Ceramics and Archaeology in Southern Africa

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Summary

Pottery has been part of daily life in southern Africa for the last two millennia. The frequent occurrence at settlement sites and its resistance to decay makes pottery the most common proxy for past food-producing communities (farmers and livestock herders), who made containers for cooking, serving, and storing foods and liquids. Provided that pots and sherds have enough diagnostic features to indicate décor patterns and vessel shape, trained eyes can get an instant and literally cost-free peek into past movement and interaction. Various material sciences offer high-precision dating and insights into less visible characteristics, and ethnographic insights are helpful for understanding more intangible aspects, such as the organization of production, pots' roles in social practices and belief systems, and the transmission of knowledge and skills through apprenticeship. Potting has been a highly gendered activity, and attention to social identity is instrumental in widening the range of lenses through which archaeologists view past material culture. In this manner, by focusing on skilled craft networks dominated by women, ceramic research can provide a critical corrective alternative to more traditional top-down narratives that trace the evolution and interaction of (male) elites.

However, the European and North American legacy of archaeological classification in southern Africa cannot be overlooked. Ceramic classification may still unwillingly project a Western-centered understanding of the human condition, mobility, and social change. While unacceptable labels that refer to outmoded notions of tribalism have long been replaced by more neutral terms, this does not mean that ceramics provide archaeology with a neutral "tracking device." A continual key challenge for practitioners in southern Africa is to situate ceramic analysis within a wider thematic and disciplinary nexus in order to construct convincing deep time narratives while also exploring new pathways to insights that can give voices to otherwise silent or subaltern members of past societies.

Keywords: Southern Africa, ceramics, archaeology, material culture, identity, migration, interaction, craft knowledge

Subjects: Southern Africa

Ceramics, Language, and Transmission of Knowledge

Why have archaeologists in southern Africa so frequently turned to potsherds? How have practitioners come to rely to such an extent on this particular category of material culture for their construction of archaeological narratives? A main reason is that sherds are found virtually everywhere. Pottery has been locally produced and part of everyday life in southern Africa for at least two millennia.[1] The lifeways that brought ceramics entered the subcontinent—the region south of the Zambezi and Kunene rivers—from further north.[2] From the earliest trickle in the last centuries BCE until the present day, local communities have made and used ceramic containers for cooking, serving, and storing foods and liquids. Consequently, as pottery was integral to the

material culture of livestock herders and farmers, it is a key proxy for such food-producing communities.[3] For the Bantu-speaking world there is a general consensus that ceramic style units relate to differences in language, through which traditions and social practices were learned and communicated. Ceramic style is therefore considered a reliable indicator of broad cultural identities.[4] The Bantu migration hypothesis has been structured almost entirely around ceramic distribution, which illustrates just how common style analysis is in African archaeology.[5]

Ceramics have had a central role in debates of when, how, and why various groups with different lifeways and languages entered and dispersed in southern Africa. However, the geographic distribution of research is highly uneven. The eastern parts of the subcontinent have received much more attention than the rest, and the coverage of Bantu-speaking farmers remains far better compared to that of other language groups with different lifeways. The two key factors are archaeologists' primary focus on settlements and ensuing reliance on remains of sedentary lifeways, and the use of a specific ceramic classification method.

Firstly, the two main subsistence and technology "packages" that entered southern Africa are each linked to a ceramic ware group, frequently referred to as thin and thick wares. Although a crude division that masks a wide variability of potential cultural significance, it is important to know because it is often used as a short-hand categorization by practitioners. In effect, the two terms assign pottery to different archaeological "ages." On the one hand, thin-walled wares (figure 1) are associated with mobile herders or hunter-gatherers, commonly found in association with stone tools at open sites or shelters, with no evidence for cultivation of crops.[6] This ware type is often referred to as Later Stone Age (LSA) pottery. Thin wares first appeared in northern Botswana and western Zimbabwe, and along the Atlantic coast of Namibia and western South Africa. Thick-walled wares (figure 2), on the other hand, are primarily related to sites occupied by eastern Bantu-speaking farmers. These generally larger wares are referred to as Iron Age pottery.

Importantly, while the more detailed archaeological record for thick wares can be related to archaeologists' primary attention to settlements sites, the uneven pattern also broadly coincides with differences in climatic and vegetational conditions: between an eastern, well-watered summer rainfall zone with good soils and a western, arid, and largely winter rainfall zone with thin, poorly developed soils.[7]

Figure 1. Rippled thin ware from Blinklipkop, South Africa. Thin wares are less than 10 mm thick, mostly 5–8 mm.

Source: Photo by Karim Sadr.

Figure 2. Early thick ware: Matola style ceramics from Daimane rock shelter, Mozambique. The thickness is usually more than 10 mm.

Source: Photo by Decio Muianga.

The second key factor is the use of methods. The remarkably detailed record for thick wares is largely the merit of the dominant ceramic approach. A variant of the method of seriation, the multidimensional approach uses combinations of design layout, motif categories, and vessel profile to identify ceramic styles.[8] Fine-tuned by radiocarbon dating, the resulting style series (figure 3) are used to track the movements of past food-producing communities (figure 4). In this manner, provided that pots and sherds have enough diagnostic features, trained practitioners may quickly identify and place them in a chronological frame.

Initially tested against modern day Bantu-speaking groups in southern Africa, the approach works retrospectively by tracing styles related to historically known linguistic groups.[9] This genealogical approach results in a higher resolution for Iron Age ceramics than for LSA wares, and a much more detailed picture for the second millennium CE compared to the first.[10]

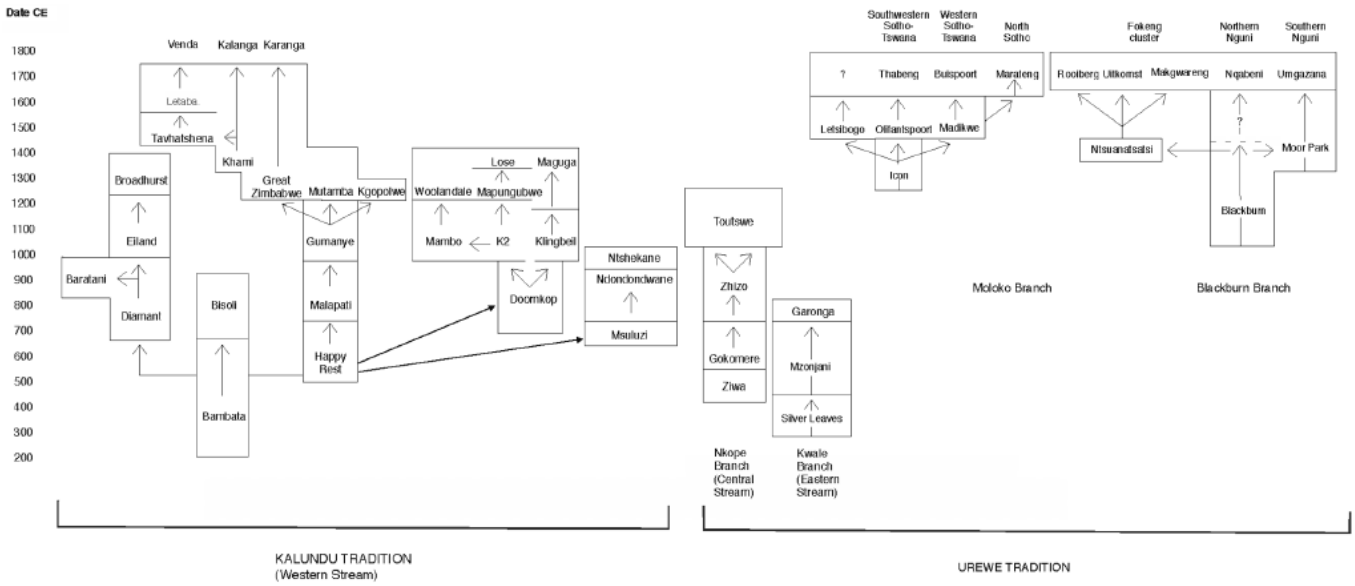

Figure 3. Ceramic genealogies of thick wares in southern Africa. Created by seriation and the multidimensional ceramic approach.

Source: Adapted from Thomas N. Huffman, *Handbook to the Iron Age: The Archaeology of Pre-Colonial Farming Societies in Southern Africa* (Scottsville, South Africa: University of KwaZulu-Natal Press, 2007). Figure by Sofie Scheen Jahnsen.

