

‘My father’s hammer never ceased its song day and night’: the Zulu ferrous metalworking industry

by

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ABSTRACT

In this paper an attempt is made to reconstruct patterns of organisation in the precolonial ironworking industry of the Natal-KwaZulu region. Early written sources have, until recently, been the basis of academic descriptions of the industry, but they are often unreliable. Recent archaeological findings together with oral evidence, some of it unpublished, provide a much firmer basis for reconstruction. Attention is focused on the Nkandla industry as the main source of ferrous artefacts for the Zulu kingdom.

INTRODUCTION

This paper is a review of available information on the operation of the ferrous metalworking industry in precolonial KwaZulu and Natal. It is part of a wider project on precolonial metalwork in this region, which is the first attempt at a comprehensive review of this topic. The largest previous review (Bryant 1949: 377–393) is now very dated as well as being flawed by idiosyncratic scholarship. And there is no synthesis covering the wealth of more recently available anthropological and oral historical information. Archaeological work on smelting sites has been done only in the past 20 years. Several sites have now been excavated and over 120 furnaces are on record (Hall 1980, Kusel 1979, Maggs 1982, Natal Museum records); the body of information being sufficient to lay to rest some myths about Zulu smelting. A main contribution of this paper is to bring together numerous scattered fragments of information, much of it not in the regular academic literature and some of it from new fieldwork. The paper is a preliminary attempt to give some historical perspective to the industry in the hope that it might encourage further, more intensive research.

EARLY AND LATE IRON AGE PATTERNS COMPARED

The main focus of this paper is on the latter part of the precolonial period, particularly the 19th Century. However, to give this discussion greater time depth it is useful to contrast ironworking patterns in the Early and Late Iron Ages. As a starting point we need to review the evidence for the Early Iron Age, during the first millennium AD (*ca.* 1650–1050 radiocarbon years BP).

Huffman (1990) has argued, mainly on the basis of Transvaal evidence, that ironworking residues within village sites of this period, as with the Late Iron Age, are from forging, and that smelting itself was carried out in seclusion away

from the village. One problem complicating the resolution of this question is that there are no accepted criteria for distinguishing between the archaeological residues of smelting and forging. Smelting can readily be identified by the following: large blocks of fired clay from the walls of furnaces, often showing vitrification on the inner surface, large quantities of slag including some of fist size or larger as well as iron ore. It is more difficult, however, to interpret smaller residues of slag which may lack blocks of furnace wall. These do not necessarily indicate forging since this process would normally produce little more than droplets of slag. The metal scalings typically a byproduct of forging seem to deteriorate rapidly and therefore have a low archaeological visibility. The forges themselves seldom survive with sufficient integrity to be identified with certainty. Thus the larger smelting residues can usually be identified with little difficulty while those from forging are problematic.

With this in mind we can review the Natal evidence. Since the first descriptions of Early Iron Age remains from the region their association with extensive iron working has been recognised (eg. Schofield 1948). Recent research, mainly concentrated in the Tugela Basin which comprises about a third of the region, has abundantly confirmed this association (Maggs 1984a). For example, of a total 29 known sites (Natal Museum records) 25 have evidence of iron working, the remaining four are old records where this aspect is not mentioned. Several of the site reports mention not only slag and tuyeres but also furnace blocks and iron ore. More specific evidence is available from recently excavated sites. Msuluzi contained several ironworking areas with large scatters of slag, the richest having numerous large furnace blocks while Grid 1 included a heap of iron ore; both features being relatively central to the site (Maggs 1980). Magogo had two large slag heaps, both relatively centrally situated (Maggs and Ward 1984). The larger, in Grid 1, was six metres long and contained numerous furnace blocks; related material being scattered over a distance of 20 m. The central mound at Ndondondwane had a dump of large furnace blocks and slag (Loubser 1984, Maggs 1984b). Mamba 1 contained large dumps of smelting waste in both central and peripheral positions as well as what is probably the base of a furnace (Van Schalkwyk 1991). At Mamba 2 there were several scatters of slag, tuyeres, ore and furnace blocks. Finally Wosi produced furnace blocks and chunks of flow slag, interpreted as smelting residue, from several parts of the site (Van Schalkwyk 1991). The evidence is clear that iron working and in particular iron smelting was an activity normally carried out in the central portion of Early Iron Age villages.

It follows from the above that during this period the organisation of iron production was closely linked to the basic settlement pattern. Most settlements were relatively large villages which probably contained members of several different kinship groups.

Early Iron Age occupation of the region was limited to coastal and relatively low altitude areas (below 1000 m) which have wooded or savannah vegetation. Wood was therefore readily available for fuel in the vicinity of each site. On the other hand the location of actual settlements was very selective for, away from the coastal plain, villages were restricted to patches of flattish land with deep

colluvial soil in valley bottoms (Maggs 1984a). This preferred settlement pattern therefore determined the location of the ironworking industry. The location of its requisite raw materials had little influence in site location since iron ore had to be brought to the village, often from some considerable distance, while fuel would always have been available nearby.

During the Late Iron Age in the Natal-KwaZulu region, the organisation of the industry changed due to a number of factors, both environmental and cultural. Firstly the settlement pattern changed. The village pattern gave way to predominantly dispersed settlement where individual kinship groups lived in homesteads relatively separated from each other. Secondly, settlement took place in a much wider range of environments including extensive grassland areas where wood was scarce or absent. In many of the newly settled areas there was no suitable iron ore source within reach. We lack information on how these changes affected metal production in the earlier centuries of the present millennium but the situation in the 18th and early 19th centuries shows that by this time metal production was organised on a very different basis from that of the Early Iron Age.

By this time the ferrous industry was concentrated in the hands of particular clans and lineages, as we shall see below, while the great majority of settlements were not involved with metal production. Metalworking was also markedly focused on particular areas rather than being spread throughout the region settled by farming communities. Strong sanctions now existed for the separation of smiths and metalworking sites from normal society, which was clearly not the case in the Early Iron Age village settlements. Some smelting sites were still linked to domestic settlements, but in this case only to small homesteads, while others were sited away from all settlement.

EARLY WRITTEN SOURCES

The early accounts contribute some information on the industry but most contain little detail. There are frequent inaccuracies and these may be further compounded by plagiarism. For example, Isaacs (1836), who was in Natal from the 1820's, said that the Zulu 'smelt the iron ore in a soft porous stone hollowed for the purpose'. This statement is ambiguous in that he could mean either that a stone furnace or a stone crucible was used. The statement is also incorrect since archaeological research has shown that neither was used in the ferrous industry, although sandstone crucibles were used to melt copper and brass. However, Holden (1866) alters this to read that 'The furnace is a large sand-stone with a deep hole scooped out either by nature or art', while Krige (1936) states that 'the furnace was sunk in a hole, either scooped out of sandstone, or containing a crucible of sandstone'. In fact the numerous furnaces that have now been recorded are all in small pits dug in the ground with a low superstructure of clay (Hall 1980, Kusel 1979, Maggs 1982, Whitelaw 1991, records in the Archaeology Department, Natal Museum).

Another example of the misuse of early references concerns Delegorgue's (1847) visit to a place called Zimpy (*insimbi* = iron), north of modern Nongoma

in KwaZulu (Fig. 1), where he witnessed smelting. Beck (1884) repeats some of Delegorgue's information, without acknowledgement, and refers to the Zimpy as a particular group of people.

