THE LATE-PUNIC AMPHORAE AS REFLECTIONS/ ACTANTS: AN EXAMPLE OF THE CONTRIBUTION OF THE SYMMETRICAL ARCHAEOLOGY TO THE ANALYSIS OF ARTIFACTS?

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ABSTRACT: The development of the Symmetrical Archaeology has recently offered new insights regarding the study of artifacts, not only in archaeology but also in others fields of the social sciences. However, although this theoretical perspective has provided a relevant framework for (re)connecting "humans and things", some question have been raised regarding the modalities of such relations. This contribution aims to offer some answers to these issues, by analyzing the production and diffusion of the Late-Punic amphorae – a group of specific ancient containers from the Late Republican era (2nd c. – 1st c. BC) –from an interdisciplinary perspective. The confrontation of these empirical data with a wide conceptual framework leads us to propose a more detailed definition with respect to how and why humans and artifacts are interconnected, as it outlines the interest of the symmetric approach in performing a more common archaeological interpretation.

1. Introduction

For a long time, things —in the sense given to this term by I. Hodder (Hodder 2012, 7)— have been neglected by the social sciences (Olsen 2007. 579-582). However, this relative indifference have been compensated during the 1980s (Appadurai 1986), thanks to the intellectual movement that we name today the "material turn". Archaeology has not been excluded by this revival of interest on things. Several theoretical currents, in particular the "Processual Archaeology" and the "Post-processual Archaeology" (Webmoor 2007), proposed to reevaluate the place of things in the archaeological analysis and in the practice of the archaeologists. Nevertheless, the validity of the analytical frameworks suggested by these currents were widely questioned between the end of 1980s and the early 1990s (Miller 1987, 110-112; Webmoor 2007, 297-299). Conscious of the excesses of the previous approaches,

which were presented as "fetishist" perspectives, and a lack of interest for the related social role of the objects, archaeologists have tried to instigate a more balanced approach (González Ruibal 2007, 283-285). The "Symmetrical Archaeology" is one of the theoretical perspective that recently arose from these developments (Shanks 2007; Webmoor & Witmore 2008, 59-65).

Like most of the other scientific approaches engaged in the "material turn", the Symmetrical Archaeology was profoundly inspired by the works of M. Heidegger, B. Latour and M. Serres, as well as by the development of the Actor Network Theory (ANT) (Olsen 2007). However, it tried to adapt these perspectives to the specificities of its scientific field, the "symmetric" nature of this approach holding in the outlined importance given to the mutual influence of humans and things with respect to the archaeological contexts (Shanks 2007, 593-594). The Symmetrical Archaeology invites, in fact, to focus the analysis on the synchronic and diachronic relations related to an archaeological site, both in the present and in the past. Nevertheless, despite the interest of the researches linked to this symmetrical approach (Hodder 2012; González Ruibal et al., 2011), several critics recently arose regarding its epistemic value.

One of the main criticism levelled against Symmetrical Archaeology concerns the lack of definition it offers on the relations between things and humans (Van Oyen 2014, 16-17). Indeed, only a few academic works have clearly specified how and why these interconnection are established. Furthermore, the Symmetrical Archaeology was blamed for not offering a clear method allowing the archaeologist to follow these relations, even though their study is about the heart of its ontology (17). Even if the Symmetrical Archaeology presents many interests, these critics and observations set fundamental questions regarding its application. To try to answer theses objections, my contribution will try to address them in a comprehensive manner. I wish to discuss a definition regarding the relations between humans and things, as I will present its possible application in the study of archaeological material.

Before trying to observe the relation between human beings and things, it may be necessary to specify which type of thing, and thus relation, I will analyze. Indeed, the semiotic granted to the notion of "things" in various publications could have been a source of confusion in the definition of these relations. For example, I. Hodder presented the term "things" as more relevant than the notion of "object", because of its slightest connotation (Hodder 2012, 3-4). Things actually influencing the course of the human existence turn out not to be only limited to artifacts, as it is the case for the weather and the landscape. The study of I. Hodder and its distinction with the term object has the merit to integrate "actors" whose connections with the human existence may be underestimated among the social sciences[1]. Nonetheless, it may be more relevant to use the term "artifact" when considering the sole human productions among this things.

Without denying the mutual influence between an ecosystem or a river and humans, artifacts send back to a specific dimension of agencies with respect to a river or a wild animal. Artifacts are indeed strictly produced by a human being with regard to a strictly human

[1] Links that are defined as Human-Things (HT and TH), Things-Things (TT) and Human-Human (HH) type of relations (Hodder 2012, 89-96).

intention. Moreover, the relation between an artifact and an individual is bound to a sociocultural frame and to a very distinct intentionality, whether individual or collective. Such a relation would not exist if there were no humans to produce or receive it. On the contrary, if mankind where to disappear, snow will keep falling and the erosion will keep shaping the landscape[2]. However, one of the main issue that the Symmetrical Archaeology tried to expose concerned the irrelevant distinction between subject and object, with the myth of the initiative of an agency being strictly human (Webmoor & Witmore 2008, 57-59; Witmore 2007, 307). To answer such an epistemological problem, I would like to make a clear distinction here: if the production of an artifact is clearly the result of human intentionality, its action is nearly always independent from humans. In fact, if it is by being used that an artifact plays its role in the course of the social phenomena (Boissinot 2015, 107-110), such action happened most of the time away from its maker, both in time and space. In turn, the action of an artifacts should be analyzed as its own, humans having transferred their agencies in the artifacts during the production processes. My goal in this contribution then is to try to characterize more exactly the forms of relations between humans and artifacts, by defining the latter as a specific category of "thing", in the sense given by I. Hodder[3]. Therefore, we have to define the particular ontology of artifacts beyond the one of things, both in the archaeological context and in the entanglement with other things and individuals.