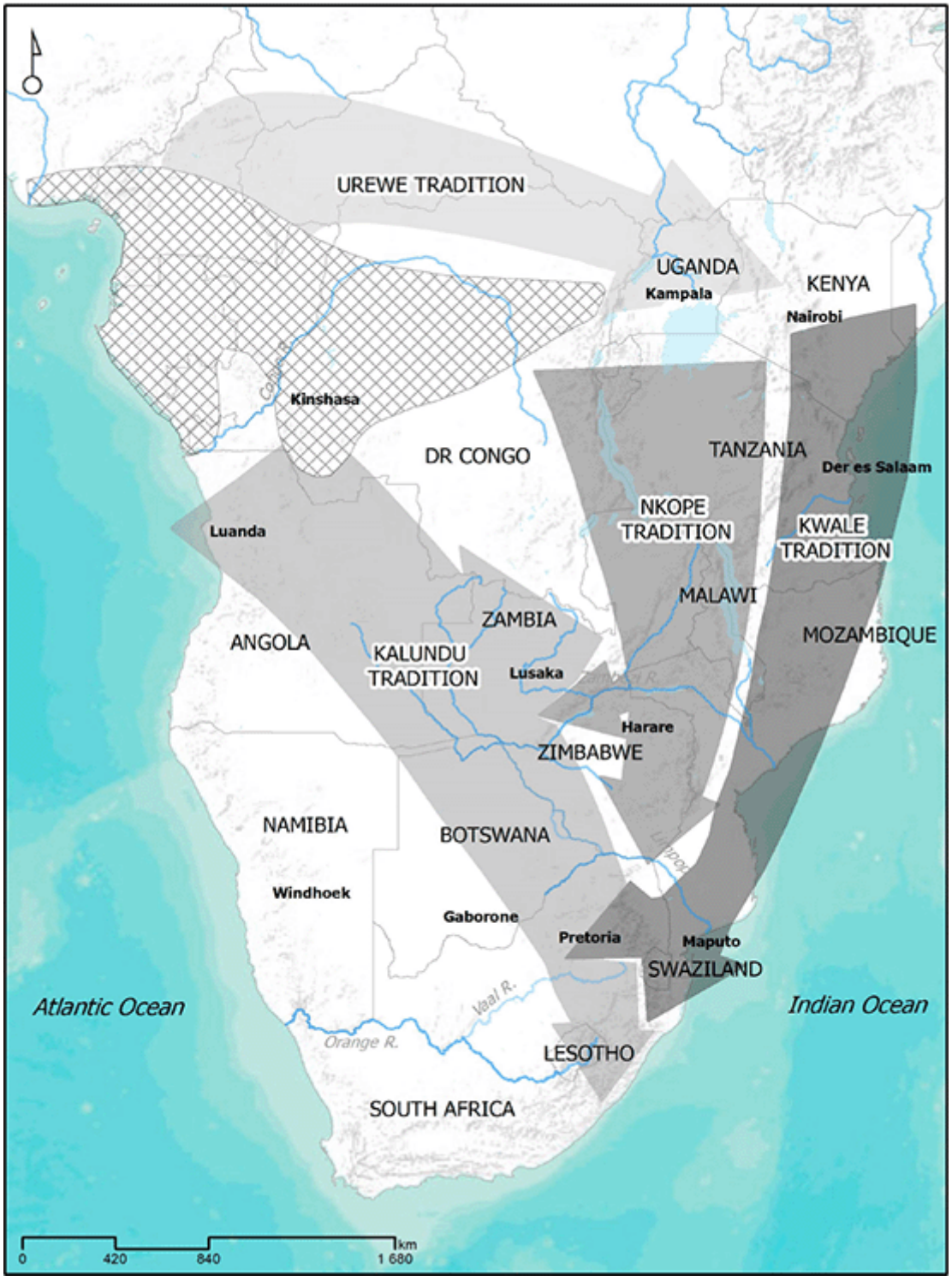

Figure 4. Map showing the main routes for early thick wares into southern Africa.

Source: Adapted from Huffman, *Handbook to the Iron Age*. Figure by Mncedisi Siteleki.

Despite the variations in coverage, certain questions are overarching and common: How did ceramic technology spread between groups, and what ecological and social factors may explain the pace of the dispersal? Was craft knowledge and skill brought by migrant groups, or were dispersals rather due to transmission between neighboring groups through personal interaction

and learning? The archaeological research status reflects mobility as a key factor. However, it has become clear that what is meant by the term *mobility* is highly contingent on a suite of contextually specific causes, which need to be identified and understood in each case. In other words, migration is not only an explanation but something that needs to be explained. Consequently, most studies use a definition of mobility that resists a simplistic either/or choice between massive migration and a passive diffusion of ideas. It is widely recognized that each case study demands attention to several factors, such as climatic and ecological conditions, political motivation or conflict, multiple-group interaction in the same landscape, access to resources for exchange and commerce, and groups' differing roles in long-distance networks.

Making History From Potsherds

Archaeological research on ceramics in southern Africa has been divided into five broad categories (table 1). While these have remained remarkably stable for decades, the addition of new methods has contributed to developments in each category. Commonly, ceramic analysis comprises several stages in which visual classification and age determination based on stylistic criteria (categories 1 and 2) form the beginning. Here, samples are selected for later stages, using advanced (and more costly) laboratory methods. Methods in the various categories are often brought into play at different scalar levels. For example, categories 1 and 2 often generate datasets that are used for large-scale narratives and regional syntheses of migration and dispersal, while various forms of analyses in categories 3, 4, and 5 help create data based on samples from specific sites or defined landscapes or study areas.[11] Methods in the latter categories help determine use range, sourcing of material, and manufacturing techniques and are therefore helpful when focusing on local interaction and engagements with the surrounding environment. Such studies are often informed by social theory and seek to approach past communities in ways that provide them with agency, not least from the point of view of the gender of those making pottery.

Table 1. Categories of Methods for Ceramic Analysis Used in Southern Africa

	Category	Methods
1	Classification	Visual description: standardized procedure in a multidimensional approach
		Physical or chemical characterization: petrography, microscopy, various X-Ray spectrometry methods, often in combination with statistical analyses (correspondence analysis, Principal Component Analysis)
2	Age determination	Relative dating: stylistic seriation
		Absolute dating: radiocarbon dating, thermoluminescence or optically stimulated luminescence

	Category	Methods
3	Determination of use	Analyses of ceramic pastes or wares, or organic residues: petrography, microscopy, thermodynamic analysis (e.g., firing temperatures to limit use range), isotope analysis, residue aDNA (see category 1)
4	Provenance or sourcing	Analyses of raw materials or finished items, to identify production centers or trace raw materials to source: petrography, microscopy, various X-Ray spectrometry methods in combination with statistical analysis (see categories 1–3)
5	Technological studies	Studies of ceramic production to elucidate selection and processing of raw materials, manufacturing techniques, and firing techniques. Sequential studies (e.g., *chaîne opératoire* approaches) often using ethnographic methods that include interviews with active potters. This may also include studies of spatial distribution. Methods in categories 1–4 are often used in combination with anthropological methods and (increasingly since the 2000s) digital remote sensing or Geographic Information System (GIS) tools.

Note: The overview refers to methods most frequently found in publications and is therefore not intended to be comprehensive.

Source: Adapted from overview by Duncan Miller, "Materials Analysis of Archaeological Ceramics in Southern Africa," *South African Archaeological Bulletin* 46, no. 153 (1991): 12–13.

Methods in categories 1 and 2 often form the basis for discussions of environmental and sociopolitical factors. This has practical implications for archaeologists' narratives. For example, given the generally better resolution for thick wares, such Iron Age wares tend to form an implicit backdrop against which to view thin wares. In other words, Later Stone Age (LSA) pottery has easily become trapped in an asymmetric narrative, as the signatures of *non-Bantu* speakers of *nonsedentary* communities who did *not* cultivate crops, and were thus marginal to the surplus-producing, well-connected, and more complex farming societies. However, it should be noted that thin wares' relative resistance to stylistic classification also has positive effects. As studies of thin wares have had to rely more on material science and technological analysis, there is a deeper tradition of cross-disciplinary research collaboration.[12]

The division into LSA and Iron Age ceramics may be practical for shorthand categorization, but this convention also contributes to silo thinking. The two wares have been studied by scholars with different research training and focus. This is epitomized in the claim that "Iron Age archaeology is Bantu archaeology."[13] Here it cannot be overlooked that the asymmetric "age" template carries a problematic geopolitical heritage. Originally an import from early 20th century European cultural-historical archaeology, the continued use of the template may still unwillingly project a Western-centered understanding of culture and the human condition. This is expressed in explicit resistance to the use of "Iron Age" and convincing arguments for alternatives such as the designation "Farming Communities." However, it should be noted that the Iron Age term has been regionally appropriated and redefined as part of a critically aware knowledge production, rendering its use significantly detached from the original meaning. It is found useful here as a short label for a larger concept.[14]

There is another form of asymmetry that can limit the range of possibilities for ceramic analysis, and therefore impinge on the creativity of researchers and heritage practitioners in southern Africa. Material science analyses are relatively expensive, and there is also a waiting period for laboratory results. As the dominant style approach provides trained eyes with instant and literally cost-free insights, it is an extremely useful tool for practitioners—and in many instances the only option. However, the approach requires visible diagnostic features and a vast majority of the unearthed and collected ceramics from surveys are undecorated. This means that only a fraction of them is analyzed. In effect, this factor divides researchers and heritage practitioners with access to the necessary resources for laboratory analysis (and time to wait for the results) from colleagues with few or no alternatives to the standard handbook style analysis.