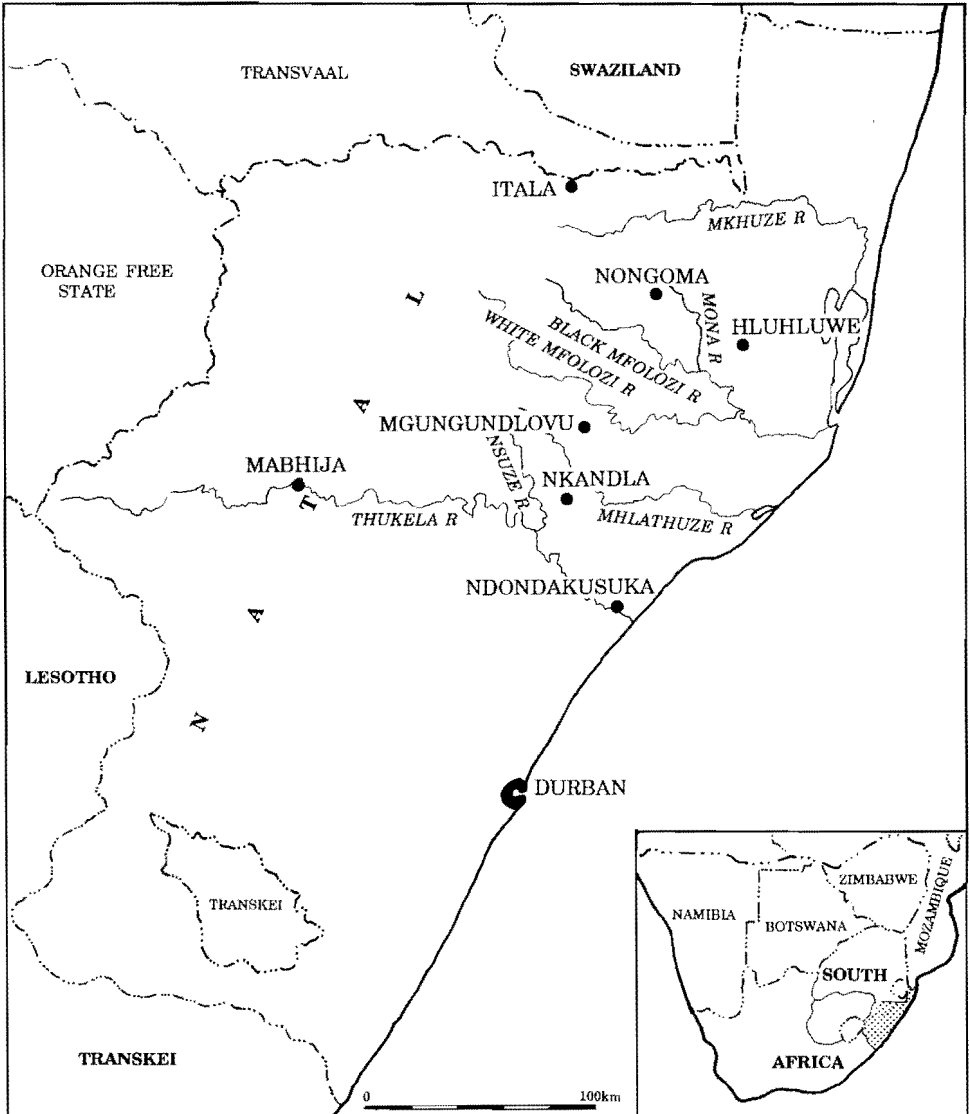


Fig. 1. The Natal-KwaZulu region.

Indeed Delegorgue's account deserves much closer attention than it has yet received, because it is the only detailed eyewitness account of Zulu smelting. Furthermore it has not been referred to by previous English language writers on this subject and it has not previously been translated from the original French.

The account is therefore included below in full, translated by Fleur Webb who has already translated the first volume of Delegorgue's (1990) travels.

In April of 1842 Delegorgue was travelling northwards through Zulu territory on a hunting expedition. He travelled up the Mona River and then left its course heading for the Mkhuze River (Fig. 1).

Then we pushed on to *Zimpy* which we reached the same evening. *Zimpy* means iron in the Zulu language. Here we found the blast furnaces, the forges, the workshops where the metal is wrought from the local ore which is sufficiently rich and abundant to prove attractive one day to European manufacturers.

The inhabitants of *Zimpy* and the surrounding territory had resisted Djaka (Shaka) at the time of his conquests. In spite of their courage they had been obliged to give way before a people who were both numerous and disciplined. Many of them fell beneath the onslaught; the rest, who had taken refuge in the bush, remained hidden for as long as the prince's anger prevailed, and when they returned to reconstruct their *mouzis* (homesteads), having submitted to the rule of the victorious king and intermingled with his subjects, these people found that their cattle had been taken. Furthermore, Djaka forbade them to own cattle with the intention of compelling them to live by the manufacture of iron, for which they were to be paid in cereals only and not in reproductive kind, which required labour.

Djaka had a continual need for quantities of iron for his frequent wars and by these means he was assured of an ample supply, forged by his own subjects. The inhabitants of *Zimpy* and the surrounding territory were therefore obliged to support themselves by this industry which was as yet still in its infancy, as they had never aspired to progress beyond the achievements of their forefathers. At the time that I was there, the yield was very low, but they had patience and many hands and so they produced more even than was required.

This is what I saw. In a special enclosure, 25 paces long by 12 paces wide, were three parallel pits, not far apart. They were oval in shape, 6 feet long, 3 feet wide and 3 feet deep. At the extremity of each, and passing underground, two tubes of sundried clay could be seen which converged into one a foot from the walls of the pit, creating the effect of forcing the compressed air towards the centre of the fireplace. Squatting on his heels between these two tubes was a man, pressing alternately with his left and right hands on two skin bags across whose upper aperture were attached two sticks rather in the manner of certain crochet purses, while the lower orifice, where the air was expelled, was fixed on to a horn, so held as to conduct the air directly into the enlarged opening of the clay tube. When the fingers were spread wide, the bag, on being raised, filled with air which was expelled again when the man's fist was pressed down, forcing the air out from below. Such then were their bellows, imperfect certainly, and not sparing of labour, but sufficient to their needs.

Four relays of six men each were constantly employed in manning the bellows. The work lasted from eight o'clock in the evening until its final completion at midnight.

The following day, I enquired as to the result of the work and was informed by one of the smiths that they expected to obtain no more than 10 pounds of iron for the ore had been ill-chosen; they had simply found it lying about on a hillside and had not excavated for it underground.

Reckoned at the rate of a day's work in Europe, and taking into account the preparations of one sort or another, not to mention the quantity of beer drunk by the workers, these 10 pounds would have cost 150 francs to produce.

Patiently I watched them cleaning out the furnaces which were still hot. I saw each particle of iron, many of them in the form of droplets, varying in size, being gathered up and set aside. The harder pieces were placed on a stone which served as an anvil and were flattened by blows from another stone. The softer pieces were placed on top in order of size and the insignificant bits were put in the centre. From all these pieces balls were made which were then heated and beaten to form a solid lump; then they were amalgamated so as to present some resemblance to a rough ingot from which were to come picks, axes and *om-kondos* (spears).

To judge by our standards, all this is certainly not particularly ingenious at first sight; but for my part, I who had no idea at all of metallurgy, must confess that I received my first lesson from these people. Their skill in working the iron is worthy of note; their methods, however imperfect and crude they may seem, nevertheless enable them to produce some fine pieces. Their weapons are elegant; sometimes they will twist the four-sided shaft of an *omkondo* (spear); sometimes they will add as an adornment a spiral of barbs which wound the flesh cruelly.