Many works have considered artifacts as the sole results of technical activities realized according to the pragmatic and materialistic objectives (Jürgen Habermas 1973). It is true that the transformation of matter associated with them is often realized according to a specific purpose (Leroi-Gourhan 1964). But to only define objects as the result of such a transformation turns out to be particularly simplistic. In fact, it is not compulsory to transform the matter "to produce" an artifact. We can collect a shell by the sea and keep it as a souvenir, for example. Although the mollusk at the origin of the shell did not make it for the human hand which collected it, the shell is going to be associated with other trinkets on a shelf. If we are bound to consider this shell as an artifact, we can wonder what would distinguish it from the others stayed on the beach. More than the fact that it was collected, it would rather be the human intentionality, or even the function granted to this shell - here picked up to serve as a material mark for the memory process - that would define the artifact.

Although we can define artifacts as the result of a manufacture activity, the latter does not correspond solely to a processing of matter. The production associated with an artifact often only

[2] Human beings, landscape and bridges are without a doubt entangled, for example. The analysis of the relations between these things and humans —those who "produced" the bridge, those who use it and the landscape which led to the installation of the bridge while influencing its very existence— are better studied from a symmetric perspective. However, this same example shows that there is different kinds of relation between them, each one having to be observed in parallel with the other but taking into account their specificities.

[3] To follow the perspective proposed by I. Hodder (2012, 107-108), we could envisage a distinction between the different categories of "things" based on the intensity of the dependence and dependencies —"intensity" with respect to their distinct relative temporalities— that they have between each other.

consists in the allocation of a function than in the modification of its physicochemical composition[4]. Several researchers have presented this idea (Boissinot 2015, 106-107; Shanks & Tilley 1987, 79-86). Such a definition is essential for the epistemology of archaeology, as the action of this discipline involves an inescapable transformation of the function of the artifacts (Jones 2002, 17-23). The previous examples illustrate the fact that the relationship between shape, function and functioning in the definition of what is an artifact is neither linear, nor unidirectional (Boissinot 2015, 108-109). It is the allocation of a function that would be a deciding fact for the characterization of a material element as an artifact. But this observation leads to wonder about the conditions of this allocation, as well as about the logics that are associated to it. To get back to the issues presented before, how and why are artifacts entangled with humans, both in the past and in the present? To try to answer these questions is not without interest. However, to define the diachronic social ontology of the artifacts confronts us with clear constraints: how can we be sure that individuals who have disappeared would answer to the same social logics as today? Conversely, can we define diachronic sociological mechanisms from archaeological data? Is it relevant to deduce the existence of these mechanisms from the documentation of another space/time?

Such possibility have been distinctively refuted by sociologists, and the actual intellectual framework invites to engage my comments in a very specific spatiotemporal frame (Passeron 2006, 81-83). But it is the agency of artifacts themselves, beyond their action as human representatives, which I would like to question here (Webmoor & Witmore 2008, 65-66). Such inquiry should take care of the fetishist trap outlined by Miller (1987, 110-111), by keeping in mind that an artifact needs to be activated and is always more or less directly linked to a human being. Nevertheless, artifacts seem to have the capacity to act independently of their makers and beyond direct interaction between humans[5], which is a perspective I would like to analyze more precisely. Finally, we have to base our study on a specific archaeological material, but one which various relations with humans and things is well known, as our aim is to propose a definition valid in archaeology and in other social sciences.

The diachronic definition I would like to envisage with respect to the Human-Thing/artifact relations could only be based on the unity of Mankind, from a methodological point of view (Morin & Piatelli-Palmarini 1983). However, to connect exclusively this contribution with this prospect would oblige us to question a plurality of objects, such an analysis exceeding by far the frame of this article. To cope with this constraints and previous issues we evoked, I propose to base my contribution on a specific group of ancient containers: the Late-Punic amphorae. These archaeological artifacts offer many advantages, one of them being that there function and the various stages of their "social life" is well known. Moreover, it turns out that

[4] Which is everything but simple, as this capacity to envisage a transformation of the world that surrounds us according to our mental categories —to realize an abstraction— represent one of the main specificity of Mankind.

[5] In this perspective, it may be interesting to enrich the three relational schema presented by I. Hodder by adding things in the middle, as most of the Human-Human (HH) interactions are done through things (Human-Thing-Human)

amphorae have been artifacts which function remained unchanged during several millennia. Although their form had regularly evolved, we find material elements made from clay, answering to the same function and the same operating chain, between the Bronze Age and the early modern times[6]. These maritime packaging also knew a wide geographical distribution during this long existence, affecting almost all the continents. Although the Late-Punic containers were a specific group within this category of objects, the data which we are going to examine send back to their functioning as amphorae. Thus I can realize relevant observations on the social role of artifacts within the framework of a particularly wide "circumstantiation", by basing my study on the amphorae. The documentation which I am going to evoke stays however limited to the historical periods, which involves that it is not for the moment congruent to deduce my comments for previous eras[7]. Finally, it is also necessary to present in detail the empirical data at the foundation of my reflection to answer completely the prerequisites of a scientific analysis, before we dive into more conceptual comments.

2. From the Amphora to the Late Punic amphorae: generalities and particularities

The amphora responded to an eminently commercial function throughout history. This object was a container which first use concerned the maritime transport of commodities. Amphorae were regularly reused for others not economic offices, but they do not interest us here. In spite of a use fundamentally pragmatic in connection with economic considerations, these objects present a wide diversity, whether it is in their morphologies or in the economic practices which were associated with them. The Late-Punic amphorae illustrate this disparity.

2.1. Some generalities regarding the amphora

During the Antiquity, the amphora was a single-use maritime packaging. This situation regarding its commercial function was what distinguished this object from the other ancient storage ceramic. These maritime containers participated in the transport of goods in the course of a crossing between a zone of production and consumption areas. Because of its low cost of production and the condition of ancient sea traffic, it was not profitable to bring back amphorae to their place of production. Thus, these containers were generally broken and emptied of their contents when the ship had arrived at destination[8].

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[6] The Spanish traders of the 16th and 17th c. AD used amphorae to transport certain liquid products towards the American colonies, for example.

[7] This chronological limitation seems quite unsatisfactory but it is imposed on me by the epistemological constraints of the social science analysis. It calls up to future discussions and clarifications.