The Dominant Approach and a Key Challenge

The multidimensional ceramic approach forms the background for much of the debate. It is therefore useful to briefly unpack its key elements. The approach relies on language as the medium for communication. The method of seriation provides explicit correlations between archaeological and linguistic entities, in this case Bantu languages and dialects, and an underlying structuralist framework informs the links made from ceramics to society, in order to model social change.[15] While there is general agreement about the applicability of the approach, there is less agreement about historical processes at local and regional levels.[16]

Seriation rests on the premise that ceramic craft traditions are inherently resistant to change. This principle of *continuity* means that the method is tuned in on finding *discontinuity*. Abrupt changes validate a migration hypothesis, which is further strengthened if the same signature is identified somewhere else. Yet, the majority of styles represent degrees of drift and interaction, along a sliding scale from independent co-occurrence to forms of interaction with increasing degrees of intensity: copying or emulation, incorporation, and merger.[17]

Ceramic analysis can trace movement and identify interaction. However, archaeologists in the region have long realized that ceramics are more than proxies and tracking devices—that "pots are not people."[18] There has been a deep dissatisfaction with how pottery is used to define cultural traits and explain historical change. It has been emphasized that ceramics alone are not able to address such issues, that the dominant approach is too deterministic, and that material culture does not behave in such predictable ways.[19] A key point for critics is that while archaeology has replaced unacceptable labels that refer to outmoded notions of tribalism by more neutral terms, this does not mean that ceramic classification is a culturally neutral tool for tracking people in the past.

In tandem with this critique, there has been a more recursive use of archaeological and historical sources. Better insights into the impact of colonialism and racism on society and ethnography have driven archaeology in general, and ceramic studies in particular, away from tracking "tribes" to developing more emic approaches to internal group dynamics and complex processes such as group formation and fission.[20] The shift has been fueled by critical questioning of what universal terms like mobility and urbanity actually mean when applied in an African context. The

result is a decisive move toward a critical recrafting of archaeology—from being cast in an essentially modernist crucible to seeking solid scientific alloys that include African-centered knowledges and definitions of key terms.[21]

A closely related theoretical and methodological drift since the early 1990s has been to focus more on lower and less general scales. This has brought the household as an arena for social practice, gender dynamics, and knowledge transmission clearer into view. For the last two millennia in southern Africa, one may assume that an overwhelming majority of ceramics were made by women.[22] The change of perspective provides researchers with a different set of data and social variables, all somehow linked to gendered everyday interaction and craftwork—to be considered when discussing ceramics and historical change.[23] Significantly, to change scale is also to change perspective on social life. A narrowing to specific sites and landscapes is an invitation to deeper studies of a selected range of samples, and therefore more frequent use of methods in categories 3–5 (table 1).

A continual challenge for practitioners in southern Africa is to find a balance between using the dominant ceramic style approach as a valuable departure point for further research while also being able to construct deep time narratives that give voices to the silenced and the subaltern. Precisely what ceramics can tell will vary widely from case to case: Why and how did people move and interact? What factors and dynamics caused ceramics to change, and why did some craft traditions turn out more resilient and long-lived than others? What kind of identity and social standing can be ascribed to the craftspeople?[24] The rest of this article is a survey of the status of ceramic research in the region and of the answers given to these overarching questions. The survey is chronologically ordered, from the earliest ceramic evidence up to studies of historic times and the present.

Emergence and Spread of Thin Wares

The various models for the emergence and spread of ceramic thin wares must be viewed against a wider interdisciplinary backdrop. It is a continuous theme among linguists, historians, anthropologists, archaeologists, and geneticists that the combination of residues of sheep and various forms of thin ware represent the move of Khoe-speaking pastoralists into southern Africa.[25] Migration hypotheses explaining the arrival of significant "proto-Khoekhoe" groups have been prominent for more than a century, and such hypotheses remain relevant. However, the place of origin of the herders and their stock, as well as their northern entry point into southern Africa, are still debated. So are their dispersal pattern and the pace of change. From a ceramic technology perspective, a common trait for the alternatives is that they convey more or less implicit assumptions of how craft knowledge was transferred and learned. Was the technology spread by migrating groups with the necessary craft insights and know-how, or by processes of transmitting diffusion between groups?

There are three main options.[26] The first postulates a migration of non-Bantu-speaking herders who brought livestock and ceramics to the subcontinent before the arrival of Bantu farmers.[27] Two main migratory routes have been debated since the 1960s.[28] In both cases the result is an

integrated package of livestock, pottery, and the Khoe language, perhaps combined with a distinctive style of geometric rock art.[29] The other two options focus on more complex dynamics of knowledge, shifting the primary attention to how knowledge of herding and crafts travel between food-producing communities. The diffusion alternative suggests a process where pottery was traded down-the-line among hunter-gatherers, from one community to the other.[30] Similarly, a related model focusing primarily on sheep suggests that diffusion was the main process.[31] Branching off from the second option, a third alternative seeks a middle ground. Its advocates have argued that ceramics were part of a wider herding knowledge system that began in southern Africa with infiltrations of individuals and small groups with livestock sometime in the last five centuries BCE, most probably from a source in East Africa. A series of small-scale population movements introduced livestock and ceramic technology into southern Africa.[32] This option postulates a process of assimilation without replacing older traditions, in a stepwise process with initial infiltration and subsequent hybridization. This means that innovations such as mineral-tempered pottery may have diffused more rapidly than, and ahead of, the idea of herding. Significantly, this latter option provides the makers of ceramic material culture with an active form of agency when explaining ceramic change.[33]

Importantly, the main models—and most overviews—assume that the earliest livestock were sheep, with cattle not reaching the Cape before the 7th century CE. Cattle is considered integral to the lifeways of Bantu-speaking makers of thick ware. However, an early date to the 5th or early 6th century CE for cattle from Namaqualand in South Africa raises the possibility of a separate introduction which is not of eastern or Bantu origin, along a western route through Namibia.[34] Direct dating of domestic cattle indicates that cattle and sheep arrived at the Cape together around 2,000 years ago. This would mean that cattle were present in western South Africa early in the first millennium CE, and thus that cattle are unlikely to have been obtained from Bantu-speaking agropastoralists in eastern South Africa. From this viewpoint, migration may be a more tenable hypothesis than diffusion for the spread of early pastoralism.[35] However, at the same time one also sees a mosaic of processes and regional diversity, where interaction with agropastoralists may have been intimate, especially in the eastern part of the subcontinent that favored their lifeways. The lack of chronological resolution and uneven research coverage leaves it for future research to clarify where and how such interaction might have occurred.

This is a useful reminder that research warns against seeking a unified model. The migratory patterns and social processes at work may have differed according to region, thereby necessitating contextually sensitive models. This sensitivity may also be extended to differences in social practice in relation to ceramics. It has been pointed out that thin ware vessels were probably dealt with in different ways from thick ware. Early thick ware farmer ceramics are usually found as waste in the midden of village or homestead sites. Based on ethnohistorical observations, this can be related to vessels' primary use areas: for processing cultivated crops into beer and porridge. Thin ware, on the other hand, and especially when associated with stone tools, is usually found as a few tiny potsherds, and each sherd often seems to come from a different vessel. It seems that potsherds were carefully selected, without necessarily being related to the use of ceramics as containers for food production. Rather, they seem to have been kept as curios and perhaps exchanged over large distances. This has led to the argument that thin ware, even in fragments, may have represented exotic and symbolically rich objects.[36] This aspect has

important implications for the ways in which ceramics are used to trace past groups and their lifeways. Were pots made by people whose subsistence is reflected in everyday use of pottery, or were the vessels produced elsewhere and by someone else, only to enter the archaeological context at a later stage?

