

Complexity and Purpose – A Pragmatic Approach to the Diversity of Archaeological Classificatory Practice and Typology

Shumon Tobias Hussain, **Felix Riede** and **Sébastien Plutniak** based on peer reviews by **Martin Hinz, Artur Ribeiro**, **Ulrich Veit** and 1 anonymous reviewer

Enrico Giannichedda (2023) Research perspectives and their influence for typologies. Zenodo, ver. 9, peer-reviewed and recommended by Peer Community in Archaeology. https://doi.org/10.5281/zenodo.7322855

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"Research perspectives and their influence for typologies" by E. Giannichedda (1) is a contribution to the upcoming volume on the role of typology and type-thinking in current archaeological theory and praxis edited by the recommenders. Taking a decidedly Italian perspective on classificatory practice grounded in what the author dubs the "history of material culture", Giannichedda offers an inventory of six divergent but overall complementary modes of ordering archaeological material: i) chrono-typological and culture-historical, ii) techno-anthropological, iii) social, iv) socio-economic and v) cognitive. These various lenses broadly align with similarly labeled perspectives on the archaeological record more generally. According to the author, they lend themselves to different ways of identifying and using types in archaeological work. Importantly, Giannichedda reminds us that no ordering practice is a neutral act and typologies should not be devised for their own sake but because we have specific epistemic interests. Even though this view is certainly not shared by everyone involved in the broader debate on the purpose and goal of systematics, classification, typology or archaeological taxonomy (2-4), the paper emphatically defends the long-standing idea that ordering practices are not suitable to elucidate the structure and composition of reality but instead devise tools to answer certain questions or help investigate certain dimensions of complex past realities. This position considers typologies as conceptual prosthetics of knowing, a view that broadly resonates with what is referred to as epistemic instrumentalism in the philosophy of science (5, 6). Types and type-work should accordingly reflect well-defined means-end relationships.

Based on the recognition of archaeology as part of an integrated "history of material culture" rooted in a blend of continental and Anglophone theories, Giannichedda argues that type-work should pay attention to relevant relations between various artefacts in a given historical context that help further historical understanding. Classificatory practice in archaeology - the ordering of artefactual materials according to properties - must thus proceed with the goal of multifaceted "historical reconstruction in mind". It should serve this reconstruction, and not the other way around. By drawing on the example of a Medieval nunnery in the Piedmont region of northwestern Italy, Giannichedda explores how different goals of classification and typo-praxis (linked to i-v; see above) foreground different aspects, features, and relations of archaeological materials and as such allow to pinpoint and examine different constellations of archaeological objects. He argues that archaeological typo-praxis, for this reason, should almost never concern itself with isolated artefacts but should take into account broader historical assemblages of artefacts. This does not necessarily mean to pay equal attention to all available artefacts and materials, however. To the contrary, in many cases, it is necessary to recognize that some artefacts and some features are more important than others as anchors grouping materials and establishing relations with other objects. An example are so-called 'barometer objects' (7) or unique pieces which often have exceptional informational value but can easily be overlooked when only shared features are taken into consideration. As Giannichedda reminds us, considering all objects and properties equally is also a normative decision and does not render ordering less subjective. The archaeological analysis of types should therefore always be complemented by an examination of variants, even if some of these variants are idiosyncratic or even unique. A type, then, may be difficult to define universally.

In total, "Research perspectives and their influence for typologies" emphasizes the need for "elastic" and "flexible" approaches to archaeological types and typologies in order to effectively respond to the manifold research interests cultivated by archaeologists as well as the many and complex past realities they face. Complexity is taken here to indicate that no single research perspective and associated mode of ordering can adequately capture the dimensionality and richness of these past realities and we can therefore only benefit from multiple co-existing ways of grouping and relating archaeological artefacts. Different logics of grouping may simply reveal different aspects of these realities. As such, Giannichedda's proposal can be read as a formulation of the now classic pluralism thesis (8–11) – that only a plurality of ways of ordering and interrelating artefacts can unlock the full suite of relationships within historical assemblages archaeologists are interested in.

