

Research Article

# The Analysis of Socio-cultural Dynamics in Ethnographic Context Demonstrates with Archaeological Witnesses, in Central Africa and the Middle East, the Gap Between Form and Function

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## Abstract

The morpho-functional categorization of material objects used in archaeology reflects a determinism. Form determines the function of a material object. The function is systematically deduced from the form even before the former manifests itself. However, the usefulness of an object can clearly override this prognosis. The problem, then, is to verify the pre-established relationship between a predetermined activity and a predefined set of morphological characteristics required to give a material object or an archaeological assemblage its name. The latter two are defined on the basis of a set of stable characteristics. The question is how to proceed in order to highlight the dynamic nature of the object or archaeological assemblage beyond the stable state of the combination of elements by which an ethnographic object or archaeological assemblage is identified? And how can we ascertain whether the set of morphological characteristics identified with an object, or the group of remains required to form an assemblage, can be explained systematically by a static need for overproduction that is generally attributed to human societies, regardless of context. The hypothesis asserts that the utility of the material object transcends morpho-functional limits. Just as the different states of descriptive variables in archaeological assemblages are not necessarily the consequence of a uniform and continuous need for overproduction. The aim of this study is therefore to discuss the relationship established between socio-cultural dynamics and the properties of the causes generally given as stable in the explanation of this phenomenon. The results drawn from an analysis of qualitative data, collected in the written literature and in the field, will serve as a basis for discussing the conceptual model established in the explanation of observable dynamics, concerning the material productions of human societies. The functionalism-nominalism-interactionism triad serves as the basis for the theory proposed to render intelligible the precarious quality of the causes at the origin of the transformations recorded in material objects in ethnographic or archaeological contexts.

## Keywords

Morpho-Functional Categories, Socio-Cultural Dynamics, Ethnography, Archaeology, Bamoun, Fang

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## 1. Introduction

The decision to make technology a major descriptive variable in the study of human societies exposes us to the danger of materialistic determinism and a progressive conception of history [1]. Under these conditions, the usefulness of objects found in archaeological evidence is, a priori, unanimously accepted by most archaeologists. The names attributed to the remains of the material production of vanished societies largely denote economic production activities [21]. Thus, classification based on the form-function variable often fixes a function for an object in advance. This is based on a finite set of morphologically fixed characteristics. Such an approach conditions the function of an object on a predetermined group of characteristics prior to the manifestation of its concrete utility. This utility, however, can often prove to be unverified in reality. The rationalism underlying such an approach systematically explains each of the different states of material objects as an evolutionary stage in a uniform linear process. This process supposedly takes place, universally, in separate geographical locations over successive chronological periods. Archaeological assemblages are approached with the same logic. Yet the different states of a material object in an ethnographic situation, or of a group of variables in an archaeological context, could be the consequence of causes that are liable to mutate. These causes may or may not be linked to the search for over-production or counter-production, depending on how contexts change. This is because the needs experienced in human societies are not uniformly and continuously reduced to the pursuit of material abundance alone. Nevertheless, there is still a widespread view that explains the material production of prehistoric societies and their transformations in terms of a uniform and continuous quest for material efficiency. [2]. But ethnographic experience proves the opposite. "(...) it is also true that the men of archaic societies, and even those of prehistoric times, devoted less effort to the struggle for life than to their relationship with the supernatural" [3]. The problem, then, lies in verifying the equality of the relationship established between the name and the function of an ethnographic object or a group of archaeological remains determined, comparatively speaking, by a stable set of characteristics necessary for a name. The question is therefore how to highlight the dynamic nature of a material object in an ethnographic context, beyond its reification in a name? And how can a comparison be made with archaeological assemblages differentiated by names? The hypothesis asserts that the utility of an ethnographic object transcends the morpho-functional limits set by a name. In the same way, the difference between archaeological assemblages is not, on the whole, a response to a need for overproduction frozen in continuous uniformity. The explanatory causes of object form and transformation are likely to vary across different socio-cultural contexts and separate chronological periods, independently of uniformity in object morphology. The aim of this reflection is to discuss a relationship. This is

the relationship between socio-cultural dynamics and the properties of their causes. This is in consideration of the fixed and uniform character that is implicitly attributed to the properties responsible for the causes that are themselves at the origin of socio-cultural transformations.