The Chifumbaze Complex in the First Millennium

The various thick wares are known collectively as the Chifumbaze Complex. Their origins are associated with Bantu-speaking groups expanding through central and eastern Africa during the first millennium BCE. The archaeological picture resonates well with the updated classification of Bantu languages.[37] Reconstruction of the main routes of expansion supports the complexity of interaction and convergence in south central Africa, which served as a catchment of a number of subbranches of the wider Bantu family.[38] While the detailed expansion routes remain a matter of debate, there is a general consensus that early Bantu-speakers entered and dispersed in southern Africa in three streams (figure 4).[39] The western stream is the Kalundu tradition, which is traced to the northwest into the archaeologically less known areas of Angola. The central and eastern streams are both of the Urewe tradition and traced to the north into East Africa. The general tendency is one of relatively rapid expansion and for the evidence to be younger as one moves southward.[40]

The ceramic style approach allows for the construction of "genealogies" that can be followed through the first millennium and in some instances also well into the second millennium. Broadly speaking, while people making Urewe tradition ceramics settled the eastern parts of south central and southeastern Africa, wares linked to Naviundu signal the arrival of Bantu-speakers further west in Namibia, Botswana, and western Zambia. Two dispersal routes from East Africa seem likely for the Urewe tradition. The Nkope branch reached Malawi by the 4th century CE, subsequently entering northern Zimbabwe.[41] Later types of the Nkope branch (Zhizo, Leokwe, and Toutswe) are associated with the beginning of social complexity in the Shashi-Limpopo confluence area from the 10th century (see "Interaction and Replacement"). The second Urewe route originated among makers of the Kwale branch in eastern Kenya. This was a southward terrestrial expansion along the Indian Ocean coast, and broadly contemporary with the Nkope. The earliest version in southern Africa, occurring predominantly in southern Mozambique, Eswatini (Swaziland), and South Africa's Limpopo Province, is called Silver Leaves, also known as Matola (figure 2).[42] The subsequent Kwale phase is Mzonjani, with sites located in the provinces of Limpopo, Mpumalanga, and KwaZulu-Natal in South Africa.[43] The third wave is the Kalundu expansion. The makers of Kalundu were the earliest farmers in the rest of the subcontinent, taking advantage of agriculturally favorable wetter conditions.[44] Most probably with an origin in central Angola, Kalundu pottery first appears as the type known as Benfica and subsequently in southern Africa as Bambata (see the section "Interaction and Replacement"). The Kalundu style known as Happy Rest, found in southern Botswana and the Limpopo Province and dated to the 6th–8th centuries CE, is likely ancestral of all Kalundu sequences south of the Limpopo River.[45]

Significantly, the late first millennium Diamant pottery in northwestern Limpopo and adjacent parts of Botswana gave rise to Baratani, Eiland, and Broadhurst pottery, which continued as late as the 15th century CE (figure 3; see "Interaction in the Second Millennium"). This means that the ancestry to Shona-speakers can be followed through this lineage. Pottery made by contemporary Shona-speakers can be tracked back phase by phase to Happy Rest, while modern Swahili pottery derives from the Tana type of the Kwale branch of Urewe. As both Shona and Swahili are Eastern Bantu languages, the links between material culture and language suggest that the makers of all Kalundu and Urewe tradition ceramics spoke Eastern Bantu languages.[46]

Interaction and Replacement

As seen in "The Chifumbaze Complex in the First Millennium," the available chronologies are still unclear about the earliest ceramic evidence. Interaction between thick and thin wares becomes prominent from the 3rd century CE.[47] Interestingly, crop farming seems to have appeared before cattle in farmer contexts: the first evidence of crops in farmer contexts dates to 50–250 CE, and first evidence of cattle in a farmer context is 250–450 CE.[48] While this is not necessarily an indication that pastoralism was of less ideological importance in the first half of the first millennium CE compared to the second half, it may have had important implications that ceramics were in practical use. It seems that the material culture and ceramic technology that were part of the earliest farmer package, until the 5th century CE, put relatively high emphasis on food from cultivated plants compared to pastoralist produce.[49]

The period from the 3rd century to the 7th century CE was a consolidation phase in which farmers expanded dramatically. Archaeological evidence of interactions between hunter-gatherers and agropastoralists is evident in the case of Bambata pottery (figure 5) in the Limpopo River valley.[50] Bambata has been identified as belonging to Kalundu. There is general agreement that this thin-walled and comb-stamp decorated pottery was used by Later Stone Age hunter-herders. However, the question remains: Who made Bambata pots, farmers or hunter/gatherers? A prominent explanation posits a subdivision into A and B, where the thinner Bambata A may have been made for trade with foragers and/or herders, spreading south ahead of farmers themselves.[51]

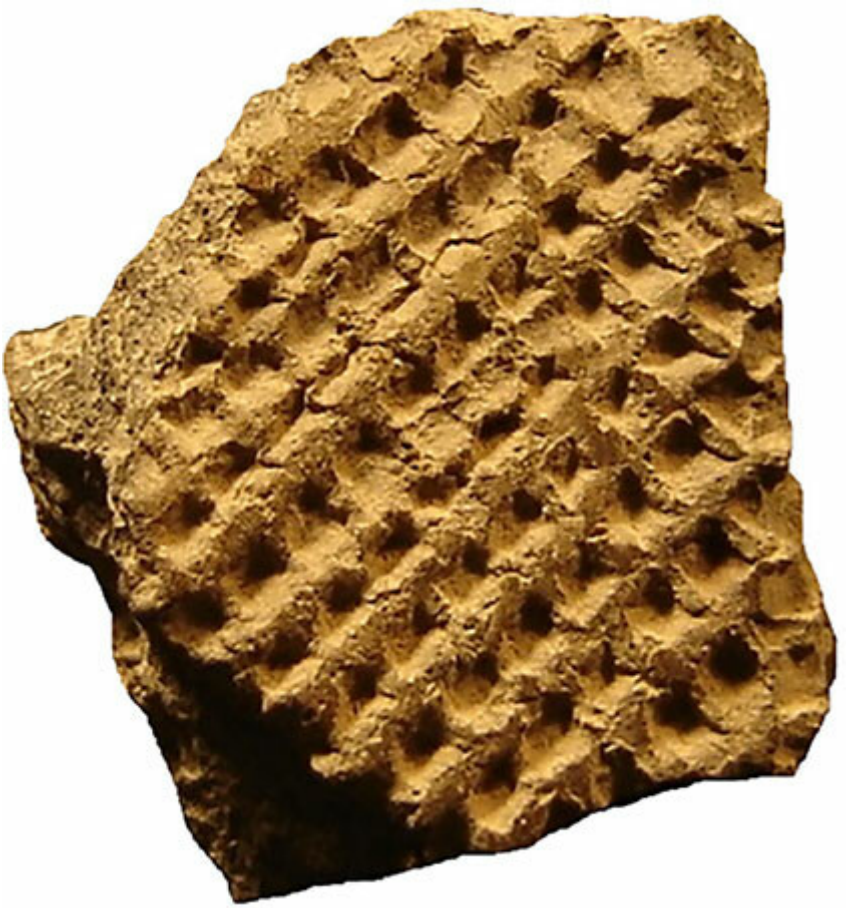

Figure 5. Bambata pottery from the Makgabeng Plateau, South Africa.

Source: Photo by Karim Sadr.

