



Ceramic Production in Swaziland

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Abstract. – The article summarises recent fieldwork conducted with Swazi potters in the Manzini District of central Swaziland. These new data on pottery-making techniques and strategies are compared with observations by Lawton in the 1960s to identify and explain variation in the Swazi ceramic tradition. It is suggested that similarities in the ceramic repertoire and in production stem from a shared learning system and deep and formal cultural and linguistic relationships between Swazi communities and some nearby Zulu communities. Differences appear to result from the varying demands of local clientele, change in practices over time, and ambiguity in describing practices, which have made certain comparative results vague. On this basis, a new agenda to guide future research on ceramics in Swaziland is presented. [*Swaziland, Swazi, ceramics, chaînes opératoires, production*]

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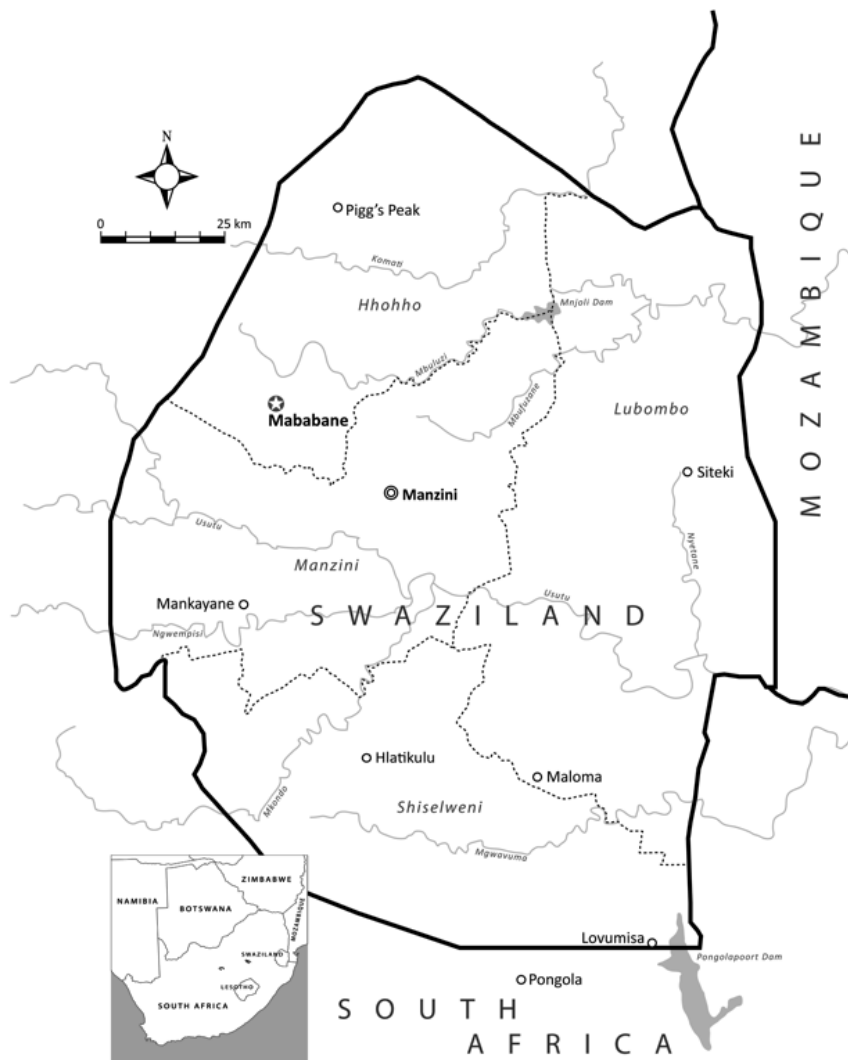
Introduction

Nguni speakers are the largest branch of Eastern Bantu languages in southern Africa. The largest groups live in the southeast and include the Xhosa and Mpondo (Southern Nguni) and the Zulu and Swazi (Northern Nguni) (van Warmelo 1935). While the culture of many groups is well document-

ed, our understanding of material culture, archaeology, and ancient history is uneven (Huffman 2004). Over the past decade, there has been a tremendous increase in research on Zulu ceramics.¹ Comparatively, most of what we know about the ceramics of other Nguni speakers, such as the Ndebele (Lawton 1967; Schofield 1948: 191), Xhosa (Lawton 1967; Schofield 1948: 185, 191), and Swazi (Lawton 1967; Schofield 1948: 191), is based on research conducted fifty or more years ago.

Schofield (1948) and Lawton (1967) remain the two main authorities on Swazi ceramics. Schofield dedicated a mere 82 words to Swazi pottery. He described vessels as small, poorly made and undecorated, with production on the decline in the 1940s. Ann Lawton (1967) discovered the opposite when she criss-crossed the country documenting pottery practices in 1962. Instead, she found the craft flourishing and women specialised in making pottery for sale locally and in nearby markets. Lawton provided a tremendous service in documenting Swazi pottery manufacturing techniques, vessel names, their functions, and often their social significance. She visited Swazi potters at five locations in all four districts of Swaziland (see Map), making field observations in the vicinity of Pigg’s Peak and outside Mababane in the Hhohho District, Siteki in the Lubombo District, Mankaye in the Manzini District, and in the area between Hlatikulu and Maloma in the Shiselweni District (Lawton 1967: 64–70).

¹ Armstrong (1998); Armstrong and Calder (1996); Armstrong, Whitelaw, and Reusch (2008); Fowler (2006, 2008); Garrett (1997, 1998); Jolles (2005); Kennedy (1993); Legg (2006); Levinsohn (1984); Reusch (1996, 1998).



Map: Swaziland showing major centres and locations included in the studies by Lawton and the NCSP.

It has been fifty years since Lawton undertook that project. We have learned nothing since of pottery-making in Swaziland. Recently, however, new data has been collected on Nguni ceramic production and new research protocols have developed to collect such data. Thus, the information available on production practices in Swaziland is not directly comparable to other Nguni speaking groups.

To correct this imbalance, the “Nguni Ceramics and Society Project” (NCSP) was extended from South Africa to Swaziland in 2010 to initiate a longer-term project aimed at increasing our understanding ceramics in Swazi society. Recent research by the NCSP has worked towards collecting data on modern Zulu ceramic production with the intention of monitoring trends in production practices and factors that influence them, examining variation in production within groups, and developing a deeper understanding of the historical

forces that have shaped southern African ceramic traditions (Fowler 2006, 2008, 2011). The point of departure for the Swaziland study was to focus on an area not covered by Lawton. The specific aims of this report are to present the results of our work on present-day pottery production in central Swaziland and, through a comparative analysis with Lawton’s data, to highlight technological variation in the Swazi ceramic tradition. On this basis, a new agenda to guide future research on ceramics in Swaziland is presented.