[8] A fact that did not forbid the re-use of certain amphorae, on the spot and for the same function or not (Peña 2007). Nevertheless, it seems to have been a rather marginal situation, empirical data having given evidence of a more common unique use.

As we can see, the use of these artifacts was influenced by rational conceptions and economic mechanisms, like the search for profitability and the recognition of specific markets, as it was also observed for other ancient commodities (Morel 2008). The operating chain associated with the manufacture of amphorae were also bound to these economic logics. The raw material of an amphora was a preparation (clay and grease additives) which was wheeled, before being dried then fired in a kiln (Cuomo Di Caprio 2007). Since the Iron Age, even before then, these various operations were realized according to a highly organized economic planning, in connection with mass production patterns. As a commercial packaging, the amphorae was an ideal support for numerous economic marks and information, like fiscal marks. Some information, like the origin and the nature of the contents, which were mostly foodstuff, were however registered in their shape.

A very large number of forms were associated with amphorae, each one being as much the result of singular manufacture processes as the expression of culturally specific esthetic values. In the end, each of these forms corresponded to a very precise chronological and geographical frame. We may consider these morphological differences as the expression of various factors. First of all, there was a privileged – but not exclusive – link between a shape of an amphora and a kind of content (wine, oil, fish products, etc.). Besides, each of the various cultural areas of the ancient Mediterranean used more or less singular forms of amphorae to show their specificity[9]. Finally, these factors of differentiation went through diachronic evolution, as much in reaction to endogenous phenomena as to exogenous ones. We know, for example that the Ancients did not hesitate to produce imitations of foreign forms (Sáez Romero & Díaz Rodríguez 2007), probably because they were better recognized by the "consumers" of certain products, or that they were better suited to the transport of a given contents.

As the amphorae had an essentially pragmatic function, they possessed a low symbolic value their selves (Bazin & Bensa 1994), as their systematic rejection and multiple re-uses demonstrate. It was their contents that may had some symbolic or prestigious value. Thus, the merchants and consumers of that time did not hesitate to change the form of an amphora if it could help to increase their sells or expand their trade routes. Other factors related to the sociocultural conditions, whether they were demographic or technical, also contributed to the appearance of new form of amphorae. The observation of these chronological and cultural variations allowed to isolate "typo-morphological" evolutionary lines, which associate a singular shape from a specific period to a particular designation. These evolutions have been gathered within historically coherent typological groups. The various types of the Late-Punic amphorae represent one of these groups.

2.2. The Late Punic amphorae as a specific category of ancient maritime container

For now, the Late-Punic containers are mainly defined as artifacts made in the area related to the "Circle of the Strait", after the conquest of the Strait of Gibraltar by Rome (Luaces 2017, 81-90; Ramón Torres 2008, 71-77). The paradigm of the Circle of the Strait

[9] Cultural areas which sometimes amounted to the territory of a unique one city-state.

defines a geohistorical sector (Bernal Casasola 2016; Callegarin 2016; Tarradell 1960). This concept distinguishes a cultural area that combined both shores of this Strait, associating several city-states related to the Phoenician colonization of the beginning of the Iron Age. Among them, we should quote the cities of *Gadir* (Cadiz, Spain), *Malaka* (Málaga, Spain), *Tingi* (Tangier, Morocco), *Lixus* (Larache, Morocco) and *Tamuda* (Tetouan, Morocco) (fig. 1). These cities developed an economy based on the trade of fisheries products, which were particularly famed commodities (salted fish and dye products), from the 6th c. BC. Since the Iron Age, these products were exported in amphorae that presented morphologies specific to this area of the Strait of Gibraltar

After its defeat during the first Punic War (264-241 BC), Carthage began to expand toward the South of Iberia. To help in its expansion, the Punic metropolis was joined by the Phoenician city-states of this region, like *Gadir* and *Malaka*, which maintained a relative political autonomy (Ferrer Abelda 2011, 202-205; López Castro 2006, 43-51)[10]. It is from these rich Iberian cities and their neighboring territories that Carthage began its second conflict against Rome (218-202 BC). The cities of the Circle of the Strait were at first associated with Carthage during this confrontation. But this war quickly seemed to have struck a blow on the interests of some of these cities of the Circle of the Strait. When the Roman legions began to take the advantage, they tried to switch sides. It was in particular the case for the ancient Cadiz, a community that signed a treaty with Rome in 206 BC —a *foedus*— that implied some kind of subjugation by Rome.

The geopolitical and economic situation of *Gadir* at the beginning of the roman time makes this city particularly interesting to study. Well before the arrival of the Roman, *Gadir* had a high level of economic organization and exported its goods, thus its amphorae, to Corinth and Athens (Sáez Romero, 2008a). But History tends to consider that its passage under Roman control would have induced a crisis, or at least a

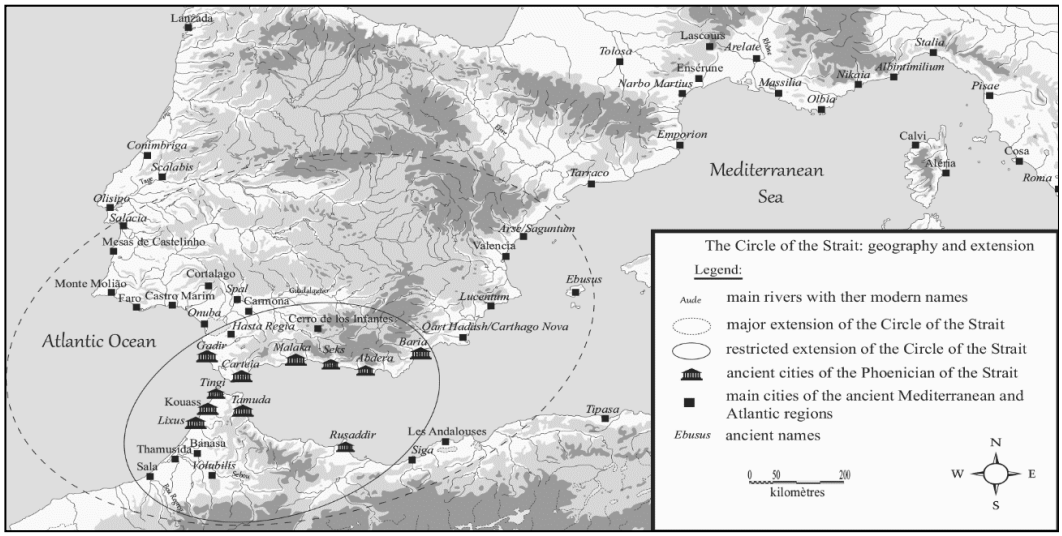

Fig. 1: map of the situation of the Circle of the Strait region, with the localization of the principal cities mentioned (personal illustration).