Similar processes are observed elsewhere, especially in instances where thick-walled Kwale and Nkope branch pots replaced the undecorated thin ware. There seems to be a correlation at a regional scale between a southward expanding thick ware, the disappearance of thin ware pottery from the region around the Limpopo River and the Kalahari margins, and the appearance of thin ware ceramics with spouts and surface decoration along the western and southern coastal regions in southernmost Africa. The appearance of northern decoration techniques and spouted vessels (but not the decoration tools, design layouts, and vessels shapes—and important point) in assemblages further south, just after their disappearance in the north, is seen to suggest an infiltration of people who brought certain ideas about ceramic manufacture and perhaps other cultural traits, but these people may have assimilated to such an extent that their arrival is not identified in the archaeological record as discontinuity.[52]

Innovative petrographic work in Botswana has revealed a detailed long-term social geography by tracing the movement of ceramic sherds and paste materials from around 200 CE up to the colonial period. For northern Botswana in the earliest phase, it seems that domestic animals (cattle and sheep) arrived at the beginning of the period with the makers of the first pottery, Bambata. The makers of early thin-wall ware also came from or through from the northeast. This

was probably before 650 CE, by which time makers of thick-walled ware came to the Tsodilo Hills from the northwest. These widespread orientations clearly suggest that potters using different styles spoke equally diverse languages.[53]

From the 7th century CE thick wares spread rapidly at the expense of thin ware. In the north, many of the early first millennium sites that contained decorated thin ware were abandoned. Where occupation continued, the stone-tool-using inhabitants of these sites switched to using thick ware.[54] The expansion of thick ware into the northern parts of the Kalahari(covering Botswana, and parts of Namibia and South Africa) is well documented.[55] Elsewhere in the Kalahari region, Bambata pottery seems to have been replaced by thick ware and by a thinner ware referred to as Khoi pottery. Similarly, in the Limpopo region, most settlements were by farmers using thick ware, and many of the rock shelters that previously contained Bambata pottery were abandoned. A similar and contemporary replacement took place in southeastern South Africa.[56]

The Millennium Turn: Complexity and New Connections

Near the end of the first millennium, farming communities in the Limpopo and Shashi river confluence region underwent significant changes. These gave rise to a significantly greater scale of political, social, and economic organization than that seen in earlier farming communities. This state formation process culminated in the emergence of Mapungubwe (900–1290 CE), which was a political center in the 13th century. This is the first of three periods that together make up what is most often referred to as the Zimbabwe Culture. The following two periods were Great Zimbabwe (1290–1450 CE) and Khami (1450–1820 CE). However, the linearity implied in this conventional sequence has been questioned by work on sites elsewhere in southern Africa, such as Mapela and Khami in Zimbabwe, and Bosutswe and Khubu la Dintša in Botswana.[57]

There are clear ceramic signatures of the increasing social complexity. The long-term replacement process (see previous section "Interaction and Replacement") resulted in that the distinction between thick and thin wares became less pronounced. Spouted thin ware (figure 6) eventually disappeared and was replaced by lugged vessels throughout the western half of the subcontinent.[58] The overall evidence indicates that the basic social structure of Later Stone Age (LSA) hunter-gatherers fragmented, but that they continued to share their landscape with farmers and played a role as ritual mediators between farmers and landscape.[59]

Figure 6. Spouted thin ware with impressed decoration from Die Kelders, South Africa.

Source: Photo by Karim Sadr.

The ceramics associated with farming communities became slimmer, which can be related to an overall change of manufacturing techniques.[60] Perhaps the clearest ceramic signature of social change is the distinction between the earlier style known as Zhizo (figure 3) and the rapidly appearing Leopard's Kopje (figure 3) in the Shashi-Limpopo region by the early 11th century. This disjuncture represents the arrival of new people, or at least the core of a new lineage. Detailed ceramic studies have shown that the new lineage can be identified as ancestral Shona-speakers.[61] This initial establishment, referred to as the K2 polity, foreshadows the later formation of a state, the capital of which was located at nearby Mapungubwe. Interestingly, in addition to the changes in ceramic technology and a broader range of stylistic expression, detailed studies of craft organization in the Mapungubwe phase reveal an intimacy with metalworking, and show that the capital depended on a regional network where hinterland communities had a significant degree of agency.[62] The latter provides a constructive note of caution against the importation of a too generalized center/periphery template when studying state formation and urbanity in African contexts. Syntheses of the emergence of social inequality and multilinear developments viewed from sites in Botswana and western Zimbabwe have, as already indicated, provided necessary correctives to the dominant unilinear narrative.[63]

A key factor for the increase in population and growth of political complexity in this particular area was successful agricultural production allowed by favorable climatic conditions. Another factor was the intensifying links with Swahili traders along the southeast African coast. The latter is well attested in the ceramic series.[64] The geographic extent of the Mapungubwe state and its influence is indicated by the presence of Mapungubwe ceramics in eastern Botswana, south

toward the Soutpansberg and well into Zimbabwe to the northwest. In the 11th century CE, Zhizo communities in eastern Botswana regrouped and merged into what is known as the Toutswe Tradition. These political entities were contemporary with K2 and Mapungubwe, and developed economies predominantly around livestock production and extensive local trade with the Kalahari hinterland and the Okavango area in northwest Botswana, thus involving several pastoralist and hunter-gatherer communities.[65]

Archaeologists' increased focus on regional political dynamics is not coincidental. During the 1990s ceramic analysis shifted from the construction of ethnic groups to interaction studies.[66] The African interior frontier model, initially developed by anthropologist Igor Kopytoff, has been highly influential through its emphasis on the necessity for leaders to attract and retain followers and the ensuing agency of commoners, on the social dynamic of fission and establishment of new polities at the interstices of existing ones.[67] Such alternatives to traditional center-periphery models have foregrounded a focus on movement and connectivity, where decorated ceramics are increasingly supplemented by a wider range of artifacts and ecofacts. The resulting rethinking of key terms like mobility, urbanity, and marginality has opened up new ways to explore dynamics between different communities and their lifeways, fueled by an explicitly critical questioning of the relevance of implicit modernist values.

Interaction in the Second Millennium

There is discontinuity between the ceramic style lineages established in the first millennium and two new lineages that appear in the archaeological record early in the second millennium. These are called Blackburn and Moloko (figure 7). Blackburn first occurs around 1100 CE in the coastal regions of KwaZulu-Natal and is related to ancestral Nguni-speakers. Moloko appears around 1300 CE and is related to ancestral Sotho/Tswana-speakers who first settled in the Bushveld around the Soutpansberg in northern South Africa. The origins of both lineages seem to be related phenomena and to lie further north as the two language groups have features that could only have developed in East Africa.[68] The dominant ceramic approach has identified continuity into historically documented societies (figure 3), and this is well supported by the broader archaeological record.

