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Traditional dwellings and techniques of the First Indigenous Peoples of South Africa in the Eastern Cape

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Abstract

Vernacular indigenous dwellings of the Khoikhoi Peoples (First Indigenous Peoples of South Africa) present in the Baviaans Kloof area in the Eastern Cape (South Africa) have been surveyed and are currently under study by the authors with the direct involvement of the community members. This research is of particular relevance because: it is conducted in a geographical area that is currently under-researched in respect to this particular theme; the dwellings are an exceptionally rare example of the use of Khoikhoi traditional techniques and materials; it was achieved with the direct engagement of the Indigenous community. The research collaboration applies a transdisciplinary approach and method – already in place with the NRF-CEP research by Dr Minguzzi – that employs a multi-layered methodology: practice-led research, community engagement/community cultural development, influenced by narrative inquiry. In the age of globalization, it becomes necessary to study the origin and development of those buildings to understand their constructive process, the use of specific local materials as well as the consequences that the introduction of unsustainable colonial materials caused. This is an aspect that could be relevant for future reflection on how to preserve and promote the Indigenous cultural, social inclusion and sustainable built environment. The paper will define the state of the art and morphological, functional and technical analysis of contemporary Khoikhoi dwellings to identify the tangible and intangible cultural heritage and the influences of colonization on it.

Keywords: Khoikhoi; South Africa; documenting Indigenous dwellings; participatory research.

1. Introduction

Discussing the vernacular architecture of the First Indigenous Peoples of South Africa 1 – the Khoikhoi and San – is a complex topic, for many reasons, the main being related to the tremendous repression that these Peoples have suffered over the centuries since the arrival of the colonisers. Due to this repression, very little is left "visible"² of their tangible and intangible heritage.

1.1. Historical background

It is well-known, that the arrival and establishment of the settler colonials in South Africa³ -

¹ The First Indigenous Peoples of South Africa are the San (hunter-gatherer) and Khoikhoi (herders). Two groups which, in precolonial times had overlapping subsistence patterns and use of the territory, and which, from the colonist arrival until the present, have been fighting for the recognition of their identity and heritage. In this regard see: Besten M. "We are the original inhabitant of this land: Khoe-San identity in post-apartheid South Africa", in Adhaikari M. (2013), Burdened by Race: Coloured identities in southern Africa, UCT press, Cape Town.

² Like many other Indigenous Peoples, oppressed by colonialism, the only way to preserve their culture has been to hide it, not share it with people external to the tribe or family, and in some cases, to "mix" it - using the métissage as strategy - with the one of the colonisers.

³ The arrival of colonisers in South Africa can be traced to the shipwreck of the Dutch ship Nieuwe Haarlem in 1497.

the Dutch East India Company⁴ followed by the British empire⁵ – led to an escalation of inequality and oppression, a slow and painful process in which the First Indigenous Peoples of South Africa lost their freedom to express the practices associated with their culture, their way of life and their religion. In other words, it led to a drastic interruption of their indissoluble ties with the land; with Mother Earth.

Before the enactment of the colonial policy of settlement, the lifestyle of the Indigenous Peoples was based on planned movements⁶ in the territory, according to the seasons and the availability of natural resources such as water. Their holistic approach to nature was (and still is today) founded on the concept of "custodianship" of the resources that Mother Earth offers (Minguzzi, 2021).

The colonisation and dispossession of indigenous territory by the waves of settler colonisers, meant the delimitation of "private land", and the establishment of farms, through the use of fences and walls on which natural resources were located. Fundamental resources for the life of the Indigenous Peoples and their livestock were thus immediately restricted and controlled.

At the beginning of the 1800s the situation had already degenerated to a point where the Khoikhoi and San were not a free society but forced to prove they had some means of gaining their subsistence (Malherbe, 1978).

Indigenous oppression was exacerbated with the application of the racial laws of the Apartheid regime, in place from the 1948 until 1990.

The Khoikhoi and San were mostly classified "coloured" together with the Malay, Javanese, Sumatran, Indian and Chinese people, and from this moment onwards, their distinct ethnic group ceased to exist⁷.

1.2. Khoikhoi contemporary dwellings reflecting the pre-colonial indigenous knowledge

Through the above concise historical background (Cavanagh, 2013; De Jongh, 2012; Minguzzi, 2021) we can easily understand how difficult it was initially, and then impossible, for the First Nation of South Africa to be able to freely express their cultural heritage, of which architecture is a part.

