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THE NJANJA IRON INDUSTRY: THE DECLINE OF PRE-COLONIAL ENTERPRISE

by

JOHN M. MACKENZIE.
THE IRON INDUSTRY OF THE NJANJA PEOPLE

Nineteenth century travellers in Mashonaland were unfortu-
ately obsessed with either gold or hunting. In their pursuit
of gold and game they missed or ignored perhaps the principal
industry of several peoples of the area, iron mining, smelting,
and manufacture. Those who did observe it failed to recognise
its full economic significance, but they invariably connected
it with the traditional political hierarchy. In W. Montagu
Kerr's The Far Interior, there is an account of forging of
assegais by a smith who was also a chief. Kerr unfortunately
did not see the smelting process, and the forging was not done
in its traditional place, but on the march. Still he closely
links the chief's two functions, and describes the respect the
old man received as being derived as much from his iron expert-
ise as from his political authority. A.R. Sawyer in The Gold-
fields of Mashonaland described Shona smelting techniques and
provided excellent diagrams of a Shona furnace, but he did not
place iron working in its societal context.

Bishop Knight-Bruce in his Memories of Mashonaland on the
other hand provides a description, sadly lacking in detail, of
a small iron factory. He discovered six smelting furnaces to-
gether in a "shed some forty feet long" with, nearby, a smithy
in which the implements were forged. The ore was taken from a
pit in baskets, "and from one well-known pit there are paths
in every direction leading to the villages around." Like Kerr
he noticed the connection between iron working and chiefly
status:

In this especial village the chief was the
leading blacksmith; but whether the family
had originally been made chiefs on account
of their prowess, or he had risen to his
responsibility as chief and become the best
blacksmith, I did not find out.

Infuriatingly, Knight-Bruce gives no indication whatsoever of
the location of this factory, although it must be somewhere in
central to eastern Mashonaland. Iron working was certainly a
feature of the economies of the Mazoe, Mrewa, Mtoko, Wedza,
Charter, Chilimanzi, Ndanga, and Chibi areas of Mashonaland,
while in Matabeleland the insatiable Ndebele demand for iron
was met by Tonga, Karanga, Venda, and Nyubi iron workers.
some of whom actually moved closer to the Ndebele in order to be able to supply them more effectively. The Ndebele may even have worked iron for themselves.

This paper attempts to follow up what are no more than hints in nineteenth century works with a study of the iron industry and the trade associated with it in one region of Rhodesia, the Wedza/Charter area. Because of the paucity of documentary evidence—white officials seem positively to have suppressed mention of African industries of this sort—this article has been compiled largely from oral evidence collected in the Wedza, Sabi North, and Manyene tribal trust lands. In these areas the heirs of the iron smelting and manufacturing tradition survive, and some of the oldest men participated in the iron industry as very young apprentices in the late nineteenth and early twentieth centuries. The principal informants are mentioned in footnotes, but much corroborative evidence is omitted.

II

In what are now the Wedza and Charter districts of Rhodesia there developed during the 150 years before the establishment of Company rule an extraordinary case of a pre-colonial iron industry, an industry which established a network of relationships among various peoples, and created trade over a 100-mile radius and beyond. It was an industry which had a number of different sectors—mining, smelting, forging, trading, and repairing; an industry which was highly labour intensive; an industry which was conducted on such a scale by one people, the Njanja, that it is difficult to see it as being merely peripheral to the subsistence economy. Moreover, it created what was most certainly a market-oriented trade, which developed purely on the basis of barter. Even more extraordinarily for a pre-colonial industry, there is evidence that developments in the trade itself affected future production. Although many different iron implements were produced, the hoe seems always to have been supreme, such that it is almost possible to talk in terms of a hoe centred economy over a wide area.
The centre of this industry was the source of the ores, the Wedza mountains. This range of hills, consisting of early pre-Cambrian basement schists, is about eight miles long, running from north-east to south-west, from Wedza towards the River Sabi, rising from the 4,000-foot plateau to a highest point of 5,883 feet. To the south-east the plateau falls away rapidly to the low veld. To the east, beyond the Mtukwa range and the Deredzo Hills, it is only 70 miles to the Portuguese East African border. To the north, west, and south the country can be fairly easily traversed. The two peoples most closely associated with this range of hills, the Mbire and the Njanja, both trace their origins in the area to the same period, the early eighteenth century. Since then, Mount Wedza has been much fought over, though not always for its iron resources. Indeed, the people who have exploited Mount Wedza iron most effectively, the Njanja, have in fact never secured it as part of their own territory. In the third quarter of the eighteenth century, possibly around 1770, the Mbire people under Chief Nyahuye first wrested the mountain from Mtekedza's Hera. In the 1820s Zwangendaba's Nguni horde deposed Nyahuye's successor, Mgurwa, who subsequently successfully combined with the Shangaan chief, Mchechenyani, and drove Zwangendaba northwards, ultimately to cross the Zambezi. On at least two occasions the Mbire and the Njanja themselves fought over the mountain, specifically for the iron in these cases, but the Mbire on both occasions were confirmed in their possession of the mountain's resources and of the good land round about. Yet despite all this conflict the Njanja seem to have developed an iron industry of a scale and of a technology superior to any other seen in south-central Africa. It seems difficult to believe, given the extensive nature of the Iron Age cultures of Southern Zambezia, that Wedza iron had not been exploited before the coming of the Njanja, but both Njanja and Mbire informants are agreed that the Njanja brought their techniques with them from Portuguese East Africa, and subsequently taught the Mbire how to smelt and manufacture for themselves. It may be, however that this is a modern rationalisation to explain the great Njanja success.
It is clear that the early eighteenth century was a time of great flux in the region. The Herero under Mbiru had moved into the Wedza area, Mbire people under Dendenyore and his son Mukanganise were moving down from Korekore country via Marandellas, and a group of Rozvi under Gwangawa moved from the south into the district about the same time. It was in the midst of this confused situation that the Njanja people emerged. The most common story of Njanja origins is of the single ancestor type. This recounts that when a group of Sena traders visited Chirwa, chief of the Shiri people, one of their number fell sick and was left behind. This man, called Maroro, was nursed by a daughter of Chirwa (some say on instructions from a passing official of the Rozvi Mambo). When Maroro was careless enough to make his nurse pregnant, his life was in jeopardy for a while, but Chirwa was prevailed upon to let him survive. It was from this union that the Njanja sprang. Some modern informants, however, treat this story with some scepticism, and talk in terms of parties of Njanja coming from Portuguese East Africa and settling because they realised the potentiality of the Wedza iron deposits.

