



## Ceramics of yesterday and today of Kanoroba (northern Ivory Coast)

*Ceramiques d'hier et d'aujourd'hui de Kanoroba (nord de la Côte d'Ivoire)*

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**Abstract:** The study of ceramics is essential for archaeologists seeking information on the origins of humanity over the long term. Appearing in the Neolithic period, ceramics have long been used for the domestic and religious needs of populations. They were a means of transporting, preserving, and cooking solid and liquid foods. They were also used for rituals. In the northern Ivorian region of our study, we observe an evolution of this technology. This study was initiated to identify the evolution of manufacturing techniques and the shapes of the unearthed containers. To achieve this, the work relied on an ethnoarchaeological study to identify the breaks and continuities in Kanoroba ceramic production. Surveys of potters and surveys in the ancient pottery village of Kanoroba were prioritized. The study revealed a shift in shapes and decorations due to current needs.

**Keywords:** Ceramics, Pottery, Typology, Function, Kanoroba.

**Résumé :** L'étude de la céramique est indispensable pour les archéologues qui souhaitent avoir des informations sur les origines de l'humanité dans la longue durée. Apparue au néolithique, la céramique a longtemps été utilisée pour les besoins domestiques et cultuels des populations. Elle a été un moyen de transport, de conservation et de cuisson des aliments solides et liquides. Aussi, a-t-elle servi aux rituels. Pour la zone nord ivoirienne qui retient notre attention, l'on observe une évolution de cette technologie. Cette étude a été à juste titre initiée pour cerner l'évolution des techniques de fabrication et des formes des récipients mis au jour.

Le travail pour ce faire, s'est appuyé sur une étude ethnoarchéologique pour voir les ruptures et les permanences dans la production céramique de Kanoroba. Des enquêtes auprès des potières et des sondages dans l'ancien village des potières de Kanoroba, ont été privilégiés. L'étude a permis d'observer une mutation due aux besoins actuelles aux niveaux des formes et des décors.

**Mots-clé:** Céramique, Potière, Typologie, Fonction, Kanoroba.

### Introduction

The invention of ceramics has revolutionized the lives of people since the Neolithic until today. In Ivory Coast, it is still practiced and used by some populations, especially those of the Kanoroba Sub-Prefecture, located in the north of the country. This administrative district, established by Decree No. 2005-315 of 6 October 2005, gathers 20 villages. It is located in the Poro Region and is attached to the Korhogo Department (See Fig. 1). The village of Kanoroba became sub-prefecture, was created by a hunter. The name of the locality derives from the jeers of the Malinké populations who crossed it by going to Sirasso, a village of the region. These treated the village of unhealthy hence the name "Kanoro"<sup>1</sup>. When the village became bigger they called it Kanoroba, which means "big unhealthy village" SILUÉ Kparatchogo (2016).

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<sup>1</sup> During our interview with SILUÉ Kparatchogo, Chief of the Sirasso Canton, we were told that the village of Kanoroba, which is part of the Sirasso Canton, was one of the dirtiest villages in the region. Outsiders felt there was a lot of waste in the village, and the villagers didn't bother to clean it up. This is how it was dubbed a "dirty village."

As part of this study focused on sub-ceramic and archaeological ceramics, we asked about breaks and permanence. It is thus necessary to define the evolution of the shapes of the containers brought to light. We first present the adopted methodology, which is based on ethnoarchaeology. Second, the data collected focuses on two points: the study of current and archaeological ceramics. These results open up a discussion.