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Reviews

Evaluation round #2

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Authors' reply, 22 November 2023

Thanks to the reviewers I have proceeded to solve problems related to: English language, sentences of doubtful comprehensibility, bibliographical references. I have also clarified when some statements are my opinions and therefore not supported by references to Anglo-Saxon authors. I have made it clearer what my view on typologies in the field of material culture studies is. The mention of Latour's works has also been extended and made understandable to a reader unfamiliar with his work. This is of course within the limits of my abilities and intentions.

Decision by Shumon Tobias Hussain, Felix Riede and Sébastien Plutniak, posted 23 August 2023, validated 25 August 2023

Invitation to final corrections and language polish

Dear author,

thank you for submitting your revisions.

The revised chapter has now been seen by two reviewers whose comments are listed below. I agree with the reviewers that the text is almost ready for acceptance but merits a few final adjustments.

Please carefully consider all of the comments made, especially the detailed in-text annotations made by the first reviewer (you have to manually download the document yourself following "download the review").

Please also check whether you have used the Harvard reference system throughout (bibliography and in-text references: see document attached).

As mentioned by the reviewers, your paper would especially benefit from a final formal language check, ideally by a native speaker.

We are happy to accept your chapter for inclusion into the edited volume after attending to these final issues.

As always, let us know if you have any questions.

Best wishes,

Shumon T. Hussain **Download recommender's annotations**

Reviewed by Artur Ribeiro, 06 June 2023

This is the second time I've reviewed this paper and certain things have been improved, namely the paper contains considerably more references than before. However, it still suffers from serious problems.

- The English continues to be a serious issue, and I've tried to highlight certain areas where it needs work (on the pdf), but I've only managed to scrape the surface. To me, it sounds like there are multiple attempts to simply translate an Italian style into an English style, and this does not work. Here are some examples of sentences that are spread throughout the paper which to me don't make sense, even in context: "Types, perhaps, completely unimportant to people"; "An approach, therefore, that postpones the search for any archaeological historical interpretation to other and subsequent stages"; "Losing, however, its entire history". These are all their own individual sentences. This style, which is very similar to Portuguese, overuses the passive and this just sounds terrible in English.
- There are a lot more references this time around, but they are usually just aggregated at the end of sections at times, while certain comments in the text continue going unreferenced. For example, the sentence "the cognitive approach starts from the assumption that no artefact is the result of technology alone and that no artefact is 100% functional" continues going uncited.
- It is not clear when the paper is addressing typology and when it is just a discussion of material culture. This is a big problem in my view, in that the paper starts off as a discussion of typology and then proceeds to become a paper commenting on material culture studies, as if the author changed his mind on what the paper was going to be about halfway through.
- There is constant reference to Latour's keys, which I have read about in a paper from 1991. However, there is no explanation of what this means in the text and someone who has never read Latour would have no idea what this refers to. It's very easy to critique Latour when his work is not properly explained.
- In the last review I asked whether the monastery should be called convent or nunnery. In English at least, when a "monastery" is female, it should not be called a monastery anymore but rather a convent or nunnery.
 - The term "techno-anthropological" sometimes has a dash and sometimes doesn't.
 - Where is the bibliography?

Download the review

Reviewed by Martin Hinz, 23 August 2023

I am pleased that the paper has been resubmitted and that the revision is a significant improvement on the original manuscript. All the points I raised have been addressed in one way or another, so I imagine it is now time to let the scientific community judge the paper. The title has been adjusted, the questions are now meaningfully motivated, the historical perspective is present (perhaps now almost in too much detail), with example and derived process of analysis, the perspectives are also now meaningfully linked, the bibliography is more extensive and pertinent. The quality of the English must be judged by others than me, a non-native speaker. Only, the consideration of the difference between emic and etic perspectives that I mentioned has become emic vs. ethical in the revision. As far as I can tell, however, this only affects the choice of words and not the content.

Evaluation round #1

DOI or URL of the preprint: https://zenodo.org/record/7322856 Version of the preprint: 1

Authors' reply, 17 May 2023

Download author's reply

Decision by Shumon Tobias Hussain, Felix Riede and Sébastien Plutniak , posted 02 January 2023, validated 02 January 2023

Invitation to revise your preprint

Dear Enrico,

many thanks for going along with our PCI-based review and revision process and for submitting your contribution in a timely fashion.