There appears to be no examples recorded of pre-colonial First Indigenous dwellings handed down to the present8. In this paper the researchers examine examples of contemporary indigenous dwellings, where it seems very clear that Khoikhoi building knowledge, typology, materials and techniques have been handed down from generation to generation till the present. The examples analysed are located on communal land, in a remote and very isolated area, where the Indigenous people has been able to self-build their houses without the imposition of western-based systems.

2. Research Objective and Methodology

The objectives and methodology of this specific research are framed in the general research project entitled "Origin: and investigation on KhoiSan heritage sites" led by Dr Magda Minguzzi with a group of 10 indigenous leaders, staff and students of the Nelson Mandela University and supported by the National Research

⁴ The Cape was under Dutch rule from 1652 to 1795 and again from 1803 to 1806.

⁵ British sovereignty was recognised at the Congress of Vienna in 1815.

⁶ Theorists of international law have used the concept of Indigenous "nomadism" to imply "indifference" on the part of the natives regarding the occupation of their territory in order to justify property rights imposed by the European settlers. The movements of the Indigenous Peoples were geographically well-defined according to specific natural boundaries as rivers and mountain ranges.

⁷ The racial group classifications "Black, White, Coloured, Indian or Other" remain officially in place today. For example, when applying for a job or registering as a student at university, the applicant is obliged to fill in a form declaring to what racial group he or she "belongs".

⁸ Perishable materials have been used to build the indigenous houses which have contributed, over time, to the disappearance and easy deterioration of the buildings.

Foundation of South Africa. Which is a research project based on the documentation of the First Indigenous Peoples' pre-colonial tangible and intangible heritage in the Eastern Cape, using the community ment/participation in each step of the investigation as modus operandi.

Here we are focusing on the dwellings as part of the heritage that need to be documented and deeply investigated.

The cases studied were identified during the site visits of Baviaanskloof by Gaob (Chief) Margaret Coetzee, Inqua tribe, Dr Magda Minguzzi and several community peoples.

In order to gather knowledge, especially of the change of techniques over time, we proceeded in two major directions. From one side we collected the archival testimonies of the early travellers to understand how, in pre-colonial times, the dwellings were described in terms of typology, techniques and materials used. From the other side we consulted and interviewed the indigenous community members of the area of study, together with the site surveys of the selected dwellings.

3. Analysis of Khoikhoi dwellings

3.1. Pre-colonial Khoikhoi settlements and dwellings

The descriptions of the pre-colonial dwellings left by Peter Kolbe (1675-1726)⁹ are detailed, accompanied by technical drawings, and probably are among the earliest ones, and for those reasons we decided to use it as main point of reference for our investigation.

Kolbe wrote that the shape of the settlements, as well as the one of the huts, was circular, and he called them "kraals". The number of huts in a settlement was not less than twenty, and the inhabitants could vary in number and reach even five hundred people.

The huts were described as oval in shape, 12x3 meters, and built with a structure of sticks and covered by mats, that were fixed on the structure so the wind would not blow them away. If the mats were not enough, they used sticks to cover the structure The huts of wealthy people had a double covering: one made of mats positioned just above the sticks, and above the mats, a layer of animals skins.

Kolbe also describes the functional organization of the interior space of a hut which serves a single family, usually made up of 10 to 12 people. It is a centralized space around the fireplace, located inside a hole of 1 foot (approximately 30 cm) deep and serves to cook and as heating (Kolbe, 1731).

Schapera (1930) in his The KhoiSan Peoples of South Africa also writes about the tribal encampment and the huts of the Khoikhoi, referring also to the annotations of Kolbe, which were built at the beginning of the 18th century, long before his book was written. Shapera describes the huts as " (...) well adapted to the nomadic life of the people. They provide an airy shelter from the wind and the sun, are light in weight, simple in material and structure, and can be easily taken down, packed up, transported and rebuilt". He describes the skeleton of the huts as a frame made with light pieces in "supplied undressed wood" that are planted vertically in holes dug into the ground in a circle. "Their upper ends are then bent inward and tied together in the centre until the framework is compete." The main structure was made by the men. The next step is the addition of stalks of reeds bored through and sewn together with bark thread by the women. "The finished mats are then laid round and directly over the wooden framework. (...) The main entrance of the hut is usually opposed to the direction of the prevailing wind, and on the other side is left a smaller opening. (...) The floor in the interior is smeared over with a mixture of cowdung and

⁹ A German astronomer and mathematician that wrote the book that became probably the most well-known source of information on the Indigenous peoples settled around the area near Cape Town in the eighteenth century: "The Present State of the Good-Hope". Kolbe P.

blood, often renewed, and is covered with skins. In the centre a depression is made as a hearth for the fire, and round this are stretched the mats or skins on which the inmates sleep" (p. 230).