Whether the Njanja originated with this one common ancestor or with a rather larger party of immigrants, it is clear that iron cannot have been the original objective, for the first Njanja settlement was unquestionably Narira, well to the south of Wedza. But before the century was out, the Njanja were already a considerable power, not only exploiting the iron successfully, but also creating a new chiefly dynasty. Maroro's great-grandson, Neshangwe, was recognised by the Rozvi Mambo as chief. There are several explanations as to how this came about. One is that Chirwa was extremely independent and refused to recognise the Mambo as his overlord — in consequence his people were dispersed and Neshangwe was recognised as chief instead. Another is that Chirwa had been in the habit of taking Neshangwe with him to the Rozvi court, and in consequence Neshangwe was better known there than Chirwa's own sons, so on Chirwa's death Neshangwe was recognised. A third and more likely possibility is that through a combination of smelting skills and his own fecundity, Neshangwe had in terms of wealth and following be-
come a power to be reckoned with.\textsuperscript{21} The Njanja had already begun to pay tribute to the Mbire for the privilege of exploiting the ores in the chieftainship of the Mbire Nyahuye,\textsuperscript{22} a chief who did indeed take possession of Mount Wedza by defeating the Hera about 1770. What is certain is that the Njanja had already begun their northward drift and were beginning to drive a great wedge between the Hera people.\textsuperscript{23} It is possible that the Njanja had been paying tribute to the Hera before this date, but there is no evidence on this point.

We see then an immigrant group expanding rapidly numerically and geographically even although they were not particularly successful in warfare. They are said to have lost one war against the Hera. They were defeated on at least two occasions by the Mbire, and they never succeeded in controlling the source of their wealth, Mount Wedza itself. Yet the sons of Neshangwe established themselves at the outer edge of their father's area. And in the nineteenth century, the leading headmenships, like Ranga, Tambaoga, Kwenda, and others, who were also the leading smelting families, had established themselves well to the north of the original settlement, in Kwenda's case hard against the River Sabi only a few miles from Mount Wedza itself.\textsuperscript{24}

They had achieved this extraordinary expansion not through success in warfare, but by remarkable entrepreneurship. While iron manufacturing must have been known in the district before the Njanja expansion, they clearly brought with them a superior technology which made them supreme among iron workers. The important points about the development of their iron industry are that it was highly labour intensive, and they alone succeeded in establishing it on a supra-village level. Distance from Wedza itself was not an insuperable problem, although they did succeed, as we have seen, in getting closer and closer to the mountain. The ore was mined from two mines, Gandamasunga and Chipangure, by considerable parties of both men and women, and was then transported to Njanja country in large paniers on the backs of oxen. The ore was smelted in a furnace or \textit{vira} which required a minimum of four men to operate it. The \textit{vira} required constant supplies of charcoal and water. The smelted iron was manufactured into implements in a forge or \textit{chido} which again required several men to work it satisfactorily. The completed implements
were traded in trading parties of from fifteen to twenty men up to 100 miles away and more. To utilise their technology the basic Njanja problem was therefore manpower.

They overcame this problem by adhering neither to the secrecy nor to the female taboos so frequently attributed to iron workers. Young men from neighbouring peoples - like the Hera, the Mbire, the Rozvi, and the Shiri - were encouraged to join the Njanja, to apprentice themselves and learn the iron skills. For several years they would work only for food, for the training in smelting, and above all for lobola, for the opportunity to marry one of the daughters of the smelter upon the end of their apprenticeship. During this period, they started with the most menial tasks, cutting wood and making charcoal, fetching the ore, working the bellows, and later were instructed in smelting and manufacture. The labour of the women was utilised in transporting the ore, in carrying water and charcoal, and, in the case of the older women, producing the food for the smelters. By the mid to late nineteenth century iron factories had emerged in which there might be from ten to twenty viras working at the same time, and from forty to eighty men plus women employed, all under the supervision of one expert headman smelter.