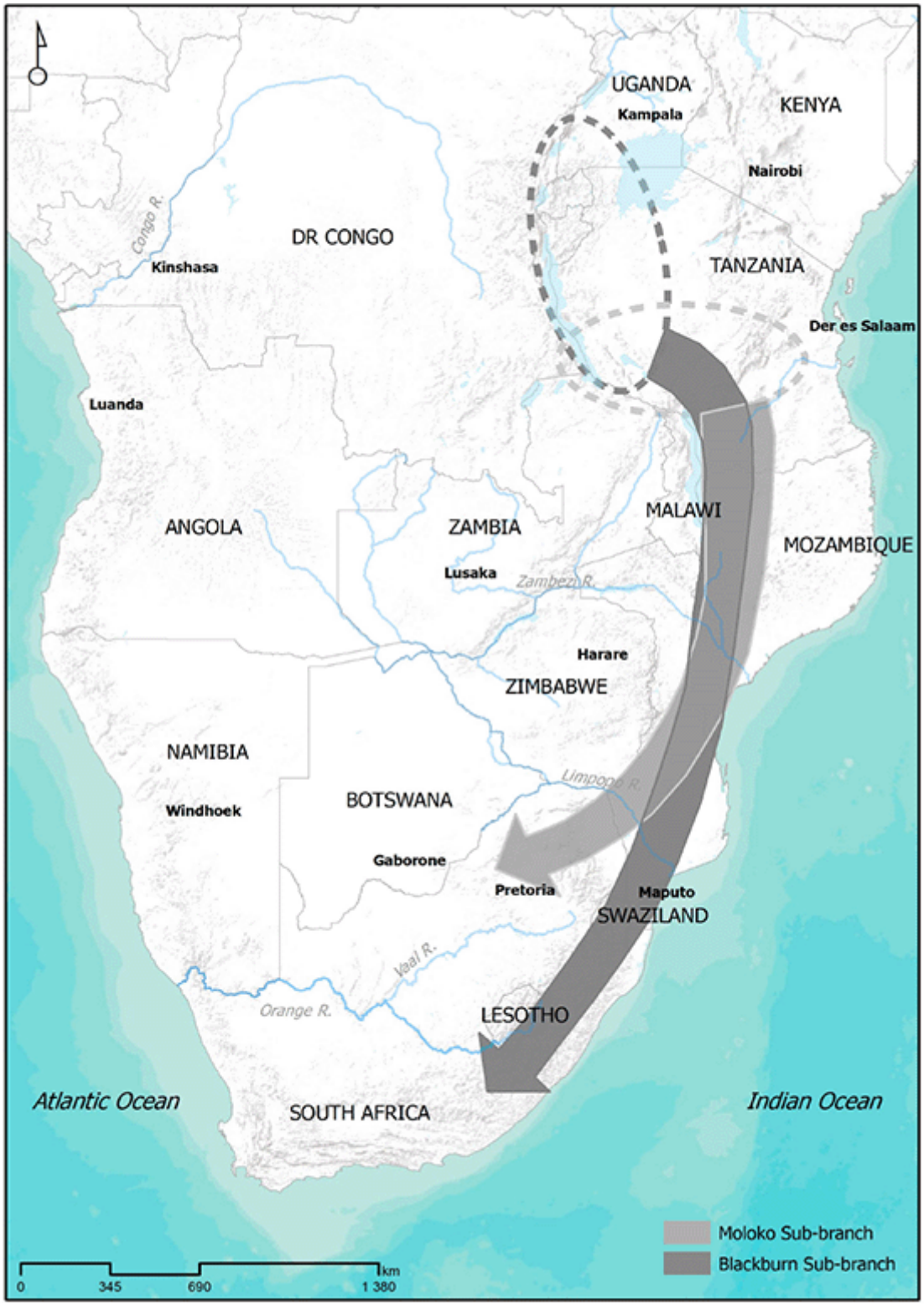

Figure 7. Map showing the routes of Blackburn and Moloko ceramic lineages into southern Africa early in the second millennium CE.

Source: Adapted from Huffman, *Handbook to the Iron Age*. Figure by Mncedisi Siteleki.

The two lineages mark the beginning of the period known as the Late Iron Age or Later Farming Communities. Significantly, the farming communities in the second millennium CE were characterized by a high degree of mobility and formed parts of multifaceted cultural contexts that also included hunter-gatherers and pastoralists. New people arrived while older populations continued.[69] The precise dynamics between the successors and earlier communities remain largely unclear, but ethnohistorically well-informed ceramic research has revealed that some present-day languages, especially Shona and Venda, show stronger connections to first-millennium farming communities. Also, it seems safe to assume that makers of ceramics with roots in first-millennium lineages such as Eiland (figure 8) and Broadhurst survived at least until the 15th century CE.

Figure 8. Sherds of Eiland pottery from Rhenosterkloof, South Africa.

Source: Photo by Foreman Bandama.

In the period after 1500 CE the Nguni- and Sotho/Tswana-speaking groups expanded further, now also cultivating higher lying grasslands previously not settled by farmers. An impressively detailed ceramic sociology for the period up to the mid-19th century (figure 3) reveals intense interactions between the two major language groups. However, archaeological research has also warned against underlying assumptions that the division between the two drawn from ethnographic accounts from more recent times can be uncritically pushed back into the deeper past. Several ceramic studies have highlighted this complexity. For example, Nguni-speakers may

have contributed significantly to the creation of groups later labeled "Tswana," and Venda identity most likely arose from interaction between Shona- and Sotho-speakers in the mid-16th century.[70]

Much of the ceramic evidence from the 18th century and first part of the 19th century comes from a new form of urban settlement that appeared in the southern African interior. The large stone-walled towns in northern South Africa and southern Botswana, largely populated by Sotho/Tswana-speakers, were established in response to a range of factors, including conflict between groups, population growth, increasing sociopolitical complexity, and the centralization of power by chiefs, as well as escalating competition over land and livestock aggravated by an expanding colonial frontier and climatic instability.[71]

The southern African interior saw the development of inland nodes in long-distance trade networks linked to the Indian and the Atlantic Oceans, and became a crucible for sociopolitical processes that rippled far beyond. Within the region, the developments resulted in several waves of settlement relocation, where subsistence and daily lifeways changed as one entered new terrains and social landscapes.[72] The decades between the 1790s and 1830s are referred to as the *Mfecane*. During these "times of troubles" southern Africa underwent major social and economic upheaval and relocation of populations. The troubled times were the result of the advancing colonial frontier, increasing inequalities of wealth within and between societies, and severe droughts at the beginning of the 19th century. The effects rippled northward beyond the Limpopo River, and often conflicts were caused by the arrival of people escaping turmoil. However, the Mfecane was not the only cause of chaos in the early 19th century. While a few sites were indeed destroyed, most of the large settlements were abandoned due to internal wars in the early 1800s. Abandonment in Botswana, especially along the Kalahari fringes, is linked to climatic change and site degradation.[73]

Importantly, European colonial expansion in the 18th and 19th centuries disrupted the farming communities and their connections, and led to a recasting of the precolonial African past in a convenient "tribal" mold. Having shed all outmoded notions of tribalism, the current structuralist framing of the dominant ceramic approach, linking ceramic styles to bounded groups, provides the guiding principles for tackling the archaeological record left by second-millennium farming communities. Since the 1980s, approaches informed by social theory have driven a broader trend in African archaeology that seeks to move beyond narrow correlations between ceramics and ethnicity.[74] The focus on lower and less general scales has been instrumental, as this allows for studies of aspects such as gender dynamics, household practices, and body techniques, all of which are key to understand the making and everyday use of vernacular material culture and architecture. An important development in this regard is the widening of the style concept to also include less visible technological features. Detailed ceramic analyses informed by a technological style concept have revealed intense interaction between Sotho/Tswana and Nguni-speakers, by coupling analytical categories 1–2 with categories 3–5. In particular, the use of micaceous tempers (figure 9) has received attention.[75] Clearly, the subtleties captured by such analyses, correlating ceramic change with concurrent developments in architecture and household spatiality, provide a more nuanced departure point for local and regional narratives.[76]

Figure 9. Shimmering micaceous tempers in a Moloko pottery sherd.

Source: Photo by Per D. Fredriksen.

Ceramic Ethnohistory and Ethnoarchaeology

Studies of ceramics from colonial, postcolonial, apartheid, and postapartheid contexts have actualized the value of archaeological approaches for more recent time periods. A provisional differentiation can be made between *ethnohistorical* studies of ceramics related to historically known groups on the one hand and *ethnoarchaeological* studies on the other, the latter typically with an anthropological focus on craftspeople and their techniques (figure 10), uses of raw material, craft learning, and transmission of knowledge. There are significant overlaps and the difference appears subtle, but it remains useful as a reference to the primary methods in use and the research data generated. While ethnohistorical studies primarily engage with oral or written archives and study historical groups through material culture, ethnoarchaeological studies lean more on ethnographic interview methods and tend to focus on technology and associated social practices.

Figure 10. Skilled hands shaping a pot. An experienced potter near the town of Giyani, South Africa at work. Ethnographic work with present-day potters provides insights that can give voices to the otherwise silent or subaltern, but the potential of such studies is not fully realized in southern Africa.

Source: Photo by P. D. Fredriksen.

Ethnohistorical and ethnoarchaeological ceramic research in southern Africa has predominantly focused on Bantu-speakers. A vast majority of it is carried out in the eastern regions of the subcontinent: in Botswana, Zimbabwe and adjacent areas in Mozambique, and in the Limpopo and KwaZulu-Natal provinces of South Africa and in Eswatini.[77] The geographical distribution largely mirrors the uneven coverage for ceramic studies of the deeper past (see "Ceramics, Language, and Transmission of Knowledge"). This is not coincidental. Most studies rely on some form of method that seeks to work backward from the present into the past. For example, the commonly used multidimensional method depends on the "direct historical approach."[78] However, various methods' theoretical underpinning and view of social change have differed significantly. The variation in southern Africa echoes that of the wider history of ethnohistorical and ethnoarchaeological research in Africa.[79] While work up to the 1980s had a positivist bent and focused on human behavioral adaptation to ecological circumstances, later postpositivist studies have sought to understand how humans think about their world and how locally grounded social agents are part of wider social structures.[80] Significantly, such recursive ways of working between the present and the past, by continually traversing traditional boundaries between archaeology, history, and anthropology, also entail a continual "historizing" and "anthropologizing" of the archaeological record.[81]

This research status reflects the broader academic history on the subcontinent. While ethnohistorical studies have a relatively longer and problematic political history, ethnoarchaeological studies are, perhaps surprisingly, still few and far between in southern Africa compared to regions further to the north.[82] Some studies were carried out in the 1980s and the 1990s, but an increase is visible only after the turn of the millennium.[83] A significant proportion of these are technological *chaîne opératoire* studies, inspired by methodology developed in West Africa, of which ceramic studies constitute the largest material category.[84]