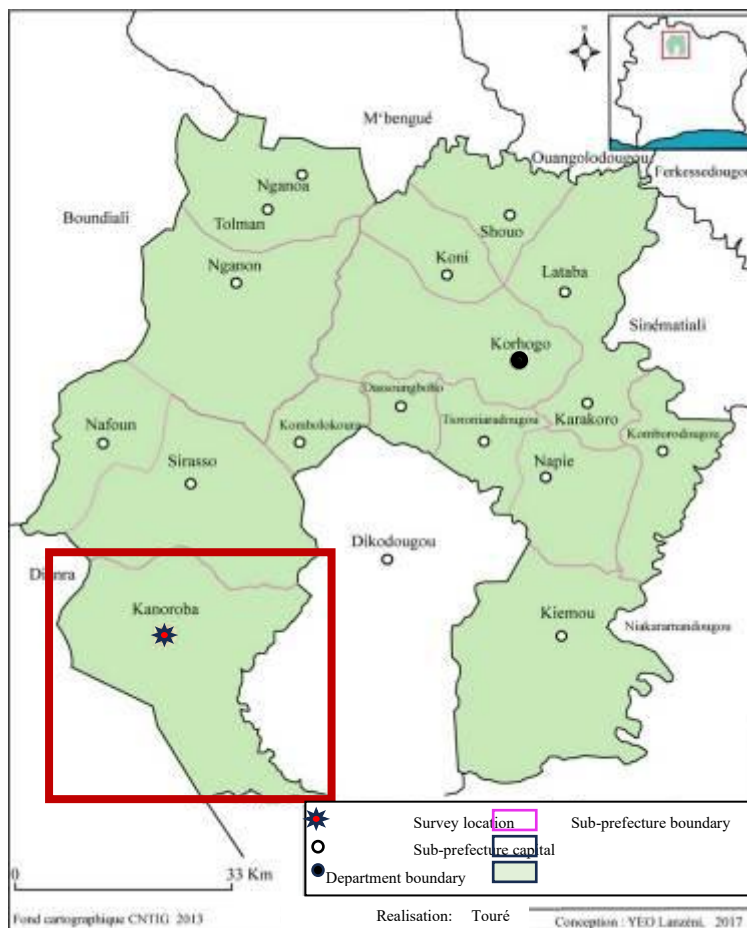


Fig. 1. Presentation of the Research Zone (source: CNTIG 2013).

## 1. Methodology

The study area has a relief characterized by several granitic plateaus. Its soil cover is characterized by the very large predominance of ferrallitic soils (Beaudou & Sayol, 1980, p.8). Geological formations are Proterozoic in age and all rocks belong to the Eburnian complex (Beaudou & Sayol, p.12). Concurrent and discordant ebony granitoids. The alteration of these formations gives lateritic sites red ocher (Laboratory of Remote Sensing and Spatial Analysis Applied to Hydrogeology, 2009, p.37). These are used in pottery. The saturation levels are very high and the clay fraction consists of either a montmorillonite-kaolinite or montmorillonite mixture alone (AG Beaudou, R Sayol, p. 8), which is a real asset for ceramic production. The vegetation is partly dense. In this zone lives a population settled for several centuries (Person, 1962, p.474). This population mainly practices agriculture and ceramic crafts. The study is an ethnoarchaeological study that consists of using ethnographic data to understand archaeological data (Gallay, 1980, p.34).

4., To do this, it was necessary to conduct a survey of potters still active, then to collect archaeological remains for study. This will allow us to understand the evolution of the ceramic technique and understand the history of the population that produced it.

To explain this ancestral technique, we consulted written and oral sources. Books in this context have allowed us to better understand the history of Senoufo and the context in which they live. Also, we conducted an ethnographic survey to better observe the different stages of ceramic production (Avshalom & Uzy, 2011, p. 2645). Following the ethnographic study, we carried out topographic surveys and excavations which revealed a large amount of ceramic lessons which were studied in the laboratory.

The prospecting, set of "(...) methods of recognition that aim to identify the presence of archaeological remains and to collect archaeological data (A. Lehöerff, 2002, p.45)", is an indispensable step for the archaeologist wishing to do surveys. It is to this extent that a survey was carried out in order to list the deserted villages, precisely those which were inhabited by potters. The surveys were conducted to see the evolution of ceramic production. We started with a squaring on a space of 20 m<sup>2</sup> distributed in squares of 1m / 1m. The abscissa (base of the grid) is numbered by the letters from A to D, and the ordinate (North-South axis) by numbers from 1 to 5. A topographical profile has been drawn up to show the slope of the site.

All this methodology allowed us to have a series of information.

## 2. Results

### 2.1. Current containers

Artisanal ceramics have been studied according to the terminology of Balfet et al (1983) and Cauliez et al (2002). We chose to adopt their classifications that better fit the entire identified containers.

#### 2.1.1. The morphology

Two sets of containers, namely open containers (maximum diameter equal to the opening) (see Fig. 1) and closed (diameter greater than the diameter at the opening) (see Fig. 2) serve as the basis for this classification.