Methods

The aim of the NCSP is to understand how the social influences experienced by potters contribute towards technological variation in ceramic production. Such variation is accessed through a de-

tailed study of *chaînes opératoires*.² As an analytical method, the goal of *chaîne opératoire* research is to describe complete manufacturing sequences and examine both the technical and social factors influencing the decision-making strategies artisans employ during production.³

This research on pottery production in Swaziland focused upon potters located near the economic hub of Manzini. Data collection involved conducting extensive unstructured interviews with a senior potter, Sara Shongwe, and several potters she has taught including one who is currently learning. Through interviews carried out in June of 2010, we gathered information regarding five active potters in the area. All potters interviewed were women ranging in age from their thirties to their seventies. In total, our data for eastern Manzini spans two generations of active potters. Sara Shongwe had prepared clay and vessels at different steps in each of the production stages so that we would be able to observe the entire production sequence in a condensed time frame of a week rather than several. Raw and processed clays were collected, clay sources were identified by observation, and located with satellite and 1:10,000 maps, and all production stages were visually recorded. Interview questions addressed to potters were developed from existing questionnaires (e.g., Gosselain 2002; Gosselain and Livingston-Smith 1997) and focused on six topic areas: (1) identity (e.g., age, gender, literacy), (2) socioeconomic context of production, (3) vessel shape and function, (4) vocabulary, (5) manufacturing process, (6) learning. While I would normally collect information on symbolic representations, this requires spending considerable time with potters, and often over many years. Thus, we did not have the opportunity to give this topic the necessary attention.

The Study Area

Covering over 17,000 km², the Kingdom of Swaziland is a small, landlocked country bordered by Mozambique to the east and otherwise surrounded by the Republic of South Africa. Nongovernmental reports estimate nearly 1.4 million inhabitants, although life expectancy is low (age 46) and infant mortality is high (63/1000), which directly reflects Swaziland as having the highest HIV/AIDS prevalence rate in the world. Paradoxically, the Swazi

people reportedly experience one of the highest literacy rates in Africa (82%) despite endemic poverty, high unemployment (40%), and a mostly rural population (79%) engaged in subsistence agriculture. The economy is heavily dependent upon imports from and exports to South Africa, and both countries have experienced increased fiscal hardship due to the recent global recession. Presently, the economy is propped by the sugar industry and worker remittances from South Africa that supplement domestic incomes.

When Lawton first visited Swaziland, it was on the brink of constitutional discussions in London that would see the country an independent nation under Sobhuza II in 1968. While the independence of Swaziland was guaranteed by the British and Transvaal governments in 1881 and 1884, haphazard grants of land, grazing, and mineral rights to European concessionaires by King Mbandzeni Dlamini ravaged the political institutions and alliances secured by Mswati Dlamini II (1840–1865) and opened the nation to colonisation by Britain and the South African Republic (Bonner 1983; Booth 2000). After the Second Anglo-Boer War (1899–1902), Britain administered Swaziland in much the same manner as the Colony of Natal to the south. A labour tax, a ban on royal criminal jurisdiction, and a reallocation of two thirds of the land to European concessionaires or as “crown land” provided the basic authority under which British administration was conducted for 60 years. Sobhuza II (1899–1982) slowly regained the authority of the *ingwenyama* (kingship) during his reign (Booth 2000: 6–15, 92–97). His agreement with Pretoria in 1982 to reincorporate all Swazi people by recovering land lost during the nineteenth-century-border delimitations with the Transvaal (now Mapumalanga) ended with his death that year. His successor, Mswati Dlamini III, has since been embroiled in sustaining the monarchy against repeated challenges to introduce democratic reforms.

Within its present border, the physiography of Swaziland has conventionally been divided into four regions: the Highveld, Middleveld, Lowveld, and Lubombo plateau.⁴ These regions have more recently been refined and classified on the basis of landforms, elevation, geology, and soils to six major regions that see the Middleveld divided into Upper and Lower regions and the Lowveld separated into Western and Eastern regions (*Swaziland* 1995).

The Highveld runs from just south of the Mkondu River to the northwestern corner of the country.

2 Dobres (2000); Leroi-Gourhan (1964, 1965); Pelegrin, Karlin, and Bodu (1989); Tixier (1967).

3 Dobres and Hoffman (1999); Lemonnier (1992); Pfaffenberger (1992).

4 Acocks (1988); Hunter (1967); Hunter and Davies (1961); I'ons (1967); Murdoch and Andriessie (1964).

Altitude (from 1,200 to 1,800 m a. s. l.) and rainfall (1,100 to 2,000 mm) increase from south to north but only support sour grassland covering severely leached soils derived from metamorphic quartzites, gneiss, lava, and shales of the Pongola and Swaziland systems and part of the Ancient Granite Complex. Temperatures are lowest throughout the country in the Highveld, averaging around 20 °C during the summer months and in the low teens during the winter.

The Middleveld spans the central portion of the country and includes land grading from 800 to 400 m a. s. l. from west to east that is characterised by a geology of granites and granodiorites of the Ancient Granite Complex and the Gneiss Complex (Hunter and Davies 1961). The low hills, plateau remnants, and basins of the Upper Middleveld and the plain of the Lower Middleveld are characterised by a wooded savannah supported by 800–900 mm of rainfall annually in the west. Further to the east is a drier savannah with lower rainfall. Summer temperatures are comparable to the Highveld but are several degrees higher on average in the winter months.

The sweet grassland on the rolling hills of the Western Lowveld (200–500 m a. s. l.) lay above sandstone/claystone bedrock. With comparable rainfall to the Middleveld, the mosaic of deciduous and drought resistant trees that run along the river courses of the Western Lowveld continue into the Eastern Lowveld. Varying from 300 to 200 m a. s. l., the Eastern Lowveld sits on the shales, sandstones, and basalts of the Young Karoo Group. Rainfall seldom exceeds 600 mm in the east, and, with average summer temperatures of 25 °C, evaporation is high. Mean temperatures in the winter are higher than in other regions and a discernable temperature decrease is noticeable as one moves eastward to the fourth region, the Lubumbo Escarpment. The Lubumbo is a cuesta underlain by ignimbrite bedrock, which rises to more than 750 m a. s. l. at its height along the border with Mozambique and South Africa. With altitudes comparable to the Middleveld, the Lubumbo plateau experiences similar temperatures and rainfall.

The focus of our fieldwork was in central Swaziland near the village of Luve some 30 km north-east of Manzini. This location in the northeast of the Manzini District falls within the Upper Middleveld where pottery-making practices have not been reported.

In this area, the Umbuluzi River begins in the highland northeast of Mbabane and runs eastward north of Luve and across the country into Mozambique, emptying into the Indian Ocean at Maputo

Bay. The nature of the topography around Luve is such that access is relatively easy both by vehicle and by foot throughout the area.

Sara Shongwe makes pottery every day, although her former students do not. She sells locally, when people come to request pots, but also takes them to Luve and the large market in Manzini. Although selling at market costs more because she has to transport the pots by taxi to Manzini, she still makes a trip nearly every month. As a result of the high unemployment in the region, pottery making is a key source of income for some women and their families. With the money she makes, she supports the family and pays for the children's school.

As the only senior active potter in the area, Sara Shongwe is often sought as a teacher. She has taught her own daughters who have since married and moved away and three other local potters, one of whom she is related through her husband's patriline. The link between learning and the husband's patriline have elsewhere been viewed as an important one, as learning to make pottery can be viewed as part of the integration of a new wife into her husband's family.⁵ Learning also involves a social investment. Potters and their students stated that intelligence, a willingness to learn, and the potential for developing a strong bond between students and teachers are required for students to learn and master the craft. However, the learning process is not inhibited by the same kinds of prohibitions that are known for Zulus who typically must have married and had a child before learning to shape pottery – the final stage in the learning process (see footnote 5). Rather, her own daughters had only to finish school before she would teach them. The other novice potters have married into the area.

Learning starts with digging clay (what is clay, what is not), and moves in the order of production. When her students are learning, they do everything with her. Hands-on instruction is her approach, and how she was taught: when teaching shaping, she will make the base of a pot for them, letting them build on top of that. Once they have nearly finished learning, she lets them practice at her homestead (where each potter works alone). When she returns to have her assessed and it passes, the student is qualified to make pottery on her own. This process takes about a year.