Several times I found myself admiring the superb workmanship of weapons which had simply

been filed with sharp edged stones, but which looked as though they had been turned on a lathe, particularly when they had undergone polishing by means of sand and a thong made of leather or bark.

These sharp stones which I mention are from a green sandstone and are exceedingly hard. The Cafre artists, for want of a vice, hold the stone firm with their feet and rub the iron against the sharp edge, turning it all the while. They are so skilful and deft in performing this work that I found it impossible to conceal my amazement.

Delegorgue's account certainly advances our understanding of the Zulu ferrous industry in several respects. Zimpy lay in the heart of the Ndwandwe Kingdom, Shaka's main rival for regional supremacy until he conquered it. This would explain the lower economic status to which he reduced this ironworking community who must have served the Ndwandwe previously.

The description of the row of three furnaces being smelted simultaneously by relays of six bellows workers confirms the inference from archaeological evidence that rows of furnaces were fired at the same time (Maggs 1982). This was a feature of the regional industry that was apparently not practised in other parts of southern Africa.

There is an apparent error in the dimensions of the furnaces given, since these are more than twice the size of measured archaeological examples (Hall 1980, Maggs 1982). This question might be solved if the original site could be relocated. A problem which will complicate relocation is the ambiguity as to the relative position of the site to the *Om-kouzane* (presumably the Nkunzana) River. Delegorgue's account describes crossing this river north of Zimpy but his map has it to the south.

With this possible exception Delegorgue's description of the ironworking process and equipment seems accurate and reliable. It is particularly important for the information on how the pieces of iron bloom were amalgamated into an ingot and how the implements were finished with stone files and sand polishing. Both types of spearhead that he mentions, with twisted tang and with barbed tang, are known but rare types in early Zulu collections.

THE SMITH IN SOCIETY

While there are contradictions in the historical and anthropological literature on the position of the Zulu smith in society, it is clear that they normally enjoyed a high status but, at the same time, were assigned to an out-class which was relatively separate from the normal population. There was evidently an hierarchy within the profession depending on specialisation. Royal smiths, working mainly in brass, seem to have been the most highly regarded, followed by spearmakers and then by those who made hoes (Webb & Wright 1986). In the literature there is no clear differentiation between those who smelted and those who forged.

The craft of metalworking was handed down from male ancestors to their descendants. The quotation from the smith Nkunzi, used in the title of this paper, continues thus: 'My father's hammer never ceased its song day and night in those days. He died at his anvil, and I took up the hammer.' (Brownlee 1946). He also stated that: 'My father, my grandfather, his father and all the heads of my house as far back as we know have been makers of spears.'

As with other southern Bantu-speaking people, the basis of religion was

intercession into the spiritual realm via deceased male ancestors. The craft therefore could be successfully undertaken only with the continuing spiritual help of the ancestors. In order to ensure this, many ritual observances had to be followed before, during and after a metalworking session. Raum (1973) has called this the taboo regimen of the smith. There are several references to the need for sexual abstinence by smiths during working periods and even by ordinary people visiting the smiths to make purchases (Raum 1973: 214–215, Webb & Wright 1982: 63). Speech modification used by the smiths included the use of *hlonipha* (respect) words for items associated with the industry. This respect for metalworking terms extended also to the *hlonipha* language used by women because the usual words for these objects were often given as names to men of high rank (Raum 1973: 215).

The smith as *inyanga yemkhonto* (spear 'doctor') was accorded a similar status to that of the medical specialist (Krige 1936: 212, Berglund 1976: 359, Raum 1973: 217). Indeed there were links between the two specialities in the mystical powers that they were believed to harness. One recent smith (Berglund 1976: 360) went so far as to say that it was the medicines which were created by the working of iron that were the reason for him being a smith, and that the tools he made were of secondary importance.

Smiths' work was associated with *umnyama*, a dark, mystical force, both powerful and dangerous, which is also associated with death, witchcraft and mystical pollution arising from various life crises. Despite its danger the smith needed to harness the power of *umnyama* for the successful outcome of his work. To do this he would refrain from washing during a working session and he might put on special clothes (Raum 1973: 216). It is within this context that the several references to the use of human body parts may be considered, however there are as many denials as assertions that this practice took place (eg. Raum 1973, Shezi 1988). The issue is clouded by several factors including the association with *umnyama*, the desire of the smiths to preserve the secrets of their craft by keeping outsiders away and, for some western writers, the sensational aspect (eg. Birkby 1937).

Smiths, even those involved in forging only and not smelting, were thus a potential danger to other people who tended to avoid them and their working areas (Raum 1973). They needed to undergo cleansing rites to release them back into their normal lives after a working session. Huffman (1990) has argued that among Bantu-speaking communities in general smelting has to be segregated from the lives of normal people because of its connotations of sexual reproduction, whereas forging lacked such restrictions and could therefore be carried out in the central part of the settlement. Among Zulu smiths it was evidently the *umnyama* association rather more than the sexual symbolism that called for isolation of both smelting and forging, since *umnyama* constituted a major risk to outsiders.

The relationship between smith and society contained elements of ambiguity. Despite their special and generally quite high status, smiths could work only under the control of a particular *iNkosi* (chief or king) (Raum 1973: 217). Despite their status, the Shezi smiths, who were exempt from military service,

were on occasions teased as being like women because they did not serve in the Zulu army (op. cit.: 214).

Raum describes a number of inversions (in the structuralist sense) in the layout of one smith's homestead. These included the positioning of the huts and the main entrance, and were such as to 'strike the ordinary Zulu visitor with awe (op.cit: 185). There were also role reversals, for example only the male smiths collected firewood for, and handled the ash from, the smithy. In the home these are exclusively female activities. Even at the level of intercession with the ancestors there is an inversion in that sheep may be used in sacrifice (op. cit: 216, 461), whereas normally only cattle or goats are acceptable.

As in many other parts of Africa, women were excluded from the working area, and there were complex symbolic associations between iron production and human reproduction. The furnace or forge, with the tuyere are symbolically equivalent to sexual reproduction (Berglund 1976: 359). Female avoidance applied to both smelting and forging areas (op. cit.: 215, 216). Women and especially menstruating women should not even carry food there.

One recent smith elaborated on the symbolic equivalence of iron and blood (Berglund 1976: 360). Both are red when they are hot and black when cool. The red iron ore is the blood of the earth, and the earth is its mother. Much of traditional Zulu medicine is linked to the triad of colours: black, red and white (Ngubane 1977). Black (*umnyama*, as we saw above) is associated with illness, red with the liminal stage and white with health.

This smith also saw a close equivalence between his own cycle of work and the menstrual cycle (Berglund 1976: 360).

He insisted that he could work in the smithy only a few days each month 'when the iron flows out nicely', very clearly associating this time to that when women experience their menstrual flows. He claimed that personally he chose to work in his workshop just after the full moon, for a period of about four or five days. 'After that I am tired. The power has left my limbs. I cannot any longer smite the iron. It does not form nicely and the flowing (from the forge) is poor.'

Thus the process of ironworking was interlinked with traditional concepts of life and health.