[10] However, as it was initially because of their relation with Carthage which inhabitants were called Punic that these cities were studied, their various material productions were traditionally associated with the "Punic" term.

break, in the economic activity and the commercial modalities. In fact, the study of the amphoric production of this city reports a more complex situation. Several traditional shapes of amphorae from this city continued to be manufactured more than a century after its integration into the Roman world (Luaces 2017, 96-147; Sáez Romero 2008b). In the meantime, these Punic forms were also marked by perceptible morphological evolutions, associated with progressive transformations of their production environments. Both phenomena unfold according to the Roman tradition, which can be seen in various features of the Late-Punic amphorae: truly Roman types (Dressel 1) have been adapted and produced in number by *Gadir*, at the same time as new "Punic" morphologies appeared and evolved (T-7.4.3.3) (fig. 2).

The Late-Punic containers present numerous ambiguities: most of them respond to a "Punic" form but they were all produced during the Roman period; their production pattern shows a mix of Punic and Roman tradition; they offer epigraphic inscriptions both in Latin and in neo-Punic language. The various data derived from their feature invite to interpret them as the result of progressive transformations that have taken place in the long term, in opposition to what we consider generally as a consequence of the Roman conquest. To document these transformations and being able to understand them, I tried to observe the change in their production environments. This study showed that the first Late-Punic containers appeared in connection with technical tools stemming from Italy, these objects being completely absent in the Gaditan amphoric production before the Roman conquest (Sáez Romero et al. 2016, 37-49). These tools (annular supports for firing, removable hob and new structures of kiln) were not present in the Circle of the Strait before the Roman era (Blanco Jiménez 1991; Sáez Romero 2010, 901-917). Nevertheless, the activity of the ceramic workshops associated with these tools was essentially realized by local craftsmen, even during the Roman time. This fact is attested by the wide Punic imprint observed in the contexts related to them.

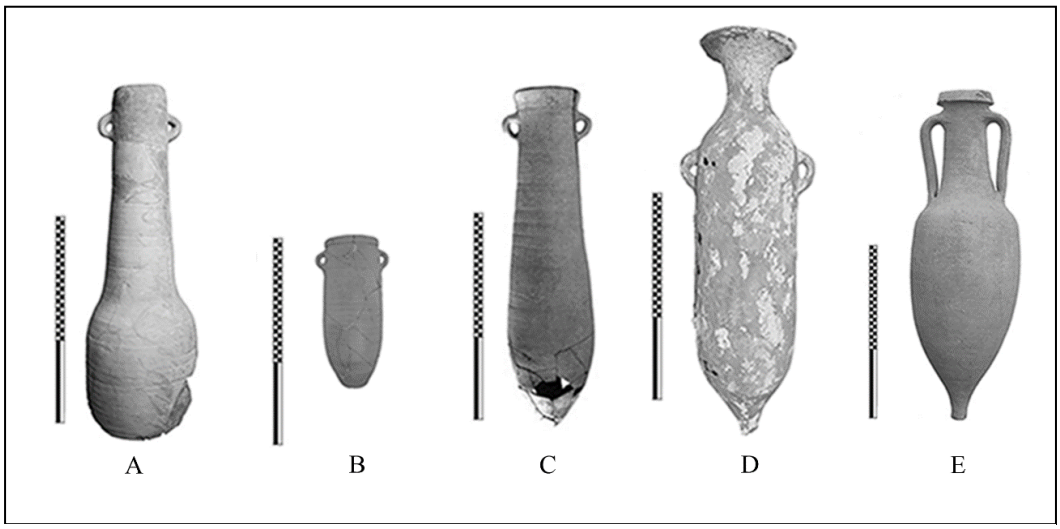

Fig. 2: pictures of the various forms of amphorae assembled within the Late Punic group (A: type T-12.1.1.2; B: type T-9.1.1.1; C: type T-8.2.1.1; D: type T-7.4.3.3; E: type Dressel 1). Each shape represents a specific type within the typo-morphological classification (personal illustration). For more details, see Luaces, 2017: 91-148.

The analysis of these Roman technical tools invites to consider that they were able to influence the quality and volumes of the Gaditan amphoric production. This factor could be an explanation for their adoption by populations which were completely foreign to the Roman culture at that time. But in the other hand, these technical changes were also accompanied by a transformation of the production pattern and the economic organization[11]. All these transformations occurred initially in workshops where the activity was realized by Punic individuals, which leads to envisage the implication of the first Roman technical tools in deeper transformations of the practices of production.

In fact, the more the production Apparatus was "Romanized", the more the Gaditan ceramic repertories, whether the amphorae or the dishes, were transformed toward Roman forms (García Vargas 1996). The examination of the fiscal marks (amphoric stamps) on the Late-Punic containers allows to realize a similar report, as from an initial anepigraphic type of stamps, used since the 3rd c. BC (marks indicating a likely corporate production), the development of the Late-Punic containers marked the appearance of an epigraphic stamping (marks appointing probably to a natural person) in neo-Punic, at about the years 125/100 BC. This stamping evolved into a writing in Latin around the same time, although most of the registered names were still being of "Punic" tradition (García Vargas 1998, 159-162). What is interesting here is that this modification of stamping seemed to occur after the appearance of the Late-Punic amphorae, as if it was the result of a second stage of some sociocultural transformation among the Gaditan population.