It is clear that the leading Njanja smelters were minor chiefs with considerable followings; men like Kwenda, Ranga, Tambaoga, Chivese, Svinurai, Mutengwa, Nhachena, and Masendeke. The great expansion of these sub-chiefships seems to have come under the Njanja chief Nzwana, who was chief in the early nineteenth century. It cannot be without significance that it was in his reign that the Njanja first fought the Mbire. Knight-Bruce in Memories of Mashonaland posed without answering the "chicken and egg" question. In the Njanja case all informants insist that these men were smelters first and chiefs second. However, the majority of them appear to have been members of the Njanja royal house, so probably the prerequisites for success were a combination of smelting prowess and correct birth, together with notable fecundity. A successful smelter could of course acquire an ever-increasing number of wives. His daughters would serve to attract
apprentices, and by the time his following reached the third or even fourth generation, it would certainly be sufficient to warrant chiefly status.

Within this large group there was some specialization. The apprentices, as we have seen, did the menial tasks. In the forging, an apprentice would sometimes do the rough work, and then the expert would take over to add the finishing touches. The ore parties and the trading parties were usually under the leadership of one of the sons of the headman smelter. Each *vira* was controlled by a smelter, son or son-in-law of the headman, who had completed his apprenticeship. The sons and prospective sons-in-law of the "journeyman" smelters would themselves of course become apprentices in due course. The whole factory was therefore one extended kin group, constantly increased by the search, necessitated by the exogamous totem clan system, for husbands and wives from neighbouring peoples, the husbands attracted by the opportunity to learn the skills, the wives acquired through the insatiable need of other peoples for the Njanja hoes which were so acceptable as lobola.

Njanja iron manufacture was certainly seasonal, but nonetheless some of the men were kept at work throughout the year. The collecting of ore and the start of smelting took place from May onwards, once the dry season was well-established in other words, and from then until September the *viras* were kept in almost constant use. It is even suggested by some informants that during the periods of intensive smelting, to avoid re-lighting the fire and re-heating the furnace, the smelters worked a shift system right round the clock. While the *viras* were in use, constant supplies of ore, charcoal, and water were required, thus stretching manpower to the limit. Each full day's smelt could produce three to four *honas* or blocks of smelted iron, and these *honas* would be stored away for future forging. Each *hona* would eventually be cut into four or five pieces, each piece making one hoe.

While the *viras* were gathered together in groups in relatively secluded places, concentrated close to water and wood for charcoal, and so that there was no need to distribute the
ore over a wide area, the chidos or forges were positioned in each smelter's village. Only after an intensive smelt would the men cut the honas into sections and begin to make the implements at the forges in their own villages. Since the chidos were covered over by shelters, it was possible to continue this manufacture into the wet season. During that season some of the men would certainly be employed with the women in the fields, but the older men were steadily employed upon repairs. During the period when iron implements were put to most use, a steady stream of people would come in from the vicinities of the best-known forging villages to have iron tools repaired.

Njanja economic activity thus alternated concentration and dispersal. The collecting of the ore was a large-scale activity, considerable manpower being required both to dig the ore and to watch out for enemies. Smelting was a concentrated activity in factories of viras to which smelters and their womenfolk would come from many villages. Working the land was of course a dispersed activity, but so was the working of implements in the village chidos. Men were concentrated again to constitute the large trading parties.

At the end of each season there was usually a surplus of unworked honas. This surplus was carried through from year to year, and it is obvious that it was designed as an insurance, given the fact that the Njanja could not guarantee every year to be able to reach the mines of the mountain. In a year of particular Mbire hostility they would have enough smelted iron to be able to continue their manufacture of implements. As will be seen below, this surplus of honas was to prove exceptionally valuable after the advent of European rule, when mining and smelting were stopped. The need for this insurance is amply demonstrated by the fact that traditions record at least two battles between the Mbire and the Njanja. One was at the beginning of the nineteenth century at the time of the Mbire sub-chief Mubaiwa I, a brother of Chief Soave. This man, having fought the Njanja at a place called Chwarae, at the back of the mountain, lost so many sons in the battle that he adopted the name Mubaiwa, which means "I have been destroyed."
It must have been in the nature of a Pyrrhic victory, however, for, despite this disaster, it is said that the Mbire won, and that the Njanja went on paying tribute. Since the Njanja are reluctant to admit that they fought the Mbire, it is possible that they did suffer a reverse. The second battle took place not long before the arrival of the Europeans, and a similar result seems to have ensued. It may be that after this battle the Mbire began to attempt to encroach upon the Njanja wealthy southern trade, and attempted to step up their own iron production. But they were forestalled in this by the Occupation.

Nevertheless, the Njanja military reverses were sufficiently inconclusive that they succeeded in achieving their economic ends. They continued to mine the ore at will, and the tribute, which was offered in honas or in complete hoes, may even itself have helped to depress Mbire technology. They remained economically powerful because of their ability to attract young men from neighbouring peoples for apprenticeship. Some Njanja may even have taken to living briefly on the northern side of the River Sabi. Kwenda ordered those of his followers who had married Mbire wives to go to live nearer Mount Wedza. When the Mbire came to eject them, they discovered their daughters and sons-in-law, and permitted them to stay. It is a perfect illustration of the manner in which Njanja economic power outweighed their military weakness. Yet still the Njanja took security precautions. In addition to the annual surplus of hona, they scoured their area in vain—particularly after the second battle with the Mbire—for another source of iron, hoping to reduce their dependency on Mbire goodwill. Njanja economic reliance upon a commodity not in their own territory, and their consequent dependence upon the goodwill of the Mbire, bears a striking resemblance to industrial nations' dependence upon oil.