## 2. Material and Method

The hypothesis put forward is tested by analyzing material collected and analyzed using a methodological approach necessary to establish the proof of the theory put forward.

### 2.1. Material

The data analyzed comes from ethnographic surveys carried out among populations divided between the Grassland in the west and the forest zone in Cameroon. These data are supplemented by the results of archaeological excavations contained in the written documentation.

### 2.2. Method

The sample studied includes objects associated with consumption techniques, according to the classification due to Andre Leroi-Gourhan [4]. These are the cooking pot, the dish and the plate, used respectively for cooking and eating food. Our work consists of identifying, in ethnographic fieldwork, the changes recorded for each of these three objects. For each category, we will compare the disappearance and permanence of the old with the new. The sample therefore includes old objects that have disappeared or been preserved, and objects that have been newly introduced in each of the two groups studied. The name, the ideology attached to the object, the material from which it was made and its function constitute the four variables on the basis of which permanence, disappearance and novelty are established respectively.

In an ethnographic context, several situations are then highlighted, concerning the state of the dynamics recorded respectively with regard to the name, the ideology, the material of manufacture and the function of the cooking pot among the Bamoun or the Fang. The diversity in the way in which the old and the new are combined for the same object, in each of the two groups, will help to illustrate the multifaceted nature of the socio-cultural dynamics as much as the precariousness of the original properties of the causes.

An analysis of the name and function of the dish and plate in the two socio-cultural groups will enable us to check whether the uses compared to the morpho-functional categories normally assigned to each object are consistent.

Such an approach will help to characterize, a posteriori, the needs underlying the dynamics observable in material evidence and to discuss the real nature of the functions attributed, in dynamic contexts, to objects with reference to a paradoxical

cally fixed relationship of equality between form and function.

Ethnographic evidence of the multifaceted nature of the dynamics, supplemented by archaeological facts, will serve as an argument to relativize the uniformity and continuity that inferences in archaeology generally attribute to the needs of societies at the root of the transformations recorded in archaeological evidence.

Proof that the limits of morpho-functional categories have been transgressed will be provided by the local use of the dish and plate.

In his classification, based on morphological variables, Leroi-Gourhan unequivocally establishes the difference between the dish and the plate. "(...) we will therefore consider the various objects in morphological groups: dish-plate, ladle, etc. (...). But it should be pointed out that in the first stage, the terms dish, bowl, bottle apply to containers that normally hold the portions of several guests; in the second stage, the terms ladle, basin apply to objects used to distribute food from the previous containers; in the third stage, the terms plate, bowl, cup, tumbler, mug apply to individual containers (...)"

The ultimate aim is to prove the failure of the goals anticipated in the norm of categories instituted on the basis of the supposedly stable form/function relationship. The results of this analysis are used to discuss, in the light of nominalism and interactionism, an evolutionary and functionalist conception of cultural processes. The latter systematically suggests that each of the different states in the dynamics of archaeological evidence is an evolutionary stage. The use of a theoretical framework that combines functionalism with nominalism and interactionism in a contradictory way will help to clarify the discussion [10, 12, 13, 19].

### 3. Results

They are materialized by a series of facts directly observed among the Fang, in the forest zone, and the Bamoun in the Grassland of Cameroon. As well as archaeological evidence from sites excavated in Central Africa and the Near East [5-8].

#### 3.1. Diversity in Socio-cultural Dynamics Between Bamoun and Fang

Observations on an ethnographic fieldwork split between the Fang, in the forest of southern Cameroon, and the Bamoun, in the Grassland of western Cameroon, reveal three different forms of dynamics. These are illustrated in the ways in which three categories of imported objects are used locally. These are two meal-serving containers: the dish and the plate, and a cooking vessel: the cast-iron pot. One of these is the cast-iron cooking pot. The models studied are all borrowed from the Western cultural universe.

##### 3.1.1. The Use of the Dish and Plate Among the Bamoun and Fang

The first scenario in the dynamics observed appears equally in the two communities. The presence of the dish and the plate can be seen in both communities.

According to a standard of living specific to Western culture, the dish and the plate belong to two separate categories of container. The dish refers to the container with a hollow base in which the whole meal is placed, from which individual portions are taken. The plate, on the other hand, is the flat-bottomed utensil used to hold the individual portions of the meal to be eaten by a guest. These are therefore two morpho-functional categories [4].