##### ➤ The open containers

The open containers of Korhogo are studied taking into account the parts that are the lip, the belly and the bottom. The neck, base and foot are associated when they exist (see Fig. 1).

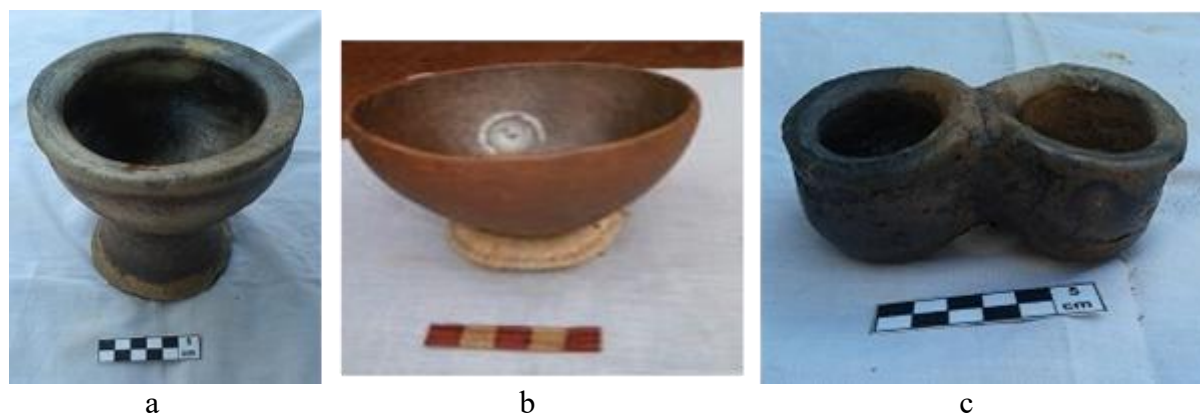


Figure 1. Current open containers (Source: Touré G. A., 2016)

The container **a** has for (HT 13cm / DM 15cm / OD 15cm / DB 10cm / EB 0.3cm). It is called *Nandjogo* and is used to preserve the sauce. The container **b** has (HT 16cm / DM 36cm / DO 36cm /). It is called *Talapele* and is used for bathing corpses. The container **c** has two different openings. Therefore, we have (HT 4cm / DM 4.8 / 4.9cm / OD 4.8 / 4.9cm).

➤ The closed containers

With regard to the closed containers, they are the most widespread in the locality. However, these forms are not diversified. In this case, the neck is considered as part of the container. The container **a** has for (HT 14 cm / DM 17 cm / OD 13 cm / HC 3 cm / DB 0 cm). He is called *Gbétihen*. It is used to cook sauces. Receptacle **b** has (HT 33 cm / DM 14 cm / OD 10 cm / HC 5 cm / DB 0 cm). He is called *Tchoworigui*. It serves to preserve the drink (Tchapalo). container has for (HT 12cm / DM 12cm / OD 10cm / HC 2cm / DB 0cm). He is called *Tchondole*. It is used to prepare or preserve drugs.

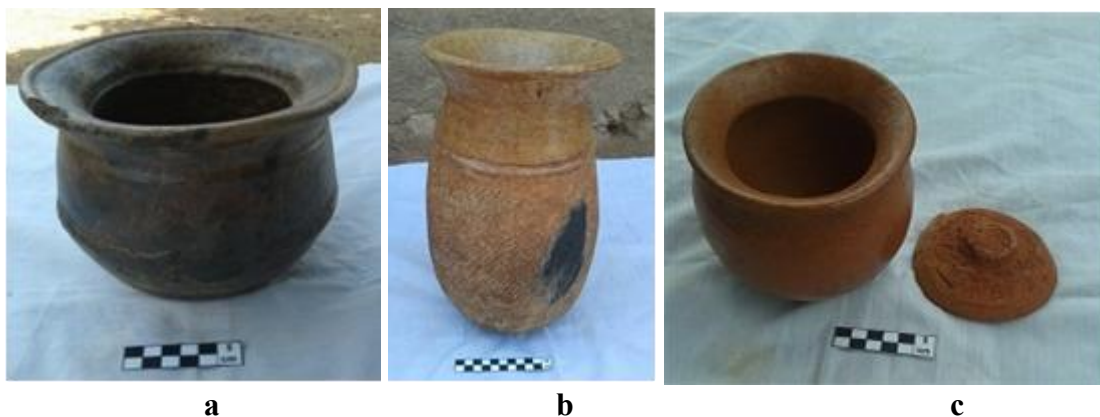


Figure 2. Current closed containers (Source: Touré G. A., 2016)

In conclusion, the morphological study of the present containers shows that there is a monotony and an invariability of the forms of containers. What about their duties?

