrum of the disciplinary lens – i.e., astrophysics.

nonetheless, on the unit observed, as languages refer to the item published, whilst countries are a dimension of authorship. However, put together in this sense, an intersecting dimension of authorship and mobility can be characterised. Moreover, smaller journals are expected to cater to audiences on more specific topics or lines of research that may be related with specific teams or labs. Thus, the underlying premise is that a small publisher will favour this focalised works given the disciplinary relevance that they entail for a local, national or regional expertise in the field. Moving on, expectedly, English is the outlying value in terms of publication language, yet the feature country of affiliation shows a larger variance within the sample. The underlying argument for this research-in-progress is that there are different structural and contextual incentives that determine the publication patterns in certain disciplinary groups. Moreover, the incentive structures may or may not align with international standards regarding the dominant academic discourse(s). As seen in this first stage, there appears to be a funnelling effect from different countries towards the English language – a characteristic of the contemporary academic landscape, as well as a pitfall for bibliodiversity. The premise that small OA publishers (and the journals) represent an understated research paradigm, focused more on the locally does not seem to hold. The analysis of the disciplinary distribution still follows as a next analytical step.

Table 2. Top Ten Item Languages and Author Country Affiliations.

Items Languages	***n***	***Authors Country Affiliation***	***n***
English	2.364.828	United States	352219
Portuguese	193.953	Indonesia	310860
Spanish	149.444	Brazil	289139
Indonesian	115.581	China	233026
Turkish	79.037	India	200271
Russian	67.781	Japan	188237
Japanese	34.168	Turkey	179217
French	22.268	Russia	135555
Ukrainian	17.965	United Kingdom	93880
Polish	17.063	Ukraine	87517

Limitations and Next Steps

The analysis is based on a methodological framework for identifying small publishers and their journals. In addition, the OA dimension expands (or rather further delimits) this search scope, leaving a sample of varied sources and broad disciplinary directions. The data thus only allows for *within* comparisons, i.e., comparisons between publishers and journals with the same size and access dimensions – everything else can be inferred to not belong to this category and therefore entails another set of analytical characteristics. Nonetheless, the dataset is rich and offers great insights into underexplored dimensions of academic publishing.

The next steps, not fitting in the research-in-progress format, focus on the disciplinary dissection of the features observed above (again, a sub-element seen in Stephen & Stahlschmidt, 2022; or in Severin, 2020). This approximation is relevant to correctly identify field-specific traits that may influence which type of outlet researchers tend to opt for most probably. Further, citation impact and textual analysis complement the study, providing a more comprehensive analytical framework that enters into preexisting discussions in the literature and providing fresh outlooks in these directions. Furthermore, the research will look into how smaller publishers are expected to thrive in an increasingly competitive environment of market incentives. By proxying the nature of smaller publishers (i.e., their commercial or scholarly affiliations), the discussion can be driven to the facet of sustainability, where the publish-or-perish paradigm still holds relevance. From this perspective, structural conditions (funding and affiliation) become intertwined with visibility and impact (i.e., bibliodiversity), offering further argumentative lines that this research will seek to outline.

Acknowledgments

This contribution is financed by the German Federal Ministry for Education and Research (BMBF) in its Open Access Culture funding line (project number: 16KOA014). Special thanks to Dimity Stephen for advancing the methodological framework used in this paper and Stephan Stahlschmidt for further analytical input.

References

Asai, S. (2020). Market power of publishers in setting article processing charges for open access journals. *Scientometrics*, *123*(2), 1037–1049.

Ball, D. (2016). Open Access: Effects on Publishing Behaviour of Scientists, Peer Review and Interrelations with Performance Measures. In P. Weingart & N. Taubert (Eds.), *Wissenschaftliches Publizieren*. Berlin, Boston: De Gruyter. Retrieved January 13, 2025, from https://www.degruyter.com/document/doi/10.1515/9783110448115-007/html

Barnes, L., & Gatti, R. (2019). Bibliodiversity in Practice: Developing Community-Owned, Open Infrastructures to Unleash Open Access Publishing. *ELPUB 2019 23rd edition of the International Conference on Electronic Publishing*. Presented at the nternational Con- ference on Electronic Publishing, Marseille, France: HAL. Retrieved October 9, 2023, from https://hal.science/hal-02175276

Berger, M. (2021). Bibliodiversity at the Centre: Decolonizing Open Access. *Development and Change*, *52*(2), 383–404.