5 Armstrong, Whitelaw, and Reusch (2008); Fredriksen (2012: 63–70); Fowler (2008, 2011).





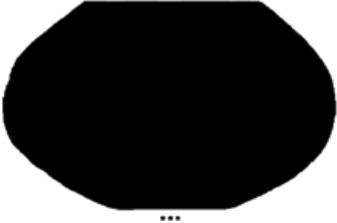
Form	Description	Name	Function
	Open mouthed bowl	<i>umqengele</i> <i>umkhele*</i>	For eating and serving food (Lawton 1967:66)
	Small wide-mouthed bowl	<i>moruswana wa gò jela</i> (Sotho) <i>moruswane wa go šilela</i> (Sotho) <i>isicephi</i>	For porridge (Lawton 1967:66) For meat or vegetables (Lawton 1967:66) Small <i>umkhele</i> for eating porridge and other food
	Bowls and dishes	<i>umcakulo</i>	For food (Myburgh 1949, 1956)
	Spherical bowl; vessels with upright or inward-sloping necks have same name. This conforms to the description of spherical pots with short vertical necks by Schofield (1948).	<i>lukhamba, ludziwo, ludziyo, ludiwo</i> (Lawton 1967:67) <i>utziyo*</i> <i>umcgene</i> <i>isigudla*</i>	Capacity up to 4.5L (Schofield) Large: carry/store beer Small: drink beer Drum Drinking and cooking beans For milking cows Very small <i>lukhamba</i> (Manzini)
	Spherical bowl with everted neck	<i>blompot</i> (Afrikaans)*	Large: flower vase Small: tourist curios
	Large spherical and bag shaped vessels, rough outer surface, can be smeared with dung after firing	<i>imbita</i>	Beer fermenting, cooking (30-75 cm h)

Fig. 1: Vessel forms, names, and functions in the Swazi ceramic repertoire. Forms after Lawton (1967: 376) and field observations. Those with asterisks denote names for forms given by Manzini potters.

The Ceramic Repertoire

Early reports on Swazi ceramics notably comment on the limited repertoire of vessel types. In reviewing the existing literature from the 1940s and 1950s,⁶ Lawton (1967: 69) identified three main vessel forms: bowls without necks, pots without necks, and pots with necks. She used the same scheme to characterise the vessels studied from the South African Museum and those observed in the field. However, this classification is confusing. “Bowls” and “pots” are ambiguous terms and do not adequately account for vessel geometry or emic classification.

In reality, both Swazi potters and buyers interviewed by Lawton and by my team organised vessels into two main forms, open and closed, that were

further distinguished by size and function (Fig. 1). An open form is when the mouth is the maximum circumference of the vessel. These could properly be referred to as open bowls. They include a larger bowl, *umqengele* used for serving and eating food, and two smaller versions referred to by their Sotho name, the *moruswana wa gò jela* for serving porridge and the *moruswane wa go šilela* for eating and serving meat or vegetables.⁷ *Umcakulo* was another term for bowls and dishes provided by Myburgh

⁷ Bonner (1983: 27–46) outlines Sobhuza’s gradual and cautious campaign of incorporating Sotho, Nguni, and Tsonga peoples into his fledgling state in the 1820 and 1830s. With a rather fluid northern and western boundary it is not surprising to see these terms retained in the lexicon of vessel types in the country. Further research, particularly in northern regions, and also with Swazi living in Mapumalanga, would clarify whether they are still used.

⁶ Marwick (1940); Myburgh (1949); Schofield (1948).

(1949, 1956). They are described as used for eating and serving food, but were not illustrated (thus, omitted in Fig. 1). The term is also used by Zulus to refer to a deep bowl with a wide mouth used for serving specific dishes, including *uphuthu* (maize meal and sour milk), *amahewu* (thin, fermented maize porridge), and *umdokwe* (a dish of fermented ground maize meal) (Fowler 2006: 101).

Closed forms are the second category, and are defined by the mouth of the vessel being smaller than the girth (maximum diameter). Only three forms fall into this category. The first is the common spherical bowl known generically as *lukhamba*, but it also has several variants (*ludziwo*, *ludziyo*, *ludiwo*). Larger vessels of this kind are used for carrying and storing beer, while smaller ones are used for drinking beer. Lawton (1967: 69) also describes this type of vessel being used as a drum.

The second form is a variation of the *lukhamba* but it has a short upright or in-sloping necks. Although the shape is clearly different than that of the closed spherical bowls, Lawton noted that the shapes are not distinguished linguistically and the same terms are used to refer to the bowls and necked bowls. Because of this, it would be inappropriate to equate these forms with “jars.”

The third form is the *imbita* or *imbiza* that is used to ferment beer. They can vary in size from 30 to 75 cm and all *izimbita* have rough unburnished surfaces that may be smeared with cattle dung once fired. In our discussions, potters noted that they usually make smaller *izimbita* because they have problems finding enough wood to fire them.

Another form mentioned by Lawton (1967: 67) was an enamel-painted, pedestal-based beaker used to drink tea, coffee, or beer. Clearly, this is a recent European inspired form.

During the interviews we conducted, potters were provided with silhouettes of this range of vessel forms as well as those documented for Zulus and Xhosas in order to investigate what term, or range of terms, they would provide without reference to scale or decoration, then with reference to scale, and finally in discussion of known terms associated with vessel forms. The names the senior potter provided are included in Fig. 1.

The results of our inquiries did not increase the repertoire of known Swazi ceramic forms, but it did expand the lexicon of Swazi ceramic containers. New terms for large (*umkhele*) and small (*isicephi*) open-mouthed bowls were recorded. Several terms for *lukhamba* were provided that diversify the functional range of this form. *Utziyo* is a variation of *ludziyo*, likely a regional variant, used for drinking or for cooking beans. *Umcgene* is a pyriform-

shaped milk bowl used for milking livestock (cf. Lawton 1967: 376, No. 36). *Isigudla* refers to very small *lukhamba* made for sale to tourists at the market in Manzini. The miniaturisation of traditional forms has been documented amongst Zulu potters in the Thukela Basin (Fowler 2006, 2008) where some potters have also modified traditional shapes to make salt-and-pepper shakers, bottles, flower vases, and candleholders based on Western forms for the nonlocal market (Garrett 1997). This adaptation to the demands of a tourist market has parallels with the Philippines (Stark 1995).

As Lawton noted, no specific terms were used for bowls that had extensions or curvatures of the rim (what Lawton termed a neck). One form with a clearly everted neck that comes in a variety of sizes was referred to as *blompot*, the Afrikaans word for “vase.” Our main informant said she has been making this form for many years and knows of no other name for it, but it is popular and commonly used for flowers. The miniature versions are popular with tourists.

At least since the early twentieth century, the repertoire of ceramic vessels in Swaziland appears to have been limited to those used for brewing and drinking beer, eating and serving food, and collecting cow and goat milk (although wooden pails probably served the purpose more often). Small *izimbita* appear to have been used for cooking, but precisely what is not clear. Drums, small vases for tourists, flower vases, and copies of European drinking cups are recent additions to the repertoire. While miniature vases are local innovations, other forms have been copied from other cultures the Swazi have been in contact with since the mid-nineteenth century.

