

Enrico Giannichedda

Research perspectives and their influence for typologies

Abstract

This contribution opens with a brief reflection on theoretical archaeology and practical material classification activities. Following this, the various questions that can be asked of the finds to be classified and how they condition the construction of typologies will be briefly addressed. Questions on chronology and technology; questions on the techno-anthropological context of use that force us to raise our gaze from the individual artefact to the surrounding universe; questions on the social use of artefacts (for distinctions of rank, gender, age, etc., but also for interactions aimed at establishing, or overcoming, limits and boundaries); questions on artefacts as means of exchange (of goods, but also of information or values); questions on what people thought of the artefacts they had (importance, but also indifference or rejection). An example, resulting from an archaeological excavation, will show that everything also holds in the attempt to move from our ethical classifications to emic classifications closer to the thinking of the ancients.

In conclusion, a brief reflection is proposed on the importance of distinguishing not only types but variants and special cases; on the usefulness of moving from reflections on agency to reflections extended to habitus; on the definition of material culture as a complex object of investigation.

Keywords: study questions and approaches, agency, habitus, material culture, attributes, types, variants.

1. Introduction¹

Some brief introductory remarks are necessary because writing about typologies and classifications means writing about theoretical archaeology. Since the end of the last century, the processual / post-processual debates and thus the opposing materialist / idealist, pragmatic / semiotic, scientist / hyper-relativist extremisms have lost their vigour. And many have realised this, going so far as to write about the death of theory or the distance between the concreteness of research and increasingly ephemeral theoretical elaborations (Bintliff, Pearce 2011, Giannichedda 2016, Arponen et al. 2019, the essays in Fahlander, Oestigaard 2021).

¹ The author would like to thank the referees and editors for important suggestions and corrections and accepts responsibility for errors and personal opinions.

The proposed 'theoretical moratorium', which urged a return to a multiverse approach from data, unfortunately did not convince many thinkers. And, even today, there is a theoretical archaeology that can rightly be called metaarchaeology precisely because it is neither archaeology nor anthropology (Embree 1992, Shanks, Tilley 1992, Brown 2010, but also Shanks 2022). It is reasoning about the work of others and always evoking imminent epochal revolutions. And it matters little if they do not interest the majority of archaeologists working in the field. In particular, they do not interest those who study artefacts, perform analyses, construct typologies. Or, as even Tim Ingold (2007) argued, theoretical archaeology has often become a useless rumination of philosophers. A meta-discipline, which thrives on old quotations and ever new definitions, and is headquartered in Northern Europe. In the total self-referentiality of those who have no interest in what happens south of the English Channel. A serious limitation already noted, for example, by Gallay in 1989 lamenting the failure to take the French school into account. Or mentioned by others who nevertheless consider 'Nordic' archaeology an important source of stimuli. For instance, in general, by Giannichedda (2016) and by Minta -Tworzowska (2022) writing about Polish theoretical archaeology. A limitation that is evidenced by the transposition of André Leroi-Gourhan's writings fifty years later than the original editions (which Catapoti, Relaki 2020, p. 292, for example, takes note of). Not to mention the hundreds of pages of a recent interesting collection of articles in which no archaeologist, or book, active or produced in south London is mentioned (Fahlander, Oestigaard 2021). In spite of the ongoing cultural Brexit, in this paper we will try to look, without blinkers, at one fact: reasoning about typologies and classifications is, of course, theoretical archaeology, and of course many contributions written in English are unavoidable. The ultimate aim, however, must remain the study of the information potential of artefacts and ecofacts from archaeological research. Recognising, e.g. with Oestigaard 2021, that archaeology is a sub-discipline of material culture and, adding, that theoretical reflection is useless if it does not produce historically significant results.

In an ongoing attempt to revitalise theoretical archaeology, Olsen (2007) postulated a symmetrical, concrete and conciliatory archaeology. Kristiansen (2014) used the term 'third scientific revolution'. Other authors have written about post-processual plus and materiality has been 'discovered', whereby it has been made clear that archaeology is concerned with materials (natural and artificial, animate and non-animate, large and small) or, rather, with individual persons and collectivities in relation to materials that are 'active' (among the most influential are Hodder 2012 and 2012a, but earlier Miller 2005, Meskell 2005, Hurcombe 2007, Webmoor, Witmore 2008, Olsen 2012, Knappet 2014). No longer is material culture equated with a written text (Hodder 1992, ed. or. 1986 and, following, Tilley

1990 and 1991), for which the criticism of those who have long recognised the marginality of increasingly tired and bored reflections is valid; "I am tired of the familiar story of how the subject, the social, the episteme, created the object; tired of the story that everything is language, action, mind and human bodies" (Olsen 2003, p. 100, but also the reflections in González-Ruibal 2007).

The need for a return to archaeology that is useful for historical understanding is, therefore, also sometimes present in overtly philosophical writings, but it should be noted that 'materiality' is mentioned without any irony as if it were a great achievement and not what an Italian proverb describes as the discovery of hot water. It should be noted, by the way, that none of the above-mentioned works mention any of the very important texts that have never been translated into English, including, for example, *Archaeology and Material Culture. Lavori senza gloria nell'antichità classica* (Carandini 1975), or the hundreds of pages devoted by Francesco Orlando (1993) to *Gli oggetti desueti nelle immagini della letteratura. Ruins, relics, rarities, uninhabited places and hidden treasures*. A book that offers endless food for thought to those who study, even before objects, artefacts (Giannichedda 2021, pp. 160-162).

Materiality and the 'material turn' have evidently been a way of disposing of the postmodern intoxication on the part of anthropologists, sociologists and even architects, but it sounds paradoxical to read about it as an archaeological novelty. For archaeologists, the study of the material world should in fact have always been the speciality of the house. A real mission coinciding with the study of material characteristics: from archaeometry to the history of artistic techniques to the history of material culture. Unlike anthropologists, sociologists and philosophers, archaeology rarely studies single, specially selected artefacts, favouring associations of artefacts and ecofacts resulting from historical processes. Often artefacts are available in large numbers, but not all the same; artefacts are intact and fragmentary; artefacts are associated with each other in ways that need to be historically reconstructed. We will also return to this theme with an example, but it is clear that materials, and artefacts, are increasingly defined as active agents. In addition to the seminal Gell 2021 (ed. or. 1998), see the discussions of agency in Lindstrom 2015 and Ribeiro 2016 with its attempt to apply the concept to people, things, animals, plants and non-humans, reasoning about no less than eight neologisms derived from agency, and ending up writing that it is now "old wine in new bags" (Lindstrom 2015, p. 212). All of this rarely dealing with concrete archaeological cases, but preferring to reason about agency as a metaphor for human-things relations, agency as animism, social agency and, above all, what a thing is (Volontè 2017 also for the relationship with Actor Network Theory). And, indeed, Tim Ingold writes of agency

becoming perceivable animacy when flying a kite (Ingold 2019, p. 170 and critical notes in Giannichedda 2021a).

Without any claim to completeness if we only look at the latest issues of the important Journal of Material Culture, we find an exhausting definitional exercise of a mainly sociological nature. Not only Entanglement and New Materialism, but also Thingworlds approach (Lucas, Robb 2021, pp. 222 and 235), Agencement and matter(ings), Object-Oriented Ontology, Agential realism (Govier, Steel 2021, Howes 2022). Often resulting in reasoning about whether things are things or are bundles of relations, which are obviously mutable and which, as non-archaeologists, are discussed as single exemplary cases. With the paradoxical result that archaeology still remains the old 'discipline of things' (Olsen et al., 2012), but nobody understands what a thing is anymore.

In my opinion, having understood and metabolised the trial and post-trial lesson, the interconnection of people with things should have been taken for granted long ago. A discovery about which it is not even necessary to reason continuously by quoting important thinkers. Marx, Derrida, Foucault and so many others have never dealt with archaeology, let alone the problems of moving from the collection of artefacts, thousands of them, to the best possible historical reconstruction (including, today, so many archaeologies that deal with the real world: postcolonial, gender, feminist and so on). An observation that is also a call for a return to archaeology when one notes that it has provided 'metaphors' for great thinkers, from Freud to Foucault, who were actually thinking about something else entirely (Gonzalez-Ruibal 2013).

Having acquired important basics, e.g. in addition to agency the equally important habitus (Bourdieu 1977), one would have to admit that the man with the rifle evoked by Bruno Latour (1999, pp. 176-193) is hopelessly outdated (today he would be a woman, a boy or who knows what). And the automatic close door (automatically close door in Latour 1988, later taken up in Hodder 1994 and many others) is another example that can only be cited to demonstrate good reading, but to be closed definitively in the attic. Indeed, it is pointless to ask whether the door works by itself or because someone thought it up, invented it, bought it and installed it.

In texts on theoretical archaeology, and even in manuals on methodology, there is rarely any discussion of finds, and even less of the classification criteria that archaeologists adopt. This is paradoxical to say the least, unless one believes that classifying is a neutral, objective, irrelevant operation. In reality, it is a complex operation on which the possibility of making history depends and for which it is not enough to adopt standardised procedures and more or less analytical criteria or, worse, to rely on the expert on duty. Reasoning about classification processes can, therefore, constitute

an example of what it means to do archaeological theory not as an end in itself, but with historical reconstruction in mind. Remembering that those who study archaeological finds have as a concrete reference not the philosophers of science, but 'practical' manuals in which, often, they do not even define what is meant by type, model, variant and so on. These include, for example, Laplace 1964, Hayes 1972, Morel 1981, or the Museum of London volumes including Grew, de Neergaard 1988 or Crowfoot et al. 1996. Or manuals that teach how to classify animal and plant 'things' that are not simply reducible to artefacts (e.g. De Grossi Mazzorin 2008). In some cases even works that reason about methodologies (and less about metaarchaeology) as a trait d'union between theoretical reflection and work on materials (in Italian Mannoni 1975, Donato et al. 1986, Lusuardi Siena et al 1995, Peroni 1998, Gabucci 2013, Giannichedda 2021, Vidale 2022).

2. Questions and approaches to materials

One possible way of reasoning about typologies, which we will not go into here, involves adopting a history perspective of the discipline. Starting each time from Mercati and Montelius, passing through Dressel, Ford, Peroni and many others, up to William Rathje chosen as the terminal of significant methodological reflections in Giannichedda 2021, pp. 23-113. From its origins, archaeology has in fact had to manage the complexity (qualitative and quantitative) of reality by reducing the mass of finds to data that can be organised in tables, charts and, of course, reflections. Hence the endless attempts to create typologies, often in an empirical and naive manner. Typologies are adopted by specialists in different fields because they are functional and workable. Useful, that is, to recognise periods, techniques, uses, but also social variability, modes of economic development, cultural specificities.