### 2.1.2. The function

The function of the vessels was generally deduced from the morphological study (Vieugue et al., 2008, pp.99-113). It is more generally based on the concept of functional constraints, which would encourage man to design a pottery whose shape, dimensions, volume, but also the mechanical and thermal properties are adapted to its primary function (Vieugue et al., 2008, pp.99-113). However, it should be noted that the dimensions of the vases are made according to the roles that will be assigned to them later. We approach the identification of the functions of the ceramics according to their domestic and decorative uses.

➤ Domestic ceramics

Domestic ceramics are all forms of ceramics used in the daily lives of the people. Some are used for the preservation of food, while others are used for the preparation of these foods or decoctions (see Fig. 3).



Figure 3. Domestic containers (Source: Touré G. A., 2016)

The container **a** is called *Worigui* or *Choworigui*. It serves to preserve the drink (Tchapalo). container **b** is called *Gbétihen* and it is used to cook sauces. The recipient is called Tolorokodolô. It is used to prepare the concoctions. Its particularity is that it is made to order.

### ➤ Decorative ceramics

Pottery for decorative use is less used by Senoufo. They are mostly sold to tourists. These ceramics are often flower pots or jewelry boxes (see Fig. 4).



Figure 4. Decorative ceramics (Source: Touré G. A., 2016)

The container has for (HT 31 cm / DM 34.5 cm / OD 7.4 cm / HC 8 cm / DB 9 cm / EB 0.5 cm). It is a pot that is used to preserve artificial flowers. Receptacle **b** has (HT 18 cm / DM 26 cm / OD 26 cm / HC 0 cm / DB 10 cm). It is called *Pèhe*. It is used to preserve natural flowers. The container **c** is (HT 6 cm / DM 12 cm / OD 6 cm / HC 0 cm / DB 6.2 cm). It is called *Fiaho*. It is used to keep the jewelry and decorate the table. We can retain from this part a diversity of function of the ceramics of the studied space.

### 2.1.3. The decorations

The decorations are most often distinctive signs allowing the potters to recognize their pots. Indeed, they are distinct between impressions, incisions, excisions and additions of pasta (see Fig. 5). Also, it is important to emphasize that the diversity of decorations identified on ceramics of the region, involves the use of various tools. With each type of decoration, corresponds a well defined tool.



Figure 5. the different types of decorations (Source: Touré G. A., 2016)

The container has for technique of decoration, the impression and for motive Chevrons on external Panse, made with alternating twisted braided fiber.

The container b has an incision for decorating technique which gives patterns of hollow lines forming a circle on an outer bead made from punch.

The container c has for technique of decoration, the additions of paste in the form of Nipples on external Panse made with the finger.