RESOURCES AND THE INDUSTRY

Archaeological research on metalworking sites is still at a relatively early stage in the region. However, there are now several local case studies which have provided information on smelting sites and furnaces (esp. Hall 1980, Maggs 1982), and therefore these aspects will not be discussed in detail here. What is of interest in the present context is the new evidence on the relationship between industrial sites and raw materials. This shows that communities were flexible in their responses to the problem of site versus resource location.

At the broader geographical level, smelting sites occur only in those areas where both iron ore and suitable timber were available nearby or at most a day's walk away. For example, Whitelaw (1991) has effectively shown that the proximity of Pietermaritzburg Shale Formation outcrops (with their lenses of haematite) has largely dominated the distribution of iron smelting in southern Natal.

When it comes to specific cases, however, considerable variation can be seen in the location and concentration of iron-working sites. For example at Hluhluwe (Fig. 1; Hall 1980), which is a well wooded area, iron ore was available on site. There are outcrops of magnetite between the two main groups of furnaces, which are only 100 metres apart, as well as elsewhere in the immediate vicinity. The smelting site was evidently located on the occurrence of the ore; timber presumably being readily available in this well wooded area.

The largest concentration of furnaces yet recorded from our region is at Mabhija on the Thukela (Fig. 1; Maggs 1982). There are several ore sources in the area but smelting sites cluster in the low-lying area around and between two extensively mined outcrops (Fig. 2). These are almost 5 km apart and ore must therefore have been carried at least half this distance to reach some of the furnaces. Ore from the westerly, and larger working, was presumably available to all of the westerly group of smelting sites. This raises the possibility of some form of cooperative mining organisation. On the other hand two smaller workings to the east each have a smelting site right beside them (Fig. 2). This suggests a more proprietorial relationship between the ore outcrop and the group of people operating the smelting site. Little is recorded on Zulu attitudes towards access to

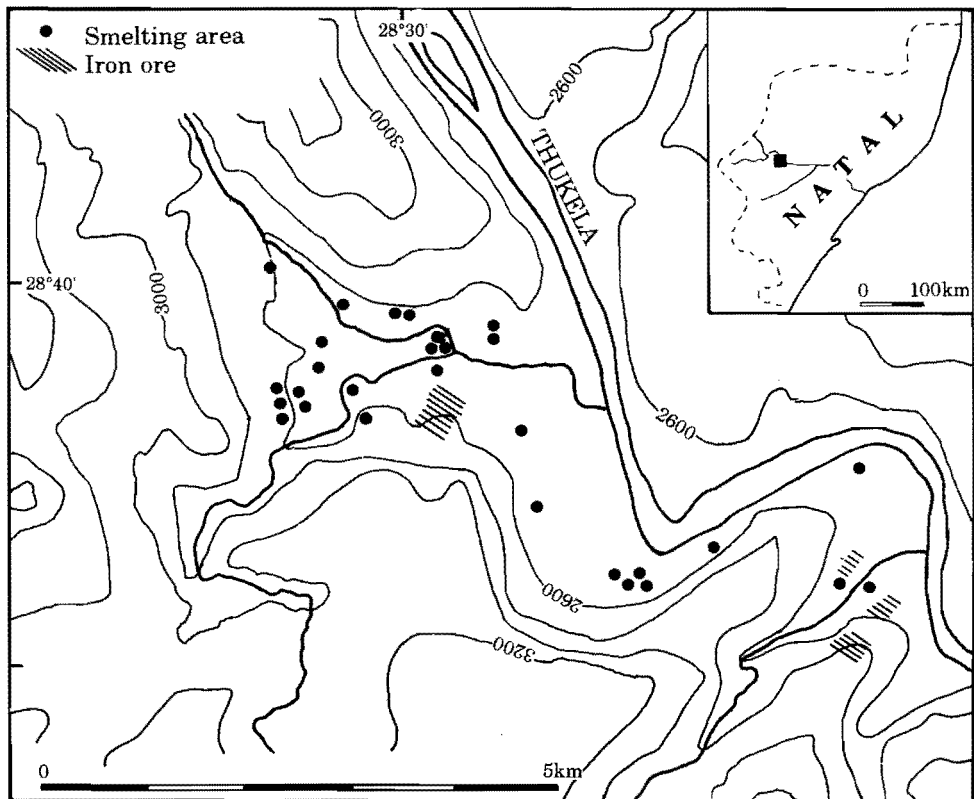


Fig. 2. Mabhija ironworking sites. Contours are at 200 ft intervals.

the necessary resources. One source maintains that iron ore 'could be dug out and taken without permission; and anyone could cut what wood he wanted anywhere he liked . . .' (Webb & Wright 1986). However, in view of the secrecy and complex rituals surrounding the industry, it seems unlikely that this open availability was prevalent in all cases.

The broken, rocky landscape of Mabhija supports an abundance and variety of woody vegetation. Charcoal excavated from within furnaces at Site A (Fig. 2; Maggs 1982) has been identified to a single *Acacia* species, probably *A. caffra* (Van Schalkwyk 1981) which is a common local species. If, however, this was the preferred species for smelting at all the Mabhija sites it would surely have become exhausted in the immediate vicinity. Timber would have had to be cut and carried in from increasingly distant stands.

The Itala (Fig. 1) case, by contrast with the pattern at Hluhluwe and Mabhija, shows a separation between the source of the ore and the smelting sites. Preliminary work at Itala (Whitelaw 1989) has identified a series of quarry pits, 2–10 m in diameter and around 1,5 m deep, following an outcrop of banded ironstone for a distance of some 750 m along a hilltop. The importance of this occurrence is recognised in the Zulu name for the hill *Ntabayensimbi* (Iron Mountain). Three smelting sites have so far been recorded in the area and they are 6–7 km south of the ore outcrop (Fig. 3). It is probable that ore from *Ntabayensimbi* was used for the smelting although this has not yet been tested. If so, the ore carriers would have had to walk considerably further than the 6–7 km straight line distance and they would have had to climb steep slopes, in view of the mountainous nature of the terrain (Fig. 3).

Itala is in a predominantly grassland environment. Whitelaw (1989) has suggested that the actual smelting sites were located so far from the ore because the warm, northerly slopes on which they are situated support more woody vegetation than other parts of the neighbourhood. Tree species on these slopes today include *Olea europea africana*, *Combretum* sp. and *Acacia* spp., all of which produce hard wood which is potentially suitable fuel for smelting.

In the Durban area smelting sites cluster in wooded zones close to outcrops of the ore-bearing Pietermaritzburg Shale Formation (Whitelaw 1991). However, there are several sites at distances of between four and seven km from the outcrops, in zones which would have been covered by coastal forest. As at Itala the wood rather than the ore determined site location.

NKANDLA AND THE CUBE PEOPLE

The present research project concentrated on the Nkandla area (Fig. 1) as there are numerous references which indicate that it was the most important area for the supply of ferrous artefacts to the Zulu kingdom during the nineteenth century. Before we turn to the metalworking we need to examine the history of the Cube who are generally acknowledged, by their own people as well as by their neighbours, as metalworkers. (Cube or amaCube is the group name, individuals carry the name Shezi while the praise name is Dlaba.)