Leaving aside, for obvious reasons, the history of the discipline, there is no point denying that prehistoric archaeology anticipated what has been discussed by classical archaeologists since the mid-20th century, to be then taken up, sometimes with an original mix, by the post-classics. The problem, however, does not depend on the chronology of the finds studied. The problem depends on the nature of the data. It is one thing to have artefacts that are almost entirely attributable to a limited technical toolkit, it is quite another to classify non-functional objects. And, in fact, the criteria adopted in studies of prehistoric lithotechnics differ little from those required to study artefacts found in a blacksmith's workshop in the classical, medieval and post-medieval periods (materials, shapes, dimensions, wear and, in the best cases, association with other artefacts). Otherwise, both the prehistoric archaeologist and the classical and medievalist will reason about the style and shape of, for example, decorated

pottery. And even more so will they do so when confronted with a statuette, a statue, a monument, and so on. With the different possibility of using written and iconographic sources, but also ethnographic observations of situations of use. What differentiates the study of a Palaeolithic Venus from that of a medieval Madonna are not the modes of observation - description - categorisation (and not even the importance or rarity of the object), but the ensemble in which to place it (Gell 2021, p. 28, writes equating dolls, idols and Michelangelo's *David*). A set that, of course, depends on the loss of information over time, leading to different problems. To be precise, there is possible absence of data on the historical cultural context (but not only), partiality of the data, ambiguities and choices arising from the ideas of the scholar. And, therefore, from the expectations of the scholarly community regarding, in one case, the assumed role of women (fertility, matriarchy, etc.); in the other from reasoning about the ways of a religiosity otherwise known from the sources.

More important, however, is to valorise an observation by the semiologist Umberto Eco (1997, taken from an archaeological perspective in Giannichedda 2021, pp. 156-159). He, in fact, discusses the differences that exist in studying objects of which one has prior, albeit generic, knowledge (e.g. familiarity with knives, pots and pans, buttons); objects of which one does not have, but might have, some knowledge thanks to targeted studies (e.g. slag, animal bones, pollen); objects that we will only learn to know as a result of archaeological study without ever being able to have direct and complete testimony of what they were like (Eco's example is the dinosaur, but a similar difficulty exists with incineration tombs, prehistoric huts, tools of lost trades).

In this contribution, the various questions that can be asked of the finds to be classified will be briefly addressed in a synthetic manner: questions about chronology and technology (which can always be answered in some way); questions about the techno-anthropological context of use, which force us to look up from the individual artefact to the surrounding universe; questions about the social use of artefacts (in terms of distinctions of rank, gender, age, etc., but also in terms of interactions aimed at establishing limits and boundaries); questions about artefacts as a means of exchange (of goods, but also of information or values); questions about what people thought of the artefacts they had (importance, but also indifference or rejection). An approach that may even be described as trivial, but which seeks to establish a link between essential readings and reflections and concrete cataloguing. On the one hand between those who write about Hodder and Latour (but not Eco, Manacorda, Tabaczynski or Vidale) and make exegesis of sacred texts; on the other hand between those who daily use the works

of Ising, Morel, Hayes (or the Molas catalogues) to construct typologies of objects (more on bibliographical references later).

A statement seemingly thrown out there almost by chance by Amilcare Bietti, a prominent Italian prehistorian, comes in handy in introducing the present chapter despite the passing of years. When the contrasts imposed by Bordes', Laplace's and Binford's reflections on typology were still alive (Giannichedda 2021, pp. 72-80), Bietti argued that 'type should be understood as a design correlation of attributes' (Bietti 1978, p. 18). A definition that we can also read by thinking of many old lessons from Hill, Evans 1972 and, in particular, Clarke 1998 (ed. or. 1968) with a figure, at once explanatory and stimulating, of two craftsmen working in 'partnership' (Figure 1).

In Bietti's statement we read the two pivotal elements of any classificatory proposal: the concrete and irreducible attributes detectable on artefacts, and the *type* that for producers and users was the design outcome, and intuitive, of an activity, but for us is the object of desire. Something that it is convenient to define, case by case, by asking explicit questions and looking precisely in the detectable attributes for answers. Knowing that different questions will lead to different answers (in the Italian tradition, Peroni 1998 and the lesser-known Peroni 2006 are still important in this regard. More generally, the analytical approach of Clarke 1998 remains fundamental).

Picking up on previous works (Giannichedda 2014 and 2016a) devoted to global archaeology and the multiple ways of studying objects, we will outline below the approaches that each researcher can adopt. Approaches resulting from adhering to some intra-disciplinary tradition, or to a specific school, which, historically, has noble fathers and is held together by small shared paradigms. In order to seek some clarity of exposition, we will distinguish clearly six different approaches. And, with the help of a diagram we will highlight for each approach the peculiar features, the role attributed to the artefacts being studied, the recurring keywords and also the reference authors and the areas that, in the academic and cultural geography have become poles of aggregation (Figure 2). And we will reason about the relevant attributes, the consequent types and, thus, the very ways of classifying.

The choice of dividing the following text into paragraphs will obviously have the consequence of hardening the differences between the individual approaches. Knowing, however, that reality is never simple. Discussing the different approaches in sequence does not mean that one preceded the other or that one question must be answered in order to move on to the next. Each of the different ways of looking at artefacts has, in fact, antecedents. And the contaminations between some are very strong. Unfortunately, there are also frequent cases where scholars have very partial research perspectives. With the consequence that studies finalised at a single purpose, e.g. the dating of specific cultures or

the technologies in use in a given period, can only with difficulty provide useful data for the reconstruction of other aspects of material life. With the exception of the former, which we might call agnostic, some study approaches are distinctly materialist, sometimes to the point of excess, and others allow more study of the meaning of things. All together they clearly offer an idea of the complexity of the work to be done whenever the objective is the global reconstruction of the past.

Those who study artefacts, it should be remembered as a matter of course, use descriptive cards with which to record material characters and attributes. These cards are unavoidable working tools, but they are much more schematic than the approaches we are going to see, and perhaps it would not be a bad thing if they found a place there (for the more complex, and utopian, attempt to create cards that include every attribute, see Gardin 1976).

Finally, separating the approaches is certainly trivial, but it is still better than borrowing other people's shoes by looking at the suggestions of philosophers and sociologists who have never dealt with the complexity imposed, for example, by the finds collected by the thousands in an excavation of any urban, multi-period dump, with objects coming from several countries, differentiated in quality and quantity, each having different ways of use and discarding (for shoes too frequently borrowed and unsuitable for the work of archaeologists, cf. Ammerman 2000, p. 169 and Giannichedda 2021, pp. 115-164 for examples of positive suggestions from typologies developed in scientific, anthropological, sociological and artistic fields. Gonzalez-Ruibal 2013 has well demonstrated that interdisciplinary borrowings have almost always benefited philosophers more and archaeologists less).

Chrono-typological and cultural-historical approach

The dating of artefacts is an indispensable prerequisite for any historical reconstruction. And, in fact, in the introduction to *L'età del Bronzo nella penisola italiana* (1971) Renato Peroni quoted an absolutely misplaced but important passage by Carlo Cattaneo from *L'insurrezione di Milano nel 1848*: 'Chronology is the eye of history'. In doing so, he risked suggesting that history is reducible to chronology understood as a sequence of changes. Obviously, however, history is also something else, and Peroni made use of the typologies resulting from his work on artefacts to construct a coherent cultural-historical framework to which Italian populations could be referred in the broader European and Mediterranean context (Peroni 1971 and 1994).

In some ways, the chronotypological approach is the one that most simplifies the complexity of the relationship between people and things. In fact, artefacts are often reduced to *fossils - guides* in a perspective aimed at dating them, the stratigraphies, the context. This is, of course, indispensable, but it

is a reductive and peculiar research perspective. Therefore it is important to distinguish, for each find, the initial dating (time of production), the duration of the life cycle, the time of discarding. Admitting that, in any historical period, objects produced at different times but associated in use can coexist. As is well known, the chronotypological approach can only be pursued, with varying degrees of approximation, for certain classes of artefacts. And, sometimes, it can be satisfied by resorting to scientific dating methods. An approach, therefore, that postpones the search for any archaeological historical interpretation to other and subsequent stages. These include the definition of cultural facies, stylistic provinces, regional identities and the like. These are all operations that are almost always based on the appreciation of changing formal, stylistic, decorative attributes over time. Gordon Childe's well-known definition of culture is, in fact, indicative of what we might call fossil-historical (and not just chronological) cultural guides: "*We find certain types of remains - pots, implements, ornaments, burial rites, house forms - constantly recurring together. Such a complex of regularly associated traits we shall term a cultural group or just a 'culture'. We assume that such a complex is the material expression of what today be called a 'people' ...*" (1929, pp. i - ii).

The chronotypological approach is, therefore, a zero level from which to start and is important because it determines disciplinary partitions into periods and ages. A topic, that of *time*, which cannot be addressed here and which does not only concern *deep history*, but influences the way of understanding, and narrating, any period (Lucas 2005, Raggio 2021). The Middle Ages, for instance, although one of the best known periods, for some can be divided into two parts (high and low). For others, at least into five (Late Antiquity, High Middle Ages, Classical or Middle Ages, Late Middle Ages). And the conclusion is debated as to whether it coincides with geographical explorations (the canonical 1492), anticipated at the end of the 14th century or postponed to the formation of nation states in several parts of Europe.

In many cases, the first step in the chronological and historical approach is to distinguish formal characteristics. Not all artefacts, however, will show characters that can be dated with the same precision, and research will therefore be selective and aimed at defining types. In doing so, preference will be given to this or that attribute, but it will certainly be done in a rational, systematic, objective, analytical, hierarchical and quasi-scientific manner. The classification system will resemble those adopted by naturalists and will be used, with relative ease, to establish relative chronologies and origins. Classification, at this stage, is still a relatively simple and compilative operation that builds working tools (drawings, cards and so-called catalogues) and nothing more. Much more difficult, however, will be to move from chronology to phases and, whatever you call them, to 'cultures'.

Technological approach

This type of approach considers things as the concrete outcome of a working process aimed at transforming natural materials. The question is: How were things made? How did people go from raw materials, animal or vegetable minerals, to finished products? This is the aim of technological investigation.

Technique is therefore seen as a recipe, a sequence of operations in which fundamental steps can be distinguished from others that are accessory and less important. The reconstruction of the production cycle, with its internal concatenation, is the objective pursued. Sometimes even pushing the analysis towards minute details. For example, by recognising the material outcome of a single operation or, even, of a specific muscular contraction of the maker: the finger of the potter attaching the handle to a jug or the mark of a single hammering of the smith. The approach that characterises many archaeometric studies is technological although scientific studies can also answer many other questions. For example, determinations of provenance and, hence, the study of trade and commerce.

The technological approach gives, however, the best and, at the same time, the worst of itself in the study of machines. Machines whose power of fascination can lead the scholar to idealise them, thus ending up no longer studying specific artefacts, but *types* known sometimes only from ancient descriptions or design drawings. Of course, the risk of historical technological determinism is strong and can lead to the separation of technique (and production) from society. This is often the case in studies of the history of technology and industrial archaeology (for examples see the essays in Ciarallo, De Carolis 1999, González Tascon 2002, Lo Sardo 2005, Tognarini, Nesti 2003).

The subject of technological study can be all the different categories of artefacts. The study of finished products is always important, all the more so if they are intact, but for many cycles the study of processing and use waste is important (chipped stone but also construction stone, metals and glass, bone and the like. Less so for ceramics, which are almost always technologically classified by looking at modes of shaping and surface coatings).

In general, there are two clearly distinguishable situations in the archaeological record. On the one hand, contexts and periods known thanks to a large number of tools (flint, obsidian, etc.) and little else; on the other hand, contexts and periods known thanks to a large number of utilitarian artefacts (from ceramic pottery to parts of dwellings) and little presence of tools that were recycled after use (bronze tools, iron).