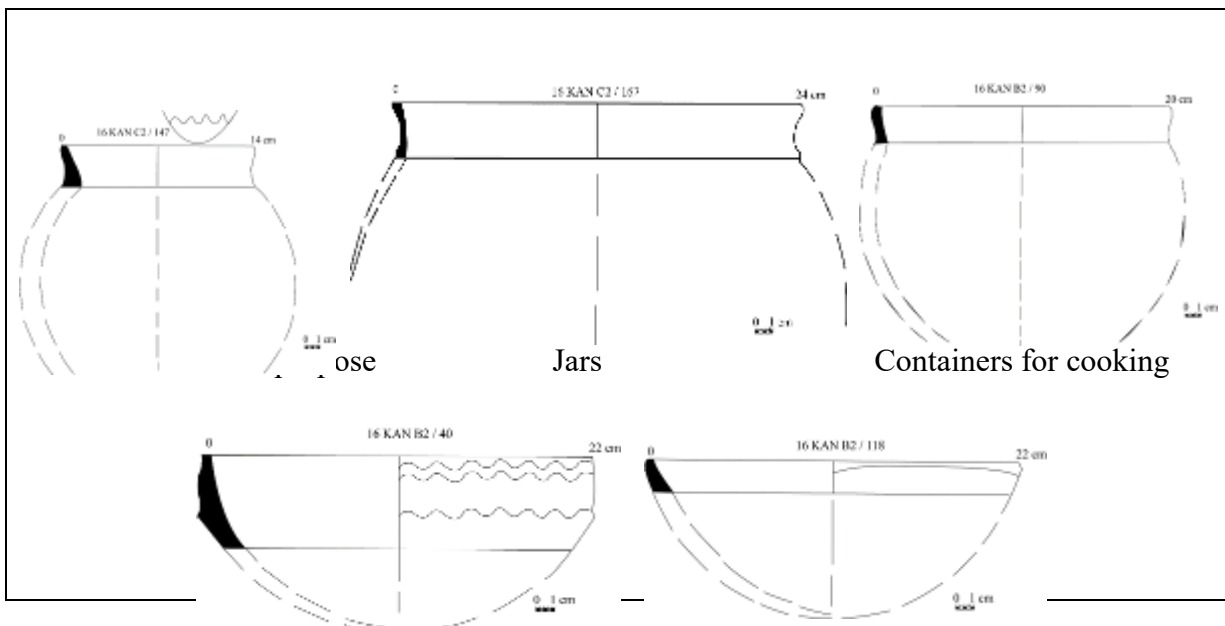
From what precedes, it seems to us important now to question us on the evolution of the ceramic production of the region since the installation of the potters to today. This need was met by prospecting and excavations which provided remains allowing us to understand the past use of ceramics.

## 2.2. Archaeological ceramics

The prospecting allowed to register a (N : 09°06.393, W : 006°07.393, Altitude : 377m). The site is located west of the village and the current district of the potters' caste. It is distant 50 m from the latter. It was abandoned about twenty years ago and is still in a good state of conservation. On this site, there is a cooking area covered with ash and shards of ceramics. The surface of the part is strewn with debris of bricks, slags of iron and shards of ceramics. The site was surveyed, which was carried out in the southern part. village formerly inhabited by potters.

### 2.2.1. Morphofunctional study

We rely on 82/187 shards of ceramics mainly neck, or 42%.



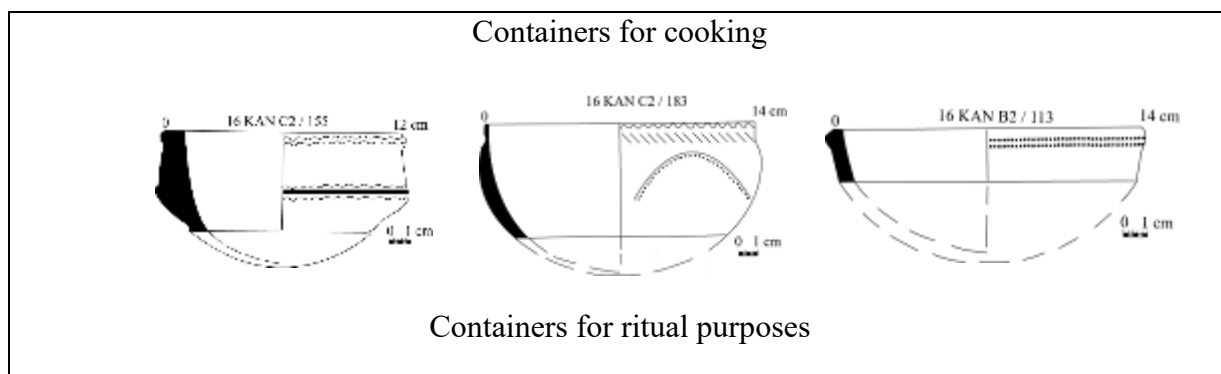


Figure 6. Archeological containers (Source: Touré G. A.).

Closed type containers have a single morphology. They are all necked containers and have a spherical belly. They contain two (2) functions that are the jars, the containers for the cooking of food and others and the preparation of the decoctions and for the cults which are in majority. These are the most numerous.