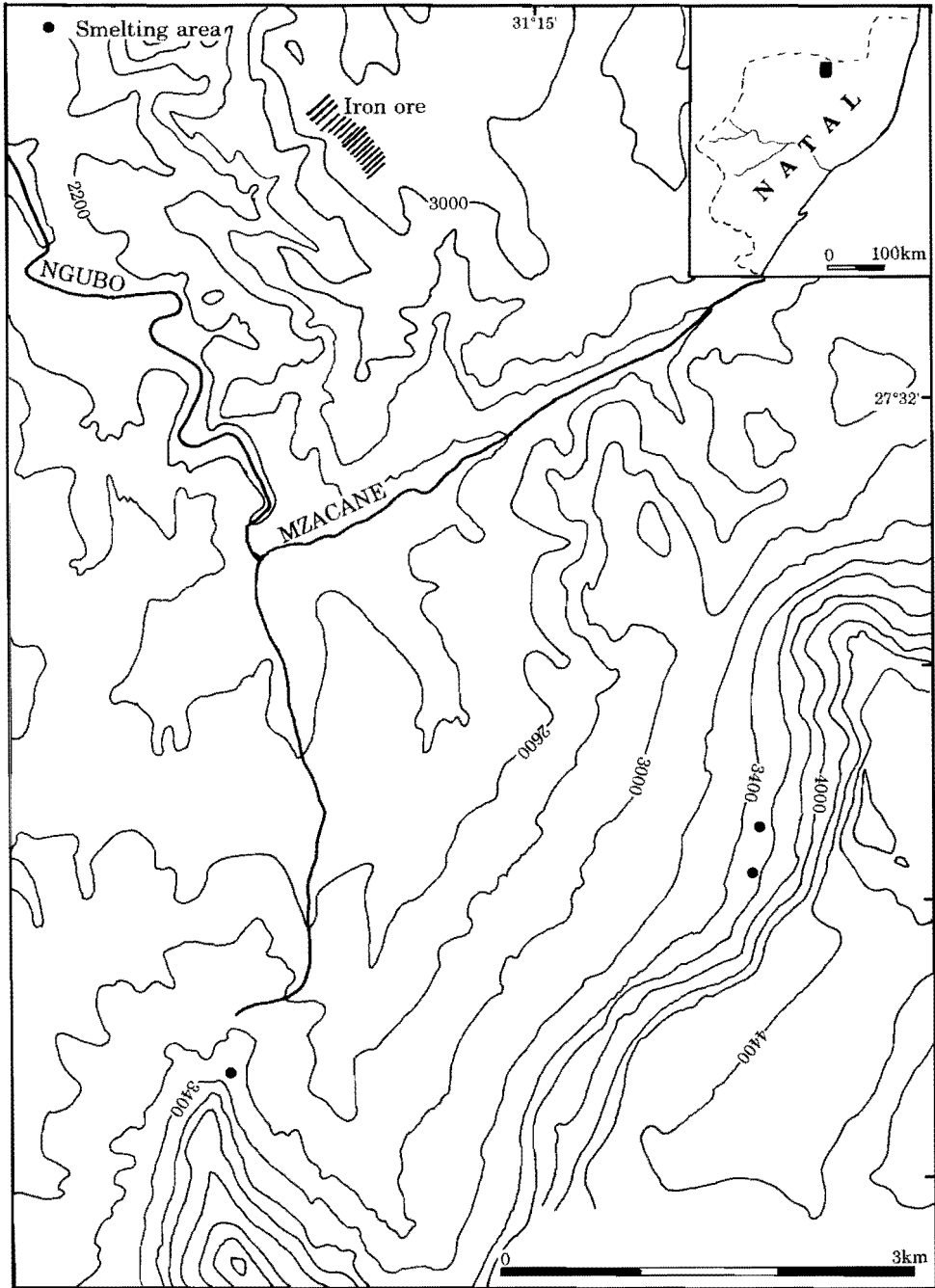


Fig. 3. Itala ironworking sites. Contours are at 200 ft intervals.

History of the Cube

The Nguni-speaking people of our region are generally known as Zulu today as a result of the political domination, established by Shaka early in the nineteenth century and continued by his successors in the Zulu royal lineage. The Cube are one of the numerous chiefdoms or clans into which the Nguni-speaking people were divided. These clans in turn can be assigned to several larger groupings such as Ntungwa, Mbo, etc. Several of the earlier authors on Zulu history have tried to use these groupings for historical reconstruction but without marked success (eg. Bryant 1929). One such grouping falls under the term Lala. Stuart (1913) considers that the Lala group were probably the earliest Nguni-speakers in our region, and it is to this group that the Cube are assigned.

The term Lala is however of doubtful historical value since it is essentially an insult. For example, Mqaikana, one of Stuart's informants (Webb & Wright 1986) said 'The name amaLala came from the Zulu, for they conquered the land. They then called us the amaLala, just as you Europeans call us amakafula, for the people who defeat others insult them.' Of more interest for the purpose of this paper is that the term Lala is often used synonymously with that of smith (Bryant 1905, Webb & Wright 1986). Mqaikana thought that the 'name amaLala came from the Cubeni people, ie the ironsmiths. One often said, "I am going to the Lala; I am going to have iron worked" ' (op.cit.). Another of Stuart's informants, Ndukwana, stated that 'These blacksmiths were called amaLala because of their craft, not because that was their clan name. A man belonging to any tribe would be called an ilala if he became a blacksmith' (op. cit.). The Lala category therefore has little value in determining the relatedness of different clans.

The evidence suggests that the Cube had been settled in the Nkandla area for a long time before the nineteenth century.

Bryant (1929) lists four chiefs before Shaka's intervention and Stuart (1913) mentions that five chiefs' graves for this period are known at Nkandla. As is so often the case, the earlier part of the list of rulers is not clear. Four versions are as follows:

| Stuart 1913 | Bryant 1929 | Mtembu 1950 | Shezi 1988 |
|-------------|------------------------------------|--------------------------------|--|
| 4 not named | Soshukulase Mavovo Dlaba | Matomela Dlaba | Dlaba Mvakela |
| Mvakela | Msholoza | Zokufa | Zokufa |
| Zokufa | Zokufa | Sigananda | Sigananda |
| Sigananda | Sigananda Ndabaningi Mdedane | Ndabaningi Mdedane Mpini | Ndabaningi Mdedane Mpini Vusumuzi |

We need to start by focusing on Zokufa's immediate predecessor for it is about him that we have the first detailed information. Neither Bryant nor Mtembu offer anything more than the bare list, except that the former says Msholoza merely submitted to Shaka, there being no tradition of any struggle. Both Stuart and Shezi, however, not only agree as to Zokufa's predecessor (although Shezi was a little uncertain as to the order between Dlaba and Mvakela). Furthermore their

information on Mvakela and Zokufa complements and largely confirms the other. Stuart's (1913) version is as follows. Mvakela hid from Shaka and his army in the Nkandla forest but was forced out by ill health and so was eventually dispatched by Shaka. The version recorded from Velaphi Shezi (1988), uncle of the current chief Vusumuzi, is as follows. When Shaka attacked, Mvakela fell down and died of fright. Shaka then twice jumped over his body and on each occasion the special feather in his head fell to the ground. Shaka said that this meant that Mvakela was the real chief. This took place at the royal spring on Nomangci mountain, which is just north of the forest (Fig. 4).

These two versions would certainly argue that, despite Bryant's contention to the contrary, there was military intervention by Shaka.

Both Stuart (op. cit.) and Shezi (op. cit.) state that Mvakela had married a sister of Nandi, Shaka's mother. Zokufa was the son of this marriage. Stuart merely says that 'Zokufa was allowed to become chief', but Shezi has more detail. In this version Mnomiya was the rightful heir to the chieftom (ie oldest son of Mvakela's senior wife). Shaka however preferred his full cousin Zokufa and again intervened in the Cube succession to raise him to the chieftom. Mnomiya, being scared, left home and broke away permanently.