Both the Bamoun and the Fang live a communal life. Members of both communities usually gather around the same container to share a meal. So, regardless of the shape of the container and the function prescribed in the norm of another culture, the populations ignore pre-established morpho-functional limits to separate the dish from the plate.

These societies reduce to the same function two objects whose difference in form would have made it possible to induce purposes separating one from the other. Thus, contrary to the norm of morpho-functional categorization reported by Leroi-Gourhan in his classification of serving utensils, people in the Bamoun and Fang contexts use the dish and the plate indistinctly. This functional inter-substitution, which goes beyond Merton's concept of functional equivalent or substitute, is evidence of the transgression of the morpho-functional limits of an object as hypothesized in this study [9, 10].

The dynamics embodied in the relationship between the terracotta pot and the imported cast-iron pot reflect a completely different reality.

##### 3.1.2. The Earthenware Pot and the Imported Cast Iron Cooking Pot among the Bamoun

The second of the dynamics to be established was recorded exclusively among the Bamoun. In this case, a primary form and a new model of object coexisted in the same category. The earthenware vase has been preserved for generations alongside the cast-iron pot, which was introduced much more recently. The earthenware pot has now lost its function of cooking food to the imported cast-iron pot. But the pot still has a monopoly on the preparation of medicines to treat infertility among the Bamoun. This observation reflects the ambivalent and unstable nature of needs, of which the transformations of material witnesses are the consequences.

The relationship between the earthenware pot and the cast-iron kettle illustrates a different experience of dynamics among the Fang.

##### 3.1.3. The Terracotta Vase and the Imported Cast-Iron Pot Among the Fang

The Fang, in southern Cameroon, offer the third dynamic experience. Unlike the Bamoun, where the earthenware pot is

still used, the primary form of the cooking pot has completely disappeared among the Fang, in favor of the newly imported model. However, the imaginary background of a centuries-old tradition continues to govern the group's relationship to the object, independently of morpho-technological dynamics.

The Fang cooking pot was made from clay. This material is symbolically associated with women in the Fang cosmogony. In order to maintain order and harmony among the various elements that make up the universe, only women were qualified to handle the earth. It was therefore in these moments of contact that women found the opportunity to recharge their feminine energy, which was necessary for the full realization of women's potential in the Fang vision of the world [18].

As well as guaranteeing the woman's fertility and ability to give birth, contact with the clay was also the means by which the potter, in turn, communicated the energy needed for the pot to function effectively. In this way, the assembly or modelling of a vase by a woman was a prerequisite for the full success of the cooking operations reserved exclusively for women. The woman's exclusive participation in cooking gave the cooked food all the qualities required to sustain life through its absorption.

A centuries-old Fang tradition forbade males from coming into contact with the cooking pot. Such contact would transfer feminine energy to a male. This would disrupt the order of things in a universe that the Fang imaginary organizes into two distinct yet complementary poles. One is for women and the other for men.

The transition from clay to metal, in terms of the shape of the cooking pot, did not systematically have a retroactive effect on this ideological background, now anachronistically reincarnated in the imported cast-iron cooking pot. [18] The reality of this other experience among the Fang reinforces the proof of the complexity of the needs at the origin of the dynamics materialized in the material witnesses.

## 3.2. Materializing the Multiplicity of Forms of Dynamics in Archaeological Evidence and Ethnographic Facts

Specific patterns of socio-cultural dynamics can be observed in both archaeological evidence and ethnographic experience.

### 3.2.1. The Specificity of Socio-Cultural Dynamics in Archaeological Evidence from the Near East

In archaeology, Cauvin's work describes a situation in the Near East that reflects the instability of needs, of which the transformations observable in material evidence are the consequence. The same morpho-technological characteristics of material used late in the Neolithic period for agriculture correspond to architectural work carried out thousands of years earlier in the pre-Neolithic period [11].

"We cannot attribute to the Natufians the precedence of future choices, any more than we should be troubled by the

actual presence of all the "typically agricultural" tools that would later be used by Neolithic farmers: sickles, milling and grinding implements (...) cut flint adzes almost identical to what would be, two or three thousand years later, the hoes from the Iraqi site of Hassuna (...). These tools only became agricultural through adaptation or specialization of their initial functions (...), and the Neolithic did not have to invent any new tools to achieve their productive strategies: everything existed in the Natufian, and sometimes even before, i.e. with evolved hunter-gatherers. However, without extrapolating dangerously, we cannot detect any foreshadowing of a future techno-economic context" [11].