What is striking about the modern repertoire is how closely it parallels the limited range of vessel types produced by other Nguni speakers in southeastern Africa. For instance, cooking vessels were dropped from the inventory amongst Zulus after the import of European metal containers by the 1830s (Fowler 2006: 99). Although some of the forms and names are remembered in a few areas, today they are no longer made or used for cooking (Fowler 2011). Blaming the import of European iron and enamel containers for the reduction of the Swazi ceramic repertoire, although likely, is entirely speculative because sources are silent on the range and function of Swazi ceramics prior to the early twentieth century. Without any clear record of the types of ceramics that may have been in existence prior to European colonisation, it is only possible to suggest that an *imbita*-like vessel was used for cooking and a smaller form like the *utziyolludziyo* was used for cooking vegetables.

A study of the ceramic lexicon also indicates some regionalism regarding the terminology used to refer to the two main Swazi vessel forms. Slight differences in nomenclature are not based upon associations between vessel form and vessel function such as found amongst Zulus, where the same form may be ascribed different functions by groups and, therefore, receive a different term (Fowler 2006, 2008). Each term is merely a variation of a shared classification scheme and may be best understood as a result of regional dialectical differences, perhaps between Baca and Hlubi (e.g., *ludiwo* vs. *ludziwo*) (Lewis 2009). When production practices are examined, such regionalism is also apparent.

Ceramic Production in Swaziland

In pottery making, the production sequence (or *chaîne opératoire*) is carried out in seven general stages, including (1) raw material procure-

ment, (2) clay processing, (3) fashioning, (4) decoration, (5) drying, (6) firing, and (7) post-firing treatments, such as applying waterproofing resins, paints, or other surface treatments (Gosselain 1995; Rye 1981). Not all stages are necessary for producing pottery. The choices made during production are governed by cultural norms and values as much as the range of shapes and decorative attributes of vessels, making ceramic *chaînes opératoires* full stylistic phenomena. In this section, the pottery *chaînes opératoires* practised in central Swaziland are presented (see Table 1). In the subsequent section, these observations are compared with Lawton (1967) to arrive at a more comprehensive picture of ceramic production in the country.

Clay Acquisition and Processing

The acquisition of natural resources in pottery making involves the selection and extraction of clay and

Table 1: Ceramic Production Practices Observed in 1962 and 2010. Terminology after Gosselain (2008).

Stage	Substage and tools	Lawton's 1962 Observations and Notes	NCSP 2010 Observations and Notes
Extraction	Extraction technique	Dug from deposits near rivers	Surface collection from nearby riverbeds
	Tools	Not available	Plastic bags
	Transport	Up to several miles (c. 4,800 m). Will not use inferior clays even if they are closer	Foot within 2,200 m
Processing	Pretreatment	None	Drying
	Removal of non-plastics	Grinding on a groundstone	Hand sorting, grinding, sieving
	Addition of non-plastics	Stegi: potter added grog. Elsewhere: none	Coarse clay fraction (<i>izimbiza</i>)
	Homogenisation	Pounding on flat stone with river cobble and kneaded. Used immediately or left to dry overnight	Kneading
	Tools	Flat stone, river cobble	Grinding stone, mesh sieve, plastic sheeting, plastic bags, 25 l and 50 l plastic water containers, plastic basin, enamel basins
	Number of clays used		Two clays
Shaping	Roughing out	Two methods: (1) spiral coil base and coil body (Steki only); (2) drawing a lump and coil body	Coil from a drawn slab base
	Preforming	Outside scraped with piece of flat wood, strip of tin and rubbed with a stone; interior scraped with a spoonhead, piece of calabash and rubbed with a stone	Scraping and smoothing with support

Stage	Substage and tools	Lawton's 1962 Observations and Notes	NCSP 2010 Observations and Notes
	Tools	Further to scraping tools. Support by flat stone, potsherd, grass ring (inkatha), metal lid, and enamel dish	Hacksaw blade, calabash, body of an old pen; broken coconut, river pebbles, old marker, shoe polish tin lid
Decoration	Decoration techniques	Grooving, impression, appliqué, and burnishing	Grooving, impression, burnishing
	Pigments	Commercial enamel paint was used mainly in Hlatikhulu district	None
	Tools	Fine stick, thorn, or nail for grooving, grass stalk, nail head, or stone for impression	Pen shaft, pen lid, shoe polish tin lid
Drying	Period	One or two days before burnishing; up to two weeks before firing. (After incised, stamped or appliqué decoration is completed, pots are left to dry covered indoors for one or two days before burnishing. Over the next two weeks, they are covered and left indoors during the night and brought out to dry in the sun every day prior to firing. However, the length of the drying period is highly variable.)	Days
	Location(s)	Indoors and outdoors	Inside
	Preheating	None	Set in and beside coals of hard fuel (Black Wattle)
	Firing	Fuel	Mbabane: dried aloe, cattle dung, wood. Elsewhere: wood, grass, kindling
	Structure	Shallow depression. Some support vessels with earthen clumps	Pit
	Location	Not available	30 m from building, open
	Duration	1–3 hours but vessels firing in evening left to cool and removed following morning	c. 40 min.
Post-firing	Smoking	No locations given: vessels smoked in grass stalks or supported on three stones over grass fire and turned. Around Pigg's Peak, wet wood ash to fill designs, removed after bisque firing to leave red colour that contrasts black areas resulting from smoking	Yes, described above
	Fuel	Grass	Dry and green grass
	Structure	None, nested in burning grass stalks; vessels supported on three stones over grass fire and turned	None, nested in burning grass
	Location	Not available	Within yard, open
	Duration	Not available	20 min.
	Organic coating	Animal fat rubbed on vessels surface prior to smoking. After smoking, porridge cooked in vessels or beer poured in heated vessels to seal minor leaks	None

the collection of fuel for firing. Unlike Zulu potters (Fowler 2008), who use a single term for clays (*ubumba*) and qualify them based upon whether they are appropriate for potting, the potters we visited distinguished clays with different terms based upon density, texture, and colour. One kind of clay (*umqoqo*) was described as being “heavy” and “good to the eye, but not for the product.” It is appropriate for making sculpture and is used by children to make clay models for school projects. Amongst Zulus, clay from perennial riverbeds are used for the same purposes.

Lawton observed little variation in clay extraction strategies and processing techniques. Throughout the country, it was noted that all potters obtain specific clays from nearby deposits, although the distances provided were vague. These kinds of data are important for archaeologists because establishing the source of ceramic production is vital for distinguishing local versus nonlocal production and inferring ancient ceramic trade and exchange practices. Our work was able to elucidate the resource acquisition strategies and processing techniques used by potters.

Very specific clays are target by the potters we interviewed. Potters around Luve collect both a black and a yellowish-white clay from the bed of the nearby Masumkula stream that drains in to the Umbuluzi River. These clays come from the Mphunga colluvium and appear to be organic rich and kaolin rich clay deposits in the colluvial sediment. Work by Scholten et al. (1997) and Williams et al. (1982) north and south of Manzini summarise the geology and sedimentation history within the study area. The granodiorite bedrock in this location belongs to the Usutu Intrusive Suite and the entire soil catena is underlain by saprolite. The soils are comprised of two colluvia that generally include admixed clays, silts, sands, and fine gravels with low calcium carbonate content. The Mphunga colluvium (c. 1.5–2.5 m) is poorly sorted and contains a higher content (c. 15%) of light gray clay that is indurate when dry. Further south in the Lower Middleveld, Mphungu colluvium deposits can contain as much as 40% clay (Williams et al. 1982: 60). The Bovu colluvium (c. 1.0–1.5 m) sits between the Maphunga colluvium and saprolite. It is discernible as a reddish iron cemented deposit, with low clay content (<4%) and no discernible calcium carbonate, that can grade into a dark yellowish brown. Given this distribution of potential clay sources, the Luve potters utilise the highest quality clays available within the local area.