III

That Njanja technology was superior to the iron technologies of other peoples can be established from photographic as well as oral evidence. The Njanja furnace was higher,
more carefully constructed and more tapering than the furnaces of, for example, the people of the Victoria/Ndanga area, of whose smelting work there are photographs extant from the early 1890s. Their furnaces were smaller and of uniform diameter, having a larger charge hole on top. In the latter furnace less heat could have been generated, and the total charge was possibly smaller. Both the immigrant Lemba and some Matabeleland peoples possessed a very much poorer technology in that they smelted in a pot upon a fire. Moreover, most non-Njanja smelters apparently used only one pair of bellows while the Njanja always used two. In addition, the Njanja not only used higher-grade ore, but achieved considerable economies of scale. It may be that these factors enabled the Njanja to trade successfully, and possibly undercut more local producers, even in areas which had their own iron deposits and their own smelters. Brief descriptions of aspects of Njanja technology follow.

The vira or furnace was fashioned out of a solid cone of clay, about 3' 6" high. The inside was gradually hollowed out from the top with a stick, leaving a charge hole of about 9" diameter at the apex. Four inlets were made to take the tuyeres of two pairs of bellows, and on the reverse side an outlet was inserted from which the molten metal could be extracted down a channel to be formed into the hona or block of smelted iron. The vira was invariably decorated with female breasts and with traditional markings upon the "stomach". It was fired over a period of two to three days before use. A good vira could last two years with only minimal repairs after the intervening wet season. During the rains the group of viras would be protected by small shelters built over them. The ore was pounded into small pieces before use, and in 1944, when a demonstration was held at the Museum in Salisbury, the correct charge was seventy handfulls alternated with charges of charcoal.

The chido or forge consisted of a hollow in the ground, banked up with a six inch circular wall of clay. Charcoal was burned, and one pair of bellows used. The metal was beaten either on a convenient natural rock or on a suitably shaped
stone anvil. The metal was held by bark tongs and beaten both by oval stones and by iron mallets, the stones in the earlier stages and the mallets for the finer work.

The bellows were made from the entire skins of goats. These goats were usually skinned alive because it was easier to draw the skins from them then than after death. The goat which lived the longest was invariably regarded as producing the best bellows. The legs of the goat were stopped up, two orifices being left: one as the air intake, and the other to take the clay or horn — among the Njanja usually clay — tuyere. For ease of use, the intake was strung up to a stick held by the operator. One man used two bellows, inflating and deflating each in turn. The tuyere was constructed by making a funnel-shaped piece of clay, and then twisting a stick inside it.

Charcoal was produced from the hard woods, *myange*, *mushava*, and *mukarate*. The wood was burned in bundles for about two hours, and then water was thrown over it.

Medicines were used to encourage efficient smelting. A plant called *durura* was crushed and the mixture was smeared on the ore. In the 1944 demonstration Chief Ranga made three holes in the floor of the furnace for three different medicines made from roots and bark before lighting the fire, explaining that without these medicines the iron would not come out. Although the furnace was constructed as a female torso with breasts and markings there were apparently no taboos at all associated with the building of the furnace, the smelting of the ore, or any other part of the iron process. This fitted well with the absolute necessity of using female labour.

IV

On several occasions during the season trading parties of from fifteen to twenty men left each of the Njanja factories, usually led by the sons of the smelter headmen or sub-chiefs. The majority of the members of these parties usually carried hoes, as many as twenty each, strung in two groups over their
backs. The customers always added the wooden handles. The other men would carry quantities of the "lesser lines", axes, adzes, knives, even assegais. Some would carry smaller luxury items like arm and leg bands, hooks, needles, badges for chiefs, and razors. Iron smelting was often associated with mbira (the African piano) playing, and several traders would take with them their own mbiras to amuse themselves and their customers on the journey. In this way they stimulated a demand for mbiras, which were subsequently traded as an extra luxury item. It is an interesting question how these parties provisioned themselves. Informants say they carried their food with them, but this must have considerably reduced their efficiency. It can be assumed that they expected to pick up food on the veld, for all travelling Africans tend to become hunters and gatherers. It can also be assumed that they were fed by their customers during the period of their market.

Most of the Njanja trading parties proceeded south, towards Chilimanzi, Ndanga, Gutu, and Chibi, and south-east to Nyashanu and the country of the lower Sabi. The south and south-west were particularly favoured because this was the richest market, being good cattle country. The parties usually remained together, both for safety and because trading was arranged at a chief's market. If any traders attempted to sell to individuals, they could find their goods confiscated. They presented themselves at a chief's kraal; messages were sent out to the people round about, and those requiring hoes and other implements came in to buy. Since the Njanja traders preferred to receive cattle for their hoes - the going rate being from ten to twenty for a cow, and probably rather less for an ox - it is clear that buying was a communal arrangement. Smaller stock were accepted also, particularly in short-distance trade, and hoes were exchanged at the rate of 2-3 for a small goat and 3-5 for a large one. These barter rates vary from informant to informant - though ten for a cow is very common - and are difficult to handle since hoes could vary so enormously in size. Moreover, prices went up the further the party had to trade. For example at Nyashanu, only forty miles from Njanja country, a customer could receive more hoes for his
animal than at Gutu, more than double the distance away.\textsuperscript{41} Smaller items like knives, small axes and so on were exchanged for much less, and could be bought for quantities of grain and fowl, which were unacceptable in exchange for hoes. In the case of spears, it is perhaps possible to postulate two levels of trade: personal trade under chiefly patronage, and "state trade". Most informants are agreed that spears were traded not to individuals, but only to the chief for distribution to his followers. At the end of such a chiefly market, a present, usually of one or two hoes, would be provided for the chief himself. Perhaps the most interesting thing about the trading party, however, is that it not only distributed iron products, but also brought back fresh orders for future distribution, both from the chiefs where markets were held, and from other chiefs who sent messages indicating requirements either to a passing trading party or directly to Hjanja country itself.\textsuperscript{42} The period of greatest activity at the viras with day and night shift working was after the receipt of such an order.