The risk of the technological approach is consequent to the use of a positivist, evolutionist, economicist logic. So the simple artefact always precedes the complex, as is the case in many works classifying knives, weapons, stirrups, mechanical frames and medieval and post-medieval machines. Sometimes also of ceramics looking, for example, at the introduction of ever larger and more efficient kilns in the modern sense of the term (Cuomo di Caprio 1971-72, 1985).

In all cases, whether for long-lasting phenomena or for changes occurring over short periods of time, the technological approach risks overestimating the importance of the technical fact in itself, favouring *hot* societies, in which technology changes rapidly, over *cold* or blocked ones (Lévi-Strauss, ed or. 1955).

Techno-anthropological approach

The technoanthropological approach aims to study artefacts in order to understand how things functioned in relation to people and, inevitably, to the passage of time. Not only, therefore, how things were made, but, for example, how things interacted, influenced (or were active), in social relationships. Obviously, the technoanthropological approach is among the most articulate. Especially thanks to the lesson of André Leroi-Gourhan, the technoanthropological approach has as its object of study the man who is 'skilled' in performing activities, be he a craftsman but, likewise, the man who produces for himself or the user of objects made by others. Man in the sense of a social person, including women and children and all the gender distinctions that are often archaeologically difficult to detect and which other approaches deal with in greater depth (at the very least, Leroi-Gourhan 1993 and 1994, eds. 1943 and 1945, and Soulier 2015).

Beginning with Bronislaw Malinowski's lecture (1971, but original edition 1944), sociologists and anthropologists have noted that, in any society, humans have the same needs: to eat, drink, rest, have sex and reproduce, ensure comfort and security, play, and learn. If we do not dwell on the terms used, we must admit that this is all *Sapiens* know how to do (and even the countless objects in a shopping center can all be grouped into as many groups as the needs mentioned). The totality of needs is therefore finished, it is known and it is adequate to help us classify all the exhibits. Even if we cannot have direct experience of what material equipment was like in prehistory, or in other periods, we know what needs it satisfied. And from direct experience, not historical but techno-anthropological, we also know what characteristics an object must have had in order to satisfy those needs: the pot must resist fire (but may be made of leather), the knife must be sharp (but may be made of a material that breaks

during use), the bed should be comfortable but in a relative sense (sometimes it is just a space that is clean of chipping scraps or the like).

The recurring, and specific, characteristics of each category of functional artefacts can be defined as 'tendencies' capable of satisfying a need that seems 'natural' but is not. The tendency is, therefore, predictable, logical, convenient, recognisable in the artefacts. It is, however, realised in historical 'facts' that are 'cultural' and, therefore, different in each place and period. Different in both quality (the modes) and quantity (the frequencies) (André Leroi-Gourhan 1993, p. 21 ff.; original edition 1943).

Complicating the techno-anthropological approach are the uses of artefacts in symbolic, ritual, communicative terms. In a word, in addition to the use, the meaning attributed to the objects. In this case, the trends will be weaker (even if the tombs remain in some parts 'human-sized') and the cultural facts more heterogeneous. The question is complex and refers back to the very definition of material culture, but I think it suffices to state that meaning is almost never completely independent of the material constituting the artefact (rarity, colour, visibility, durability, provenance, etc.), of the practical function the object recalls, and of the context of use.

The techno-anthropological approach is therefore based on recognising attributes that enabled an 'effective traditional act'. A definition, taken from a piece of writing as brief as it is fundamental by Marcell Mauss, which was useful in emphasising that the artefact also had to function in a social key (Mauss 1965). Because technical does not mean its only concerned with production, but also with any satisfaction of needs: from hunting to the management of natural resources, cooking practices, the way of setting the table, the way of burying, the transfer of information and skills, dance, magic, ritual. Therefore, it is not the individual artefacts that bear witness to a technique that are important, but the associations of artefacts that have consequences for the environmental, social and cultural context. What is of interest is not the detailed reconstruction of each technical cycle, or ergology, but the modes of transmission of knowledge, individual and collective memory, stability and change in time and space (Mannoni, Giannichedda 1996, Forte et al. 2023). A lesson that, belatedly, was taken up in materiality studies with Ian Hodder (2012) who even goes so far as to propose a cycle diagram as exemplary, rehabilitating, fifty years later, Leroi-Gourhan and discovering an approach that had been well known elsewhere for some time (and of which Roux, Corbetta 1989, Roux 2015 and 2016, Vidale, Kenoyer, Bhan 1992, Vidale 1992, 2002, 2007 are examples).

It is therefore techno-anthropological to place the findings under study in the focus between the needs of the producer and those of the consumer (Figure 1, below). Not by trivialising either one or the other, but by assessing, for example, whether a set of dishes was such because it served to distinguish,

socially, feast days from others, or whether it served to contain liquid or solid food, large or small courses.

Technoanthropological is to study quality and quantity, to reason about standardisation and variability, to reconstruct associations of contemporary use, to evaluate sequences and transformations. The recognisable attributes in most artefacts will thus inform trends, but some artefacts may inform in greater detail of concrete uses characteristic of the context.

Social approach

More complex and varied than others, the social approach seeks to answer the question 'What role did things play in relations between people?' The social approach studies mainly finished artefacts, distinguishing consumer goods that had to be continually replenished (food, first and foremost) and durable goods (valuable and not). What is of interest, however, is not the actual (technical) efficacy of things, but the social efficacy that can conflict with the former whenever the communicative needs of the object prevail over its practical function. This is the case with artistic objects, means of communication, monumentalised monuments and burials, and sometimes ornaments, clothing, settlement structures. More than others, the social approach, to which a wide variety of research can be traced, from the now classic studies of Vere Gordon Childe to systems archaeology and Marxist archaeology, is a potentially inclusive approach of what characterises the other approaches already described.

The social approach has close relations with the cognitive approach when it deals with issues of power or others in which objects mediate interpersonal relationships. At the centre of interest is not the individual person, his or her corporeality or intelligence and memory, but the social animal. The question that characterises this approach is more vague than others because societies can be very different from one another and what is being asked can only be summarised in a general way: What role did things play in relations between humans? A question, if you like, not very different from that of the techno-anthropological approach, but less conditioned by the concrete production and functioning of objects. There will be less focus on technique, or production cycles, and more on finished products and conditions of use. In this sense, looking at the products and thus the artefacts that the archaeologist studies, it is possible to make some observations that refer to the definition of attributes and types.

The first is, roughly speaking, between objects of use and objects of value. On one side, the earthenware pot, on the other, the royal crown. In between, a whole world of uncertainties. How to

think about, for example, ornaments, necklaces, decorated crockery? The answers to the above questions, trivially, could be sought in the interpretation of the contexts, but in reality they are also detectable, at least in part, in the characteristics of the artefacts: cost and possibility of procurement of materials, presence of constructive and/or decorative complications, relative and absolute rarity.

The second point is to distinguish between goods, whether of use or value it does not matter, *durable goods* that could, for example, be passed on from generation to generation, and goods intended for consumption and which had to be continually replenished (food, first and foremost). Important evidence of these are animal and plant remains, resulting from preparation, slaughtering, portioning, cooking and similar activities, for which the specialist classification skills of archaeozoologists and archaeobotanists are needed (Sigaut 1980). It is important to search for information by studying particular attributes and looking at social occasions of consumption (the bibliography is endless on the subject, but consider at least Skibo 1992, Tabaczinski 1996, Skybo, Feinman 1999, Schiffer 2000 and 2010, Naji, Douny 2009).

Socio-economic approach

The research theme characteristic of the socio-economic approach is 'How were things exchanged?' An approach not disjointed from others, but limiting if one considers objects only as 'commodities'. In pre-capitalist societies, other important modes of exchange were widespread: from gifts to barter, from rent to taxes, from theft to spoils of war. Commercial exchange, understood as a rational and convenient transaction that satisfies the rule of supply and demand, is therefore one case among many, and the ancient world, as we know, was not governed by the logic of the 'market'. The socio-economic approach looks, therefore, at artefacts for what they were worth and not for what they served or meant. Typical, in this regard, are the studies on the distribution of amphorae from the Classical period from which inferences can be drawn about the trade in foodstuffs (for example, see the now classic Appadurai 1986 for commodities and, for transport and ceramic containers, Carandini 1975, Giardina, Schiavone 1981, Giardina 1986, the essays in Castiglia, Pergola 2020. More generally, for different periods, Marchionatti 2008, Schiavone 1996, Boisseuil 2021). Obviously to be avoided is the transfer of typically modern ideas and behaviour into the past. First of all, it is a mistake to consider exchange as a rational operation guided only by convenience; secondly, it is wrong to think that the market regulates the world.

Cognitive approach

The cognitive approach to the study of artefacts is certainly the one that poses the greatest problems in verifying interpretations. The most important question is, in fact, how were things 'thought'?

The relationship between things, whether natural materials or products of some process, and the human mind is a field unsuitable for experimental verification. In fact, the cognitive approach starts from the assumption that no artefact is the result of technology alone and that no artefact is 100% functional. People not only use objects, an operation they share with a fair number of animals, but they never stop thinking about them, designing them, judging them.

A trend in current archaeology goes by the name of *materialisation*. It looks at the way new objects are designed: the 'first' ceramic or glass and so on. Processes that are never totally rational or consequent to the desire to satisfy particular needs. The materialisation of an idea may depend on random associations of previous, unrelated facts; elaboration of ideas triggered during games; following accidents that altered the normal unfolding of established processes. A different trend investigates the possibility of new ideas being deduced from the observation of existing things. In this case we speak of *engagement*, and well known is Colin Renfrew's study of the protohistoric weights of the Indus valley (Renfrew, Bahn 2006, p. 400; original ed. 1991). The relationships between objects and ways of thinking about them are therefore complex and, for instance, a funerary item, recognised as exotic in relation to the burial context, may have been a consequence of wanting to 'materialise' a pre-existing relationship or, on the other hand, as an attempt to 'engage', stabilising a relationship that had just begun as a consequence of a gift.

In general, objects are also means to manage and convey information. With objects providing explicit information, but also with 'symbolic' objects, including signs and placards already used in the ancient world. The biggest problem arises, however, when the transmission of information or sensations occurs in mediated ways that cannot be perceived with certainty. Not to mention the possibility of objects that perhaps conveyed nothing or hardly anything at all. In archaeology, the focus on objects with an evident signifying function has changed over time and, today, specialists in the subject discuss active (*attanti* for Bruno Latour) and speaking, technical and cognitive artefacts (also as a result of the attention of philosophers and sociologists, the bibliography is endless, so that we only mention a few works that have significantly marked the last decades: Hodder 1982, Prown 1982, Renfrew, Zubrow 1994, Hodder et al. 1995, Mithen 1996, Gosselain 1999, Miller 2003, De Marrais et al. 2004, Renfrew 2004, Candlin, Guins 2009, Meskell et al. 2005, Hodder 2012, Currie, Killin 2019

and Abramiuk 2012 who makes history of the cognitive. For the paradoxical possibility of reading artefacts and Latour himself in multiple ways, see Fowler, Harris 2015).

3. An example

In order to concretely discuss the approaches mentioned above, we will use the results of an excavation in a medieval, female monastery in Piedmont as an example (Giannichedda 2012). A monastery whose refectory, part of the cloister, common rooms and open spaces were identified (Figure 3). For each question, or study approach, some archaeological evidence will be discussed to remind us of two things: the archaeological attributes placed in value are not always the same; any attempt to construct typologies must take into account that these are analytical tools aimed at studying other people's classifications. For obvious reasons, since this is an example, we will avoid digressing here by discussing regional archaeology in Piedmont or various themes that we know are connected to the case at hand. For gender archaeology and the archaeology of monasteries, see Giannichedda 2012 with previous bibliography.

