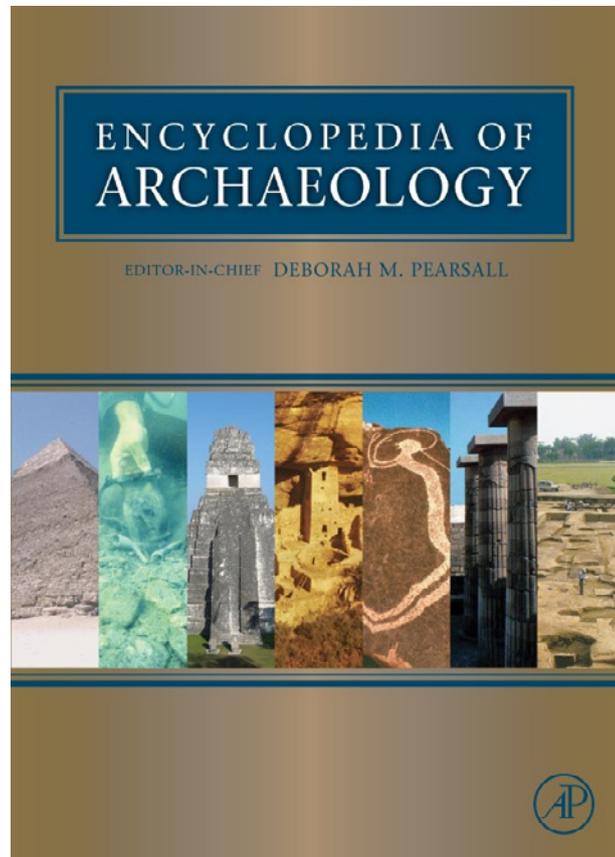


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origins of domesticated plants and animals in Africa have emphasized on the early and indigenous development of food production, the impact of cattle-borne disease, patterns of indigenous development and diffusion, the role of arid and unpredictable environment, and the evidence of early domesticated plant foods in Africa. Several scholars have compared the ethnographic record of hunter-gatherers and food producers, both from the perspective of understanding the process of the adoption of food production and understanding hunter-gatherer–food producer interaction.

Important cases of food-producer/farmer interaction include that of Eburran and Pastoral Neolithic sites in the Central Rift Valley, that indicates the association of Eburran sites with domestic stock and in lower altitude locations, which presumably reflects interaction with plains pastoralists; the Tsavo case of southeastern Kenya, where hunter-gatherers known as the Waata persisted until the twentieth century by exchanging hunted meat and ivory tusks with Oromo and Wambisha pastoralists; and the case of montane hunter-gatherers variously known as Okiek or 'Ndorobo' whose interaction with Maasai and other pastoralists involved exchange of honey and meat for agricultural products and animal secondary products.

*See also:* **Africa, Central:** Foragers, Farmers, and Metallurgists; Great Lakes Area; **Africa, West:** Early Holocene Foragers; **Hunter-Gatherers, Ancient.**

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## Madagascar and Surrounding Islands

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## Glossary

- Bantu language** Group belonging to the Niger-Congo family. By one estimate, there are 513 languages in the Bantu grouping.
- Borneo** Located at the center of the Malay archipelago and Indonesia. Administratively, this island is divided between Indonesia, Malaysia and Brunei.
- Madagascar** Island Nation in the Indian Ocean, off the southeastern coast of Africa. It is home to 5% of the world's plant and animal species (more than 80% of which are indigenous to Madagascar).