A party might very well dispose of all its wares at one chief's market or at most at two or three. The return journey was dangerous and accomplished as rapidly as possible. Such a party might very well be driving up to twenty cattle, and numerous small stock, and were therefore an obvious prey in the nineteenth century both to the Ildebele and to Shona "muggers" who abounded in the period. The party drove therefore mainly at night and hid in kopjes during the day. Round trips took from one week up to a month, so it seems unlikely that more than one or at most two of the longer journeys could have been made in any one season. Orders received were therefore sometimes carried over into the next season. Upon the party's return the cattle and small stock were received by the headman and distributed to the journeymen smelters in proportion to the production they had contributed to the trading party, with a larger portion going to the headman himself and to the leader of the expedition, probably his son.\textsuperscript{43} If an even distribution were not possible, a fresh distribution took place once the cows had calved. At the end of the man-
ufacturing and trading season the smelters and their apprentices scattered to their villages to divide their time between work in the fields, tending the cattle, and work at the village chidos.

While the Njanja were extraordinarily highly specialised and produced a technology and a scale of operation that far outranked that of any other people, still they could not of course monopolise the iron deposits. The Mbire people near the mountain themselves worked iron, and may very well have learned their techniques from returning sons. All informants are agreed that the majority of the apprentices remained with the Njanja, but that some returned with their Njanja wives to their own people. The Mbire people, however, never seem to have achieved the same scale or the same trading success as their neighbours, the Njanja, despite possessing the iron deposits in their own territory. It may be that the returning apprentices were the less successful smelters; it may be that the Mbire political structure was unable to produce the supra-village factory; it may be, as has been suggested, that constant Njanja tribute served to depress Mbire technology; or it may be simply that they responded to lesser demand, since the northern market which they secured was a very much poorer one.

At any rate it is clear that their iron working was on a village rather than a supra-village level; at most they mustered three or four viras together. They produced primarily for their own domestic market, and simply exported a small surplus. Their season was shorter and their trading parties much smaller than those of the Njanja. Their parties numbered only three to five, traded mainly north, north-east, and north-west, and traded mainly for small stock, fowls, even grain and cloth. They were it seems unable to exchange for cattle. It may be that shortly before the European Occupation the Mbire were attempting to seize some of the southern trade from the Njanja, for two informants talked in terms of acquiring part of the Gutu trade in the late nineteenth
Informants from all peoples are agreed as to the significance of the hoe trade in marriage arrangements. Because of their exogamous totem clan system, Shona people were always eager to take the opportunity of finding wives from another district with a different totem. Hence one of the incentives for being a member of a trading party was the possibility of being able to secure a wife. The Mbire people talk of finding wives on their westward journeys, particularly from the area of Chief Seke, near the modern Salisbury. The Njaña also acquired wives on their travels, and both peoples are agreed that lobola in such cases consisted of twenty hoes. It is clear that lobola, far from being inseparably wedded to cattle, as has so often been indicated, could in fact be offered in the most important trading item of the moment. Not only were hoes used for lobola in the nineteenth century, but guns\(^47\) and ivory\(^48\) were also exchanged in the same way.

The Mbire people traded also the musical instrument so common to Central Africa, to which in their own area they seem to have given their own name, the mbira. Mbire smelters who were also mbira performers manufactured the iron keys, and attached them tuned to the wooden block on which they are held. Keys and wood together were called chese, and were traded to customers who themselves added the sounding gourds. Since mbiras were traded only for fowls, one chese to a fowl, those who traded them took as many as possible in order to make them as economical as possible.\(^49\)

Two other modes of distribution of Wedza iron must be noted. Wedza iron ore was transported by people from as far away as Selukwe, despite the fact that there were chemangura (places of iron) much closer at hand.\(^50\) This testifies to the fame and high-grade quality of Wedza iron. Ore was transported also to the present Enkeldoorn area, where some smelters smelted for their domestic use, and for local trade, though in this case the customers seem to have come to the smelters rather than the smelters doubling up as traders.\(^51\) Another procedure was for the customer to go to dig the ore himself,
transport it to a smelter, who from one load might be able to make a single hona. The smith could manufacture four hoes out of this, and the customer would receive two. Thus the customer who pursued this method received his hoes in exchange for helping to alleviate the smelter's labour problem. This method appears to have been utilised mainly by non-Njanja peoples.