### 3.2.2. The Multiplicity of Forms in Socio-Cultural Dynamics Implies a Diversity of Causes

The ethnographic and archaeological contexts described reveal the same reality in different ways. This is the precarious nature of the needs responsible for the causes as well as the diversity manifested in the form of the consequences. Both the Bamoun and the Fang take the option of maintaining the collective sharing of meals in the same container. Centuries-old community practices, far from systematically conforming to the norms setting out the functions of a new material, work instead to produce atypical objects compared to a preestablished norm. The dilemma between the dish and the plate among the Bamoun or the Fang illustrates the atypical nature of both objects in both communities, compared with the Western norm.

Eating as a group indifferently from a dish or a plate, as observed among the Fang or the Bamoun, is proof that there is fundamentally no difference between the dish and the plate in the two groups. The two categories are indifferently assigned to the same function, beyond their morpho-functional differences. Such a reality is evocative.

The choice made by the Bamoun to limit the preparation of medicines to the earthenware pot and to reserve the cooking of food for the imported form, given the possibility of assigning both functions equally to one or the other, suggests the reasoned nature of the choice and consequently the complexity of the underlying need. The same applies to the Fang. This population chose to completely abandon the earthenware vase in favor of the imported cast iron vase. The Bamoun and Fang contexts are thus mutually distinct.

### 3.2.3. Analysis of dynamics Among the Bamoun and Fang

An analysis of the changes recorded in the field makes it possible to specify the dynamics according to the specific characteristics of each of the shapes observed.

#### (i). The Flat and Plate Dilemma Among the Bamoun and Fang

Despite the denotation necessary to mark the difference



between classification and typology, the two terms nevertheless seem to share a common essence. Both classification and typology are methodological activities whose aim is to form sets to which meaning is attributed. The prior definition of a standard is a prerequisite for both classification and typology. Both methodological approaches have a single aim. This is to define categories, in other words, to form unchanging essences or natures. The difference between the dish and the plate is a result of such elaborations [1, 12].

However, individual or collective socio-cultural practices help to call into question categories defined on the basis of abusively generalized norms.

The similarity that can be observed in the use of the dish and the plate among the Fang and the Bamoun seems to confirm the inadequacy of morpho-functional categories with reality. Habits inspired by a community tradition transform both the dish and the plate, attributing to each of the two objects a function beyond the classificatory norm to which both utensils owe their names and their respective functions.

The facts described among the Fang or the Bamoun demonstrate the limits of typology. Typology establishes the morphological characteristics of objects as stable realities, although their uses vary according to socio-cultural contexts. Recourse to nominalism makes it possible to relativize the stability of entities established as nature on the basis of typology or classification. In this respect, nominalist doctrine maintains "(...) that there is no essence, but what realists and conceptualists have called by that name is merely the set of characters connoted by a word" [12].

Ethnographic observations corroborate the nominalist thesis as much as they constitute a counter-argument to the typology used in archaeological inferences. Using economically denoted functions to designate the remains of material production is an abuse from a nominalist point of view. Such a choice stems from a realism of meaning. This deduces the reality of the essence from the name attributed to the thing [13].

These names, with their strong economic connotations, reflect the materialist and productionist nature of the paradigm established in prehistoric archaeology. As much as they reflect a tendency to make production the immutable cause of the dynamics of which the material evidence is the consequence. The concepts of scraper, scraper, drill, axe, hoe, etc. all refer to economic activities [21]. This choice, to name prehistoric objects whose usefulness we know almost nothing about, is questionable in the light of ethnographic situations. The image of the dish and the plate, among the Bamoun or the Fang, seems to be sufficient to distinguish between essentialists and nominalists.

The paradigm at issue here often tends to see the transformations observable in material witnesses in terms of the completion of an irrevocably evolutionary process that is independent of context.

## **(ii). The Bamoun Limit the Functions of the Substitution Cooking Pot**

In the logic of progress, underpinned by the interpretation of archaeological evidence of socio-cultural dynamics, the new connotes perfection, compared with the old. But ethnographic observations speak against modernism. Among the Bamoun, the earthenware pot outshines the cast-iron pot, despite its novelty. The primary form seems to be recognized as being more effective for preparing medicines. At the same time, the metal pot, which appeared later, was less sophisticated in terms of fulfilling the same function effectively.