Besides the examination of their contexts of production, I realized a study of the means of transportation and the distribution of these Late-Punic amphorae. The data I obtained testified the progressive commercial distribution of these containers, at first limited to the traditional markets of the Circle of the Strait (Galicia, Portugal and western Languedoc), then spread to further territories controlled by Rome. To be more precise, this dissemination seems to have been extended along the Roman military and political expansion, both in Iberia and in Gaul. Thus the distribution of the Late-Punic packaging seems to have been correlated with the Roman expansion, a phenomenon that would have echoed the technical and economic transformations evoked for the Gaditan production pattern (Luaces 2017, 633-668).

The archaeological data that we have presented invite to consider a link between the transformations of the morphologic features of the amphorae, the pattern of production and the evolutions of the trade networks related to these goods. It is more especially the connection between the economic changes and the cultural transformations that calls out when studying the Late-Punic amphorae. The passage from an anepigraphic stamping to an epigraphic one, at first written neo-Punic then in Latin, for example, reveals much more than a simple economic change. The production activities are a meeting point for several significant social forces, in particular from the point of view of the social stratification and of the distribution of

[11] This economic organization answered initially to a singular model related with a more "Punic" pattern, established around specialized areas, that was still the major economic model at the beginning of the Roman time (approximately 200/175 BC). However, this model was completely "Romanized" around the years 75/50 BC.

the various forms of "capital", in the sense granted by Bourdieu to this notion (cultural capital, economic capital and social capital) (Bourdieu 2015, 505-528; Bourdieu 2011). Studies in anthropo-logy allowed to identify a certain inertia in front of the technical changes when they imply a significant transformation of the social order, whatever is their contribution to the increase of economic and cultural resources (Onrubia-Pintado 1995, 178-179). Thus the magnitude of the transformations observed with respect to the Late-Punic packaging hails out even more.

Behind the changes apparently strictly economic of the amphoric production of *Gadir*, but also of various cities of the Circle of the Strait, it is a profound sociocultural transformation which rather seems to have taken place (Luaces 2015, 245-265; Luaces 2017, 676-696). We are led to wonder about the link between these transformations and the Late-Punic amphorae: were they only passive, by being the toy of social phenomena that overstepped them widely? I don't think so, because the transformations we exposed seem to have been connected to the dynamic and multi-scalar interactions related to these containers (the production unit, the city, the Strait of Gibraltar area and the Mediterranean Basin). But how do we explain these progressive transformations in the sociocultural structures, as they exceeded by far the simple modification of the economic environment? In which measure the Late-Punic amphorae were involved in these changes? Trying to answer these questions required to consider the sociocultural role and contribution of the artifacts through the perspectives of various social sciences.

3. From sociology and anthropology to Cross-cultural psychology, a multidisciplinary framework for a better definition of the Human-Artifacts relations?

The historic and archaeological documentation testified the arrival of individuals from the Roman Italy after the conquest of Southern Iberia by Rome (Padilla Monge 2010). But these individuals belonged mostly to the economic and political elite of the Eternal City. On the other hand, the craftsmen of the first Gaditan workshops marked by the appearance of Roman technical objects were surely natives from this Punic city. Therefore, the Punic potters of *Gadir* have decided themselves to integrate technical tools associated with the Roman production techniques[12]. Such a report leads to consider that relatively simple objects, as some ceramic supports for baking the amphorae, were able to participate in the realization of deeper changes within the sociocultural environment. To consider such a correlation brings inevitably to new questioning with respect to the way in which artifacts could have exerted themselves as agencies in the course of these phenomena.

Scholars engaged in the Symmetrical Archaeology have raised these questions at several occasions, taking into account the prior insights of other social sciences. Even if the definition of the artifacts still seem unanswered, these questions have not been neglected (González Ruibal 2007; Hodder 2012; Webmoor & Witmore 2008). However, I wish to focus here on trying to describe how material elements obtain the capacity to influence human's daily life and how we could define this agency. Most of all, I would like to engage the discussion on the analytical

[12] It is necessary to remind here that the adoption of a new technique is not a harmless fact, and that this action resounds with a modification of certain culturally established designs.

framework that the symmetric approach authorizes.

As mentioned in the introduction, an important distinction should be made regarding the "social life" of the artifacts and their relations with Humans. Prior works have proposed to consider the influence of multiple temporalities in the artifact's relation with humans (Hodder 2012, 84-85). The Human-Things (HT) and Things-Things (TT) relations proposed by I. Hodder, for example, offer an interesting insights on how artifacts articulates with our daily lives with respect to their own "life" cycle. Such perspective invites us to observe the temporalities imposed by the natural characteristics of artifacts, like "the time it takes for metal to heat and be hammered" (84). However, these temporalities only concern the intrinsic changes occurring to an artifact. The extrinsic transformation related to its social entanglement with human life is being left aside. In fact, if we apply the same idea of multiple and intertwined temporalities with respect to the relations between material elements and humans, we could observe that artifacts have different *social life* cycles.

This perspective has already been discussed elsewhere, as the mere transformation of a jar into an archaeological artifacts implies an extrinsic change of its function and social nature (Boissinot 2015, 110-111; Shanks & Tilley 1987, 88-95). The latter indeed changes throughout time, as artifacts are in use or in fashion, then discarded, and sometimes trendy again, or re-use with respect to a distinct function. Therefore, it seems that artifacts pass through distinct temporalities in the course of their *social life*. The first stage of it seems to be related to the production processes linked to the (re)attribution of a function. This step is directly connected to the human intentionality. Nevertheless, once it is produced, the artifact seems to enter a new stage of its *social life*, independent from humans. The action then exerts on other things or on humans should be read as its own. If we wish to define and analyze how and why artifacts are related with humans and other things, we should then take into consideration these various stages of their social lives.