We have now received the reviewer's comments. Please don't be intimidated by the number of reviews, which is mainly reflective of my initial difficulties to find suitable experts for your chapter, so I had to broaden the scope and ended up with four reviews.

As you will see from the reviewers' comments, your chapter is considered an interesting and potentially valuable addition to the volume, providing a useful birds-eye-view of alternative, competing and/or complementary approaches to thinking through archaeological data in general.

All reviewers also agree, however, that there are several issues with the chapter that need to be carefully addressed before publication, and I agree with this assessment.

Here are some of the main points that I wish to draw your attention to:

1) The link between the different outlined approaches and their consequences for conceptualizing 'types' and constructing 'typologies' should be explored and highlighted more explicitly and clearly. What kind of typologies are promoted by the different approaches and what are prominent examples of such typologies found in the archaeological literature? And what are the concrete/observable artefact attributes and characteristics respectively foregrounded by each approach?

This generally bespeaks of a more general problem also outlined by the reviewers: The presently weak link between what the introduction promises and what the main text provides – and this mismatch should be carefully addressed in the revisions.

In this context, it may be useful to spend some more time on the interrelationship between the different approaches identified and contrasted, as this is already hinted at in the subtext: Are they strictly antithetical, are they alternative to each other, or are the simply complementary? This discussion is linked to the question of their tangible typological consequences, of course.

- 2) The chapter is currently under-referenced and in some cases implicitly refers to particular concepts and thinkers without stating it (e.g. 'hot' vs. 'cold' societies, and see specific reviewer comments below). The problem here is not only the missing bibliographic context but also that the reader is often uncertain what the intellectual/epistemological and research-historical background of a specific approach is. For example, the 'techno-anthropological' approach as it is currently presented in the text seems mainly to refer to the French project of comparative sociology and Technologie, which some readers, especially with an English-speaking background, might not be familiar with at all. Some more context and research-historical context-specification would thus be useful. An important question here may also be what the scope and importance of the different approaches are (and whether or not this list of approaches may be biased towards Southwestern European traditions of archaeological thinking; cf. reviewer comments on the Central European perspective inspired by Montelius and others).
- 3) The role of the Monastery example is ambivalent and it is not perfectly clear what this case adds to the discussion. I would strongly suggest introducing this case study in more detail in a separate section and then more explicitly discuss the implications and problems of the outlined approaches in relation to this chosen archaeological example. This would require slight restructuring of the chapter.
- 4) Some discussion of the internal epistemological diversity of the different approaches would be useful. Taking a 'cognitive approach' to artefacts and other archaeological materials can mean many very different things (cf. Abramiuk's "The Foundations of Cognitive Archaeology") and the consequences for type-thinking and the construction of typologies can thus be vastly different.

5) As outlined by one reviewer, and this may in part be an issue of translation, the phrasing 'men'/man' should be removed throughout the text and the respective renderings presented in a gender-neutral fashion. Language greatly matters here.

The original detailed reviewer comments are provided below for your orientation, and they should help in revising and thereby strengthen the chapter. Note that Reviewer 4 has included some possibly valubel in-text comments/suggestions that can be downloaded below.

Overall, this is a really interesting and potentially significant contribution to our edited volume, so thank you again for your submission.

I look forward to seeing your revised version in due time.

Reviewed by anonymous reviewer 1, 24 December 2022

This inventory of questions to be asked regarding human artefacts is deeply trivial, except perhaps to BA 1 students for whom it may have some merit as an introductory course syllabus. Everyone knows all this.

The analysis is not new: the author is clearly recycling earlier work (2014, 2021), probably as hopelessly insignificant, I'm afraid. See also the two recycled tables at the end, which the author has not even bothered to translate into English.

There are several clusters of deep literature of relevance to the subject which are entirely neglected (philosophy of science regarding theory-laden interpretation, material culture studies, philosophy of technology, the emic vs. etic debate in ethnology, the Appadurai-Kopytoff social-life-of-things approach, etc.).

The bibliography comprises 19 titles, 10 of which by the author himself.

Need I say more?