Current archaeological research in Madagascar is concerned with a relatively narrow band of time from approximately 2000 year BP, the generally accepted period of first contact, to the seventeenth and eighteenth century, the advent of historical records and European contact. Although the peopling of Madagascar is arguably a recent event, little is known regarding the early settlements. The lack of archaeological evidence is due to a variety of factors: quick environmental decomposition of sites, sparse use of sites by transient populations, and lack of funding to research the area. Other forms of evidence, such as linguistics, and genetic and ethnological data, are also used to develop the chronology of events during the settlement of Madagascar. Though early arguments postulated that the first Malagasy inhabitants were from one origin, historical, linguistic, genetic, and archaeological evidence suggests multiregional influences from Southeast Asia, East Africa, South Asia, and the Near East. A hybridization of many

influences is therefore probable, in which several waves of settlement/colonization occurred and each group introduced or reintroduced technologies or other cultural traits.

Prior to settlement, maritime people, who were exploiting the area's offshore resources, visited Madagascar and traders used Madagascar for temporary shelter and restocking of supplies. As trading became more important, the camps' temporal and spatial existence increased over time. This temporary nature of the early settlements contributes to the difficulty in tracing the sequences of events from first settlement to permanent settlements and finally a formation of a distinct Malagasy culture.

Linguistically, there has been difficulty in deciphering the origin of the Malagasy language due to movement of people, the number of Malagasy dialects created, and the inability to define a proto-Malagasy language. Through comparative linguistics, analysis of loan words, and the phonology, morphology, and vocabulary of the Malagasy language suggest two possible origins: the Barito Valley of Borneo and the Bantu language of Eastern Africa. Genetic analysis shows that both East African and Indonesian gene frequencies are evident within the general population at approximately equal ratios throughout Madagascar. The introduction of the sickle cell gene indicates an infusion of genes from people of central or east Africa, north of Zambezi. The ethnological evidence connecting Madagascar and other cultures such as Southeast Asia, Africa, India, and the Near East that have similar traits is ambiguous. Many similarities are better explained by environmental constraints than by direct linkage with a specific group. There are examples of shared knowledge; for example, growing of millet in dry areas of Madagascar is thought to have been borrowed from East Africa and the growing of rice in wetter areas borrowed from Indonesia. Madagascar has had exposure to a variety of cultural traits, but the existence of a cultural trait does not imply genetic relationships, but may rather result from either direct or indirect trade between two genetically distinct groups.

The earliest archaeological evidence of human activity in Madagascar are the four radiocarbon-dated dwarf hippopotamus (*Choeropsis madagascariensis*) femurs that show human modification. The femurs, found in southern Madagascar (Lamboharana and Ambolisatra), yielded two reliable dates,  $1970 \pm 60$  and  $1740 \pm 50$  years BP. What has been most puzzling in Madagascar's ecological history is the extinction of Madagascar's megafauna, such as the dwarf hippopotamus, approximately 2000 years ago. Although a

catastrophic fire event, calamitous drought in southern Madagascar, first-contact overkill, introduction of cattle, and hypervirulent disease have all been blamed for the extinction of Madagascar's megafauna, it is more likely that the causes worked in synergy: the introduction of exotic and invasive species, climatic changes, and arrival of humans caused these extinctions.

Another early archaeological site in Madagascar is Sarodrano,  $1490 \pm 90$  years BP. However, this early date is questionable due to site disturbance and further study of the site is impossible due to its destruction by a cyclone. Other early settlements dated to the ninth–tenth centuries AD include the following: Irodo (Tafianatsirebeka) – a northeastern coast settlement that produced shellfish, farming, and chloro-schistite vessel production and trade; Andransosoa – a southeastern inland cattle pastoralist; and Talaky – a southern coastal fishing village. During this early period (first to tenth century AD), only traces of transient visits have been found, which may be a reflection of the limited areas surveyed along Madagascar's coast and not a measure of what settlement sites are actually there.