3.1 Artifacts as reflection: the production as a process linking artifacts to human context and intentionality

Artifacts must be "activated" to play their role of mediators: it is by being used than a material element has agency (Boissinot 2015, 108; Sigaut 1991). The use of an artifact can be the result of a chain of things, but a human agent is always at first instance the one who operates it. However, the advantage of an artifact is in fact that they exist apart from human, as they exert influence or agency despite our absence. Such idea brings us to ask when this agency is given to a material element. As we discussed in the previous chapter, the fact that the attribution of a function produces an artifact invite us to consider that it is during this step that a material element receives agency from humans. It is then directly linked to the human intentionality. But how does this agency is exerted by an artifact and how is it given to it?

The work of P. Bourdieu offers some answers to these questions (Bourdieu 2015). In a definition of the central notion of "habitus", P. Bourdieu presents this concept as an incorporated tendency, both in the mind and in the body, of the good use of an "artifact or a good behavior", according to the modalities put forward by a human collective (232-233). In this perspective, each human group would be brought to

confront the realities that surround it in a specific way, in promoting specific behaviors and sensitive perceptions. This "promotion" of behaviors could be analyzed as a way to contribute to the persistence of a collective by establishing specificities distinguishing it from other groups (Vinsonneau 2000, 73-94)[13]. Therefore, this social promotion takes place inevitably with respect to the conditions and circumstances of the activity of the group (its context)[14].

All the behavior, the perceptions and artifacts promoted by a human collective are incorporated at the individual level via the "habitus"[15]. An aspect that is essential here is that artifacts are the supports of the deployment of the "habitus". Relations between humans are presented by P. Bourdieu as phenomena which "are established in things, in objects —it is the case of the book— or in mechanisms that are not inevitably visible things" (personal translation from Bourdieu 2015, 233). To wear a garment correctly with respect to a specific human collective —to "habit" it well, as indicated by Bourdieu— requires to have the adequate *habitus*, whether it is by learning or by mimicry. In these conditions, to wear a garment in an appropriate way becomes the mark of the integration to the social group related with it; it also represents the practical process to integrate this human collective. In both cases, the artifact —here a clothing accessory— is clearly the support of the "habitus". Conversely, to be able to show the possession of this "habitus", thanks to a well realized knot of tie, learned through a specific socialization (Darmon 2010, 45-90; Vinsonneau, 2000, 41-53), also becomes a means to integrate this group.

It is by the "habitus" that artifacts exert their agencies. But how do they obtain this capacity? We should outline that the features of an artifact —its shape or its mechanical resistance— are the results of the collective promotion of certain specific perceptions and patterns (Appadurai 1986, 6-7). In this case, the course of the production activities implies that artifacts tend to become the depositories of promoted perceptions and sensitivities. The technical gesture, for example, is at first the result of a training and of some promoted behaviors that are culturally established (Bril 2002, 115-125). On the scale of the domestic space, the course of the production activities of the artifacts engage evidently the application of the perceptions and social patterns of the agent (Gorgues 2013, 115-125; Picon & Elhraiki 1995, 137-139). Even in the case of a mass production, the manufacturing activities are realized with respect with the social patterns of a human collective. Therefore, the production of an artifact, whether by the transformation of matter or the

[13] The link with the situational, elaborate and instrumented deployment of the identity and the ethnicity, or rather of different kind of identifications, do not seem trifling to me (Boissinot 2011; Fernandez Götz 2008, 63-101)

[14] When various people are founding a rock band, for example, they have to adapt the musical repertoire that they are going to play according to the music sensitivity, the talents of the members of the group and music trends of its time, and the musical material at hand. Whatever is the individual and collective situation of the band, it is inevitably going to present specific behaviors and clothes, or even to establish new ones if the band manages to stand out and become "fashionable".

[15] We could maybe define the set formed by these diverse *habitus* as founding aspect of a "culture", in the archaeological and anthropological sense of the term. Nonetheless, it is a debate that is far beyond the scope of this contribution.

allocation of a function, implies to embed it with the promoted sensitive perception and behaviors of a human collective (Criado Boado 2012, 255-256). It is all the more the case for the commodities, as to define an object as such involves the assignment of a value, an action eminently related to the specific social patterns of a human collective (Kopytoff 1986, 72-77).

As material elements reflect the context in which they are made, embedded through the production processes, I propose to define them as having a "reflection" nature. Such characteristic would be strictly related to the human intentionality during this stage. This perspective invite to consider the production activities as a "materialization" of culturally specific practices and behaviors, both in its esthetics features and its mechanical characteristics. It is then through this production step that artifacts gain agency, as humans put their own capacity of action into material elements. However, the nature of artifacts change once they are produced, as they are set apart from humans. It would be from this second step that they exert their own agency, one that I also wish to define.

3.2 Artifacts as actants: the "in use" step as the deployment stage of the independent agencies of artifacts

Several works have permitted to define the action of material elements in the course of the social phenomena. Although he is not the first to have approached this theme, the studies of B. Latour have been presented as fundamental for the Symmetrical Archaeology (Latour 1999, 2005). This scholar considers human association and collectives as a construction that tries to develop itself and persists to reach its connecting objectives. All the forms of human association cannot exist without "actors", whether they contribute to establish or to maintain the relations between the agents which make them up. This notion of "maintaining" is important, as it implies the contribution of mechanisms and social forces at every stage of the association. In these conditions, a community would be the result of the action of several "mediators", which are the relays that contribute to transfer the social link both in time and space, according to their own features (Latour 2005, 37-45). This perspective connecting various actors have been the basis for the Actor Network Theory.

The specificity of the definition of these relays as mediator holds in the fact that they do not have to be exclusively human and unique. This idea led B. Latour to redefine the mediators of the social relations under the concept of "actant" (54-55). It is from this notion that he proposed to consider the role of artifacts and their agencies into the social phenomena. Material elements turn out to be excellent mediators indeed, as their physical features can participate to the transfer of the social information. Furthermore, it is possible to easily produce a multitude of them to face preservation of the relations at the foundation of a human association (70-82). Finally, as artifacts have been given agency through their production, they also dispose of a capacity to act on behalf of humans and to become independent actors. In fact, it is probably because they represent a materialization of the perceptions and behaviors promoted by a group that artifacts serve as the relays in conveying the social information (Huguet 2017, 38-42). This idea is illustrated by the fact that the "social death" of an artifact —defined as an "archaeologized" state by Pierre Bourdieu (2015, 233)— seems to be

bound to the disappearance of the *habitus* connected to its use.