The four potters interviewed extract clay from two locations in a narrow stream less than two meters deep situated 800 m to 2.2 km from their home-

steads. Both locations fall within the “resource areas” defined for Zulu potters to the south (Fowler et al. 2011). These distances are also typical of clay and temper sources exploited by potters in Africa (Gosselain 2008) and worldwide (Arnold 1985: Fig. 2.5). It appears that these clay-rich deposits are not restricted, and potters can access them freely.

Obtaining clay may be a communal activity, but potters prepare clay for their own vessels. Once the clay is brought to a homestead, it is stored in plastic wrapping or containers until needed. Clay may be saved for a week or more before it is processed. Drying is said to increase the workability of clays. Both clays used by potters are first crushed with an oblong stone and then ground on a grinding stone used specifically for clay processing (Fig. 2a). Small pebbles and minerals (such as quartz, sandstone, degenerated limestone) are removed by hand and with a homemade sieve of mesh secured over a wooden frame. After adding water to the clay and kneading it, clays are combined in a ratio of 45:55 or 50:50. They must be mixed properly or the pots will burst. Once clays have been mixed they can be further stored or used immediately.

Vessel Shaping and Decoration

The shaping and decoration of vessels are done concurrently in this region. Shaping can be divided into two steps: roughing-out and preforming (Gosselain 2002, 2008). In the roughing-out step, potters shape the clay into a hollow volume that has not yet reached its final shape. The base is formed first by shaping a disk of clay and pinching the edges (Fig. 2b). Coils some 40 cm long and 1.5 cm round are then attached to the inside of the edge of the disk. Without smoothing or trimming, the rough-out is continued by adding coils until it reaches an ovoid shape (Fig. 2c). The base (*isibulu*) is then placed in a support (a broken enamel bowl covered in a plastic bag) so that it stays damp. The support varies depending upon the size of vessel being made (e.g., a plastic-wrapped enamel basin is used for larger vessels). After the roughout is completed, the exterior is scraped upwards with a hacksaw blade (Fig. 2d). The interior is then scraped in a sideways motion with a broken piece of calabash. This motion serves to push the wall out to round the form while thinning it. Potters distinguished these techniques by noting they were pushing the clay, or “ploughing” (*ukukhuba*) with the blade, and “smoothing” (*ukugudla*) with the calabash. To finish the form, potters trim the mouth (*umlomo*) with the hacksaw blade.



Fig. 2: Ceramic production demonstrated in the Manzini District: a) Mixing clays (clay soaking container to right and grindstone shown in background). b) Starting from a drawn clay disk. c) Coiling the roughout. d) Thinning and scraping the roughout in a support. e) Impressed decoration. f) Pre-firing using hard fuel. g) Firing using hard and soft fuel in the pit. h) Post-firing smoking of vessels in a mixture of green and dry grass.

After the top half of the vessel is completed it is set to dry for a short time before being decorated (*ukuhlobisa*). Potters principally use three techniques in decorating their pots: grooving (tracing lines with a blunt tool), impressing (pushing in to the clay), and burnishing. Applying lumps of clay to vessels (*appliqué*) is known, but rarely used.

Decorative motifs are distinctive of potters, although they are usually elegant in their simplicity and execution and always placed in the same area of the design field (between the girth and rim).⁸ Sara Shongwe preferred leaf-shaped motifs (*icebe*) and noted that potters create their own designs, drawing inspiration from many sources, but they do not strictly copy other's work. After smoothing the exterior with an old pen shaft, she used a shoe polish lid to create two arcs that form the leaf shape. After placing four of these equally spaced around the girth of the vessel, she used them as a guide to make small impressions around the edge of the leaf shape with the lid of a pen, and then filled in the shape with rows of impressions (Fig. 2e).

Once the decoration was completed, vessels are removed from the support and the bottom is finished. The same tools and gestures are used on the bottom of the vessel: the hacksaw blade is used to pull clay from the base to obliterate the coil joins, whilst the interior of the base is scraped with a piece of calabash. At this point vessels are turned on their rim to dry for a time before the base is set for less than minute on a board to let it flatten. The base is again smoothed and the vessel is turned on its rim to dry for up to a week prior to firing.

Drying, Firing, and Post-firing Treatments

In Swaziland, the drying-firing sequence involves three distinct stages. Pre-firing is an extension of the drying stage that further allows the gradual evaporation of residual water, either by placing fuel inside vessels or heating them from the outside. In Luve, potters use firing pits, often about two meters in diameter and 50 cm or more deep, which are cleaned of ash and charcoal before each firing. Pre-firing begins by placing a large log across the firing pit, lighting it in the middle, so that it forms a coal bed as it breaks (Fig. 2f). Vessels are then arranged in and around the coals to preheat them. When the bases are dry, potters judge the preheating to be complete. If there are many vessels, it takes a long time to preheat and fire vessels. For our demonstra-

tion at mid-day, fourteen small vessels were used during a firing and several larger vessels were preheated.

The firing is used to bisque pottery. Vessels are placed directly in the coals with their mouth facing upwards. Small chunks of black wattle (*Acacia mearnsii*; *umtfolo*) wood and bark are added in and between the pots (Fig. 2g). After a few minutes, more fuel and dry grass is added on top of the pots and around the edge of the group. Potters have no special preference for kind of wood, as long as it is dry. They often have to buy wood.

Potters judge the end of firing by the colour of vessels. When they turn an orange-red colour they are done. It took 40 minutes for the stage to be reaching during the firing we observed. The same process is followed for larger vessels, but it takes longer, sometimes up to two hours. Vessels are not left to cool, but immediately removed in small batches and arranged near the pit.

Post-firing is the final stage. Both the Zulu and Swazi potters we have interviewed emphasise the functional and symbolic significance of this surface treatment. Smoking serves to seal the surface of vessels and the resulting shine improves the appearance of vessels. The black colour is used only for beer drinking vessels because of its relationship to respect behaviour (*ukuhlonipha*) and the ancestors that is unique amongst Nguni-speaking societies of southern and eastern Africa (Huffman 2004). Respect behaviour is a set of expectations involving both actions and speech that demonstrate respect to others, such as interactions between wives in a homestead, wives and their husbands, the young and the elderly, and the living and the ancestors. Blackened ceramic containers are used in many social contexts where respect behaviour and speech are played out. *Ukuhlonipha* is pervasive in Nguni social life in regard to the making and consumption of beer during visits with neighbours, reconciliation ceremonies, making offerings involving any invocation, guidance, or communion with the ancestors (*amadlozi* or "shades"), during weddings, work-party beer drinks, and other major community events. It is inappropriate to use non-ceramic containers or unblackened ceramic containers for serving beer in these contexts, as it may be regarded as disrespectful.

A smoking serves to blacken all vessels except *izimbata*, which are used for fermenting beer. As reported elsewhere for Zulu potters,⁹ these vessels are left to cool after firing and then rubbed with cattle

⁸ This same design is followed on the few illustrated examples in Lawton (1967: 476 and Plate VII).

⁹ E.g., Armstrong, Whitelaw, and Reusch (2008); Fowler (2008); Reusch (1998).

dung.¹⁰ To smoke vessels, batches of dry and green grass are placed on them and the carbon produced attached to the outside of the vessels (Fig. 2h). Grass is added and vessels are moved until they have been thoroughly blackened.