This observation is evidence against the evolutionary view of socio-cultural dynamics. This view systematically sees the transformations of institutions or material objects as evolutionary stages in a process that is irrevocably gradual at every point. The metal cooking pot certainly has proven economic advantages. However, the fact that it has been adopted by the Bamoun does not mean that there are no limits to its use.

People use the new form of the cooking pot to prepare medicines. This predilection proves the unstable nature of the needs at the root of the socio-cultural dynamics revealed by material production. Needs of a different order could often constitute the explanatory cause of the transformations materialized through the different states of objects in ethnographic or archaeological situations, independently of their appearance in a continuous chronology.

Among the Fang, the dynamics observed fall into a distinct category of need, compared to the experience of the Bamoun.

## **(iii). The Fang Freezes the New in the Old: The Cast-Iron Marmite Is Reincarnated in the Terracotta Vase**

The Fang have opted to preserve an age-old imagination. They abandoned the earthenware pot in favour of the imported metal pot. However, the cultural imagery inherited from a distant past freezes the new by anachronism. For these populations, the new shape of the cooking pot does not necessarily lead to changes in habits. The ideology applied to fossil material, contemporary with chronological periods buried in the stratigraphy, is extended through new morpho-technological types.

Such a model of dynamics reduced to the archaeological context would bias the inferences made by archaeologists. The appearance of a new technology, characterized by a new type of material, is still today a decisive clue for the indiscriminate delimitation of both chronological and cultural periods. However, the ethnographic reality experienced by the Fang proves that age-old mental representations can transcend the limits set in advance by categories. The limits between chronological categories are no exception.

The interpretation of the marked difference between states of one or a group of material objects encounters the problem of characterizing the essence of the causes at the origin of dynamics. The discussion argues against a fixed essence of

causes and in favour of the precariousness of the properties of these causes.

## 4. Discussion

It criticizes the determinism implicit in typology. It is one of the methodological tools used in the study of material productions. The combination of interactionism, functionalism and nominalism will serve as a theoretical framework for a critique of the essentialist conception underlying typology, and the dual evolutionary and functionalist vision of the dynamics observable in material evidence [1].

### 4.1. The Diversity in the Models of Dynamics Bears Witness to the Precariousness of the Quality of The Causes

The results drawn from ethnographic and archaeological data present the dynamics in three different forms observable in material production among the Fang and the Bamoun. Such diversity can be seen in the particularities of the fate reserved for two material objects: the dish and the plate. These are two morphologically predetermined functional categories. The same diversity can be seen in the dynamics involving the earthen pot and the cast-iron kettle in the two communities. The two objects correspond to two separate morpho- technological categories. The variability observed in the dynamics of these four objects in two specific socio-cultural contexts then gives rise to discussion. The debate focuses on the nature of the property of the causes behind the changes in the material evidence present at successive chronological periods.

In the first situation, common to both groups, the plate and the dish are used interchangeably. The boundaries between the two morpho-functional categories are ignored. The earthenware pot disappeared completely among the Fang. The utility of the same utensil is reduced to a single function among the Bamoun. The presence of this object nevertheless declined remarkably. The undifferentiated use of the dish and the plate unites the two contexts. However, the dynamics associated with the clay vase and the earthenware pot separate the two societies. Thus, for identical morpho-functional or morpho-technological categories, the meaning of the dynamics can bring together as well as separate geographically delimited socio-cultural contexts. The relationship between the terracotta vase and the cast- iron pot is illustrated differently in the dynamics of the Bamoun and Fang contexts.

The archaeological data collected in the literature shows a completely different set of dynamics in the material evidence. The same tools used for agriculture in the Neolithic were also used for architectural work in the Pre-Neolithic. Two isolated fields of activity.

The difference specifying each of the forms of the dynamics presented could constitute proof of the instability of the property of the explanatory causes of the transformations observable in the material witnesses. The indistinct use of the

dish and the plate is an example of how the material object does not have a definitively constituted meaning in itself. Independently of the stability of form, the meanings attributed to an object vary according to the dynamics of situations [19]. Material objects are therefore perpetually things in the process of becoming, beyond the apparent stability of their form. In this respect, we might well compare the material object to a reality devoid of any essence. Paradoxically, what is invariable about them is the unlimited variability of their function in different situations.