VI

Indications of the riches the Njanja acquired through their specialisation and trade emerge in the manner in which the Njanja were themselves the favoured customers of other traders. Sena and Portuguese traders went to Njanja to sell cloth, beads, guns, and shells, while they did not apparently trouble with the Njanja neighbours, the Mbiré. The Sena presumably traded for hoes, for the Njanja did not themselves hunt, and any ivory they had was bought from others. It is possible too that they acted as middlemen in the hoe trade, disseminating high quality Njanja hoes over the northern areas which the Njanja did not themselves visit. In addition to the Sena traders, the Njanja were visited by people from the south-east who carried with them considerable quantities of rock salt to which they gave their name, Gova. Like the Sena, they travelled to Njanja country specifically to trade for hoes, and as a result of this traffic hoes circulated throughout the area of the Duma confederacy. There, and presumably elsewhere, a subsidiary iron industry was created in the conversion of worn-out hoes into smaller items. Whereas other traders came in this way to the Njanja, there is evidence to suggest that the Mbiré had to go out to meet traders in order to acquire cloth and guns.

The scale of Njanja wealth is revealed in a negative way by the frequency with which they were subject to Ndebele raiding. Their entrepreneurial success resulted in the building up of considerable herds, thereby arousing the interest of the cattle-hungry Ndebele. At no point apparently did they attempt to parley with the Ndebele, and at no point did they attempt to offer iron products to the Ndebele as tribute. It may be that the Ndebele were sufficiently well-supplied with iron from the
peoples mentioned earlier in the article, or it may be that the Ndebele found it inconvenient to carry iron such a distance to their own country. It is interesting to note that the Njanja did not rise during the 1896/7 rebellions, while the Herera, their neighbours and long-standing enemies, did. If this was another demonstration of Njanja entrepreneurial acumen, it was ill-founded. Although they did not rise, although Kwenda protected the missionaries of Khorwa Mission from the rebels, the rebellion marked the end of their supremacy in the iron trade; and the dispersal of the apprentices back to their own people. Not only was long-distance trade destroyed by careful restrictions on African movements, but an important sector of Njanja industry was destroyed by the post-rebellion confiscation of guns. In the gun trade the Njanja had become celebrated for their repairs, for the forging of bullets in their chidos, and even for the sale of gunpowder, manufactured from the manure of rock rabbits mixed with the ash of certain trees when burned, and sometimes with powdered slag from the furnaces. The manufacture of hoes was to survive a while longer, but in much reduced form.

The death of the iron industry took place sector by sector. There is some evidence that iron mining was stepped up at the time of and immediately after the rebellion, but it was a final spurt before mining was killed. All informants are agreed that the native commissioners of the two districts, Marandellas and Charter, separated by the River Sabi, forbade further mining and smelting. The Mbire talk of Ernest Morris of Marandellas issuing such a fiat, and the Njanja of "Jojo" (W.M. Taylor) doing likewise in Charter. Yet no documentary evidence for such an order can be found. Even without this administrative fiat, the principal problem for the Njanja was the fact that the dividing line between two districts was placed between themselves and Mount Wedza. This meant that they could not travel to Wedza without permission and later a pass; it meant that they could not take oxen, so necessary for transport purposes, from one district to another. In any case the cheap European-produced article,
which could be acquired for one or two shillings, very rapidly displaced the product of the traditional industry. An indication of the relative price at that period can be deduced from trading figures given by Stanley Portal Hyatt in his *The Old Transport Road*. When cattle prices were at their highest, he paid - in the Sabi-Lundi area - £10 for a cow at the turn of the century. Invariably he threw one or two hoes into the bargain, depending on how quickly agreement had been reached. Clearly an industry which had exchanged ten hoes for a cow could not survive in such a situation.

Nevertheless, the Njanja continued with their domestic production. A considerable surplus of *honas*, built up for security reasons, survived, usually buried in a safe place. Until the First World War the Njanja continued to manufacture hoes and other implements from these surviving blocks of smelted iron. But even after the *honas* were exhausted they continued to manufacture iron items, and in this respect they indulged in an activity which was going on all over the country. This was the manufacture of implements from scrap. Labour migration to towns, construction work and mines facilitated this process. Young migrants were expected to bring scrap iron back with them for forging in the *chidos*, still surviving in the villages when the day of the *vira* was long past. This form of manufacture received a considerable fillip after the First World War when cattle prices slumped and the prices of manufactured articles rose by 100% or more. It was not always scrap that was used. The railways apparently lost large quantities of iron pins which were "liberated" in the direction of the village *chidos*. By these means some Njanja even attempted to manufacture ploughs of the kind they had seen used by Europeans.

Traditional smelting in the *vira* survived as a museum curiosity. In the 1920s an exhibition was given by Njanja smelters from Charter District at the Bulawayo Show; in 1925 such an exhibition was arranged at The Range, Charter District, to amuse the visiting Prince of Wales; in 1930 the same demonstrators performed at the Johannesburg Agricultural Show; and in 1944 a demonstration was arranged in Salisbury at the
Queen Victoria Museum. As recently as 1971 another demonstration was given at the Salisbury show. Despite this continuing interest in the actual methods of traditional smelting, no one has recognised its significance in the economies and societies of several African peoples in Central Africa and among the Njanja in particular.

VIII

In their introduction to *Pre-Colonial African Trade*, Richard Gray and David Birmingham categorised trade into subsistence-oriented trade, a trade subservient to the kinship system, and a market-oriented trade dependent on a currency.

Even in societies most affected by market-oriented trade, the changes were generally confined to a relatively restricted sector of an economy which remained predominantly one of subsistence agriculture, until rail and motor transport solved the problem of bulk exports from tropical Africa.