Firing losses are quite low. Only a few broken vessels were observed around the firing pit. One vessel in the homestead had a spall, but none were damaged during the firing we observed. Because they occur rarely, Sara Shongwe stated that spalls could be a bad omen. One time she had six vessels spall in the same firing and found later that a child had died in the community.

Variation in Swazi Ceramic Production

Combined with Lawton's observations, these new data on pottery-making strategies and techniques in Swaziland demonstrate regional variation in production stages and techniques. Broad patterns are evident: processing techniques are dominated by grinding, drawing from a lump and coiling is the most prevalent shaping technique, a combination of grooving, impression, appliqué, and burnishing are the more widely distributed decoration techniques, and most potters use depressions for firing. However, because the detail of observations between Lawton and our own are uneven, this raises particular problems for adequately interpreting their ubiquity across the country.

One area of concern is with firing structures and post-firing techniques. Two structures, depressions and elevated bonfires, were reported by Lawton in addition to our observation of pits (Fig. 3e). A review by Gosselain (2008: 39–41) has identified eight firing structures in Africa. Depressions are distinguished from pits based upon the depth of the cavity (> 50 cm) and whether vessels sit above or below ground after they have been placed on fuel. This typology does not distinguish between potters that construct hollows from those that use natural depressions. Further, Lawton (1967) did not distinguish between depression and pits, measurements of structures were not provided, and there are no illustrations of Swazi firing practices. The distinction between structures is archaeologically significant because pits and natural depressions can be distinguished. Without further fieldwork there is no way to determine where such structures are currently used in Swaziland or the prevalence of elevated bonfires reported by Lawton (1967: 66), in which

fuel and vessels are placed on stones or clods of earth.¹¹ This kind of structure differs markedly from the Zulu variant of elevated bonfires, whereby vessels are placed on a thick rack-like layer of branches that serves to separate the vessels from the ground. For other Nguni speakers (Xhosas and Zulus) Lawton only distinguished depressions and bonfires. The use of pits by Zulus is only otherwise documented from the Msinga area (Fowler 2011).

Interpreting the distribution of post-firing techniques in Swaziland also suffers from discrepancies in reporting and problems of nomenclature. In Swaziland, as with other Nguni-speaking potters in the region (Fowler 2006, 2008), Lawton (1967: 65 f.) is describing smoking as the technique used to blacken vessels and this occurs during the post-firing stage after plastic decoration, burnishing, drying, and firing has been completed. While it may be argued that vessel blackening is “decorative,” the aim of using post-firing techniques is to improve both the physical properties of vessels (e.g., waterproofing) and their appearance (cf. Gosselain 2008: 41).

It is clear that the smoking technique for drinking, serving, and short-term storage vessels is similar across the country. It is unclear which type of bonfiring technique is used in most places: whether a bonfire is used to blacken vessels by rolling them in burning grass (bonfire) or whether vessels are supporting on stones over a grass fire (elevated bonfire) (Fig. 3f). Comparison with Zulu data from the Phongolo River are little help in this regard, as elevated bonfires are used in the Upper Basin and bonfires are used in the Lower Basin. Also problematic is the prevalence of using organic coatings and resins in post-firing treatments. Lawton (1967: 66) reported that animal fat may be rubbed on vessels prior to smoking, but not where this practice occurred.

This discrepancy with current practices in the Manzini area may well be a result of the time that passed between Lawton's observations and our own. The senior Manzini potter explained that potters of her mother's generation used animal fat before smoking vessels. This practice appears to have since fallen out of use because of the difficulties rendering enough animal fat. A similar shift away from using animal fat (often mixed with graphite) is also known for Zulus. Reports from the late nineteenth and early twentieth centuries describe how vessels were rubbed with an animal fat/graphite concoction, soot, organic resins, or soot was added to clay to

10 For a discussion of the significance of this practice, see Armstrong, Whitelaw, and Reusch (2008) and Fowler (2008).

11 As such, and contrary to Gosselain (2008: 40), elevated bonfires do then occur outside of the Great Lakes region (Burundi, Rwanda, and Uganda).

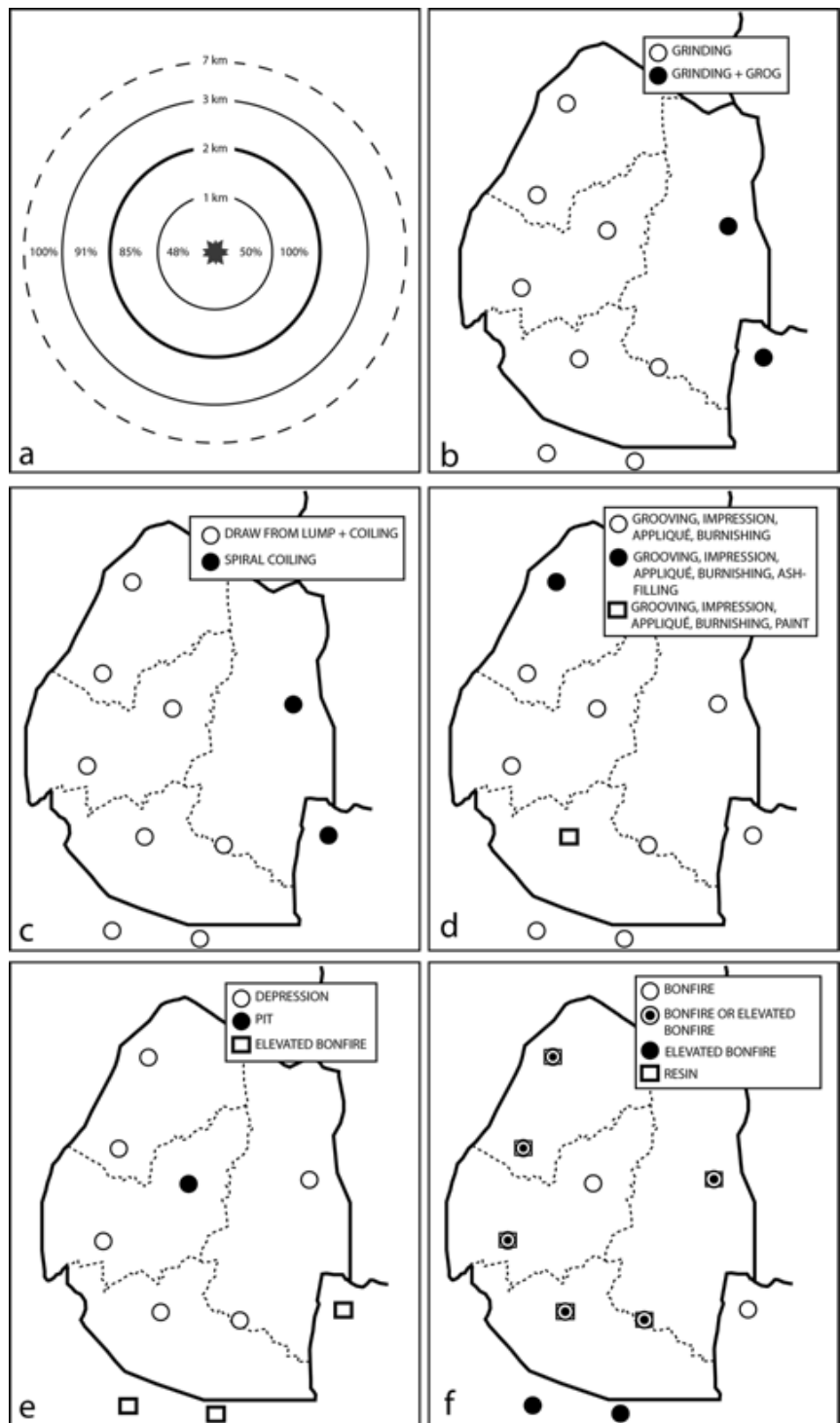


Fig. 3: Distributions of ceramic production techniques in Swaziland and neighbouring Zulu communities of northern KwaZulu-Natal (South Africa):
 a) Spatial model of the distance to clay and water resources used by Manzini potters (to right of centre point) relative to the Zulu data (left of centre point; after Fowler, Fayek, and Middleton 2011).
 b) Processing.
 c) Shaping.
 d) Decoration.
 e) Firing.
 f) Post-firing.