There is an additional source to support this version, namely an *ihubo* (anthem). This is still sung by members of the Shezi lineage who told us that the *ihubo* celebrates Shaka raising Zokufa to be chief although he was not really the heir.

Quite apart from these traditions of a link between Shaka and Zokufa, his later life shows a close relationship with the Zulu royal line. While Cetshwayo was still a prince, Zokufa was awarded the position of senior official at Cetshwayo's Mlambongwenya residence, where the Usutu division came into being. And the Cube shared in the Usutu success at the Battle of Ndongakusuka in 1856, which ensured Cetshwayo's accession to the Zulu kingdom. Zokufa's son Sigananda took part in this battle and indeed lived a remarkable life. As a boy he was present at Mgungundlovu when Dingane ordered the execution of Retief's party in 1839. At the end of his life Sigananda joined the Bambata Uprising of 1906, at the request of Dinuzulu according to Stuart (1913). Thus Sigananda was party to the whole sweep of Zulu resistance to the imposition of colonial rule in the 19th and early 20th centuries.

In another respect too Zokufa and Sigananda were exceptional, for both were smiths in their own right. According to Stuart (1913). 'Sigananda himself was an excellent smith, his reputation for barbed, large stabbing, as well as throwing, assegais being by no means confined to his own tribe'. Shezi (1988) says that Shaka would visit Nkandla to get spears made by Zokufa. The implication is that members of the Shezi lineage were smiths.

THE NKANDLA ENVIRONMENT AND THE INDUSTRY

A brief but valuable source on the metalworking is an unpublished essay by the Rev. A. S. Mkhize (1942). He places the centre of the iron industry at Nkandla 'where there was much iron ore and wood'.

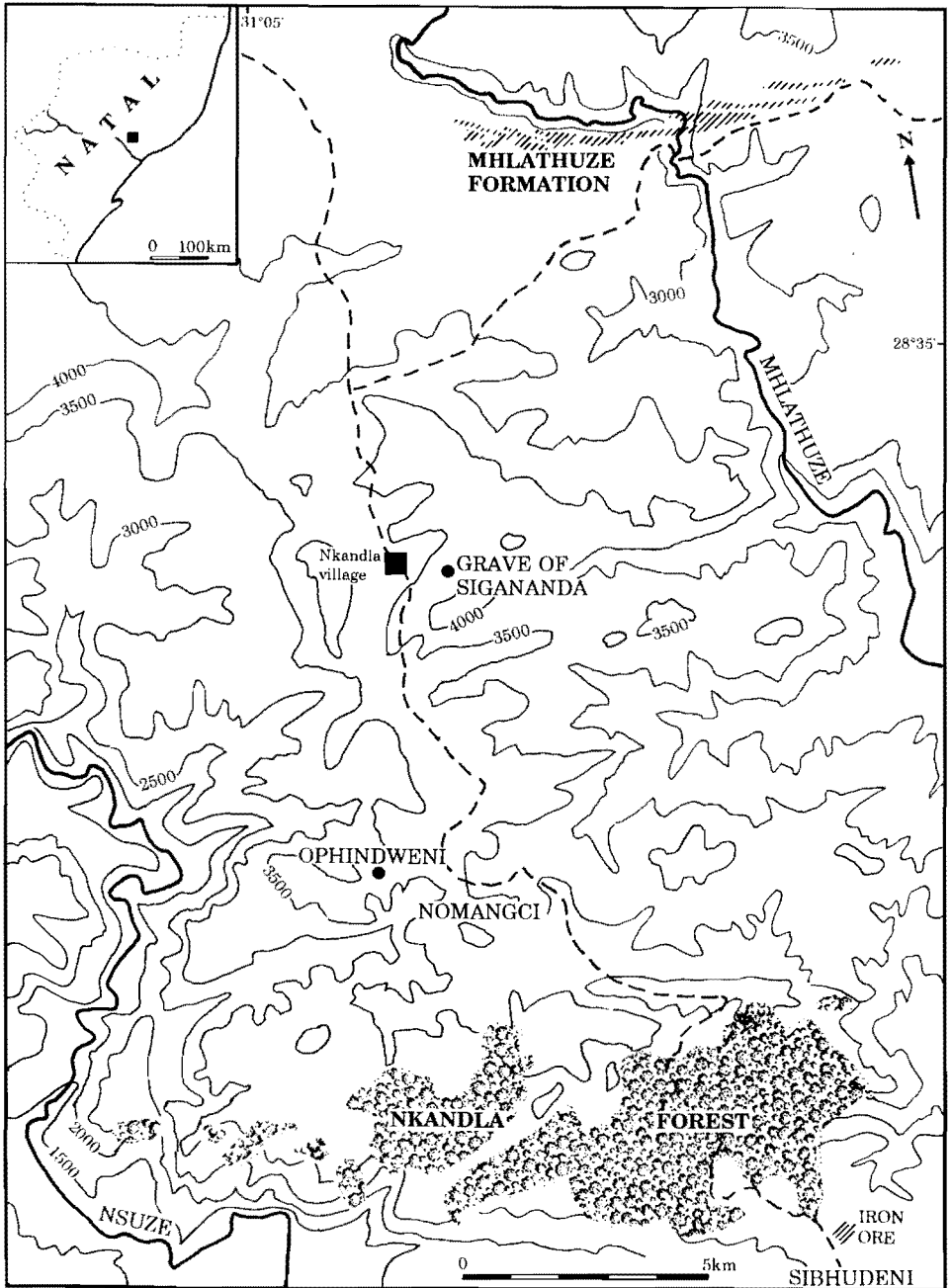


Fig. 4. The Nkandla area. Contours are at 500 ft intervals.

The local geology is complex and does indeed include several outcrops of iron ore, which we will discuss in more detail below. Resources of timber, however, are essentially limited to the forest itself (Fig. 4). Nkandla is an elevated watershed, between the Nsuze and Mhlathuze rivers (Fig. 1), which is covered by grassland of a particularly sour type dominated by *Aristida junctiformis* (Edwards 1967). Woody vegetation is very limited in the area except on the cooler and well-watered southerly slopes which support the forest. Looking further afield, the only other considerable source of wood in the general area is the savanna vegetation of the major river valleys such as the Thukela, lower Mhlathuze and the White Mfolozi (Fig. 1).

The complex geology has attracted considerable attention from both academic and commercial geologists. Several occurrences of banded iron formations have been recorded and it seems unlikely that further significant outcrops are still to be found.

In the vicinity of the forest, sometimes within it, are banded iron outcrops of the Mabaleni, Mome and Mfongosi Formations (Matthews & Charlesworth 1981). However, we were unable to establish, from the literature or from geologists who have done fieldwork in the area (Gaisford pers. comm., Klinger pers. comm.), that there is any evidence of precolonial exploitation of the outcrops. We examined only one of these outcrops in the field, just north of Sibhudeni at the south east corner of the forest (Fig. 4). A few pieces of what appeared to be quite rich ore could be seen on the surface. In addition a few centimetres of soil erosion suggests that some surface picking over or even hoeing may have taken place. But clearly no quarrying or mining had been attempted and not much ore could have been removed. More fieldwork is required to clarify this situation. However, since the geologists have not commented on evidence of ore extraction, it seems that these formations were not the major source of the ore smelted at Nkandla.