The example was chosen for two reasons.

The first, because it is a real archaeological context. This is quite different from the discussion of exemplary cases relating to single 'types' without context such as door locks or Berlin keys, which will give us further food for thought later on (Latour 1988 and 2000). Indeed, a paradox must often be noted. On the one hand, the importance of human-things relations is affirmed with ANT approaches, entanglement and the like, but on the other hand, the history of individual classes, or types, of artefacts is made. Not real artefacts, but ideal types abstracted from reality, therefore devoid of life, unknown both in their material characteristics and in their actual distribution, geographical and quantitative. Types, perhaps, completely unimportant to people.

The second reason is that the monastery was closed, but not isolated. In fact, the monastery had continuous relations with Genoa and the surrounding area. Thus we will see the role of the noble families who sent their daughters to the monastery, the labour force employed there, but also the historical consequences of the location of the complex in a mountainous area far from the main road system. In the various stages of the research, including the classification, the historical and archaeological context, with its extreme complexity, was identified as a determining element of the work.

In addition to the stratigraphy and thousands of artefacts datable between the 13th and 15th centuries, one particular artefact contributes to the dating of the monastery's phases of occupation

(Figure 4.1). In the collapse of a wall of the refectory, a marble epigraph was found that mentions the construction of the building in 1298 and indicates abbess Astesana and master Manfredo di Moasca as the builders. Together with a similar inscription found in old excavations, we therefore have a precise and important datum for complex building activities that certainly spanned several years. Dating the last phases of frequentation are, on the other hand, a few 15th-century finds and stratigraphic evidence testifying to a slow abandonment with occasional frequentations (for shelter and theft of architectural parts) not recorded in written sources. For these results, work on the totality of the finds and stratigraphic associations was fundamental.

To the technological approach we can refer the decision to construct the buildings with bricks, instead of the stone that characterised medieval construction in the area. A 'stylistic' choice and, perhaps, one of site organisation that imposed the construction of a brick kiln in the vicinity of the monastic complex. Useful data, in addition to the study of the masonry, therefore derive from the study of the working waste.

On the other hand, the solution adopted for the decorated bricks used for the portals can be read in a techno-anthropological key. Decorated bricks in fact resumed a tradition typical of the area further north in the direction of Turin, from where master Manfredo di Moasca came. The local craftsmen, however, lacking decorated moulds, produced smooth bricks and then engraved the still wet clay with a knife as if carving in wood. This opportunistic choice was clearly recognisable in some of the bricks that were used even though they had defects as a result of being made by hand. This techno-anthropological fact could be reconstructed by looking at the context and characters of some particular finds (Figure 4.2).

We can define the social approach as the integrated study of several elements: the conformation and number of seating spaces in the refectory; the functional association between vases, food residues, knives and bone remains; presences and absences that can be reconstructed by comparison with other contexts, monastic and otherwise. Attention, therefore, to the repeated and shared norms of behaviour (*habitus*) typical of individual situations, but also to historically informative exceptions. Valuing the data provided by those artefacts that more than others appear as active agents (*agency*). In our case, there are ceramics with the IHS symbol, a Savona-produced bowl decorated by the potter with a noble coat of arms and a silver ageminato knife (a unicum) as proof of social roles clearly legible, today and in the past, in artefacts (figure 4.3 and 4.4). On the other hand, the variety of tableware is such that no two decorations are the same and, therefore, the 'good manners' of setting the table with unified services that we know to be characteristic of more recent social situations had not yet been established

in the monastery. Not all artefacts have, therefore, the same informative potential and the silver-decorated knife, which certainly 'worked' less well than others, recalls some important pages written by Francois Sigaut (1991). The social approach does not, therefore, study the real effectiveness (the technique) of artefacts, but the social effectiveness that may even conflict with the former whenever the communicative needs of the object prevail over its practical function.

From a socio-economic point of view, the nuns had the best pottery of the time as a family dowry, but the statistical study of pottery fragments has shown that even pots were systematically repaired with copper wire (Figure 4.5). An operation that we know to have been rare in urban contexts of the time and which indicates the scarce participation in traffic circuits other than those of simple sustenance manageable even by barter (wine, agricultural products, milk and cheese, meat, wool and the like, wood).

As already argued, the cognitive approach is almost always complex and never independent. In the monastery, the quantitative and statistical study of all ceramic fragments showed that all the tableware was graffitied with the initials of the nuns' names (Figure 4.6). Such engravings, being devoid of a practical purpose (plates and bowls were all functionally similar), signal an individual and private need. Where the monastic rule restricted all individuality and imposed an apparent social equality, engraving the initials of the name on the pottery meant reclaiming part of one's own life, sanctioning limits to the actions of others, establishing continuity with the outside world and with the birthplace from which the dowry came. Carving to reinvigorate what has been called a material culture of hope (Parrott 2005, Giannichedda 2012, p. 274). A practice that can be found in other places of detention or limitation of personal identity: in Roman castra along the limes, on medieval galleys, in hospitals and hospices, but also, albeit with significant differences, in nineteenth-century prisons. The study of artefacts has thus captured a *fact* specific to the monastery (and to women), absent in coeval towns and villages. A cultural fact within the generalised socio-economic *tendency to* use plates and bowls of regional production or imported from Spain. A fact that suggests reasoning about the different perception of material reality (and, therefore, mental classification) that nuns had when they were in their father's house and, later, when they arrived at the monastery in the mountains. Knowing that in post-medieval monasteries, the custom of engraving ceramics disappeared and specially produced pottery with the institution's logo was often used. Evidently the relationship people - things and monastery - outside world had changed. In general, from the refined, medieval ostentation of fine pieces, all different from each other and personally owned, there had been a shift to the morose elegance of the new coordinated tableware in monastic ceramics.

In the monastery of Bano, however, there were also portals with a complex decoration that, although it may have had a communicative intent (Mount Calvary, network of monasteries, the sun and planets, a generic flower), cannot be interpreted with certainty and suggests that different people may have had different understandings (and different emotions or attentions) at the time. And we, in any case, do not know the system of understanding of those who commissioned it. In front of the refectory doors, we must stop; some message might have been there, but we do not have the means to understand it (and, perhaps, most contemporaries did not even care).

Just opposite the two doors of the refectory, the water basin was investigated (Figure 5). At the bottom, about 80 cm deep, two door keys were found, certainly left by the nuns when they left the monastery. An abandonment that was evidently not intended to be permanent if the keys had been hidden in situ. Hidden but recoverable.

The refectory keys, similar to the Spanish keys mentioned by Gonzalez Ruibal (2013, p. 29), certainly had a social biography. Produced, used, loaded with expectations at the time they were hidden, interpreted as elements of a path of abandonment in recent years. Keys that are informative and to which it adds nothing to consider them metaphors for something or to think of them sociologically as non-human objects that are active or referable to any agency (Latour 1988, for door locks, 2000 and 2021 for keys per se). The keys found in the tub have a biography because archaeological investigation has recognised the period and mode of use, and because the nuns, in that historical context, hid them but did not recover them. We, too, hide the keys by the door if we are absent for a short time, but the nuns did so when they were forced to abandon the monastery, already partially degraded, and when, perhaps, they saw their future compromised. The biography of those two keys is, therefore, the story of the process of abandonment of the monastery. A process reconstructed with the stratigraphic excavation of the site and the study of thousands of artefacts (for the archaeology of formative and cultural processes, in addition to the well-known Schiffer 1976, 2000 and 2010, see Lee Lyman 2007 and Leonardi 1992 for the application to contexts and objects. An entirely philosophical process archaeology devoid of references to New archaeology can be found in Malafouris et al. 2021).

The keys that philosophers and sociologists reason about are not part of processes of any kind, they have no context in which to place them, and therefore have no biography or history either (for the biography, including the emotional biography of objects, Appadurai 1986). Those in Berlin, for example, will only have historical relevance if someone tells us over what time span they spread, in which neighbourhoods and social groups, whether they were in use in Cologne Munich or elsewhere.

On the one hand, we have elements of a context worthy of cataloguing and study, on the other an abstract sociological reflection that has nothing to do with materiality and archaeology.

4. From ethical to emic

Returning to reality, the history of the nuns of Bano, of the materials found and of other people who gravitated around the monastery, was reconstructible by studying artefacts and eco-facts, classifying them, asking questions. Certainly not by proceeding in watertight compartments, even if it was the finds that suggested avenues of investigation (from typological variants, to the archaeometry of materials, to traces of workmanship, to valorising unique and rare pieces, to grasping the relevance of traces of use and repair, to quantifying shards, artefacts and inscriptions). All this while keeping in mind how one operates in today's reality. A theme that for meta-archaeologists and sociologists links the discipline to an awareness of archaeology as a modern discipline (effectively see Gonzalez-Ruibal 2013).

In classifying, a first step is, in fact, to distinguish groups of artefacts on the basis of objective and verifiable characteristics (shape, material, size, colour, accessory characters, decoration). In doing so, one may favour this or that attribute, but it is certainly possible to operate in a rational, systematic, analytical, hierarchical and quasi-scientific manner. By doing so, you will create a classification system that can be used to distinguish productions from different places and periods.

A second step, different from distinguishing, is to catalogue functions. That is, to ask for what purpose the object was produced and why it was present at the site under investigation. This also takes into account relative quantities that contribute to significant facts (e.g. the import of soapstone pots in the monastery). No longer will all finds contribute to this, but those that are at least partially reconstructible or identifiable.

The third step is to move on to the reconstruction of individual *facts* (or *usages*); from the tendency to cook food (which is the satisfaction of a need) to how, in each individual kitchen, particular *facts were* organised that derived from the compromise that took place, in that given time and place, between material characteristics, technical knowledge, market conditioning, consumer choices, and the social system. In the monastery, for example, there were no vessels for collective use and many pots and pans when they broke were repaired even though they lost part of their functionality. This third step is, of course, possible on an even smaller sample of finds including pots blackened in characteristic ways and associated with low hearths. Almost always, objects that will be more readable

than others for their own reasons or depending on the stratification modes. Objects on which one will be able to recognise microscopic traces of use or other important details.

A fourth and penultimate step will be to reconstruct the biography of individual objects that, for some reason, may be informative of relevant facts. For example, in the monastery of Bano, a bowl hidden in a gutter with the intention of recovering it in the future.

Up to this point, it is quite clear that we are still proceeding with our own intellectual construction: archaeological, western, modern (Latour 1995, but ed. or. 1991, also discussed in Giannichedda 2006). A typological construction that does not aim to 'empathise', to borrow a term used by Renato Peroni (1998), with the head of the ancients. In this cognitive direction goes, however, the fifth step, namely, recognising which classifications and differentiations, formal and otherwise, were perceived as significant in the past. A step that remains the most difficult or, if you prefer, the most 'theoretical'. In the case of the monastery, the ceramics engraved with the names of the nuns indicate that not all things were 'thought of' with the same intensity. And the same, given the context, applies to the keys, but although we all hide them under the doormat, it is pointless to propose an emotional reading of the gesture made by the nuns. Different times, different situations, different stories.