After AD 1000, permanent occupation sites along the entire Madagascar coast and one central highland site have yielded evidence of rice agriculture, bovid herding, fishing, iron smelting, and local trading, but no direct link to Southeast Asia, East Africa, South Asia, or the Near East. In addition, it cannot be determined if the economic and technological diversity in evidence from sites of this period is the result of *in situ* evolution or imported from another area. From the twelfth century AD, the settlements in the west began to grow to significant size and duration. Mahilaka was the first major port in the region; its decline in the fourteenth century AD was followed by settlements developing along the east coast. Cores taken from lakes and bogs from this time have found fluctuating levels of grassy and brushy vegetation along with arboreal pollen, showing a negative correlation. This indicates a variable deforestation by anthropogenic means and therefore a variable human population concentration and rate of environmental modification. By the fourteenth century AD, the archaeological evidence indicates a relatively uniform cultural pattern in the southern region. It is currently unknown what caused this explosion of settlements during this period of history in Madagascar. Settlements during this period were associated in clusters surrounding a central site, which may have been the political and/or social elite. In addition, trade goods originating in South China, Southeast Asia, the Near East, and Europe are evident

throughout Madagascar by this time, indicating increased external contact.

Of the polities that emerged during the seventeenth to eighteenth centuries AD, only the Merina of the central highlands of Madagascar has the archaeological evidence to suggest the formation of a state. In particular, a hierarchy of a capital, subsidiary centers, villages, and hamlets along with frontier military sites provides evidence that a state level system was needed for control, because the level of control needed for these sites is more than a loose political unit could manage. During this period, the effects of European trading enabled the earliest written accounts of the Malagasy political situation to be recorded. With the advent of European trading, political power became subject to the control of trade goods and some kingdoms (e.g., the Bara) collapsed while others increased their influence (e.g., the Sakalava). Beginning in the sixteenth century, several groups were heavily involved in trade with the Europeans (mostly French, Dutch, and Arabs). Others (e.g., Tandroy, Karembola, and Mahafaly peoples in southern Madagascar) were not actively involved in trade, yet still received European goods by importing them through their neighbors. By the middle of the seventeenth century, the beginnings of what has been termed the 'Bara state' collapsed due to disputes between the sons of the dead ruler and, subsequently, the interior Maroserana ruler, Andriamanely, captured the area and installed his family members as local rulers. The southern kingdoms of Madagascar did not consolidate their power and remained divided from the sixteenth to eighteenth centuries. The result was their lack of political influence on interior and northern groups. Whether groups were in direct trade with the Europeans or received goods through indirect trade, the impact of the goods that the Europeans brought to Madagascar was felt throughout the island.

*See also:* **Africa, Central:** Great Lakes Area; Sudan, Nilotic.

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## Swahili Coast

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## Glossary

- caliphate** The Islamic form of government representing the political unity and leadership of the Muslim world.
- city-state** A region controlled exclusively by a city, usually having sovereignty.
- colonialism** The extension of a nation's sovereignty over territory beyond its borders by the establishment of either settler colonies or administrative dependencies in which indigenous populations are directly ruled or displaced.
- urbanism** The study of cities – their economic, political, social and cultural environment, and the imprint of all these forces on the built environment.

The many towns and hinterland communities of the Eastern African coast share broad cultural commonalities that emerged in the first millennium AD, in what came to be called Swahili civilization. The Swahili coast extended along some 2500 km, from modern Somalia to Mozambique and incorporating Kenya's Lamu archipelago, Tanzania's Pemba, Unguja (Zanzibar), and Mafia Islands, the Comoros Archipelago, and northwestern Madagascar. This expanse corresponds with the western edge of the monsoonal wind system, facilitating travel and communication on the coast itself and among ports along the Indian Ocean rim. The pre-Swahili history of the coast is known largely through archaeological research, augmented by rare documents and interpretations drawn from historical linguistics. In the centuries prior to the founding of Swahili settlements, the coast was home to an array of smaller-scale societies subsisting on pastoralism and mixed farming and fishing, and who shared archaeological and linguistic connections with interior peoples. The use of Urewe and Kwale ceramics in both areas exemplifies shared lifeways of coastal and interior regions in the Late Stone and Early Iron Ages.