### 4.2. The Determinisms Underlying the Archaeological Inferences in Question

Inferences in archaeology are based on a dual functionalist and evolutionary determinism [1-22]. Explanations systematically condition the appearance of the material object and the difference between its different states, across successive chronological periods or distinct geographical environments, on the intentional satisfaction of a predetermined need that is supposedly stable and irreversible [14].

Economic production, rather than the cultural imagination, is often positioned, alternatively, as an explanatory variable for the form and transformations of material objects. The concept of adaptation is generally used to rationalize the form and transformations of material equipment in relation to the physical, biological or social conditions of an environment [14].

This functionalist conception is coupled with an evolutionist vision insofar as the difference between the dynamic states of material witnesses is interpreted in terms of stages in a continuous uniform evolutionary process. Such a position thus assumes the thesis in favour of the fixity of the properties of the causes of socio-cultural dynamics.

The variety of material control dynamics observed in this study reflects two majors facts.

Firstly, there is the uniqueness of the causes underlying socio-cultural dynamics. There is no comparison between individual chronological and cultural contexts. The second observation is the limits of a theoretical approach that is predetermined by a single doctrine. This is the case for the functionalism implicit in a large number of inferences in archaeology concerning socio-cultural dynamics. The facts highlighted in this study suggest the need for a transversal approach to the explanation of cultural dynamics in archaeology. The cross disciplinary approach required consists of using theoretical tools in a dialectical and complementary way to decipher the meaning underlying the dynamics of the different states of material witnesses present in archaeological deposits across chronological periods that are certainly continuous but in socio-cultural contexts that are not necessarily comparable [15-17].

Each of the three terms of the theoretical framework formed by functionalism, nominalism and interactionism thus contributes, in a dialectical manner, to making intelligible the

complexity of the phenomenon of the dynamics observable in material witnesses in both ethnographic and archaeological contexts.

### 4.3. The Multiplicity of Forms in Socio-Cultural Dynamics as Measured by Material Evidence

The introduction of a new type of material does not retroact on the communitarian ethic of a secularly established tradition to modify culturally anchored uses. On the contrary, it locally transforms the function conventionally assigned to objects in the norm of an exogenous culture. The use of the dish or plate, among both the Bamoun and the Fang, bears witness to this. In the same way, cultural perceptions inherited from a distant past determine, through anachronism, the use of new material. The Fang, for example, transpose age-old cultural representations previously associated with the earthenware pot to the imported cooking pot, regardless of the disappearance of this ancient form.

The two examples cited highlight the decisive role of culture in explaining the use to which material objects are put, according to the specific features of each context, and thus make it possible to relativise functionalism's conception of change. Functionalism envisages transformations in terms of uniform continuity.

Objects of a new morpho-technological type in a given morpho-functional category do not systematically extend the function of pre-existing forms. Previous functions may continue to be performed exclusively by older morpho-technological types, to the detriment of new types. The cast iron pot, introduced late to the Bamoun, did not entirely replace the earthenware vase. The Bamoun reserved the exclusive right to prepare medicines in earthenware pots. The function of cooking medicines disappears while the earthenware pot lasts among the Bamoun. This example therefore establishes a discontinuity in function between a new form and its predecessor. The facts thus contradict the dominant functionalist conception of continuity in the dynamics of the material evidence of human societies.

Material objects are inevitably associated with purposes. However, the usefulness of these objects cannot be made conditional on ends fixed in advance in a morpho-functional category. The cultural norm of a pre-established organization cannot determine the utility of a material object before the function is manifested after the fact. The interactionist's position on this point is therefore of interest [19].

In accordance with the interactionist point of view, the meaning of a thing as well as the function of a material object cannot be conditioned by a prior essence established before the manifestation of their utility [19].

However, the terminology used in archaeology gives the objects an economic function. This is reflected in the choice of names. To a large extent, they denote an economic production activity.

### 4.4. The Names Given to Objects in Archeology Terminology Reveal a Bias Towards Economics

The names given to archaeological objects for which we know virtually nothing about the corresponding societies nevertheless refer systematically to the economy. This inclines us to think of economic overproduction as a substantial aspiration of socio-cultural organizations. Such an inclination suggests the search for economic abundance as the sole explanatory cause of the transformation of the material evidence represented in archaeological deposits. Names with economic connotations, attributed to archaeological remains, have ended up transforming into facts debatable convictions specific to a materialist conception of the history of human societies [21].