The question of ethical vs. emic (a shoe borrowed from linguistics), in this regard, remains important for archaeology. Ethical is our proceeding; emic is the goal we would like to achieve; depending on the language, there is also the distinction between objective classifications and anthropological typologies. The literature on the subject is endless, but how they named objects in the monastery or how they thought and handled them will, for the most part, remain elusive. It is difficult to understand whether the system of understanding within the monastery was identical to that in use in relations with the outside, whether the IHS signs or the noble coat of arms on the bowls retained their original value or whether they had been assimilated into a decorum for which there was no awareness or attention (among many, and demonstrating a not new interest in the issue of emic vs. ethic Binford 1976, Wiesser 1983, Hayden 1984, Sackett 1985. More recently Giannichedda 2006, pp. 49-83 and 2021, pp. 255-273).

5. Archaeology and history

The lesson offered by the case of the Bano monastery is simple and takes the form of a story reconstructed through choices made in the ways of classification.

It is the story of a settlement frequented between the 13th and 15th centuries by Genoese nuns, rich by family descent (the fine ceramics), who lived in a mountainous setting far from inhabited

centres and in which they were almost abandoned (the sheltered ceramics). A place where they received locally produced wine and consumed meat fairly frequently (the ceramic and archaeozoological finds). In a built space where they had almost nothing to flaunt (the knife and a few decorated ceramics), but tried to retain some sign of personal identity (the graffiti ceramics). Nuns who called artisans from distant countries to build with techniques untried in the area (with bricks instead of stones and, in particular, with decorated bricks); they signalled their importance to anyone who showed up (the epigraph with the name of the Astesana abbess who commissioned the work); they left the monastery, but not the territory, with the intention of returning (the keys hidden in a basin).

There are three methodological considerations that seem to follow from this case.

The first has to do with types and variants. In fact, the history of the monastery and its inhabitants was reconstructed through the definition of types as a summation of attributes chosen because they answered specific questions (or approaches). Equally important, however, were the typological variants that were explained as a consequence of specific facts (from the lack of specialisation of the masons, to the particularity of the resources, to individual choices or in any case non-generalisable ones dependent on spatial or social location). It is precisely the importance of variants, of unique pieces and of those that are defective or have traces of use, that leads to the argument that, in archaeology, the universal definition of types is not always so important (for a glossary that takes into account previous proposals, Giannichedda 2021, pp. 167-187). Such a practice is in fact normative and risks compressing real evidence for the sole purpose of making it universally comparable. Better, therefore, are elastic classificatory approaches that can be adapted to the many questions to be answered. Including those questions of a historical, artistic or environmental nature that can always be traced back to the approaches already mentioned (resources, their knowledge and management, attribution of values).

The second issue concerns agency and habitus. Concepts that are now old but still relevant. In the case of the nuns and the artefacts found, it would have been easy to cite the agency of objects, the fluidity of processes, and the relations between people and things countless times. This was not done because agency has already been abused too much, especially by meta-archaeologists and sociologists who never study contexts and associations of materials, but prefer the single object 'with personality' (example of this Ingold 2019 with extensive case studies and bibliography above).

In archaeology, in my opinion, from agency we need to go back more frequently to habitus, understood as a recurring way of doing things and people interacting about things. Where habitus is habit and does not deviate much from historical processes and technical, social, cultural tendency. Habitus is also a knowledge transmitted through experience, often in the absence of written rules,

socially accepted, implicit in doing, inexplicable in words, conditioned by the characteristics of materials, conservative but not immutable, constitutive of long-lasting processes, satisfying for the realisation of effective actions. In short, it is the fact (archaeology studies the outcome of single material facts), when from episodic it becomes historically relevant. If a single nun had carved the initials of her name on a bowl, it was worth very little. To move from the lazy and inconclusive philosophies of agency to historicising habitus characteristic of places, periods, groups of people, however, requires concrete archaeology (fieldwork and findings), curiosity (questions), open to the ideas of others but aware that it is not philosophers who will teach the way.

The third issue relates to the history of material culture. Another abused term whose materialist origin is often forgotten. Even in the early 20th century USSR. A term that in the Italian tradition referred to studies of the material means of production when archaeology was still often understood only as the history of ancient art (AA.VV, 1974 and 1975, Carandini 1975, Mannoni, Giannichedda 1996, Giannichedda 2000, 2006, 2016; in English, Prown 1982, Schiffer, Miller 1999, Olsen 2003 who returns once again to the general opposition between material and ideal, the bibliography cited in Fahlander, Oestigaard 2021, Kristiansen 2021).

Over time, without wishing to make meta-archaeology, a dichotomy in the use of the term seems clear. On the one hand, material culture and the history of material culture have become topics on which sociologists and philosophers have exercised, sometimes bizarrely, their critical spirit (the *Journal of Material Culture* is a splendid example in this regard). On the other hand, those who do archaeology in the field and in the repositories of artefacts have increasingly understood material culture as synonymous with the association of artefacts. Between the former and the latter, of course, without ever seeking any point of contact.

In fact, it is certainly useful to avoid being disoriented both by studies that aim at the highest systems and by everyday working practices that act as dead-end traps. A brief operational definition of what should be the aim of classificatory studies may serve this purpose. Remembering that the study of artefacts only makes sense if one believes in the possibility of reconstructing the past from material remains and if, instead of reasoning about the nature of things, one reasons about the artefacts and the processes that brought them from situations of use to the filing table (fragmentation, discarding, burial, degradation, excavation, restoration, etc.). What is needed is a concise definition without too much smearing that follows from the international debate (e.g. material culture understood as text in Hodder's lecture), but it can perhaps be defined as a concrete and comprehensive Italian path to the history of material culture.

The history of material culture, of which archaeology is a part, is the history of the relationship of people, individually and in society, with things and the history of the relationships between people in relation to things (Mannoni, Giannichedda 1996, p. 19 ff.). In archaeology, the study of artefacts makes it possible to recognise practical, and tendentially rational, behaviour and arbitrary meanings that depend on the system of understanding. On the one hand (figure 6) what one does, on the other what one thinks. All to be studied on the basis of artefacts in the broadest meaning that can be given to the term. Holding the whole system together are the bidirectional arrows because the artefact-behaviour-meaning relationships are complex, changeable, and not always equally investigable (on the one hand, one can usefully resort to archaeometry and experimental archaeology; on the other, sources must be evaluated. And in all cases, the historical archaeological context is crucial).

A naive scheme, just as trivial as it may have seemed to some to reason about distinct approaches to the study of materials, but a scheme made to work. And to avoid constant philosophizing in the knowledge that, at all levels (including classification), archaeologists encounter the same problems. The study of a technique is always easier, more objective, more scientific, than the study of a ritual, spiritual, ideological activity. Yet, the overall historical reconstruction of past life in our monastery must hold together synchronic frameworks and chronological sequences, archaeometric analyses of materials and studies of provenance, quantitative associations of materials, traces of workmanship and changes of use, presences and absences, cultic or cultural choices, environmental constraints, cultural and archaeological processes.

To conclude, the archaeology we would like is, trivially, an archaeology centred on people and materials (the history of material culture) with the understanding that since interpretation is 'western and modern', the discipline must be reflexive and theoretical (for a reassessment of concreteness and even middle-range theories see Gonzalez-Ruibal 2003, Giannichedda 2016, Arponen et al. 2019, Forslund 2021). And, more ambitiously, we would like an archaeology that is not dependent on the theories and recipes of others (of anthropologists, sociologists or geographers), not subject to fashions or the tyranny of methods, and not bound by the logic of conservation or, worse, valorisation at any cost, and thus, the market. An archaeology that is not a new self-referential philosophical corporatism. On the positive side, we would like rigour in data acquisition, attention to the logic of interpretation, the ability to link conservation and historical knowledge, and openness to integration with other disciplines. Otherwise, we only philosophise. Like when one chooses a single object, dematerialises it by searching for its essence and tracing its biography. Losing, however, its entire history.

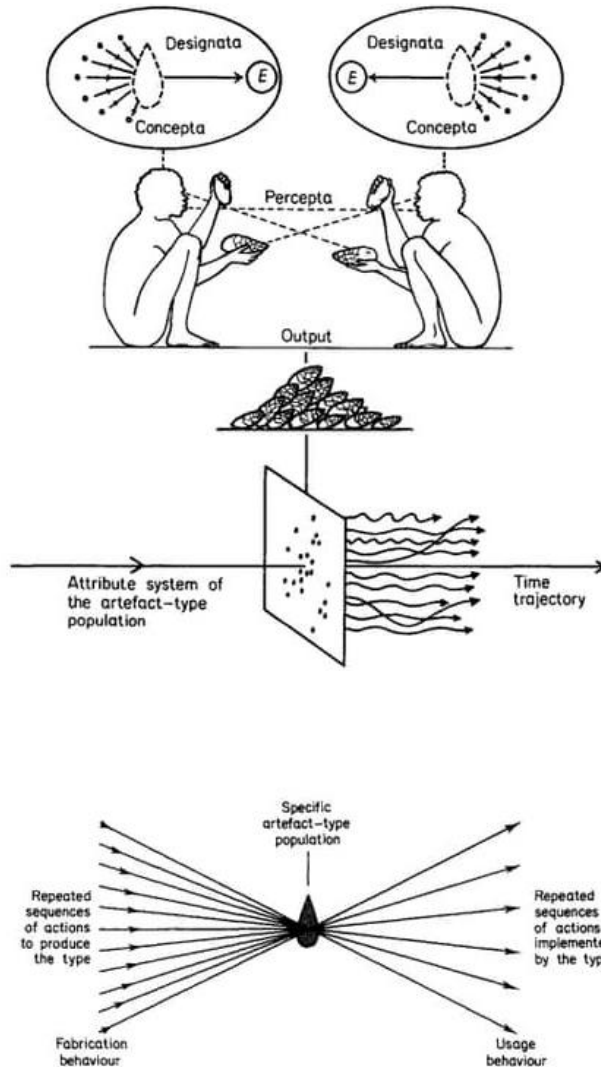
Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