Butler, L.-A., Matthias, L., Simard, M.-A., Mongeon, P., & Haustein, S. (2023). The Oligopoly's Shift to Open Access. How the Big Five Academic Publishers Profit from Article Processing Charges. *Quantitative Science Studies*, 1–33.

Cruz Romero, R., Stephen, D., & Stahlschmidt, S. (2024, September 20). *Assessing bibliodiversity through reference lists: A text analysis approach*. Zenodo. Retrieved January 13, 2025, from https://zenodo.org/records/14045592

Estelle, L. (2021). Enabling smaller independent publishers to participate in Open Access transformative arrangements. *Septentrio Conference Series*, (4). Retrieved November 7, 2022, from https://septentrio.uit.no/index.php/SCS/article/view/6220

Giménez Toledo, E., Kulczycki, E., Pölönen, J., & Sivertsen, G. (2019, December 5). Bibliodiversity – What it is and why it is essential to creating situated knowledge. *Impact of Social Sciences*. Retrieved August 15, 2023, from https://blogs.lse.ac.uk/impactofsocialsciences/2019/12/05/bibliodiversity-what-it-is-and-why-it-is-essential-to-creating-situated-knowledge/

Hawthorne, S. (2014). *Bibliodiversity: A manifesto for independent publishing* (1st publ.). North Melbourne: Spinifex Press.

Kaier, C., & Lackner, K. (2019). Open Access aus der Sicht von Verlagen: Ergebnisse einer Umfrage unter Wissenschaftsverlagen in Deutschland, Österreich und der Schweiz. *Bibliothek Forschung und Praxis*, *43*(1), 194–205. De Gruyter.

Knöchelmann, M. (2023). Herausgeberschaft und Verantwortung: Über die Un-/Abhängigkeit wissenschaftlicher Fachzeitschriften. *Bibliothek Forschung und Praxis*, *47*(2), 393–406. De Gruyter.

Krüger, A. K., & Hesselmann, F. (2020). Sichtbarkeit und Bewertung. *Zeitschrift für Soziologie*, *49*(2–3), 145–163. De Gruyter Oldenbourg.

Larivière, V., Haustein, S., & Mongeon, P. (2015). The Oligopoly of Academic Publishers in the Digital Era. *PLOS ONE*, *10*(6), e0127502.

Lu, W., Liu, Z., Huang, Y., Bu, Y., Li, X., & Cheng, Q. (2020). How do authors select keywords? A preliminary study of author keyword selection behavior. *Journal of Informetrics*, *14*(4), 101066.

Ma, L., Buggle, J., & O'Neill, M. (2023). Open access at a crossroads: Library publishing and bibliodiversity. *Insights*, *36*, 1–8.

OECD. (2007). *Revised Field of Science and Technology (FoS) Classification in the Frascati Manual* (No. DSTI/EAS/STP/NESTI(2006)19/FINAL). Working Party of National Experts on Science and Technology Indicators. Paris: Organisation for Economic Cooperation and Development. Retrieved from https://www.oecd.org/science/inno/38235147.pdf

Pinter, F., & Magoulias, M. (2015). The small academic press in the land of giants. *Insights*, *28*(3), 56–61. UKSG in association with Ubiquity Press.

Siebeck, G. (2014). 'Open Access' und offene Fragen: 24 Thesen aus verlegerischer Sicht. *Bulletin / Vereinigung der Schweizerischen Hochschuldozierenden = Association Suisse des Enseignant-e-s d'Université*, *40*(2–3), 41. ereinigung der Schweizerischen Hochschuldozierenden.

Stephen, D., & Stahlschmidt, S. (2022). *Landscape study of small journal publishers for the Knowledge Exchange Task & Finish Group for 'Small Publishers and the Transition to Open Access'*. Zenodo. Retrieved February 1, 2023, from https://zenodo.org/record/7258048

Wiedmer, H.-R. (2015). Publizieren im Zeitalter von Open Access: Die Verlagsperspektive. *Traverse: Zeitschrift für Geschichte = Revue d'histoire*, *22*(1), 147. Chronos.