Futher in this paper we will compare the precolonial dwellings using in particular the observations and drawing by Kolbe - for the above mentioned reasons – with the ones surveyed by the research group.

3.2. Study sites

The houses analysed are located in two specific areas situated in the western part of Baviaanskloof10, which is a narrow valley, sufficiently isolated, enclosed between two parallel bands of mountains. That part of the valley consists of a mix of large, privately owned farmland, conservation zones, and communal lands. The Indigenous Peoples occupy the communal lands where the studied dwellings are located, namely Zaaimanshoek and Sewefontein (Pérez, 2010).



Fig. 1. Point 1 and 2 are the sites where the communal lands and the dwellings surveyed are located.

Although there are farms that have been settled in this study area, the indigenous families have lived in the area from the pre-colonial period. Therefore their link with the place has not been drastically interrupted as for other communities located in other parts of the country that experienced severe forced removals. These conditions isolation and permanent continuity - have created the perfect circumstances for which the houses that the natives have built today, present

characteristics unmistakably linked to their origins, although colonial elements have been introduced.



Fig. 2. Aerial view of part of the settlement surveyed. (Source: Minguzzi, 2021)





Fig. 3 and 4. Examples of the dwellings surveyed in Baviaanskloof. (Source: Minguzzi, 2021)

3.3 Critical and descriptive analysis of the houses

Next, a descriptive critical analysis is presented that synthesizes the knowledge extracted from the case studies, from the following points of view: morphological, functional and material. It emphasizes the continuity with the pre-colonial huts described by Kolbe.

¹⁰ Dutch for "Valley of Baboons".

Morphological analysis

At the territorial level, changes are observed in the planning and organization of Khoikhoi settlements if compared with the pre-colonial time. The circular composition of the kraal defined by Kolbe is not in use anymore, although it is possible to notice some sort of organic and fluid arrangement of the dwellings. They are not organized around a central space as it used to be but follow sustainability criteria related to the wind directions and sun orientations or towards the access from the road. Although it is communal land, the notion of "private" use of the land has been introduced in the contemporary settlements, closely linked to the imposed western planning that divides the land into distinct properties and imprints a feeling of possession over the land that initially did not exist among the Indigenous peoples. In fact each house surveyed sits in a plot where the family has an area organized as vegetable garden, and space for animals (usually chickens).



Fig. 5. Site plan of one dwelling. A. - cooking room, B kitchen room, C - living room, D - family bedroom, E visitors' room, F - toilet.

At the unit level, a fundamental transformation is observed in contemporary KhoiKhoi dwellings: the rectangular shapes have replaced the circular and oval pre-colonial shapes. Two causes explain this change: one, the influence of colonial dwellings and; two, the use of imported materials of straight geometry that are better adapted to orthogonal buildings. This is the case with metal sheets fitted to the roof structure.

The composition of the floor plan is centripetal and highlights the kitchen as a focal point. This fact establishes a relationship of continuity with the arrangement of the Khoikhoi huts.

In pre-colonial times the centre of the place, the fireplace, was the focal point, the space for eating and sleeping (holes) were organized around it. The same can be noted in the dwellings we surveyed where the living room, family bedroom and visitors' bedroom are disposed around the kitchen.

The cooking room with the fire stove is presented as an addition to the dwelling This is related to functional reasons and therefore manifests itself volumetrically. In the surveyed examples it is a volume almost separated from the main, but located on the main facade, with access from the same front step, transmitting its essential role in the whole. The presence of the cooking room characterizes the main facade of contemporary Khoikhoi homes, being identifying and distinctive feature. Its origin could be traced back to the customs of the first Khoikhoi settlements. On the one hand, Kolbe describes that the ventilation and lighting of the huts were achieved only through the door and recognizes outside the cabin, near the access point, a fireplace made to scare away the beasts. On the other hand, other African communities studied in Togo (Hernández Navarro et al., 2020) and in Burkina Faso (Lidón de Miguel et al., 2020), used the outer space of the huts, near the gate, to prepare food and subsequent intake, reserving the fireplace inside the cabin in case of bad weather conditions. Therefore, although there is no evidence



Fig. 6. Reed wall and blue bush wall. (Source: Minguzzi, 2021)

in this regard, it is hypothesized that the current presence of the cooking room has a cultural significance, in that the current construction of the cooking room signifies the evolution from an open space to an indoor space.