At least since the late 1990s ethnohistorical and ethnoarchaeological research in southern Africa have sought to keep pace with more general trends in archaeological theory. There has been an increasing engagement with theoretical frameworks that use indigenous ontologies and philosophies and seek to understand issues like identity, cultural transformation, materiality, and human and nonhuman agency. This novel research agenda is related to the postcolonial critique and self-evaluation of anthropological practice that has resulted in requirements that research with living communities follows ethical guidelines and progressively engages with local communities.[85]

Discussion of the Literature

What transpires from this article is the continued importance of ceramic studies for archaeology in southern Africa. However, there have been several critical calls for renewal, anchored in a widespread dissatisfaction with traditional discourses where ceramics are rendered proxies for past language groups' movements and interactions. While acknowledging that such research agendas are important, and undoubtedly will remain so, several prominent scholars have called for alternative approaches that focus on social dynamics on regional and local scales, in order to better capture and understand aspects such as the social geography of materials in specific landscapes, and how sophisticated craft knowledge travels between individuals and between groups. Unfortunately, debates about ceramics in southern Africa have sometimes been polarized. One outcome of this is that a multifaceted phenomenon has been essentialized and simplified.[86] Scholars are still captive to a problematic ethnographic present that continues to overpower the past in its own image. A continual question is whether one may construct interpretations outside of historic images and ethnographic studies.[87]

Researchers' choices of approach, scalar level of analysis, and study area are significant for one's grasp and understanding of past social life. The methods are the lenses through which one views and engages with the past, and these lenses need to be fine-tuned in order for new insights into past social formations and dynamics to appear. A continual challenge for practitioners is to situate ceramic analysis within a thematically and disciplinary wider nexus, in order to be able to construct convincing deep time narratives, while also exploring new pathways to insights that can give voices to otherwise silent or subaltern members of past societies. However, approaches that emphasize the agency of individual potters and communities have yet to make a significant impact.[88] Also, with some notable exceptions, the emphasis is still on decoration at the expense

of undecorated pottery.[89] This means that the potential of combining visual and geochemical studies with anthropological approaches such as the *chaîne opératoire*, which can offer alternative classificatory frameworks, is not fully realized.[90]

Primary Sources

Tom Huffman's *Handbook to the Iron Age* is widely used as an undergraduate textbook and also as a resource for practitioners working with ceramic material from excavations and surveys.[91] The *Handbook* presents the dominant style approach in detail and provides a comprehensive and well illustrated overview of the various ceramic "genealogies" and styles. Universities in southern Africa that offer postgraduate degrees in archaeology or heritage conservation and management have laboratories equipped for ceramic analysis to varying degrees. In several instances they have their own ceramic collections, or they collaborate with museums. However, in the entire region there are only a few specialized laboratories. These include the Archaeological Ceramics Laboratory at the University of Pretoria, which offers analyses in categories 1 and 3–5, and some facilities with a broader material scope such as the Archaeological Materials Laboratory at the University of Cape Town.

Further Reading

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Notes

1. This article focuses on ceramics that are locally produced and consumed within southern Africa, among communities with pastoralist, hunter-gatherer, and farmer lifeways. Important topics such as the distribution and use of pottery produced in Asia or elsewhere and the manufacture and use of colonial ceramics after 1500 CE are beyond the scope of this article.

2. This is the conventional definition in archaeology. See Peter Mitchell, *The Archaeology of Southern Africa* (Cambridge, UK: Cambridge University Press, 2002), 10.

3. Iris Guillemard, “Equating Language, Genes and Subsistence? The Appearance of Herding in Southern Africa,” *Azania: Archaeological Research in Africa* 55, no. 1 (2020): 99.

4. Peter Mitchell, “Early Farming Communities of Southern and South-Central Africa <https://academic.oup.com/edited-volume/28041/chapter-abstract/211951273?redirectedFrom=fulltext>,” in *The Oxford Handbook of African Archaeology*, ed. Peter Mitchell and Paul J. Lane (Oxford: Oxford University Press, 2013), 870–886.Pierre de Maret, “Archaeologies of the Bantu Expansion <https://doi.org/10.1093/oxfordhb/9780199569885.013.0043>,” in Mitchell and Lane, *The Oxford Handbook of African Archaeology*, 828–848.

5. Ceri Z. Ashley, “Archaeology and Migration in Africa <https://doi.org/10.1093/oxfordhb/9780199569885.013.0006>,” in Mitchell and Lane, *The Oxford Handbook of African Archaeology*, 141–156. See also The Bantu Expansion <https://doi.org/10.1093/acrefore/9780190277734.013.191>. in Mitchell and Lane, *The Oxford Handbook of African Archaeology*, 828–848.

6. Karim Sadr, “An Ageless View of First Millennium ad Southern African Ceramics,” *Journal of African Archaeology* 6, no. 1 (2008): 115.

7. John Parkington and Simon L. Hall, “The Appearance of Food Production in Southern Africa 1,000 to 2,000 Years Ago,” in *The Cambridge History of South Africa,* Vol. 1*, From Early Times to 1885*, ed. Carolyn Hamilton, Bernhard K. Mbenga, and Robert Ross (Cambridge, UK: Cambridge University Press, 2010), 109; and Parkington and Hall, “The Appearance of Food Production,” 99–100.

8. Thomas N. Huffman, “Ceramics, Classification and Iron Age Entities,” *African Studies* 39, no. 2 (1980): 123–174; and Thomas N. Huffman, *Handbook to the Iron Age. The Archaeology of Pre-Colonial Farming Societies in Southern Africa* (Scottsville, South Africa: University of KwaZulu-Natal Press, 2007). Importantly, the seriation approach is not a typology, as pointed out by Karim Sadr, “The Archaeology of Highveld Farming Communities,” in *The Oxford Research Encyclopedia of African History*, ed. Thomas Spear (Oxford: Oxford University Press, 2020).

9. Huffman, “Ceramics, Classification and Iron Age Entities”; and Sadr, “An Ageless View, 111–114.”

10. Simon L. Hall, “Farming Communities in the Second Millennium: Internal Frontiers, Identity, Continuity and Change, in Hamilton, Mbenga, and Ross, *The Cambridge History of South Africa*, 112–167; and Faye Lander and Thembi Russell, “The Archaeological Evidence for the Appearance of Pastoralism and Farming in Southern Africa <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6002040/>,” *PLoS ONE* 13, no. 6 (2018): figure 1.

11. Lander and Russell, “The Archaeological Evidence,”; Important exceptions include Edwin Wilmsen, David Killick, Dana Drake Rosenstein, Phenyo Thebe, and James Denbow, “The Social Geography of Pottery in Botswana as Reconstructed by Optical Petrography,” *Journal African Archaeology* 7, no. 1 (2009), 3–39; and Edwin Wilmsen, David Killick, James Denbow, Adrianne Daggett, and Phenyo Thebe, “Keeping Up Alliances: Multifaceted Values of Pottery in Eight- to Seventeenth-Century Eastern Botswana as Reconstructed by Optical Petrography,” *Azania* 54, no. 3 (2019): 369–408.

12. For research history, see Sadr, “An Ageless View,” 104–106; Karim Sadr, “The Archaeology of Herding in Southernmost Africa <https://doi.org/10.1093/oxfordhb/9780199569885.013.0044>,” in Mitchell and Lane, *The Oxford Handbook of African Archaeology*, 849–869.

13. Thomas N. Huffman, “Archaeology and Ethnohistory of the African Iron Age,” *Annual Review of Anthropology* 11 (1982): 133–150.

14. Martin Hall, “Pots and Politics: Ceramic Interpretations in Southern Africa,” *World Archaeology* 15, no. 3 (1984): 262–273; Tim M. O’C. Maggs, “Name Calling in the Iron Age,” *South African Archaeological Bulletin* 47, no. 156 (1992): 131; Philip L. Bonner, Amanda B. Esterhuysen, Alex Schoeman, Natalie J. Swanepoel, and John B. Wright, “Introduction,” in *Five Hundred Years Rediscovered. Southern African Precedents and Prospects. 500 Year Initiative Conference Proceedings*, ed. Natalie J. Swanepoel, Amanda B. Esterhuysen, and Philip L. Bonner (Johannesburg: Wits University Press, 2008), 8–9; Mitchell, “Early Farming Communities,”; and Alex Schoeman, “Southern African Late Farming Communities,” in Mitchell and Lane, *Oxford Handbook of African Archaeology*, 1215–1231.