One historical source (Mtembu 1950) claims that the Cube mined iron 'near the dipping tank at Mkhalazi'. Mkhalazi has not been examined so we cannot assess this claim, but evidently it is close to Mathungela in the Thukela valley (Zungu and van Schalkwyk pers. comm.). Since this area supported dense savanna vegetation, it seems unlikely, but not impossible, that the ore would have been carried all the way to Nkandla for smelting.

The weight of the evidence points to the upper Mhlathuze as the main ore source. This banded iron of the Mhlathuze Formation (Matthews & Charlesworth 1981) has long been known to geologists (eg. Du Toit 1931) as has the fact that it was extensively worked in precolonial times. Indeed, as far as we have been able to determine, it is the only deposit within striking distance of Nkandla known by geologists to have been worked. While most of the Zululand banded iron is of poor quality, this deposit shows some surface enrichment yielding up to 54% iron (Du Toit op. cit.).

The Mhlathuze banded iron outcrops in a range of hills running for nine km east – west across the river, and with outliers beyond (Figs 4 & 5). We examined the central portion which is well pitted with small quarries a metre or more deep and several in length (Fig. 6). The most intensively worked part, 1,2 km west of



Fig. 5. Part of Qa-Qa-Lensimbi (Iron Ridge) looking south-westwards across the Mhlathuze River (bottom right). Quarries are spread along the ridge on both sides of the river.



Fig. 6. An extensive iron ore quarry on the ridge east of the Mhlathuze River.

the river, has deeper pits and large spoil heaps on the lower slopes. There is no doubt that, by precolonial standards, a very large amount of ore was removed from this range.

Oral tradition linking this ore with the Cube seems to have faded today. We interviewed several people acknowledged in their communities as the most knowledgeable on local history, but none could say who had done the mining. Our main Cube informant, Velaphi Shezi (1988) believed that the ore had come from Nkandla Forest itself. Those living near the outcrop are not of the Cube clan. Gwabukane Mpungose, regarded as best informed in the local community, knew about the workings. He said that it was the Cube who had actually worked the iron, and that the people who did the mining had come from far, but he did not know who they were.

Clear traditions linking this ore and the Nkandla industry did, however survive into the 1940s. Mkhize (1942) tells us that, in addition to Nkandla, 'Iron ore was also obtainable at the upper Mhlathuze River . . .' and that from here 'men carried the iron-containing stones to Nkandla'.

This is confirmed in a popular account (Reyburn 1940) which though based on 'innumerable sources, including native tradition' is not referenced. Reyburn (op. cit.) describes and illustrates the outcrop for which he uses a Zulu name *Qa-Qa-Lensimbi* (Iron Ridge). He maintains that the iron was mined on Dingane's orders but not by the Cube. Instead he has it that:

In this district dwelled – and still dwell – the Ntombela, Majola and Skakana tribes, the men who mined the iron, but who did not work it. Down in Nkandhla, some 15 or 16 miles away lived another tribe the Amacaube, the hereditary iron workers of the Zulus, some five hundred blacksmiths, with their trade handed down from father to son, and preserved to them by Royal Decree.

Here the Ntombela, Skakana and Majola tribes carried the iron ore, and here the Amacaube smelted it . . .

Mkhize (1942) describes the organisation as more structured and centrally controlled:

The ruling king would dispatch an 'army' to go and dig the iron. This army usually would stay in temporary huts during the time when it worked at the iron industry. . . . At Nkandla there was also stationed another army which did the hammering and extracting of iron from the ore. In charge of the smelting there was one important *induna* (official) who was an expert and well experienced in discovering iron, and suggesting a shape of any article that could be made from a given lump of iron. One man who was highly versed in this work, and was supervising *induna*, was Mphiyana. After Mphiyana's death his son was in charge of the work.

To reach Nkandla from the outcrop the porters would have had to follow a route corresponding closely to the present road, in order to avoid the deeply dissected landscape of valleys tributary to the Mhlathuze (Fig. 4). This suggests that the existing road from the river to the forest developed on an ancient line of communication. The distance involved, some 23 km, is substantially greater than the other examples already mentioned from this region. However, a similar distance between ore source and smelting site is recorded from the eastern Transvaal (Van der Merwe & Killick 1979).

All the evidence points to Nkandla Forest as the area where the actual smelting took place. We therefore spent some time in questioning local residents and following up leads to possible smelting sites in this vicinity. However, the

only conclusive evidence we found was a scatter of slag at Ophindweni (Fig. 4), the home and grave site of Zokufa, which is a little north of the forest. In view of the quantity of ore removed from the Mhlathuze, we can expect to find sites with large slag heaps and perhaps the remains of multiple furnaces. These will require further, more intensive fieldwork to locate.

Another worthwhile aim for future fieldwork would be to relocate more of the Shezi lineage homesteads. For example our main informant (Shezi 1988) stated that when Sigananda left Ophindweni he built at Ngcoshweni, just east of the Nsuze River close to where the present Nkandla–Kranskop road crosses it. This is close to one of the outcrops of banded iron, and therefore it could have been a metalworking site.

Relatively little has come down to us from Cube sources on the actual organisation of smelting and smithing activities. Mpini Shezi (Raum 1973) described a working session of two to three months during which 50 to 60 men were isolated in the forest, where they lived in temporary shelters. They abstained from contact with their wives, while outsiders had to avoid the area. Food was brought by boys, or occasionally a woman who, however must not be menstruating and must stop at a distance and call to the men. While working the smiths had to behave as if the ancestors were present, talking quietly and not arguing or using vulgar language. The iron was addressed thus 'agree, agree, agree, our iron of Dlabá'. Mkhize (1942) says that 'An iron-separator (medicine) would be burnt together with the iron bearing stones.' And that 'There was also a special medicine which the Zulu used to stop the iron from cracking or rupturing during cooling time.' Shezi (1988) had heard from his father that before the mining and smelting could be done a ceremony took place. This was to ask the ancestors for iron. Women could attend the ceremony and they provided the beer. A cow was slaughtered and the people sang the clan's *ihubo* (anthem) and praise songs.

On completion of the working session release rites had to be followed (Raum 1973). The smiths washed in medicated water and the senior Shezi slaughtered a beast at his home for the workers and their relatives. 'The spears were then carried to the king by his carriers, the spearmakers going along too. The king slaughtered some heifers for them. In this manner the *umnyama* of the smiths was removed and they could return to their wives.' (Raum 1973; 215)

It is not clear to what extent smelting and smithing operations may have been conducted separately by different individuals at different places. Bryant (1949) states that 'many of the metal-workers did not themselves smelt, but procured their iron from those who did'. However he gives no source or geographical location for this statement.

Spears and hoes are the most commonly mentioned products of the Nkandla Industry, and indeed this would apply to the Zulu industry as a whole (Maggs 1991). In addition Shezi (1988) mentions *izizenze* (battleaxes), while Mkhize adds butcher knives, axes and knives for cutting wood, bangles and eating forks for the King, as well as 'iron apparatus for handling hot iron' (presumably tongs). According to Mkhize (op. cit.), once smithing was complete the 'articles were then taken to be sharpened and smoothed at the Nsuze River'.

In the nineteenth century distribution of the finished product was largely through the Zulu king. Mkhize (op. cit.) puts it as follows:

The King, of course, was the owner of all wealth in the country. All completed iron articles were carried by warriors to the King's headquarters to await distribution to the people by the King himself. It is said that the King used to distribute these articles fairly among his subjects (men and women). Each man under his jurisdiction would be given a spear, butcher knife and an axe, and every woman received a hoe with which to work the fields. If any articles remained after distribution, they were kept under the custody of the King, until they were required at a later date; eg. hoes could be used by the nation when weeding the King's fields, similarly butcher knives or axes could be used when warriors came to build the King's huts.