The concept of "actant" and the related Actor Network theory have largely influenced the instigation of the Symmetrical Archaeology. By defining artifacts as elements that participate in the sociocultural dynamics, this concept authorizes to study their relations with the daily life of humans. However, the use of this concept in the case of ancient artifacts requires to satisfy certain conditions that may have been overlooked. To clearly appreciate the agency of a material element as an "actant", that is to say to analyze it during the stage in which its action is independent from humans, the scholar has to know its "symbolic value". Indeed, an artifact needs to be recognized and acknowledged to fulfill its social role, as it reflects socially promoted characteristics and is initially connected to human intentionality. This aspect may have been overlooked by B. Latour, as he was observing artifacts which function were clear to him as a sociologist. However, archaeologist are confronted with a more complex situation, as the function of most of the material elements we study is not clearly defined, if not completely hypothetic. As such, the first condition for an application of a symmetric approach in archaeology is related to the identification of the function of an object from the *emic* perspective of those who made it (Dundes 1962), that is to say from the mental categories of the people that made *and* used it[16]. Such an exercise requires to know the perceptions and the mental conceptions of these agents. But still, it is necessary to be able to reach these conceptions, an exercise that turns out to be particularly difficult when the subjects quite simply disappears, as it is inevitably the case in archaeology. If the archaeologist is able to analyze the symbolic value of an artifact, he is able to have access to its agency as an "actant".

The notion of symbolic value has hardly been defined, but it could be associated with the propensity, more or less significantly raised, of an object to release the important information for the demarcation and the preservation of a human collective. In this particular case, the more the symbolic value of a material element is strong —the more entangled it is?— the less it will be permeable to changing, the role of such an object being exactly to contribute to the preservation of the founding conceptions of a collective, and thus to be more difficult to transform[17]. To analyze an artifact with a high symbolic value is not without interest when studying the transformations of a sociocultural environment. However, if it is a question of analyzing the course of these transformations, it could be preferable to favor one with a low symbolic value. It is necessary to underline here that the study of the Late-Punic containers answers favorably to all these conditions: they are artifacts with a well-known function, the mental conceptions related to their manu-

16 The distinction here is important, as the humans making an artifact and the one using them could be respond to different sociocultural environments. However, such situation implies necessarily another production, with the attribution of a new function related to the context of those using it. Once again, the case of the archaeological artifact is the best illustration of this.

17 An artifact offering a representation of one of the founding myths of a community bears inevitably a very high symbolic value. Any modification of such an object will always be the source of transactions within this community, while marking a central stage in its redefining. Marianne's representations in France would be an excellent examples of this kind of object with a high symbolic value.

facture as maritime containers being also well defined, and they had a low symbolic value.

Artifacts exert agency by being used, a capacity that was at first embedded into them through the human intentionality. They become only indirectly, and even quite remotely, dependent of humans after the production step: artifacts are as much the "reflection" of a social context as they are its "actants", both characteristic being interlaced in the nature of these things. This dual capacity is at least the aspect that is accessible to an archaeologist. But we should also consider the symbolic nature of the artifacts, as it may be thanks to the objectivization of the reflected social information that they could play their role as "actant"[18]. We ought to link the *reflection/actant* nature of artifacts with the proposition of T. Huguet regarding the digital objects as symbols (Huguet 2017, 73-77): it is because an object materializes a "habitus" that it is the mediator of the social action; it would conversely be difficult for a human collective to carry out its goals in the absence of the "actants" participating to the social forces, which would also not be possible if the "habitus" it reflects had not been "objectified".

Although they are not at their initiative, the objects influence the course of the social phenomena in a decisive way, both from their intrinsic and extrinsic characteristics. But even if humans are always those who initiate the conveying of social forces through the artifacts, they then exert this force independently, and can even transfer it to another thing, being an artifact or not. This "reflection/actant" nature could be a first explanation regarding why and how this kind of things are fulfilling their role as mediators. It also gives an explanation on when it unwinds, which is while they are functioning with respect to a specific "habitus". An analysis of the social life of an object should then take into account this dual nature, and also the objectivized stage —symbolic status— when it is accessible. This definition of the artifact is deeply connected to the perspective offered by the Symmetrical Archaeology. Therefore, trying to and analyze archaeological objects through it could be a good illustration of what the symmetric approach could offer to archaeology, but also to other social sciences. I would like now to consider this idea by analyzing of the Late-Punic amphorae through this perspective.

4. The Late-Punic amphorae as reflection/actant: an example of the application of the symmetric approach to the study of archaeological artifacts?

As it was mentioned previously, the Late-Punic amphorae seem as much to have been the result of the economic and sociocultural changes of Circle of the Strait at the beginning of the roman time, as key contributors —or rather mediators— to these changes. The notion of "reflection/actant" may allow to define better the relations between these artifacts and the related social phenomena.

Well before the arrival of the Roman in the region of the Strait of Gibraltar, the ancient Cadiz was a major center for the production and trade of fisheries products. The manufacture of amphorae occupied an important place in these activities, as they were maritime packaging of these commodities. The

[18] I make a clear reference here to the study of Thibault Huguet in this same volume. As an archaeologist, I do not have access to the interiorized step of the use of an artifact. But the confrontation of our respective studies may be a key for understanding the social role of the artifacts.

city-state of Gadir had its own ceramic repertory since the beginning of the Classic period, in connection with an economic organization and a production pattern adapted to its manufacture. The passage of this community under the Roman rule, at the end of the 3rd c. BC, did not initially cause a break in these economic activity. However, the political and military expansion of the Roman authority, as much in the Iberian Peninsula as in Gaul, seems to have led to various changes.