Gray and Birmingham refer to Miracle's article on Tonga trade in which he suggested that Tonga trade both raised the standard of living and facilitated the accumulation of wealth. Their critique of Miracle is based on the arguments that the profits of Tonga trade were distributed through the kinship system, that it was primarily an insurance against time of scarcity and was itself subservient to the other insurance, hunting and the collection of wild flora. Moreover, Tonga trade did not support an administrative elite, nor did it involve professional traders or specialised industrial skills intimately linked with the export market.

As we have seen, Njanja manufacture and trade were crucial in Njanja demographic increase and geographic expansion, and remained a vital component of the Njanja economy. Indeed, even its seasonal nature must be qualified by the fact that at least one sector continued through the growing season. Not only did it support, but it created an administrative elite among a rapidly expanding immigrant entrepreneurial group. Resources were allocated to meet demand, and production was often geared to the satisfaction
of specific export orders. While there was no vertical specialisation of labour within the industry, there was horizontal specialisation, since all the workers fitted into the hierarchy of apprentice/journeyman smelter/headman smelter. Moreover, in view of their special skills the Njanja set up a form of labour migration through which they established symbiotic economic relationships with neighbouring peoples, like the Hera and the Mbire, against whom they were usually politically hostile.

The industry was destroyed partly by administrative action, but principally by outside competition. The labour migrants returned home ready to participate in a new less sympathetic labour migration to white employment. And the Njanja reward for quiescence during the Rebellion was to be compressed more tightly into their Sabi North Reserve (now Tribal Trust Land) when the Native Commissioner Posselt moved in a branch of their traditional enemies, the Hera under Chief Mutekedza, from white land in the early 1920s.68

* I am indebted to David N. Beach for suggesting this topic to me, and to the Dame Lillian Penson Fund of the University of London and the Department of History of the University of Rhodesia for making it financially possible. My Manyene interviews were interpreted by John Mamvura, and those at Sabi North and Wedza by Victor Kwenda, himself of an old smelting house. Victor Kwenda was much more than an interpreter - he found informants, suggested questions himself, and hypothesised to great effect between interviews. Harold Averill accompanied me on all research trips as tape recordist and scribe. All documentary references are to the National Archives of Rhodesia, abbreviated NAR.

4. Ibid, p. 36.
5. In 1911, the native commissioners of several of these districts commented upon the decline and fall of the industry in their annual reports. It is one of the few occasions
when iron making is mentioned officially. NAR N9/1/14.

For Budjga iron implements (Mtoko District) see A.E. Snowden, 'Some Technological Notes on Weapons and Implements used in Mashonaland' NADA (Southern Rhodesia Native Affairs Department Annual), No. 17, 1940, pp. 62-70.


7. D. Carnegie, Among the Ndebele (London, 1894), pp. 55-57. Carnegie describes Ndebele blacksmiths (who could in fact very well have been Karanga) as smelting the iron in a pot which rested on three stones in a fire. One pair of bellows was used. This technique seems to have been used also by the Lembu (private information from Avital Livneh). This technique should be compared with that of the Njanja described later. E. Vaughan-Williams, A Visit to Lobengula in 1889 (Glasgow, 1947), p. 99, marks five forges on a plan of Umvutcha's kraal, 7 miles north of Bulawayo.

8. For example, in 1911 when all native commissioners were asked to comment in their annual reports on 'Native Industries', Ernest Morris, the native commissioner Marandellas, who had been there since before the Rebellion, wrote 'The natives in this district are agriculturists and have no other industries'. Since the Wedza mountains were then in the Marandellas district, this was one of the principal iron working areas. NAR N9/1/14.

9. Research was conducted in Manyene, Sabi North, and Wedza tribal trust lands from August to October 1973, when it was brought to a sudden halt by the rains. Informants will be cited by their personal names with in brackets their people, their putupo (totem) and their chidau (praise name) in that order.


11. Ibid.

12. H.E. Sumner, 'Notes on the Njanja People of Charter District', NAR Historical Manuscripts Accession No. 1220, as yet uncatalogued.

13. I am not at liberty to quote the source of this oral tradition.

14. This likewise comes from a restricted source.


17. Interview with Zidenga (Njanja: Moyo; Sinyoro), 20.x.73. Zidenga was by far the most informative of all my informants.