15. Huffman, *Handbook to the Iron Age*, 115.

16. Parkington and Hall, “The Appearance of Food Production,” 71–72.

17. Huffman, *Handbook to the Iron Age*, 317–319.

18. Hall, “Pots and Politics.”

19. Innocent Pikirayi and Anders Lindahl, “Ceramics, Ethnohistory, and Ethnography: Locating Meaning in Southern African Iron Age Ceramic Assemblages,” *African Archaeological Review* 30 (2013): 457; and Ashley, “Archaeology and Migration in Africa, 149.”

20. Schoeman, “Southern African Late Farming Communities, 1226.”

21. Ceri Z. Ashley, Alexander Antonites, and Per D. Fredriksen, “Mobility and African Archaeology: An Introduction,” *Azania* 51, no. 4 (2016): 417–434; Rachel King, “*Histoire embrouillée:* Making Material Histories in Southern Africa,” *History and Anthropology* 29, no. 5 (2018): 599–619; and Shadreck Chirikure, “Shades of Urbanism(s) and Urbanity in Pre-Colonial Africa. Towards Afro-Centred Interventions,” *Journal of Urban Archaeology* 1 (2020): 49–66.

22. For discussion and references, see Per Ditlef Fredriksen, *Material Knowledges, Thermodynamic Spaces and the Moloko Sequence of the Late Iron Age (AD 1300–1840) in Southern Africa*, Cambridge Monographs in African Archaeology 80, BAR International Series 2387 (Oxford: Archaeopress, 2012).

23. Pikirayi and Lindahl, “Ceramics, Ethnohistory, and Ethnography.”

24. Kevin C. MacDonald, “Discussing Ceramics in the African Atlantic,” *Azania* 46, no. 3 (2011): 358–362.

25. Tom Güldemann, “A Linguist’s View: Khoe-Kwadi Speakers as the Earliest Food-Producers of Southern Africa,” *Southern African Humanities* 20 (2008): 93–132; and Parkington and Hall, “The Appearance of Food Production,” 65–66.

26. See also The Origin and Spread of Pastoralism in Southern Africa *<https://doi.org/10.1093/acrefore/9780190277734.013.678>*. in Mitchell and Lane, *The Oxford Handbook of African Archaeology*, 849–869.

27. Christopher Ehret, “The Early Livestock Raiser of Southern Africa,” *Southern African Humanities* 20 (2008): 7–35; Francois-Xavier Fauvelle-Aymar, “Against the ‘Khoisan Paradigm’ in Interpretation of Khoekhoe Origins and History: Re-evaluation of Khoekhoe Pastoral Traditions,” *Southern African Humanities* 20 (2008): 179–203; and Güldemann, “A Linguist’s View.”

28. One postulates a spread west from Botswana then south through Namibia into the Cape of South Africa, possibly with ultimate origins in East Africa. The alternative sees a more complex movement pattern, initially southward along the eastern margins of the Kalahari and entering the Cape in its latest stage.

29. Benjamin W. Smith and Sven Ouzman, “Taking Stock: Identifying Khoekhoen Herder Rock Art in Southern Africa,” *Current Anthropology* 45, no. 4 (2004): 499–526; and Lander and Russell, “The Archaeological Evidence for the Appearance of Pastoralism and Farming in Southern Africa,” figure 11.

30. Sadr, “The Archaeology of Herding in Southernmost Africa *<https://doi.org/10.1093/oxfordhb/9780199569885.013.0044>*, 852”

31. Antonieta Jerardino, Joaquim Fort, Neus Isern, and Bernardo Rondelli, “Cultural Diffusion was the Main Driving Mechanism of the Neolithic Transition in Southern Africa,” *PLoS ONE* 9, no. 12 (2014): e113672; and Guillemard, “Equating Language, Genes and Subsistence?” 99–100.

32. See works by Sadr: “An Ageless View,” 104–106; “The Archaeology of Herding in Southernmost Africa 859–860,”; “Livestock First Reached Southern Africa in Two Separate Events,” *PLoS ONE* 10, 8 (2015): e0134215; and “The Arrival of Ceramics at Kasteelberg on the West Coast of South Africa,” *South African Archaeological Bulletin* 73, no. 207 (2018): 51–63. See also James Denbow, “Interactions among Precolonial Foragers, Herders and Farmers in Southern Africa”, *Oxford Research Encyclopedia of African History* (2017) *<https://doi.org/10.1093/acrefore/9780190277734.013.71>*.

33. Indeed, some scholars have argued that the earliest ceramics may be a local invention. See Karim Sadr and C. Garth Sampson, “Through Thick and Thin: Early Pottery in Southern Africa,” *Journal of African Archaeology* 4, no. 2 (2006): 235–252; and Sadr, “An Ageless View,” 110.

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35. Orton et al., “An Early Date for Cattle,” 117.

36. Sadr, “An Ageless View,” 111.

37. See De Maret, The BantuExpansion *<https://doi.org/10.1093/acrefore/9780190277734.013.191>*.

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39. Thomas N. Huffman, *Iron Age Migrations: The Ceramic Sequence in Southern Zambia, Excavations at Gundu and Ndonde* (Johannesburg: Witwatersrand University Press, 1989); and Huffman, *Handbook to the Iron Age* 331–359; and see also Lander and Russell, "The Archaeological Evidence, figures 1–9."

40. Parkington and Hall, "The Appearance of Food Production," 71.

41. Gilbert Pwiti, "Settlement and Subsistence of Prehistoric Farming Communities in the Mid-Zambezi Valley, Northern Zimbabwe," *South African Archaeological Bulletin* 51 (1996): 3–6.

42. See also Sadr, Archaeology of Farming Communities in Mpumalanga Province and the Adjacent Lowveld in Northeastern South Africa *<https://doi.org/10.1093/acrefore/9780190277734.013.767>*.

43. Huffman, *Handbook to the Iron Age*, 127–129; Sadr, "An Ageless View", 110; and Mitchell, "Early Farming Communities", 872.

44. Parkington and Hall, "The Appearance of Food Production," 69–75.

45. Sadr, "An Ageless View," 111; and Mitchell, "Early Farming Communities", 871.

46. Huffman, *Handbook to the Iron Age*, 335; Mitchell, "Early Farming Communities", 871.; and Matthew Pawlowitcz, "A Review of Ceramics from Tanzania, Malawi and Northern Mozambique, with Implications for Swahili Archaeology," *African Archaeological Review* 30, no. 4 (2013): 367–398.

47. Parkington and Hall, "The Appearance of Food Production," 65–66; and Sadr, "An Ageless View," 110

48. Lander and Russell, "The Archaeological Evidence for the Appearance of Pastoralism and Farming in Southern Africa," figures 5 and 6.

49. This resonates well with a well established common feature for agropastoralist communities throughout southern Africa, where different shapes and sizes serve different functions, such as brewing beer, drinking beer, storing water, carrying water, cooking meat, cooking porridge, and serving relish. See Anders Lindahl and Edward Matenga, *Present and Past, Ceramics and Homesteads: An Ethnoarchaeological Project in the Buhera District, Zimbabwe*. Studies in African Archaeology 11 (Uppsala, Sweden: Department of Archaeology, 1995); and Huffman, *Handbook to the Iron Age*, 349.

50. Simon L. Hall and Benjamin W. Smith, "Empowering Places: Rock Shelters and Ritual Control in Farmer-Forager Interactions in the Northern Province," *South African Archaeological Society Goodwin Series* 3 (2000): 72–79.

51. Thomas N. Huffman, "The Stylistic Origin of Bambata and the Spread of Mixed Farming in Southern Africa," *Southern African Humanities* 17 (2005): 57–79; Huffman, *Handbook to the Iron Age*, 346–359; Sadr, "An Ageless View," 107, table 1; and Mitchell, "Early Farming Communities," 874.

52. Sadr, "An Ageless View," 114–115.

53. Wilmsen et al., "The Social Geography of Pottery," 36.

54. Sadr, "An Ageless View," 113–114; and Hall and Smith, "Empowering Places."

55. Sadr, "An Ageless View," 113; and Huffman, *Handbook to the Iron Age*, 335.

56. For an overview, see Sadr, "The Archaeology of Herding in Southernmost Africa."

57. Shadreck Chirikure, Foreman Bandama, Michelle House, Abigail Moffett, Tawanda Mukwende, and Mark Pollard, "Decisive Evidence for Multidirectional Evolution of Sociopolitical Complexity in Southern Africa," *African Archaeological Review* 33 (2016): 75–95; James Denbow, Jeanette Smith, Nonofho Ndobochani, Kirsten Atwood, and

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58. Sadr, “An Ageless View,” 114–115.

59. Hall, “Farming Communities in the Second Millennium,” 115.

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