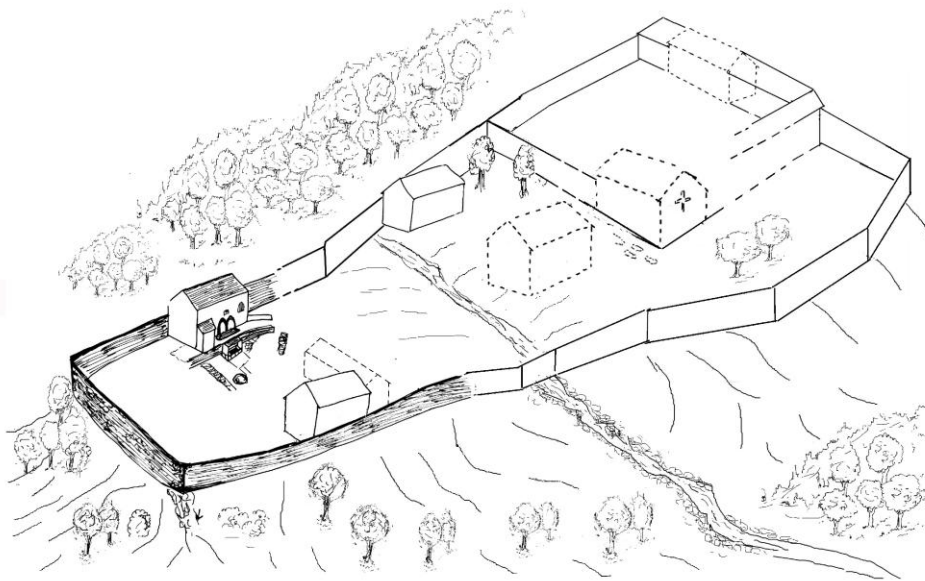
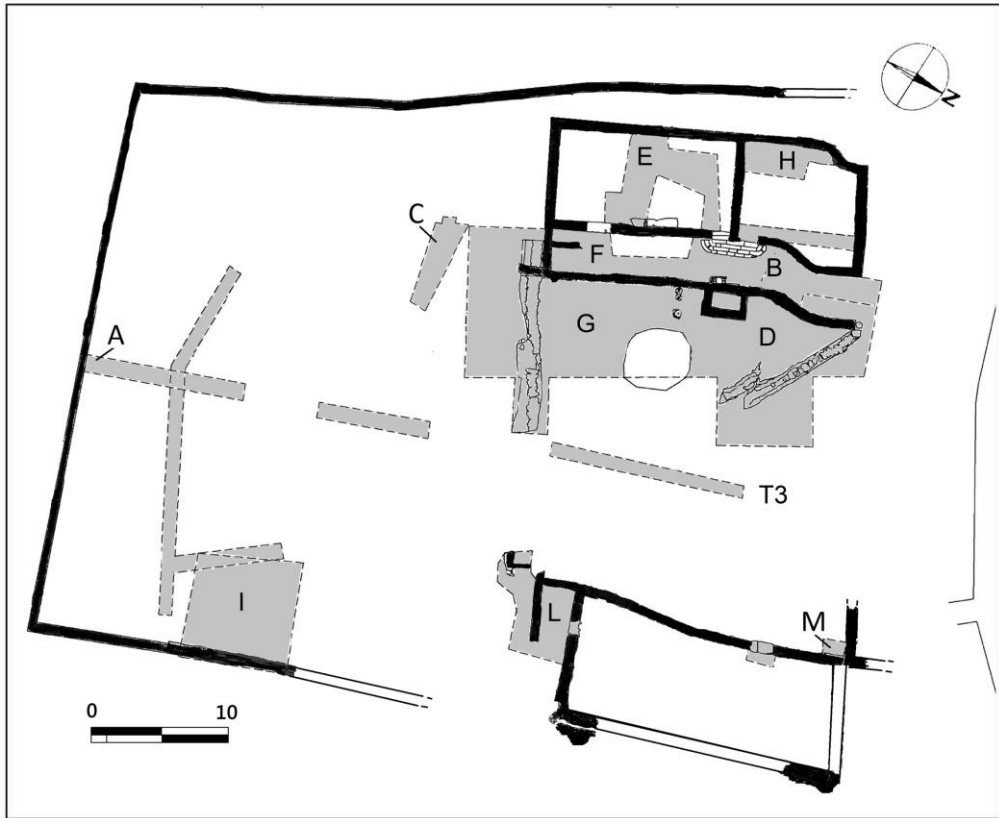
Captions



1. Two men intent on making an artefact as a result of ideas (Concepta and Designata reads in the cloud), perceptions of each other, of their work and, more generally, of the social context. Hence, the practical activity that leads to the production of objects that are not necessarily all identical, but with attributes that lead them back to a unitary type that can change over time (the fluctuation of the arrows). Below, the outcome of the activity in the fulcrum between production and functional needs. From Clarke 1998 modified.

	Chrono- typological approach	Technological approach	Techno- anthropological approach	Social approach	Socio-economic approach	Cognitive approach
1	How do you date? Times in history	How were things made? Raw material ↔ Finished product	How did things work in relation to people? Artefacts ↔ Human body	What role did things play in human relations? Finished products ↔ Society	How did they exchange things? Goods ↔ Social groups	How did things 'think'? Objects ↔ Mind
2	Artifacts of use, coins, works of art	Machines and tools	Tools and everyday objects	Ornaments, art, games, clothing, housing, monuments ...	Coins, transport containers, imported objects ...	Ornaments, art, games, clothes, measurements, dwellings, burials ...
3	<i>Formal typologies Dating methods</i>	<i>Experimental archaeology History of technology Industrial archaeology Operating chain</i>	<i>Ergology Experimental arch. Ethnography and anthropology of techniques Form - function Technical knowledge</i>	<i>New archaeology Post processual Arch. History of art Status Laws and rules Perception Agency, habitus</i>	<i>Economic history Political economy Social structures Gift, barter, spoils Quantitative studies Anthropised territory</i>	<i>Postprocessual arch. Cognitive processes Semiology Inventions, design Technical knowledge Perception Style Materialization Engagement</i>
4	Thomsen Montelius Flinders-Petrie Peroni	Pitt-Rivers Bordes Laplace	Malinowsky Leroi-Gourhan Binford Mannoni	Beazley Childe Peroni	Dressel Carandini	Lévi-Strauss Eco Hodder Rathje

2. Table summarising the distinct approaches in the text. 1, the questions; 2, the most frequently applied findings; 3, some characteristic keywords; 4, references to some authors. From Giannichedda 2014 and 2021 modified.



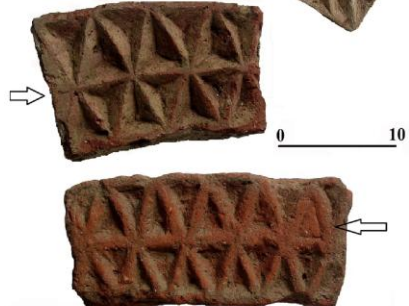
3. Santa Maria di Bano (Tagliolo Monferrato, AL). Above, the southern part of the monastery with the excavation areas indicated. Sectors E and H = refectory. Bottom, reconstruction of the entire monastic complex. From Giannichedda 2012.



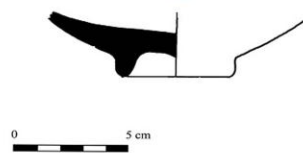
1



2

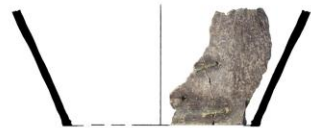


3



0 5 cm

4



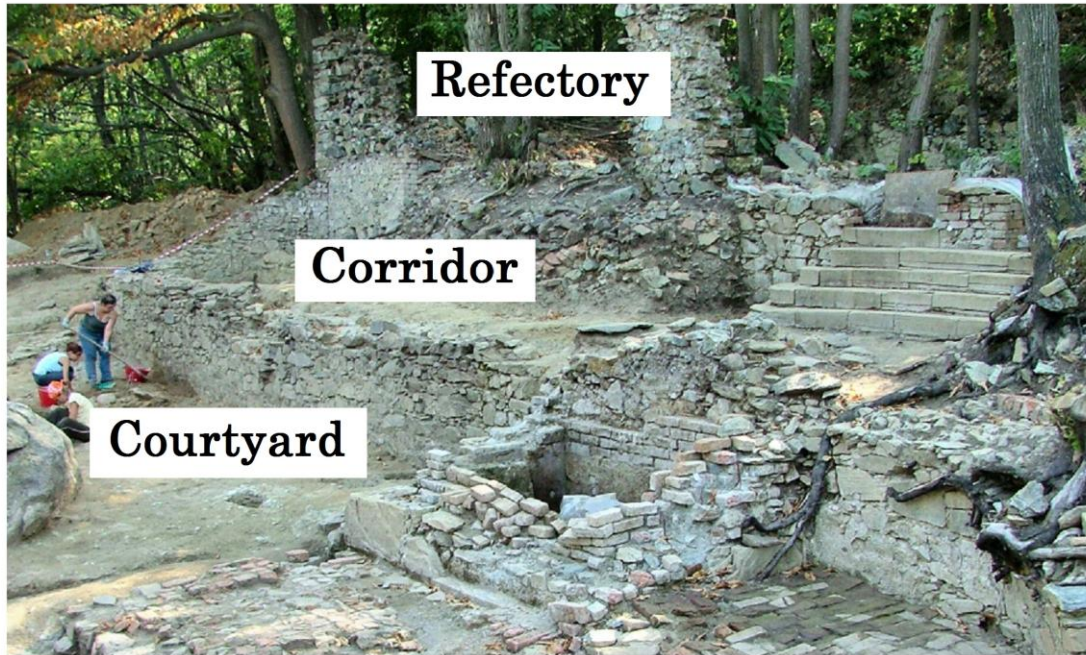
5



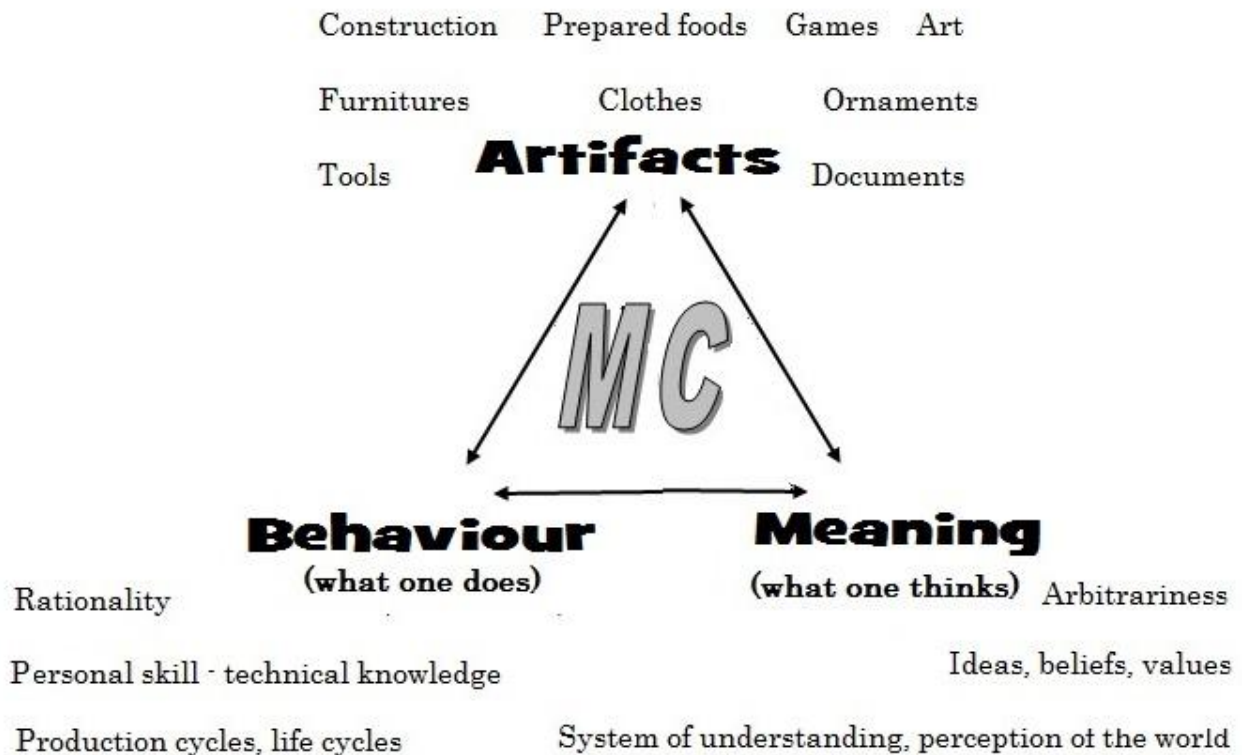
6



4. Santa Maria di Bano (Tagliolo Monferrato, AL). 1, epigraph; 2, bricks decorated by engraving with indicated manufacturing defects; 3, bowl with noble coat of arms; 4, iron knife and silver agemina; 5, pottery with engraved letters; 6, stone pot with repair holes. From Giannichedda 2012.