As an ally of the Roman Republic, the ancient Cadiz was a major center for the supplying of the Roman troops and agents, which could have caused an increase of the demand and of the production volumes (Luaces 2017, 665-675). The investment of Italian agents in southern Iberia should be related to this political and military expansion. However, the first actors of these economic activities were still native individuals. The pragmatic and opportunist adoption of the first Roman technical tools, seemingly more effective during the baking of the amphorae, should be analyzed with respect to this situation. The use of these new objects however implied modifications in the production practice and behaviors. Because of their "reflection/actant" nature, these foreign technical objects would thus have contributed to the incorporation by Punic individuals of Roman behaviors and conceptions. To make these tools, the Punic potters of the ancient Cadiz had indeed to interiorize the promoted perceptions of the Roman culture, which were reflected in these artifacts. In turn, these artifacts exerted an agency as "actant" over the economic and production pattern related to the activity of these Punic individuals. In an entangled perspective, the Roman tools both transferred a part of the Roman culture and increased the integration of its specific perceptions and conceptions to initially foreign individuals.

It is in parallel to these first transformations that the Late-Punic amphorae appeared. Recent researches have outlined that these new amphorae had a correspondence with the Roman measurement system, which the ceramics of *Gadir* did not possess before. Therefore, we can see that other artifacts have contributed to the increased integration of the Roman culture, as the measurement standards are mostly transferred through material elements. The technical tools previously mentioned were related to this system, as they had a form related to particular measurement. As "reflection/actant", various artifacts had changed the promoted perception of space of the Punic population of the ancient Cadiz, which in turn has changed the form of the amphorae. The chronological and contextual relation between both phenomena sustain such a correlation. When we analyze this contribution of the artifacts through their definition as "reflection/actant" and the symmetric approach, the relations between the people of *Gadir* and the production of amphorae have contributed to change the sociocultural environment of the ancient Cadiz. We could then consider that the Roman technical tools have led to a "Romanization" of the production patterns and behaviors, which again contributed to other changes connected with the Roman culture, here in the morphologies of the amphorae. We can see such idea in the appearance of the Late-Punic type T-7.4.3.3, with his sharp foot closer to a Roman shape than to a Punic one, and through the adaptation of a typically Roman form among the ceramic repertory of *Gadir*, the Dressel 1type. The replacement of the anepigraphic stamps to epigraphic ones, at first in neo-Punic then in Latin, is an illustration of a second level of transformation, again at least due to the

dual role of the artifacts. The change of writing expresses a significant but progressive transformation of the sociocultural environment. In these conditions, we could envisage that the Late-Punic containers were once again "reflection/actant" of these transformations, as the carriers of these stamps. Both their production and their use would have increase the intertwinement of the local Punic people to the Roman culture.

As "reflection" of the transformations of their sociocultural environment, these Late-Punic amphorae were the result of the "Romanization" of their productive contexts. However, their nature of "actant" also led them to contribute to these phenomena: as they materialized an adaptation of the amphorae morphologies to commercial markets managed by the Roman elite, the increase of the economic and social interactions related to their diffusion would have then strengthened both transformations of the material and sociocultural environment.

At a third level, the cross-cultural character of the production patterns associated with the manufacture of the Late-Punic amphorae seem to have reflected the modifications of the cultural frame of a city like *Gadir*, as another mediator of these changes. But it is in the interaction with other things– whether with production tools or architectonic elements – and humans that artifacts exerted their agencies as "reflection/actant". From this point of view, to analyze the dual contribution of the Late-Punic amphorae would confirm the link, often envisaged in Roman history but still debated, between the political and economic expansion of Rome on one hand, and the diffusion of the Roman culture on the other hand.

5. Conclusion

The lack of definition regarding the social nature of the objects has arose as an important issue with respect to the study of their interconnections with humans. I aimed to contribute to this discussion along this study by taking into consideration the insights granted by the Symmetrical Archaeology. Even if some objections have been raised regarding this theoretical approach, it grants a relevant framework to analyze, in a diachronic perspective, the mutual relation between artifacts —as a particular category of things— and the daily lives of human beings.

One of the main appreciation of this symmetric approach concerns the influence of distinct temporalities in the course of their mutual connections. However, we have mainly focused on the intrinsic changes related to the material elements. As we connect artifacts to our lives, we integrate them in the extrinsic temporalities that also drive us. At first, by producing artifacts we embed them with the socially promoted perceptions and conceptions related to the specific conditions in which we are entangled. They are linked to the features and human intentionality of this context. As such, artifacts are "reflection" of distinct sociocultural contexts, a nature that have to be closely connected with the "habitus", as a social force that embeds things and support collective's relations. Secondly, artifacts become actors once they are produced, as they exert the agency we have given them to other artifacts and humans. They are then "actant" of the sociocultural phenomena and contribute, by and through their relations, to their course.

I proposed to define artifacts as "reflection/actant". This nature implies that artifacts both receive and exert agencies, as they are connected with humans and other things. It should be

outlined that things can produce artifacts as they are "actants". But even if they can be independent actors, artifacts are regularly connected again to a human intentionality, as they are produced and reproduced. By applying this analytical framework to the study of the Late-Punic amphorae, we are driven to consider that both extrinsic and intrinsic changes have influence on the sociocultural phenomena. The appearance of new technical tools and measurement standards have influenced the "habitus" of production, which in turn have determined the modalities of the ceramic production and the features of amphorae themselves. We could analyze the relation between humans and things as an intertwined multi-scalar network of mediators, which exert agencies through their physical and social characteristics. However, the symbolic value the objects also has an influence on both extrinsic and intrinsic changes of things, as it is demonstrated by the work of T. Huguet in this same volume.

At several levels, the multi-scalar interactions between humans and things could correspond to a systemic state (Bertalanffy 2002, 93-96). It may then be better to identify the transformations of the ancient ceramic repertories as a homeostasis reaction —that is to say, an adaptation of the various components of a system to the new parameters and conditions of its functioning— (Le Roux 2007, 115-124; Hammond 2003, 63-77). In this perspective, we should consider the "reflection/actant" nature of artifacts as the essential condition of the social interaction, as they enable human collectives to cope with the "unruliness" of individuals and things, which are not "inert and not isolated" (Hodder 2012, 85-86) but indeed socially entangled.

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