Taking the side of nominalism, the only universals are the names that language can be used to designate things [13]. In other words, different realities can often be reduced to the same name. But the realism of meaning often relies on the general nature of meaning to substitute a general concept for universally specific realities. Partial groups of remains found in Central Africa are given the name Neolithic simply because of realism of meaning [5-8]. The mere fact that the Neolithic is a name, with a general meaning, does not necessarily imply an identity between the causes at the origin of the dynamics referred to by the same name elsewhere. It would therefore appear to be an abuse to reduce to the same name consequences for which there is no proof of the identical nature of the causes.

The economic criterion, the domestication of plants and animals, is the condition for establishing the Neolithic. Paradoxically, the remains found in the deposits of archaeological sites excavated in Central Africa stand out for their lack of reliable evidence of domestication. The presence of ceramics and stone polishing does not necessarily imply their usefulness in these two economic activities. Names in the agricultural tool terminology of contemporary societies attributed to polished stone objects are therefore questionable [20, 21].

The inferences leading to such attributions are essentialist in nature. They condition the meaning or function of the object on a set of stable characteristics that pre-exist the manifestation of the object's actual utility. The actual manifestation of an object's utility should be the condition for determining its function, not the other way round. Given that the end justifies the means, it seems more appropriate to name material objects, a posteriori, on the basis of the utility that each one manifests, in a specific way in a specific context, independently of names of a general nature due to a previously established morpho-functional categorization.

The practice of applying names with a general meaning often forces us, when making inferences, to use predefined concepts to justify ends that are paradoxically still inexperienced. Such an approach, based on pretensions, is open to bias. The opposite approach could bring us closer to the reality of

societies. At the same time, such an approach would limit the risks of bias inherent in the realism of meaning. The suggested method, then, is to start from manifest utility and justify the name given to a material object on the basis of the meaning manifested in situ.

The names given to the dish, the plate and the imported cast-iron pot illustrate, among the Bamoun and the Fang, instances of the contextualisation of borrowed objects. They also illustrate the risk of bias involved in explaining function on the basis of form.

The dish and the plate are mutually reduced to an identical function. [eswa/ eso], among the Fang, designates the container for eating a meal, regardless of the profile of its base. The same applies to the Bamoun [tâ ã]. In spite of the names found, in each of the two communities, to separate much later the dish from the plate. This fact remains. The difference between the two containers remains limited to the shape that characterizes the two objects.

The terms [pâsha tã ã], a flat-bottomed container in which to eat, and [nja^sa eswa/ nja: 3s3 eso], translate the same thing in both [shü pamom] and Fang. For both communities, these two names simply refer to the flat-bottomed container in which the food is eaten. The profile of the bottom of the container does not therefore determine how the object is used here and there. The distinction between the dish and the plate is reduced to form alone, without extrapolation. Form and function are thus dissociated, in both contexts.

The imported cast-iron pot inherited the name [viak] formerly associated with the earthenware vase that had disappeared in the Fang context. Nevertheless, the name continues to be applied to the substitute pot, despite the replacement of the manufacturing material.

[viak] refers to clay. This is the material used in the past to make terracotta pots. The situation with the Bamoun, concerning the same object, seems incomparable in the same respect.

The term [mã ã nsi ã] refers to the terracotta form of the cooking vessel. Whereas [mã ã], for short, refers to the cast-iron substitution pot. The specificity of the dynamics of the Fang and Bamoun contexts thus reflects the dynamic reality of the explanatory causes of socio-cultural change and the incomparable nature of the two contexts.

#### **4.5. Precariousness in the Properties of Causes Modifies the Shape of the Trajectory of the Movement of Socio-Cultural Dynamics**

The idea of precariousness in the properties of a cause makes it possible to discuss the continuist and uniformist model of the conception of dynamics in disappeared societies. The incomparable aspect of contexts shows the limits of any theoretical approach marked by a propensity to systematically compare the different states of socio-cultural phenomena in terms of evolutionary stages. Generally speaking, the explanation of the dynamics recorded in material evidence diverges

between materialism and its opposite, with theoretical postures situated somewhere in between.