The distribution of spears by the King was evidently an important occasion. Spears, along with shields were presented to young regiments of the Zulu army at a royal ceremony after they had served several months at the capital (Krige 1936, Raum 1973, Baleni ka Silwana in Webb & Wright 1976). This system of distributing the products of the industry was therefore part of the system of royal patronage, which formed part of the power base of the Zulu kings. The process was political rather than economic, although there were undoubtedly economic implications. Understanding this helps us to appreciate the relationship between the smiths and the King. Where little has been recorded on the organisation of the metalworking itself, there are several reports on the finished products being carried by the makers, including Zokufa (Mkhize 1942), to be presented to the King. These reports make a striking point in common, namely that there was no obligation on the King's part to pay for the metalwork.

It is worth going over this point in some detail. Shezi (1988) puts it as follows:

The transaction was not along modern commercial lines where one has to count the number of spears individually. No, the whole act of presenting the spears was just a way of paying homage to the King, and the King would in turn give a number of cattle in acknowledgement of the present.

Mkhize (1942) similarly says:

... there was no law binding the King to remunerate or pay the blacksmiths and the overseers of the blacksmiths for their work. He rewarded them at his discretion. The reward always used to take the form of cattle in each case.

Mpatshana (Webb & Wright 1982), a source recorded in 1912, says:

The king ordered men to make assegais, which were issued to the regiments, but the king did not pay for them. At the same time he might occasionally present the makers with gifts of cattle on account of their services.

The message is clear; royal authority carefully maintained its relationship with the metal producers as one of tribute owed by smith to king. Here again the overriding political nature of the relationship masked the underlying economic aspect of the transaction. The presentation was also an economic transaction, for the smiths could be confident that they would be rewarded with cattle. Without the reward it would not have been worthwhile to carry on the industry. But at the level of public awareness the relationship was presented as one of tribute and homage to the King. It is within this context that we can better understand the lowered economic status given to the ironworking community at Zimpy after they had been defeated by Shaka (Delegorgue 1847).

Even at the height of the Zulu kingdom, however, not all iron work was distributed through royal control. Individuals requiring items could obtain these by exchange with the smiths (eg. Shezi 1988). One early source said that a goat

would buy two spears and that five hoes were bought for a heifer that had been covered (Ndukwana in Webb & Wright 1986).

CONCLUSIONS

While there is no detailed information on the Nkandla ferrous industry prior to the establishment of the Zulu kingdom, the evidence that is now available from archaeological, historical and anthropological sources allows a tentative reconstruction. The Cube were just one among a number of clans within which iron smelting and the production of steel tools and weapons took place in our region. They had been settled in the Nkandla area for a considerable length of time and had a reputation among their neighbours as smiths. It seems likely that, at an initial stage of the local industry at least, iron ore was obtained from the surface of those banded iron formations that outcrop in the vicinity of Nkandla Forest.

In one respect, however, the Cube seem to have differed from other metalworking clans, in that their Shezi chiefly lineage itself consisted of acknowledged smiths. There is direct evidence of this in the case of Zokufa and Sigananda and, as we have seen, the craft was strictly handed down the male line. It is therefore likely that their direct male ancestors were also smiths. Further research could investigate whether there is mention of smithing in the *izibongo* (praises) of their predecessors such as Dlaba.

As we saw earlier, a smith could normally work only under the control of an *iNkosi*, and his life was relatively separated from normal people. Furthermore, the secrets of the craft seem to have been closely guarded. The relationship between the smith and normal society must however, have been radically altered if the smith was also *iNkosi*. While the historical sources do not discuss this point, they do show that both Zokufa and Sigananda played an active and visible role in Zulu society, out of keeping with the taboo regimen expected of smiths (Raum 1973).

Within the Cube clan it seems that the norms of secrecy and avoidance relating to smiths must have been relaxed. And it is likely that a larger proportion of the people knew something about the industry, even if they were not actually smiths. The community could thus have been particularly well placed to take advantage of a sudden increase in demand for metalwork.

With Shaka's intervention in the Shezi succession and his special relationship with Zokufa, it seems that the opportunity for rapid expansion of the Nkandla industry was at hand. The rapidly growing Zulu kingdom, in the third decade of the nineteenth century, saw a surge in demand for metalwork to be distributed through the King's patronage.

Nkandla was well situated for this purpose. It is a mere 40 km from the heart of the kingdom and to the south. Thus, unlike Zimpy, it was protected from the northern border which remained threatened by the Ndwandwe for some years. To cope with the additional demand the Cube needed more labour. The King could supply this in the form of units from the army, which was really a supply of labour almost as much as it was a fighting force. With the extra labour full

advantage could be taken of the better ore offered by the Mhlathuze banded iron. The problem of its distance from Nkandla could be overcome through national service.

The Cube are acknowledged as being the main suppliers of metalwork to the Zulu kingdom. By no means, however, did they have a monopoly. Smiths from several other clans are mentioned in this context. For example Mlaba Nxumalo, who lived near the confluence of the Vuna and the Black Mfolozi, supplied both to the King and to individuals (Webb & Wright 1976;41, Webb & Wright 1986; 296). There was also the group of metalworkers at Zimpy (Delegorgue 1847).

The end of the industry was made inevitable by the flood of cheap though inferior industrial steel from Europe. Once Britain had established the colony of Natal, in 1842, the volume of imports began to rise. Fynn's (1950) suggestion that the industry was already in decline in Shaka's time is not supported by the other sources. However, his description of a time when there was little smelting, most metal items being made from recycled older items, is of interest.

A few sources describe the process of imported metal replacing the local product. Mcotoyi (Webb & Wright 1982) says that:

In the early days natives used to work for Europeans for iron as wages. For a piece about nine inches long and big enough to make a hoe one must work, say, three months. The piece will be cut off, and the man or boy would carry it home in triumph to be welded and hammered into a hoe by professional smiths.

At a slightly later stage of the process we hear that:

Picks (hoes) are now extensively introduced from England, and sold at about one and sixpence each, whereas the native smiths would probably not have been content with less than the present equivalent of half a sovereign. (Shooter 1857)

First to feel the impact would have been the smelting side of the industry. The labour intensive, traditional methods could not begin to compete with the mass production of the industrial revolution. By the middle of the nineteenth century Nkandla was in decline. Since then western style implements have steadily replaced the local. For decades a considerable amount of forging of imported iron continued in rural parts of our region, such that old people today can often remember from their youth one or two smiths in their neighbourhood. This work became increasingly limited to the manufacture of spears only. Today all that survives of this once important industry is one or two smiths making spears from mild steel derived from the building industry.

ACKNOWLEDGEMENTS

A number of people have helped in this project and I would like to thank them. In the field: J. K. Dladla, R. Gaisford, L. O. van Schalkwyk and members of the Cube community especially V. Shezi. With reference material, J. Argyle, K. Herbert, R. Kleinknecht, M. Shaw and the Killie Campbell Africana Library. With translation, F. Webb. With preparation of this paper, G. Kunene, K. Mack, V. Ward and G. Whitelaw. The research was conducted with a grant from the Centre for Science Development, HSRC.

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Date received: 11 December 1991.