Reviewed by Ulrich Veit, 21 December 2022

It is difficult to judge the paper under review form the background of the guidelines for reviewers. The paper is not a classical research paper, which starts with a question, proceeds with an analysis and ultimately draws conclusions from the results of the analysis. The text instead offers a loose reflection on the multiple ways of classifying and interpreting archaeological artifacts. The author presents a typology of different directions of approaching ,material culture' (chrono-typological, culture-historical, technological, techno-anthropological, sociological, economical, cognitional). This could well be of interest, especially to a student audience.

Unfortunately the references in the text are very limited ("the bibliography will be kept to a minimum"). And one half of the publications mentioned are works of the author himself. References to publications specially devoted to the problems of archaeological classifications are largely missing. Classical northern and central European perspectives in the tradition of Montelius are not even mentioned once. Form the international discussion only Childe, Leroi-Gourhan and Renfrew (with his introduction together with Bahn) are mentioned (Some scholars – as for example Latour - are mentioned in the text without direct references.)

I'm not able here to comment on the numerous publications of the author. But with the arguments presented in the article alone, the paper doesn't work as it (in my opinion) would be necessary. Main problem: The six "types" of archaeological reasoning, that were presented, are not clearly associated with the respective paradigms and persons. Different positions in the debate were not presented and commented on.

Title and abstract mirror the problems mentioned for the total text.

The key words for the text are partly misleading: as still mentioned the article is on artefact classifaction in an abstract sense. Concepts as "attributes", "types" and "variants" were not discussed in detail. The discussion instead is primarily focused on the question to which end artifacts were classified. Problems of a "global

archaeology" and even "material culture" rank low in the paper. The concluding brief reflection on "the definition of material culture" doesnt't include a single reference on the large debate on this issue in the last decades. Two figures includes in the text for illustrating/summarizing the arguments presented, were left in Italian?

Download the review

Reviewed by Martin Hinz, 01 December 2022

The aim of Enrico Giannichedda's contribution is, according to the title, to give an overview of different typologies and their logics in a historical perspective. In the following, he systematically discusses various research strategies that determine typological decisions, each of which he enriches with an example from his own research practice. The question of typological classification is, as the author rightly points out, one of the central questions in archaeology. Certainly not the oldest, but one of the most relevant and well-known considerations in this regard was already made by Montelius (1903), who wrote that it is necessary "to know what a type is and to be able to distinguish the individual types [...]", and that in order to do this one must "always consider the essentials", one must be able to "assess with certainty what is characteristic of each type" (my translation). Montelius, however, leaves us with no explanation of this in his text. Certainly it can be assumed that the text before me has been written to address this. A very meaningful and important endeavour, and with revisions the text certainly has the potential to achieve this.

A general remark beforehand: Line numbers in the preprint would be helpful in order to target comments to specific passages in the text.

I will stick to PCI's guidelines in the following, and then add more general or more specific comments.

The title promises to deal with the typologies, to bring questions and examples and to do so in a historical perspective. However, most of the text is more about the different research perspectives, less about the typologies, even though it is made clear that they are interrelated. Questions can only be gleaned indirectly from the text, but maybe this referres to different research perspectives? Examples are always given. The choice to always do this from the same location can be questioned, but it works as a parenthesis to hold the text together. However, I miss the Historical Perspective, suggesting to me that a systematic walk through the development of different typologies is being done. Perhaps a better title would be "Research Perspectives and their Influence and Conditionalities for Typologies"?

The abstract reflects quite well what the text deals with in the following. It is somewhat unfortunate that it is in large parts a 1:1 copy of a following paragraph (page 2, 3rd paragraph).

The introduction, like much of the text, is written rather essay-like, and largely lacks the elements suggested in the guidelines. Style is, of course, always a personal matter; for me, the sometimes flowery language made it somewhat difficult to access the text. Overall, the English is comprehensible, but also my own texts always gain from revision by a native speaker. In this context, it would be helpful, should a publication in English be aimed at, that the two illustrations/schemes are also translated into English. My suggestion would be to align the introduction with more classical patterns, and for example, CARS model (Swales 1990).