18. Posselt, in 'The History of the Mashona Tribes' is alone in interposing two generations between Maroro and Neshangwe, but his oral tradition, collected in 1903, seems not only reliable, but also fits the chronology that can be deduced.
from the Njanja genealogies.
19. 'The History of the Mashona Tribes'.
21. The Njanja adopted the Rozvi totem Moyo, and their chidau became Sinyoro, a corruption of Senhor.
22. Interview with Headman Mubaiwa (Mbire; Soko; Moyo Ndizvo), 21.x.73.
23. Davies, 'Odds and Ends'.
25. For example, Louis C. Thompson, 'Ingots of Native Manufacture', NADA, no. 26, 1949, p.7, and H.H. Methuen, Life in the Wilderness (London, 1846), pp. 183-4. Methuen described iron making among the Kgalta, very similar in technique to that of the Njanja. But among the Kgalta the methods were a closely guarded secret, surrounded by all sorts of taboos, such that the chief himself was not permitted to see the smiths at work.
26. Interviews with Zidenga, Dune (Njanja, Moyo, Sinyoro), 28.ix.73, and Musanhu (Mbire, Mbevo, Musoni), 20.x.73.
27. Interviews with Zidenga and Musanhu. Musanhu, though an Mbire, was brought up in Njanja country, and can be regarded as a repository of Njanja traditions.
28. Both Dune and Chief Neshangwe (Njanja; Moyo; Sinyoro), interviewed 28.ix.73, implied that the Njanja had very little to do with cultivation being much too busy with iron work.
29. Early in the research, it became apparent that there was an arithmetical divergence between the hona production and the hoe production in each year. Zidenga solved the problem with this explanation.
30. Interview with Chigwedere (Mbire; Soko; Mhondizvo), 20.x.73.
31. Njanja informants tended to deny battles with the Mbire, while Mbire informants alluded to them. Zidenga, interviewed on three different days, denied that any battles took place on one day, and admitted to the second one on another day.
32. Interview with Maruta (Mbire; Soko; Vudziyena), 21.x.73.
33. Interview with Zidenga.
34. For Njanja technology see photographs by J.W. Posselt in NADA, no. 4, 1926 and the descriptions of a demonstration in 1944; H. Franklin, 'The Native Ironworkers of Enkeldoorn District and their Art', NADA, no. 22, 1945, and by an unknown writer in Outpost, the Regimental Magazine of the British South Africa Police, Vol. XXI, no. 7, 1944. For photographs of Ndanga ironworking, see those taken by Alfred Drew before the 1896 Rebellion in the NAR photographic collection.
35. Martin D. Prendergast, 'Pre-Industrial Methods of Iron Smelting in Selected Tribal Trust Lands in the Selukwe District, Rhodesia,' University of Rhodesia Institute of Mining Research, 1972, indicates only two bellows in use in Selukwe, p. 10. Prendergast confused the furnace vira with the forge chido, thinking one a forced-draught furnace and the other an open-bowl furnace.
36. There was extraordinarily little variation in the descriptions of informants.

37. Interview with Zidenga.

38. Chief Neshangwe was the only informant to mention razors. C.E. Pinlason, *A Nobody in Mashonaland* (London, 1894), pp. 188-9, writes of the Marandellas district: "They shave each other all day long with razors of native wrought iron".

39. Manyene interviews, e.g. with Elia Maromo Dzowa, 4.viii.73 and 3.xi.73, with Philip Ziviro, 4.viii.73, and Chief Nyoka, 4.xi.73. I am grateful to Murray Steele for the opportunity to accompany him on his research, and for added information from other of his interviews.

40. The author has in his possession two *badzai* or hoes which vary enormously in size. One has a blade 6" long, the other 12"; the first weighs over 2lbs, the second 4½ lbs.

41. Interviews with Zidenga and with Mugadza (Njanja; Moyo; Sinyoro), 21.x.73.

42. Mubaiwa suggested that the Mbire also worked to orders.

43. Zidenga suggested that the proportion of distribution to the headman smelter, the leader of the trading party, and to the journeymen smelters was 5:3:1.

44. Maruta, son of an Mbire smelter, had an Njanja mother.

45. Interviews with Maruta and Mubaiwa.

46. Interviews with Maruta and Chigwedere.

47. Native Commissioner, Charter, monthly report, November, 1899. MAR NS/4/5. He reported that guns were no longer acceptable as lobola because the government was confiscating them.


49. Interview with Chigwedere.

50. Prendergast, *Pre-Industrial Methods of Iron Smelting*, p.7. The Chief Mashiamombe of Mondoro apparently got his name, which means "not having cows" when his people attempted to carry the ore of Wedza to their own area (a distance of sixty miles) on their backs. Private information from Murray C. Steele.

51. Interview with Headman Chitsaka (Hera; Mhara; Mbuya), 18.viii.73. Chitsaka asserted that the Hera paid for their ore in crops, maize or *rapoko*, but there is no corroborative evidence for this at Wedza itself. Chief Mutekedza of the Hera, an exceptionally old man, interviewed 19.viii.73, suggested that considerable numbers of people used to travel from the south through Hera country to purchase Njanja hoes. So the customers may have come to the Njanja as well as the Njanja going to the customers. Njanja informants agreed that this procedure was purely local.

52. Interview with Mugadza.

53. It is known that the Sena preferred to come south to Manicaland, and presumably further to Njanja country, for their hoes because they regarded the Marave article from the north as being very inferior. Private information from H.H.Bhila.
54. Interviews with Dune and Headman Tambaoga (Njana; Moyo; Sinyoro), 28.ix.73.


56. See Sumner, 'The Kwenda Story' for an account of this incident.

57. H. Franklin, 'The Native Ironworkers of Enkeldoorn District' implies such an upsurge to make assegais, arrows, and knives. Zidenga also suggested an increase in production at the time of the Rebellion.


59. In 1972 when Dr. H.O. Reisener arranged a demonstration of smelting by Ranga in Charter District, he discovered that the "miners" had picked up scrap instead of taking genuine ore from the mountain. Private information.

60. H.M. Jackson to B.W. Durham, 24.x.29. NAR S 235/364.

61. Interview with Zidenga.

62. An account of this demonstration can be found in NAR S 138/173.

63. Correspondence on this trip to Johannesburg by the Charter iron workers can be found in NAR S 235/364.

64. Franklin's and the Outpost's descriptions refer to this demonstration.


68. H.E. Sumner, 'Notes on the Njana People'.

JOHN M. MACKENZIE.