produce blackened vessels (cf. Lawton 1967: 60). A generation ago, shoe polish was used, but seldom because it was an added expense to potters. Even ten years ago some potters still used the graphite/fat concoction (Fowler 2008), but this has widely been replaced by using black shoe polish, or just smok-

ing vessels without adding a resin. As such, only three groups of post-firing techniques are known for Zulus over the past twenty years, and in different combinations: resin application (fat, cooking oil, shoe polish), smoking (bonfire, reduction pit-firing), and water sprinkling (Fowler 2006, 2008, 2011,

and forthcoming). Only resin applications (fat) and smoking (bonfire, elevated bonfire) are documented in Swaziland.

While the smoking technique cannot be considered solely a decorative one, Swazi potters have employed several kinds of decoration techniques that can be placed in three broad groups: plastic, surface finishing, and pigments. Lawton observed that potters employ three plastic decoration techniques (grooving, impression, and appliqué), one surface finishing technique (burnishing), and two pigment application techniques (ash-filling, paint) (Fig. 3d). Ash-filling of grooves prior to firing was only observed in the Pigg's Peak area, and does not seem to occur in neighbouring groups. However, very little is known of potting practices to the west in Mpu-malanga. The use of enamel paint was restricted to the Hlatikulu District (Lawton 1967: 68). In Manzini, we observed use of the same plastic and surface finishing decoration techniques. Applied decoration was not seen in potter's homesteads or at markets in Manzini and may presently have a restricted distribution.

Even this small range of decoration techniques is rather interesting, because both Schofield (1948) and Marwick (1940) noted that the Swazi pottery they saw was undecorated except for a rare burnishing. The lack of decoration on Swazi pottery in the early twentieth century parallels a change to more elaborate decoration of Zulu pottery during the nineteenth century (Jolles 2005). If, indeed, Swazi pottery decoration underwent a significant change over the past century, this phenomenon requires explanation.

I have argued that an increase in the decoration found on Zulu pottery reflects changes in women's roles, the local economic situation of potters, and the function of ceramics in Zulu society (Fowler 2006). It is during the early twentieth century, when pottery replaced baskets for drinking beer (Jolles 2005) and they began to be used in highly visible social contexts involving display and conspicuous consumption. Women had control over the production of ceramics, those used every day in homesteads, used during special occasions, and those that served as gifts. What the decorations *mean* is a different question than what they *signify*, and in Zulu society, elaborately decorated ceramics occurred during a period of significant social upheaval corresponding to taxation, the export of male labour to industry, forced relocations, and a long series of land allocations that later formed the basis of apartheid era "homelands" (see Jolles 2005: 103–105).

In contrast to the Zulu, figuring the development of ceramic styles in Swaziland is an extraordinar-

ily difficult task because so little is also known of late-nineteenth and early-twentieth-century Swazi ceramics. However, it is evident over the past sixty years that Swazi ceramic decoration fluoresces after the 1950s. This corresponds with a tumultuous period during Sobhuza Dlamini II's reign involving his moves towards recognition as head of state and the independence of Swaziland in 1968. This was a period of profound Swazi nationalism, particularly in rural areas, as people strongly supported the king despite his abolishment of parliament and all political parties. Thus, we see contrasting influences affecting changes in ceramic decoration in Zulu and Swazi societies. Elaborated decoration may have well been a response by Zulu women to forced relocations and the amalgamation of people from different chiefdoms caused by external political and social forces, while in Swaziland the impetus for change was internal. Yet, despite the decorative elaboration of Swazi vessels, only painting appears to have been introduced into the decorative repertoire. This parallels observations elsewhere in Africa, where the components of decoration may change, as opposed to the design structure of decoration (Gosselain 2010). Where decoration occurs on Swazi ceramics has not changed. Instead, the combination of techniques utilised or how they are executed, not the number and/or kinds of techniques potters employ, appear to be significant personal monikers for potters. Indeed, the isolated instances of ash-filling and painting may well be explained by potters innovating with how pots are decorated while retaining the conventions of design structure and meaning of decoration.

In contrast to decoration techniques, the history of social and political relationships between Swazi and Zulu peoples may have differently influenced the distribution of processing and shaping stages of production. Throughout the country, Lawton observed that potters obtain specific clays from nearby deposits, and the Manzini data confirms this pattern of local procurement strategies (Fig. 3a). Subsequently, potters grind clay on groundstones and typically do not add any tempering material (Fig. 3b). The notable exception is potters in the east, around Stegi, who added grog. Interestingly, we find the same distinction in shaping (Fig. 3c). Roughouts are usually produced by drawing from a lump and coiling, but potters around Stegi practice spiral coiling (Fig. 3c). Only in one other area of southeastern Africa have these techniques been found together. Across the Lubombo plateau, where South Africa, Swaziland, and Mozambique border each other, Zulu potters add grog to clays, spiral coil bases and then coil the body of roughouts (Fig. 3b, c). This is

unusual for Zulu potters. All records show that Zulu potters coil the body up from a drawn clay disk in near identical fashion from the Phongolo River in the north to the Thukela River in the south. Surely, the similarity is more than coincidence.

Other research in Africa has shown that potters are more resistant to change shaping techniques, possibly because the gestures involved are specialised and uncharacteristic of activities other than pottery making (Gosselain 2000: 192 f.). Shaping practices may also serve as technical signals of social identity as it is closely linked to the socialisation process involved in learning the craft (Gosselain 2000: 192 f.; 2010: 199).

For both Zulus and Swazis, novice potters typically learn from their husband's mother, or others of their husband's patriline. The link between learning and the husband's patriline seems an important one, as learning to make pottery is viewed as part of the integration of a new wife into her husband's family (Armstrong et al. 2008; Fredriksen 2012). Our data show that the general pattern involves novices being recruited through marriage from outside the clan but are trained from the inside resulting in knowledge endogamy. Zulus, far more than Swazis, are fiercely clan exogamous and it is improper to marry anyone related to your four grandparents. Swazi marriage is somewhat more asymmetrical, whereby daughters of the mother's brother line (either mother's brother, father's mother's brother, or mother's mother's brother) are preferred (Kuper 1978).

The few departures from this learning pattern appear to be driven by economics and a desire to pass on the craft. Senior Zulu potters describe how they have recently begun to teach their daughters or unrelated women in their communities because they feel it necessary to preserve the tradition of pottery-making while potentially providing a means for women to bolster meagre household incomes (cf. Fredriksen 2012: 4). In central Swaziland, at least, the latter strategy is becoming more prevalent. The effect of the general HIV/AIDS epidemic in Swaziland on learning potting (or other crafts and art forms) has not been explored. Nevertheless, knowledge endogamy is still the norm, and this impacts technical behaviour by making knowledge of potting highly localized. It also promotes "closed abilities," which Wallaert-Pêtre (2001: 482) describes as being "shaped to respond to stable and predictable situations, to demand standardized answers to problems, and to limit the ability to adapt to new tasks." As such, a broad spatial distribution of a particular technical behaviour must result from the movement of knowledge, people, or both. In the Swazi case, both clay processing and shaping techniques are vir-

tually the same as with the Zulus in the south, and reflect the common cultural and linguistic heritage of these two groups of Nguni speakers. However, the addition of temper and spiral coiling stands out against this broader pattern and suggests a different set of social relationships that governed the transmission of these practices.