Most of the open containers are spherical in shape. This category of containers has two types of functions. The containers for the service of solid meals (plates) are of ovoid forms and present for the most part hulls, and those intended for rites are of smaller sizes and are decorated. However, we have different shapes that may have the same function and may or may not have the same name, or identical shapes may have different functions and may or may not have the same name.

### 2.2.2. Decorative study

A study protocol of the sets was put in place, taking into account the different parameters (technique, preparation of the support, identification of the tool, gesture used by the potter, chronology of the layouts) (Salanova, June 2005, p.17). The sets present several techniques that allow to obtain several patterns according to the gestures used by the potter.

Drawing on the decorating techniques of potters still in business, we have been able to identify impressions, incisions, excisions and additions of pasta (see Fig. 7).

Figures	Techniques / actions	Patterns	Tools
<b>Impressions</b>			
	Swivel printing	Sinuuous lines	Alternate twisted braided fiber
	Rolled printing	The broken lines in Zig-zag	comb
	Simple Impression	Nested chevrons	Sponge
	Streak	oblique	Engraved Cylinder in rectangle or corn cob
	Simple Impression	Square grid	
	Rolled printing	Rectangular grid	Pinion
	Simple Impression	Dotted rounded shapes	
	Dotted printing		
<b>Incisions</b>			
		Concave small curved lines	Punch
		Curved convex lines	Punch
<b>Pasta additions</b>			
		cord	Fingers

**Figure 7.** The types of decorations and patterns (Source: Touré G. A.).  
We note that the printing technique is the most common in this region.

## 2. Discussion

Archaeologists have always appealed, implicitly or explicitly, to ethnological data to solve the problems of interpretation posed by the study of archaeological data (Gallay, 1980, p.34). Thus, the preceding chapters lead us to note that the ceramics production of the department of Korhogo has changed over time. We bring them out through the ethnoarchaeological study carried out.

### 2.1. Changes in the technical aspects of the operating chain

The technical aspects of the production chain of ceramic production refer to the different stages of manufacture of a container. We show here the elements of rupture and / or continuity of this process. The shaping which is the mainstay of the operating chain is thus analyzed. The observation of the macro-traces on the shards makes it possible to advance on the techniques of shaping.



The study of macro-traces allows "to recognize gestures, allowing to recognize the different shaping operations, which were subsequently associated with the shaping techniques identified." (Keïta, 2011, p.56). It should be noted that the shaping technique used in the past, and still valid, is convex molding (see Fig. 8).



**Figure 8.** Traces marking the shaping technique (Source: Touré G. A., 2016)

On the inner walls and at the level of the middle part of the container, the presence of a line makes it possible to justify the addition of the first pencil and to justify the molding in convex form. There is an association of modeling, molding and coiling (see Fig. 9).



**Figure 9.** Stages of shaping a pot (Source: Touré G. A., 2016)

As for the degreaser, the mineralogical study of the sherds from the holes revealed that quartz, gravel, mica, sand and chamotte were used. Today, only the chamotte is used. The comparison between archaeological containers and actual containers reveals other characteristics.

The non-use of abandoned degreaser is due to the fact that these elements are difficult to obtain.

### 3.2. Typology, functions and scenery

The study of the typology and the function of ceramic vessels is very important in an ethnoarchaeological study because it allows us to interpret the reconstitution of archaeological containers.

### 3.2.1. Morphological comparison

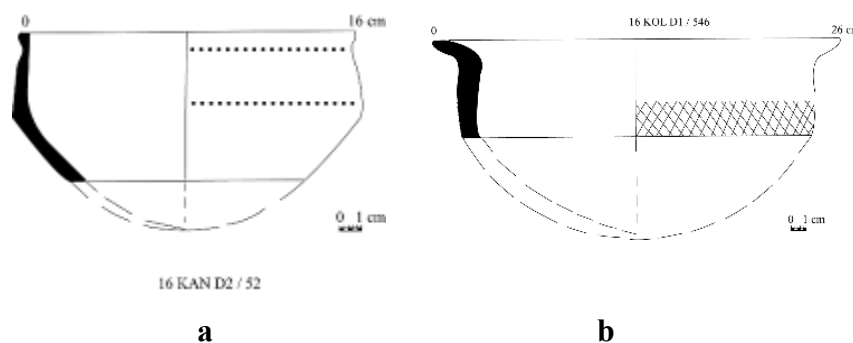
#### ➤ Open containers

The open containers have different morphologies as a whole. On the one hand, we currently have ovoid vessels that are available in flared oval vessels (a), ovoidal oval-shaped narrowed apertures (b), flared ovoidal bases (c), and flared conical vessels (d). (see Fig. 10).