Materials and Methods hardly applies to an article like this. Part 2 (Wholeness...) can perhaps be seen as Results, but it is not clear to me which results arise from the consideration of the different research perspectives (or questions). The author correctly points out that each question has its own typological conditions, and therefore different characteristics are relevant. It is also correct to deduce that not one or the other typology is the right one, but always the one that is best suited to illuminate the research perspective. This would perhaps be the right place to take us as readers by the hand and point out which elements are useful for which of the questions. This is being done to some extent (paragraph 2 page 15), but to elaborate on this would be a real milestone and an asset with which the article can make an important contribution.

Part 3 (The history...) can probably be regarded as a discussion. However, the title only refers to the third and thus last paragraph, and the statement made there ("The history of material culture is the history of the relationship of people...") does not really emerge from what is presented, and can and is also doubted (e.g. Olsen 2003).

A few general comments:

I somewhat miss the consideration of the difference between emic and etic perspectives. It seems to me that the author automatically sees the point of a classification as achieving an emic perspective. This is clear from the statement that classification systems may have been "nothing like what classifications might have been in use in antiquity". In this case, it is perhaps much more helpful to adopt a primarily etic perspective right away, and to recognise this (Hayden 1984)?

In this context, it also becomes important to what extent one takes into account intentional and non-intentional variation in material manifestation. According to the definition used by the author ("type as a design correlation of attributes"), only the intentional part (in an emic perspective) seems to play a role. However, this can also be viewed differently, as eg. the classic discussion between Sackett and Wiessner shows (eg. Wiessner 1985, Sackett 1986).

In general, for such a classic topic of archaeological research and theory building, the bibliography is surprisingly dominated by the literature of the author himself. I would expect a few other names here besides Renfrew and Childe, Clarke for example, or Dunnell.

Some specific comments on parts of the text:

On page 4, the author quotes Childes' definition of culture in the context of typochronology. However, this is more a statement on the ethnic interpretation of material culture, and thus also belongs more to the area of what he describes with a social approach. I would not automatically conflate chrono-typology and cultural-historical approach.

In the area of the technological approach, the author speaks of the risk of promoting a positivist-evolutionist idea of development from the simple to the complex. However, this is only true if this is interpreted chronologically (but that is what the chronological perspective is for), and not the technological one.

I don't really understand the separation between the social and the socio-economic approach. On the other hand, I think that the cognitive approach has to be considered separately from a symbolic approach (see e.g. Hodder 1987 vs. Renfrew 1994).

Maybe very specific, maybe a small thing: I'm a bit bothered by explicitly male form in paragraph 2 of Techno-anthropological Approaches. Perhaps this can be expressed in a more neutral way?

Overall, I think the article could do with a significant streamlining, and a clear focus on the actual effects that each research perspective has on the typologies to be applied. If this is better elaborated, this is certainly a very valuable article for the discussion with regard to a question that has now been preoccupying our discipline for such a long time.

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Reviewed by Artur Ribeiro, 16 December 2022

I find the paper quite interesting and a good summary of the approaches to artefacts in archaeology. There are, however, some concerning issues with the text.

First, the author justifies not referencing by mentioning a book that contains a more extensive bibliography. I don't believe this is acceptable, since readers will either read the book or read this text, but probably not both. Furthermore, the book is in Italian, which is a completely different language from the text in question. The lack of references to multiple artefact studies just comes off as lazy and goes against the very purpose of the text – which is to provide an overview of the different approaches to artefacts. For instance, the lack of any reference to artefact studies by cognitivists is simply unacceptable – considering that there are countless studies. There are also claims that simply cannot go unreferenced – for example, "In reality, the cognitive approach starts from the assumption that no artefact is the result of technology alone and that no artefact is 100% functional". Who has made this argument?

Second, the English is definitely an issue. I have made very extensive notes on the pdf concerning the English, but the text really requires an English proofreader. I'm guessing part of the problem comes from translating an Italian style of writing into English – more often than not, the Italian style does not translate well.

Third, I would definitely consider strengthening the introduction of the text. Ideally, this is the section that should contain most references because the introduction should give a good overview of the state of the art. This state of the art is pretty much absent in the text.

Fourth, I like the case-study of the "monastery" of Bano (shouldn't it be a convent?). However, I did not see many references to studies of the monastery in the relevant places. Additionally, although not essential, I would definitely add some figures of the monastery, if these are available.

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