However, both doctrines ultimately lead to the same explanatory model. Irrespective of chapels, the explanation of dynamics in archaeology conceives them as systematically linear uniform processes. Such a compromise can be understood as the consequence of a widely shared explanation. In this explanation, the precarious properties of a cause are reified into fixed, continuously uniform realities, pre-existing society separately [19]. Analysis of the facts emerging from ethnographic observations and archaeological data suggests doubts about the isolated existence of causes and their precedence over society. The causes at the origin of the dynamics observable in material evidence do not pre-exist society in a definitively completed form.

The contingent existence of these constantly changing causes is explained by the indeterminate nature of the form and direction of the movement of socio-cultural changes. These contingent and ephemeral causes produce effects over continuous chronological periods that cannot be compared for the sole purpose of establishing a continuity fixed in uniformity. The same effects could just as easily reflect a non-uniform continuity between transformations occurring over successive chronological periods. The continuity of the states of a socio-cultural process can therefore only be verified on a chronological basis.

A reading of the transformations on the basis of the socio-cultural variable proves the contrary and thus refutes any extrapolation of the form of the movement. On the contrary, the multiplicity observed in the forms of socio-cultural dynamics extrapolates ethnographic facts. The individuality of the causes, as well as the uniqueness of the consequences induced, in an ethnographic context, are also materialized in the vestiges accumulated over continuous chronological periods. In terms of cultural processes, therefore, this implies proof of continuous movement, although without demonstrating the uniformity of the movement or the stability of its direction. The shape of the trajectory taken by the movement of a cultural process remains undetermined before its manifestation. Beyond the uniform continuity of chronological periods, the movement of dynamics in human societies has a continuous form that can vary just as much as the direction of the process.

Uniformity in the morphology of objects does not imply universality in causes.

Objects whose form belongs to the same morpho-functional category can serve incomparable purposes in different socio-cultural contexts and chronological periods.

Both the dish and the plate, despite their universally uniform morphological appearance, are used differently by the Bamoun and the Fang compared to the Western context. The two containers, with hollow or flat bottoms respectively, are taken indiscriminately as plates [4]. The extrapolation of uniformity, observed in the morphology, is therefore not verified in these two cases. Such an experiment reflects the



particularity of the explanatory causes of the function of an object or its transformations. The explanation of the form of an object or group of objects, and of its dynamics, cannot therefore be based on a cause with static properties. Both the cause and the properties of the dynamics it generates are liable to change, giving a continuous but not necessarily uniform form to the trajectory of a cultural process.

The non-universal nature of the causes no doubt explains the divergence observed between the Natufian and Neolithic periods. The two periods share objects of comparable morphology. However, the same artefacts were used in architectural work during the first period, before being converted to agriculture in the Neolithic [11]. The explanatory reasons for the morphology of objects common to the Natufian and Neolithic periods therefore reveal the different nature of their variations. Such an experience of diversity in the properties of a cause suggests a movement of non-uniform continuous form in cultural processes.

## 5. Conclusion

The problem at the origin of this reflection lay in the approach to verifying the equality of the relationship between the name and the function of an ethnographic object or an archaeological assemblage. The question was how to establish the dynamic nature of a material object in an ethnographic context, beyond its reification in a stable name? And how could comparisons be made with archaeological assemblages? The hypothesis put forward was that the usefulness of an ethnographic object transcends the morpho-functional limits set in a name. It was also argued that the difference between archaeological assemblages was not, on the whole, a response to a need for overproduction fixed in a uniform continuity. This is because the needs of human societies are likely to vary, regardless of the irreversible nature of chronologically delimited periods. An analysis of qualitative data from ethnographic observations of the Bamoun and Fang peoples, as well as archaeological data drawn from written sources, has highlighted the multifaceted nature of socio-cultural dynamics and implicitly the precarious nature of causes, both in ethnographic and archaeological contexts. The undifferentiated use of two separate morpho-functional types, the dish and the plate, helped to prove, among the Bamoun or the Fang, the dynamic nature of a material object in an ethnographic situation, independently of the stable state of its name. The conversion into an agricultural tool, in the Neolithic period, of equipment that had been used for architectural work in the preceding period illustrates a comparable reality, as far as archaeological assemblages are concerned. Taken together, these facts form the backdrop against which we can discuss the uniform and fixed nature implicitly attributed to causes in the explanation of socio-cultural dynamics. These same observations make it possible to put into perspective the increasing and continuous levels of production stages in-

ferred from morpho-technological differences between groups of remains attributed to continuous chronological periods.

## Conflicts of Interest

The author declares no conflicts of interest.

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