**Figure 10.** Current open containers (Source: Touré G. A., 2016)

For reconstituted archaeological receptacles, we have carinated flared ovoid open containers (a) and streamlined spherical open containers (b) (see Fig. 11).



**Figure 11.** Archeological open containers (Source: Touré G. A.)

We observe changes in the morphology of open containers.

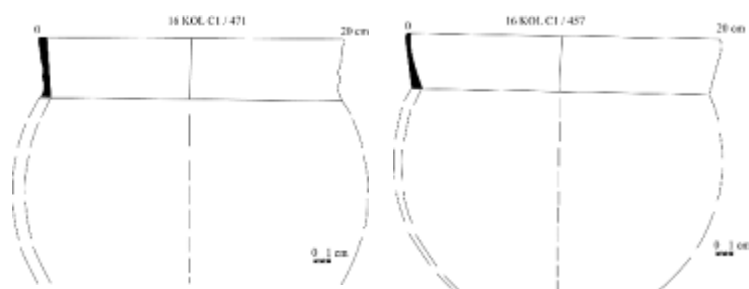
#### ➤ Closed containers

With regard to closed containers, we do not have a great diversity of forms. For the present containers we have the closed containers of ellipsoidal shape with neck (a) and the closed receptacles of ovoid form with neck (b and c) (cf Fig. 12).



**Figure 12.** Current closed containers (Source: Touré G. A., 2016)

Archaeological vessels have only the spherical neck form (see Fig. 13).



**Figure 13.** Closed archaeological containers (Source: Touré G. A.)

For closed containers, we do not have a great morphological diversity. There is rather an evolution in the use of containers to adapt to the current needs of individuals. Potters are thus led to make new forms of ceramics that meet its functions.

This is due to the fact that potters are copying the new shapes of plastic and aluminum vessels.

### 3.2.2. Functional level comparison

#### ➤ Ceramic with culinary and domestic function

Here we have containers for cooking, storing and serving meals. Referring to the studies on the functions of archaeological vessels and present vessels, we note that there is indeed a change in the potters' profession (Camara et al, 2023, p.32)

Indeed, the current ceramics show a variety of functions. In addition to the containers used in cooking food, we register another category of containers that enters the service of meals. Also, it is necessary to remember that for each sub-function identified, there is a diversity and an evolution which is translated by the presence of new forms of ceramics.

#### ➤ Decorative ceramic

Decorative ceramics has not been observed at the archaeological level. It was born with the advent of tourists who were looking for flower pots. Nevertheless, potters made containers for the preservation of jewelry, which is still observed.

#### ➤ Ritual ceramics

Ceramic ceramics is the most used ceramics by the current populations. According to the classification of archaeological ceramics, it was also widely used. It accounts for 43% of the archaeological containers studied. Apart from the difference of the decorations, this ceramic form has not known a great evolution.

### 3.3. Comparative Study of Decorations

At the scenery level, we have a change. The potters of today do not give much importance to the sets. The most common are the prints with braided fiber. On the other hand, archaeological ceramics have a multitude of decorations (see Fig. 10 above).

## Conclusions

The study of Kanoroba ceramics over the long term consisted of carrying out a comparative study on sub-current ceramics and archaeological ceramics. Beyond this study on the comparison and mutation of ceramics, it must be remembered that the morphology of archaeological ceramics is less diversified, unlike the ceramics we encounter today in Kanoroba. The potters rely on current needs to make new shapes. Also, we note that there is no ceramic for decorative use in archaeological ceramics. Regarding the decorations, they are less and less applied to the containers. All this shows a shift in production, even though potters claim that production has declined. This index can also be considered as a source of consolidation of the knowledge of the history of the population of the region, by reading the ebbs and flows of ceramic-producing populations.

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