Functional analysis

The basic needs programme is developed in the main construction and complemented with other auxiliary constructions. The main is inserted inside a polygonal plot, away from the fence. It presents its main facade in front of the principal road from where it is accessed. The auxiliary constructions are located near the fence and are intended for: toilet, henhouse, and store. The toilet cabin construction adopts western construction methods of concrete panelled wall and metal roof cover unlike the henhouse and the storage units which present traditional building practices with timber poles, mesh or netting and metal roof cover.

The main volume of the dwellings originates from 4 rooms. It is sometimes extended to 6 according to the number of family members, organized according to their public-private character. The kitchen and living room are always positioned at the front and the bedrooms (family and visitors) at the rear. The cooking room is attached in the northeast corner. This space has no direct connection with the other rooms, and its only access occurs through the front step. This disconnection is justified from a hygienist logic. It prevents the spread of smoke from coal combustion that is not adequately evacuated by its chimney. However, isolating the house from the warmer room (cooking room) is not a problem, as, on cold days, the living area is heated with a brazier with coal produced by the coal stove of the cooking room. This is how one of the community members explains it:

"We make food in the kitchen (referring to cooking room) which is also where the fire is made, and then we move towards the living area where we sit and have dinner. Sometimes we take the coal inside the house to the living area to keep the house warm"11 (Minguzzi & Vosloo, 2021).

The kitchen is the heart of the house. It is the point of entry and distribution to the other rooms. In this room, the vistors are greeted and food is shared. This functional organization and the prominence that the kitchen assumes in today's dwellings is culturally related to the precolonial fireplace inside the hut and the organization of its space.

Other activities complement the functional programme developed inside the built volumes. These are carried out outside the house where the space is also conveniently arranged: terrace on the front step of the house to sit down to talk when the weather permits; washing and scrubbing place; clothes laying and drying area; vegetable garden, inside the plot a more densely fenced enclosure to prevent the intrusion of baboons or wild animals.

Materials analysis

The materials used to build the house are collected by the inabitants locally. They could be either natural resources or recycled from other abandoned constructions. This direct relationship with the environment leads to nonsubstantial material variations since no modifications of the construction techniques are observed. The constructive type is maintained, and variants have been found in respect of some materials used. As in the case of the reed wall or blue bush wall (Fig. 6).

The basic materials for the construction of the dwellings are bamboo poles for the main wall and roof structure (vertical), reed bundles for wall enclosures (vertical) and reed for supporting wall structures (horizontal). Traditionally layered reeds for roof enclosures (confirmed in interviews) and earth for coatings of walls and floors¹². All of these materials are from the



¹¹ Community member, interview with authors, 7 May 2021.

¹² The mud is reinforced with manure.

nearby environment. It is noted that metal sheets have been added, which were imported since colonization, and currently replace the traditional roof made by the layering of reeds.

Other materials are used in smaller quantities. For example, lime and ash to improve the qualities of mortars; salt and manure to give toughness to soils, and; dye colour to tone whitewashed walls. Only the lime, salt and dye require external provisioning.

4. Conclusions

The Baviaanskloof area, Zaaimanshoek and Sewefontein settlements in particular, represent a unique case study of the culture of the First Indigenous Peoples of South Africa.

From the analyses and the comparison that have been made, we can affirm that the contemporary Khoikhoi settlements, despite showing influences from the colonial models, increasingly continue to preserve strong features of their origins.

This community has enjoyed the freedom to build, using spatial and functional organization as well as constructive techniques inherited from their ancestors. Therefore, the settlements studied constitute tangible documents that contain the cultural values of this social group and provide us with information about their way of life, their customs and their traditional holistic and sustainable approach to the environment. An approach that is of extreme importance because it can constitute a valuable, environmetally sustainable model to be proposed in other parts of the country.

"While materials do not necessarily determine the form and content of architecture, it is obvious that the form of any art is conditioned, to a greater or lesser degree, by the medium through which it is expressed" (Yavo, 2013).

At the scale of the dwelling, the pre-colonial construction with bamboo, reeds and earth is altered by the introduction of colonial materials such as sheet metal, or metal wire for the connections, causing mutations in the built forms. However, the link with the origins remains strong and in place as reflected in the built form.

The engagement and collaboration with the Indigenous members of communities was of extreme importance to the study presented here. A collaboration that gave us the opportunity to meet extraordinary community members and to learn and undestand from them the importance to live as part of nature.

Currently the research team works to obtain funds that can cover the continuation of the survey, in order to be able to collect more case studies, and to develop data already collected as video interviews.

Supplementary Material

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