5. Santa Maria di Bano (Tagliolo Monferrato, AL). Above, view of the ongoing archaeological excavation (refectory = refectory, corridor = corridor, garden = courtyard). In the centre, stone and brick portal. Below, keys found in the basin in front of the refectory. From Giannichedda 2012.



6. The triangle of material culture as a graphic device linking artefacts (chronological and technical fields of study), behaviours (techno-anthropological, cognitive, social and socio-economic fields), and meanings (cognitive, social and, to a lesser extent, socio-economic fields). The operational diagram places artefacts, the starting point of the archaeologist's work, at the top. Two-way arrows connect them to behaviour (what people actually do, alone or in society) and meaning (what people think). Another arrow closes the triangle at the bottom. On the one side, rationality and technical knowledge; on the other, arbitrariness and system of understanding. At the top, artefacts are divided into a few categories for which specific behaviours and/or meanings could be assumed. From Giannichedda 2021 with previous bibliography.

Bibliography

- AA.VV., 1974, *Editoriale*, *Archeologia Medievale*, I, pp. 7-9.
- AA.VV., 1976, *Una rifondazione dell'archeologia postclassica: la storia della cultura materiale*, *Archeologia Medievale*, III, pp. 7-24
- Abramiuk, M. C., 2012, *The foundations of cognitive archaeology*, Cambridge.
- Ammerman A.J, 2000, *L'archeologia teorica, in pratica*, in Terrenato N. (a cura di), 2000, *Archeologia teorica. X ciclo di lezioni sulla ricerca applicata in archeologia*, Certosa di Pontignano (Siena), 9-14 agosto 1999, Firenze, pp. 165-170.
- Appadurai A. (a cura di), 1986, *The Social Life of Things: Commodities in Cultural Perspective*, Cambridge.
- Arponen VPJ, Grimm S., Käppel L., Ott K., Thalheim B., Kropp Y., Kittig K., Brinkmann J., Ribeiro A., 2019, *Between natural and human sciences: On the role and character of theory in socio-environmental archeology*, *The Holocene*, pp. 1 – 6.
- Bietti A., 1978, *Alcune considerazioni sulla tipologia e sulle liste tipologiche per il Paleolitico superiore in Italia*, *Quaternaria*, 20, pp. 1-27.
- Binford L. R., 1976, *Forty-seven trips: a case study in the character of archaeological formation process*, in Binford L. R., *Working at archaeology*, New York – London, 1983, pp. 243-268.
- Bintliff J., Pearce M. 2011, *The Death of Archaeological Theory?*, Oxford.
- Boisseuil D., Rico C., Gelichi S., 2021, *Le marché des matières premières dans l'Antiquité et au Moyen Age*, Collection de l'École française de Rome, Rome.
- Bourdieu P., 1977, *Outline Of A Theory Of Practice*, Cambridge.
- Brown C.T., 2010, *Reflections on Metaarchaeology*, in T. Neason, P. Blosser (eds.), *Advancing Phenomenology: Essay in honor of Lester Embree*, *Contribution to Phenomenology* 62, Berlin, pp. 393-401.
- Candlin F., Guins R. (a cura di), 2009, *The Object Reader*, London - New York.
- Carandini A., 1975, *Archeologia e cultura materiale. Lavori senza gloria nell'antichità classica*, Bari.
- Castiglia G., Pergola P. (a cura di), 2020, *Instrumentum domesticum. Archeologia cristiana, temi, metodologie e cultura materiale della tarda antichità e dell'alto medioevo*, Volume I e II, Città del Vaticano.
- Catapoti D., Relaki M., 2020, *Why the Neolithic is (r)evolutionary*, *Journal of Material Culture*, Vol. 25 (3), pp. 289–308.
- Childe V.G., 1929, *The Danube in Prehistory*, Oxford.

- Ciarallo A., De Carolis E., 1999, (a cura di), *Homo faber, Natura, scienza e tecnica nell'antica Pompei*, Milano.
- Clarke D. L., 1998, *Archeologia analitica*, Milano, (ed. or., *Analytical Archaeology*, London 1968).
- Crowfoot E., Pritchard F., Staniland K., 1996, *Textiles and clothing, c. 1150 – c. 1450. Medieval finds from excavations in London: 4*, London.
- Cuomo Di Caprio N., 1971-72, *Proposta di classificazione delle fornaci per ceramica e laterizi nell'area italiana. Dalla preistoria a tutta l'epoca romana*, *Sibrium*, XI, pp. 371-464.
- Cuomo Di Caprio N., 1985, *La ceramica in archeologia*, Roma.
- Currie A., Killin A., 2019, *From things to thinking: Cognitive archaeology*, *Mind & Language*, 34, pp. 263–279.
- De Grossi Mazzorin J., 2008, *Archeozoologia. Lo studio dei resti animali in archeologia*, Roma – Bari.
- De Marrais E., Gosden C., Renfrew C. (a cura di), 2004, *Rethinking materiality. The engagement of mind with the material world*, Cambridge.
- Donato G., Hensel H., Tabaczynski S., 1986, (a cura di), *Teoria e pratica della ricerca archeologica I. Premesse metodologiche*, Torino.
- Eco U., 1997, *Kant e l'ornitorinco*, Milano.
- Embree L. (eds.), 1992, *Metaarchaeology. Reflections by Archaeologists and Philosophers*, Boston.
- Fahlander F., Oestigaard T. (eds.) 2021, *Material Culture and Other Things. Post-disciplinary Studies in the 21st Century*, Gothenburg.
- Fahlander F., Oestigaard T. 2021, *Introduction. Material Culture and Post-disciplinary Sciences*, in F. Fahlander , T. Oestigaard (eds.) 2021, pp. 1-20.
- Forslund P., 2021, *MRT Confidential*, in Fahlander , Oestigaard 2021, pp. 213-258.
- Forte V., Castañeda N., Romagnoli F., 2023, *From Novices to Experts: Skill Development and Knowledge Transmission in Prehistory*, *Journal of Archaeological Method and Theory* (2023) 30, pp. 1–8.
- Fowler C., Harris O. JT, 2015, *Enduring relations: Exploring a paradox of new materialism*, *Journal of Material Culture*, Vol. 20 (2) pp. 127–148.
- Gabucci A., 2013, *L'archeologia come mestiere. Dallo scavo al magazzino: i materiali*, Trieste.
- Gallay A., 1989, *Logicism: a French view of archaeological theory founded in computational perspective*, *Antiquity*, vol. 63, no. 238, pp. 27-39.
- Gardin J. C., 1976, *Code pour l'analyse des formes de poteries*, Paris.

- Gell A., 2021, *Arte e agency. Una teoria antropologica*, Milano, (ed or. *Art and agency. An Anthropological Theory*, Oxford 1998).
- Giannichedda E., 2000, *Cultura materiale*, in Francovich R., Manacorda D. (a cura di), *Dizionario di archeologia*, Roma, pp. 99-104.
- Giannichedda E., 2006, *Uomini e cose. Appunti di archeologia*, Bari.
- Giannichedda E. (a cura di), 2012, *È sotto terra la tradizione di Bano. Archeologia e storia di un monastero femminile*, Firenze.
- Giannichedda E., 2014, *Chi ha paura dei manufatti? Gli archeologi hanno paura dei manufatti?*, *Archeologia Medievale*, 2014, XLI, pp. 79-93.
- Giannichedda E., 2016, *Archeologia teorica* (nuova edizione), Roma.
- Giannichedda E., 2016a, *Identificare e classificare*, in Ferrandes A.F., Pardini G. (a cura di), *Studi in onore di Clementina Panella*, Roma, pp. 113-127.
- Giannichedda E., 2021, *Fulmini e spazzatura. Classificare in archeologia*, Bari.
- Giannichedda E., 2021a, *Tim Ingold, Making. Antropologia, archeologia, arte e architettura*, *Post Classical Archaeologies*, 11, pp. 399-409.
- Giardina A. (a cura di), 1986, *Società romana e produzione schiavistica III. Le merci e gli insediamenti*, Roma – Bari.
- Giardina A., Schiavone A. (a cura di), 1981, *Società romana e produzione schiavistica II. Merci, mercati e scambi nel Mediterraneo*, Roma – Bari.
- González Tascon I. (eds), 2002, *Artifex. Ingeniería romana en España*, Madrid.
- González-Ruibal A. (eds.), 2007, *Arqueología Simétrica: un giro teórico sin revolución paradigmática*, Complutum, vol. 18.
- González-Ruibal A. (eds.), 2013, *Reclaiming Archaeology. Beyond the Tropes of Modernity*, Abingdon – Oxford.
- Gosselain O. P., 1999, *In pots we trust. The Processing of clay and Symbols in Sub-Saharan Africa*, *Journal of Material Culture*, 4 (2), pp. 205-230.
- Govier E., Steel L., 2021, *Beyond the 'thingification' of worlds: Archaeology and the New Materialisms*, *Journal of Material Culture*, Vol. 26 (3), pp. 298-317.
- Grew F., de Neergaard M., 1988, *Shoes and Pattens*, London.
- Hayden B., 1984, *Are Emic Types Relevant to Archaeology?*, *Ethnohistory*, Vol. 31, No. 2, pp. 79-92.
- Hayes J. W., 1972, *Late Roman Pottery*, London.

- Hill J., Evans R., 1972, *A model for classification and typology*, in Clarke D. L., *Models in archaeology*, Oxford , pp. 231-273.
- Hodder I., 1982, *Symbols in actions*, Cambridge.
- Hodder I., 1992, *Leggere il passato. Tendenze attuali dell'archeologia*, Torino (ed. or. *Reading the past, Current Approaches to Interpretation in Archaeology*, Cambridge 1986).
- Hodder I. (eds.) 2012a, *Archaeological theory today*, Cambridge.
- Hodder I., 2012, *Entangled. An Archaeology of the Relationships between Humans and Things*, Chichester.
- Hodder I. et al., 1995, *Interpreting archaeology. Finding meanings in the past*, London.
- Howes D., 2022, *In defense of materiality: Attending to the sensori-social life of things*, *Journal of Material Culture*, Vol. 27(3), pp. 313–335.
- Hurcombe L., 2007, *A sense of materials and sensory perception in concepts of materiality*, *World Archaeology*, 39, n. 4, pp. 532-545.
- Ingold T., 2007, *Materials against materiality*, *Archaeological Dialogues*, 14 (1), pp. 1-16.
- Ingold T., 2019, *Making. Antropologia, archeologia, arte e architettura*, Milano (ed. or. *Making: Anthropology, Archaeology, Art and Architecture*, London 2013).
- Lèvi-Strauss C., 1960, *Tristi tropici*, Milano (ed. or. *Tristes tropiques*, Paris 1955).
- Knappet C., 2014, *Materiality in Archaeological Theory*, in C. Smith (ed.), *Encyclopedia of Global Archaeology*, New York, pp. 4700-4708.
- Kristiansen, K., 2014, *Towards a new paradigm? The third science revolution and its possible consequences in archaeology*, *Current Swedish archaeology*, 22, pp. 11–34.
- Kristiansen K., 2021, *An Essay on Material Culture. Some Concluding Reflections*, in F. Fahlander, T. Oestigaard (eds.) 2021, pp. 259-278.
- Laplace G., 1964, *Essai de typologie systématique*, *Annali Università di Ferrara*, sez. XV, supp. II al vol. I, pp. 1-85.
- Latour B., 1988, *Mixing humans and nonhumans together: The sociology of a door closer*, *Social problems*, 35, pp. 298-310.
- Latour B., 1995, *Non siamo mai stati moderni. Saggio di antropologia simmetrica*, Milano (ed. or. *Nous n'avons jamais été modernes*, Paris 1991).
- Latour, B., 1999, *Pandora's hope. Essays on the reality of science studies*, Cambridge.
- Latour, B., 2000, *The Berlin Key or How to do things with words*, in P.M. Graves-Brown (ed.), *Matter, Materiality and Modern Culture*, pp. 10-21, London.