Apart from the influences from learning the craft, close similarities in shaping techniques are usually indicative of potters who share other deep and formal relationships with small groups of related peoples (Gosselain 2000: 192 f.; 2010: 199). Indeed, there are close historical connections between peoples on either side of the Lubombo plateau where grog tempering and spiral coiling are documented. In the early nineteenth century, this area was contested by the Swazi, the Madolo, and Tembe chiefdoms, and the Portuguese (Bonner 1983: 95). It was tenuously secured by Mswati Dlamini II in the early 1860s to improve access to Delagoa Bay for trade, but increasing pressure was placed on Swazi presence by both the Portuguese and the Zulu King Cetshwayo in the 1870s, as the Zulu sought to push into southern Swaziland and Tsongaland (Bonner 1983: 113 f., 132 f.). After the collapse of the Zulu Kingdom, the Pretoria Convention (1881) and London Convention (1884) formally defined the eastern boundary of Swaziland along the Lubombo and the border between the British colony of Natal and Portuguese East Africa (Bonner 1983: 141–159; Matsebula 1988: 82–84). Even today, Zulu potters east of the Lubombo recollect stronger historical connections with people from eastern Swaziland. This history is evident in processing and shaping techniques.

Conclusions

Our study in central Swaziland has attempted to build on Lawton's work by visiting a region where she did not work and synthesising these findings with her observations. With this expanded view of pottery production in Swaziland, an attempt was made in this article to better understand the variation in ceramic production in Swazi society. The advantages to comparing our work in the Manzini District with Lawton's is that it provides spatial coverage for the territory predominately occupied by Swazi speakers. Furthermore, it provides insight into the possible changes in Swazi potting practices over the past five decades. Disadvantages lay in the noted difficulties aligning terminology between the two studies as well as uneven descriptions of production techniques. Nevertheless, considering the

available data has allowed for a new understanding of variation in Swazi ceramic production within the country and relationships to neighbouring Zulu communities.

This comparative analysis is important because Lawton concluded that all Nguni speakers could be interpreted as a single “unit.” This study demonstrates that the differences between Swazi communities occur in the manufacturing methods (assemblies of techniques) employed during the processing, decoration, firing, and post-firing stages of production. The consequence is that four distinct ceramic *chaînes opératoires* are discernible in Swaziland (Fig. 4).

It was suggested that similarities in production stem from a shared learning system and deep and formal relationships between Swazi communities and, for some, with nearby Zulu communities (processing, shaping). Differences are more influenced by the varying demands of local clientele (decoration), while other appear to be the result of ambiguity in describing practices that have made comparative results vague (firing, post-firing). The regional

and historical patterns resulting from this study nevertheless help define a new research agenda that can improve our understanding of ceramic production in Swaziland, present and past.

Clearly, documentation of pottery production throughout the country needs to be undertaken in areas that have not been studied, particularly in the Lowveld in eastern Swaziland. Lawton’s locations also need to be revisited. Such studies should aim to clarify the repertoire made by Swazi potters, document the function of vessels and terminology used, and employ a standard language for describing practices. Achieving these aims will greatly improve our understanding of ceramic technology across space and throughout recent history. The resulting data will facilitate cross-cultural comparison, particularly amongst Nguni speakers and Sotho speakers with whom Swazis have a long and entangled sociopolitical history. Further, very little has been written on symbolic representations involving Swazi ceramics or concepts of pollution, avoidances, and the cosmic underpinnings of practices that have recently been subjects of interest in other southern African communities (Armstrong et al. 2008; Fredriksen 2012).

Despite the need for broad coverage, the prospect for detailed localised studies are encouraging. Community-based research, in particular, provides an opportunity to understand in some detail the socioeconomic context of production. In Manzini, there appears to have been no recent stimulus to alter labour organisation or production practices to meet demand. Full-time potters do produce more but have not altered their practices. Changes in learning strategies, on the other hand, have occurred but mainly because some senior potters are willing to take on novices both to preserve knowledge of potting and provide a means for women to bolster household incomes. The effects of this have yet to be felt in the region simply because few potters, senior or junior, can afford the capital outlay to expand their clientele base.

In sum, the Swazi ceramic tradition can still be generally characterised the same way as it was in the 1960s: women specialists making a limited range of sparsely decorated pottery for sale locally and in nearby markets. We have no data to inform us whether production is flourishing or on the decline. While future research could consider this one of its objectives, it must be examined along with an understanding of the symbolic and ritual significance of pottery in Swazi society and the economics of pottery-making. The history and archaeology of Swaziland may best be informed by examining how ceramics may be used to infer chronology, symbolise concepts of group relatedness, and explore how

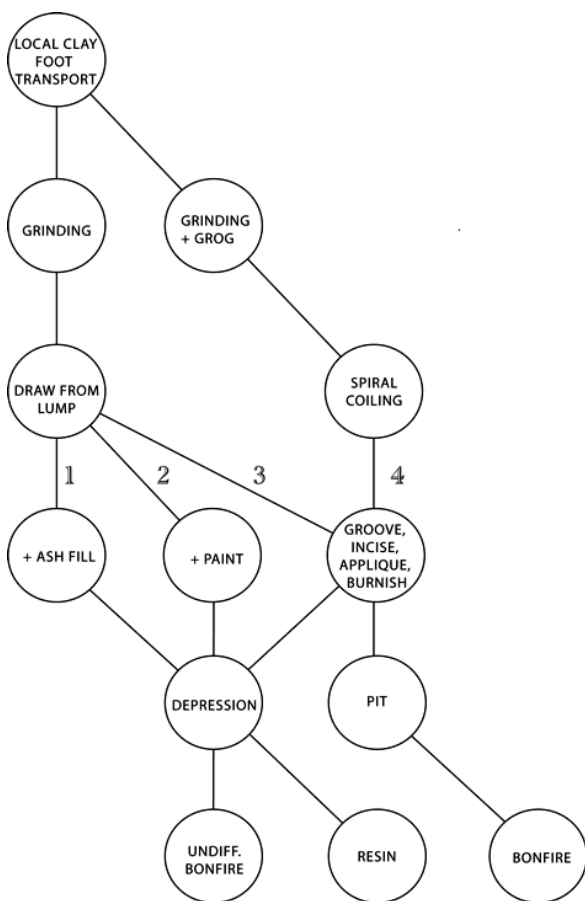


Fig. 4: Diagram of the four ceramic *chaînes opératoires* in Swaziland.

production and the appearance of ceramics express messages about identity, status, protection, mystification, and appropriate contexts for vessel use.

Our work in Manzini could not have been accomplished without the logistical support and hospitality of Jan Engelbrecht and Charmaine Mallinson. I am grateful for the translating talent of Francis Mjilo and to my exceptional research assistants Emma Middleton and Ben Collins. Foremost, I am enduringly grateful to the patience and co-operation of the Shongwe family for sharing their knowledge with my research team and me. Funding for this research was provided by the Social Sciences and Humanities Research Council of Canada (Grant No. 410-2008-2710).

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