- Latour, B., 2021, *Politiche del design. Semiotica degli artefatti e forme della socialità*, a cura di Dario Mangano, Ilaria Ventura Bordenca, Mimemis, Sesto S. Giovanni, pp. 79-91.
- Lee Lyman R., 2007, *What is the 'process' in cultural process and in processual archaeology?*, *Anthropological Theory*, 7 (2), pp. 217-250.
- Leonardi G., 1992, (a cura), *Processi formativi della stratificazione archeologica*, Atti del seminario internazionale *Formation processes and excavation methods in Archaeology: perspectives*, Padova 15-27 luglio 1991, Saltuarie dal Laboratorio del Piovego 3, Padova.
- Leroi-Gourhan A., 1993, *Evoluzione e tecniche*, vol. I, *L'uomo e la materia*, Milano, (ed or. *L'homme et la matière*, Paris 1943).
- Leroi-Gourhan A., 1994, *Evoluzione e tecniche*, vol. II, *Ambiente e tecniche*, Milano, (ed or. *Milieu et techniques*, Paris 1945).
- Lindstrøm T. C., 2015, *Agency 'in itself'. A discussion of inanimate, animal and human agency*, *Archaeological Dialogues*, 22 (2), pp. 207–238.
- Lo Sardo E. (a cura di), 2005, *Eureka! Il genio degli antichi*, Napoli.
- Lucas G., 2005, *An Archaeology of Time*, London.
- Lucas G., Robb J., 2021, *The terrain of thingworlds: Central objects and asymmetry in material culture systems*, *Journal of Material Culture*, Vol. 26 (2), pp. 219–238.
- Lusuardi Siena S. (a cura di), 1995, *Ad mensam. Manufatti d'uso da contesti archeologici fra tarda antichità e medioevo*, Udine.
- Malafouris L., Gosden C., Bogaard A., 2021, *Process archaeology*, *World Archaeology*, 53:1, pp. 1-14.
- Malinowski B., 1971, *Teoria scientifica della cultura e altri saggi di antropologia*, Milano (ed. or. *Scientific Theory of Culture and Other Essay*, Chapel Hill, 1944).
- Mannoni T., 1975, *La ceramica medievale a Genova e nella Liguria*, *Studi Genuensi*, VII, (1968-69), pp. 1-208.
- Mannoni T., Giannichedda E., 1996, *Archeologia della produzione*, Torino.
- Marchionatti R., 2008, *Gli economisti e i selvaggi. L'imperialismo della scienza economica e i suoi limiti*, Milano.
- Mauss M. (1965), *Le tecniche del corpo*, in *Teoria generale della magia e altri saggi*, (I ed. 1902-1903), Torino, pp. 383-409.
- Meskill L. (ed.), 2005, *Archaeologies of materiality*, Oxford.

- Miller D., 2003, *Artefacts and the meaning of things*, in Ingold T. (a cura di), *Companion Encyclopedia of Anthropology*, London, pp. 396-419.
- Miller D., (ed.), 2005, *Materiality*, Durham and London.
- Minta –Tworzowska D., 2022, *Theoretical and methodological foundations of the archaeological discourse in Poland. Outline of the problems*, *Przegląd Archeologiczny*, Vol. 70, pp. 5-40.
- Mithen S., 1996, *The Prehistory of the Mind. The cognitive origins of art, religion and science*, London.
- Morel J.P., 1981, *Ceramique campanienne: le forms*, Rome.
- Naji M., Douny L., (a cura di), 2009, *Special Issue: 'Making' and 'Doing' the Material World: Anthropology of Techniques Revisited*, *Journal of Material Culture*, 14, n. 4, pp. 411-512.
- Oestigaard T., 2021, *The World as Artefact. Material Culture Studies and Archaeology*, in F. Fahlander , T. Oestigaard (eds.) 2021, pp. 21-58.
- Olsen B., 2003, *Material culture after text: re-membering things*, *Norwegian Archeological Review*, 36:2, pp. 87-104.
- Olsen B., 2007, *Genealogías de la asimetría: por qué nos hemos olvidado de las cosas*, *Complutum*, 18, pp. 287-291.
- Olsen B. (eds.), 2012, *Archaeology: The Discipline of Things*, Berkeley.
- Orlando F., 1993, *Gli oggetti desueti nelle immagini della letteratura. Rovine, reliquie, rarità, robaccia, luoghi inabitati e tesori nascosti*, Torino.
- Parrott F. R., 2005, *'It's Not Forever': The Material Culture of Hope*, *Journal of Material Culture*, 10, pp. 245-262.
- Peroni R., 1971, *L'età del Bronzo nella penisola italiana*, Firenze.
- Peroni R., 1994, *Introduzione alla Protostoria italiana*, Bari.
- Peroni R., 1998, *Classificazione tipologica, seriazione cronologica, distribuzione geografica*, *Aquileia Nostra*, LXIX, pp. 9-28.
- Peroni R., 2006, *L'analisi della funzione dinamica nel quadro di un'impostazione storico-dialettica*, in AA.VV., *Studi di protostoria in onore di Renato Peroni*, Firenze, pp. 785-791
- Prown J. D., 1982, *Mind in matter, An Introduction to Material Culture Theory and Method*, *Winthertur Portfolio*, 17, n. 1, pp. 1-19.
- Raggio O., 2021, *Conjectural History and Empirical Data. A Deep History of the Human Condition*, *Annals of the Fondazione Luigi Einaudi*, 55 (1), pp. 149-164.
- Renfrew C., 2004, *Towards a Theory of Material Engagement*, in De Marrais, et al. 2004, pp. 23-31.

- Renfrew C., Bahn P., 2006, *Archeologia. Teoria metodi pratica*, Bologna (ed or. *Archaeology. Theories, Methods and Practice*, London 1991).
- Renfrew C., Zubrow E.B.W., 1994, *The ancient mind. Elements of cognitive archaeology*, Cambridge.
- Ribeiro A., 2016, *Against object agency. A counterreaction to Sørensen's 'Hammers and nails'*, *Archaeological Dialogues*, 23 (2) pp. 229–235.
- Roux V., 2015, *Standardization of ceramic assemblages: Transmission mechanisms and diffusion of morpho-functional traits across social boundaries*, *Journal of Anthropological Archaeology*, 40, pp. 1–9.
- Roux V., 2016, *Ceramic Manufacture: The chaîne opératoire approach*, in Hunt A. (a cura di), *The Oxford Handbook of Archaeological Ceramic Analysis*, pp. 1-17.
- Roux V., Corbetta D., 1989, *The Potter's Wheel. Craft Specialization and Technical Competence*, New Delhi.
- Sackett J. R., 1985, *Style and Ethnicity in the Kalahari: A Reply to Wiessner*, *American Antiquity*, Vol. 50, No. 1, pp. 154-159.
- Schiavone A., 1996, *La storia spezzata. Roma antica e Occidente moderno*, Roma – Bari.
- Schiffer M. B., 1976, *Behavioral archaeology*, New York
- Schiffer M.B. (a cura di), 2000, *Social theory in Archaeology*, Salt Lake City.
- Schiffer M.B., 2010, *Behavioral Archaeology. Principles and Practice*, London.
- Schiffer M. B., Miller A. R., 1999, *The Material Culture of Human Beings. Artifacts, Behavior and Communication*, London.
- Shanks M., 2022, *Meta-Archaeology. A comment on "what comes after post-processualism???"*,
- Shanks M., Tilley C., 1992, *Re-Constructing Archaeology. Theory and Practice*, London – New York.
- Sigaut F., 1980, *Un tableau des produits animaux et deux hypothèses qui en découlent*, *Production pastorale et société*, 7, pp. 20-36.
- Sigaut F., 1991, *Un couteau ne sert pas à couper, mais en coupant. Structure, fonctionnement et fonction dans l'analyse des objets*, in AA.VV., *25 ans d'études technologiques en préhistoire. Bilan et perspectives*, XIe rencontres international d'archéologie et histoire d'Antibes, Antibes 1990, ed. APDCA, pp. 21-34.
- Skibo J. M., 1992, *Pottery function. A Use – Alteration Perspectives*, New York.
- Skibo J. M., Feinman G. M., 1999, *Pottery and People. A Dynamic Interaction*, Sal Lake City.
- Soulier P. (a cura di), 2015, *André Leroi-Gourhan «l'homme, tout simplement»*, *Travaux de la Maison de l'Archéologie et de Ethnologie René-Ginouvès*, 20, Paris.

- Tabaczynski S., 1996, *Objectual correlates of culture: the meaning of the concept and the interpretative problems in archaeological investigations*, *Archeologia Polona*, 34, pp. 13-32.
- Tilley C. (ed.), 1990, *Reading Material Culture*, Oxford.
- Tilley C., 1991, *Material Culture and Text: The Art of Ambiguity*, London.
- Tognarini I., Nesti A., 2003, *Archeologia industriale. L'oggetto, i metodi, le figure professionali*, Roma.
- Vidale M., 1992, *Produzione artigianale protostorica. Etnoarcheologia e archeologia*, Saltuarie dal laboratorio del Piovego 4, Padova.
- Vidale M., 2002, *L'idea di un lavoro lieve. Il lavoro artigianale nelle immagini della ceramica greca tra VI e IV secolo a.C.*, Saltuarie dal laboratorio del Piovego, 5, Padova, pp. 576.
- Vidale M., 2007, *Ceramica e archeologia*, Roma.
- Vidale M., 2022, *Archeologia. Teorie, metodi, strumenti*, Roma.
- Vidale M., Kenoyer J.M., Bhan K.K., 1992, *A discussion of the concept of "chaîne opératoire" in the study of stratified societies: evidence from ethnoarchaeology and archaeology*, in *Ethnoarchéologie: justification, problèmes, limites*, XII Rencontres International d'Archeologie et Histoire d'Antibes, Juans-les-Pins, pp. 181-194.
- Volonté P., 2017, *Il contributo dell'Actor-Network Theory alla discussione sull'agency degli oggetti*, *Politica e società*, n. 1, pp. 31-60.
- Webmoor T., Witmore C.L., 2008, *Things are us! A commentary on human / things relations under the banner of a 'social' archaeology*, *Norwegian Archaeological Review*, 2008, pp. 1-18;
- Wiessner P., 1983, *Style and Social Information in Kalahari San Projectile Points*, *American Antiquity*, Vol. 48, pp. 253-276.