

ARMS AND ARMOUR IN THE WARFARE OF PRE-COLONIAL HAUSALAND

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ABSTRACT Warfare was an important factor in pre-colonial Hausaland in the expansion and consolidation of such Hausa States as Daura, Zaria, Katsina, Kano and Kebbi. It also contributed to the disintegration of the conquered areas. It took the forms of either military confrontations, ambushes, or raids in which all available forces were marshalled to defeat the enemy entirely and to force the loser accept the conditions of the victor. The weapons of attack and of defence are a reflection of the technological achievement, political centralization, geographical position and the economic base of the society.

In this paper, attention is focussed on the weapons of attack and of defence manufactured and improved upon over time to meet new tactics and strategies of war. These changes in weapons were costly affairs that could only be met by societies with a sound economic base. This paper also traces the evolution of military specialists in Hausaland and how these were mobilized and organized by Hausa Kings to meet the war requirements of the society.

In the conclusion, the paper contrasts warfare in Hausaland with warfare in other areas and comes to the conclusion that success in war was a combination of strength and skill. The paper laments, the technological stagnation of the area today which is traceable to the imposition of colonial rule in the early 20th century.

Key Words: Arms; Armour; Army organization; Tactics; Warfare.

INTRODUCTION

Hausaland in pre-colonial days like any other area all over, witnessed and fought many wars. Wars were fought to ensure survival or to expand and consolidate at the expense of others. This entailed mobilization of men and materials, continuous modification of weapons and the adoption of tactics and strategies through which decisions were reached on the basis of situations which could not be predicted by the enemy and, therefore, limited the enemy's will.

The study of the weapons of attack and of defence can throw light on the types used, changes that were effected over time and their probable origins. This study can also reveal to us the methods of warfare and the reasons why these weapons are obsolete today while their associated tactics are still effective despite the application of modern science, explosives and mechanical principles in warfare. The study is also important because it enables us have an idea of Hausa external relations through war.

This short paper cannot, however, delve into all these issues but will only concern itself with how the threat of destruction led to changes in arms which affected modifications in armour and tactics of war. In a study of this nature, the researcher is faced with many difficulties. One of these is the lean nature of the sources. Written sources

are limited and where they exist, they only focus on other societies outside Hausaland. Oral tradition which seems attractive in this kind of study is risky to depend on because its reliability becomes progressively uncertain as we go backward in time beyond living memory. Because the Hausa society has known many wars, the recollection of specific wars, arms, armour and tactics employed during each of these wars is quite difficult. This problem is compounded by the fact that warfare was an art and science whose secrets had to be kept by each society in order to be perpetually on the offensive.

One other difficulty has to do with uniforms. Since pre-colonial armies had no uniforms, it is difficult to find out how a friend could be distinguished from a foe considering the fact that troops were in most cases, massed together for battle.

Despite these difficulties, it is still possible to trace the different types of arms and armour used in pre-colonial Hausaland through those in existence in private homes and museums. Also, since the adult males of society spent a great deal of their lives fighting wars, a lot of information can be gained from the existing pre-colonial warriors. Blacksmiths, who manufactured weapons and followed the army to the battlefield to repair broken weapons on the spot to supplement the stock, are also a portent source. So are the traditional medicinemen. *Yan Tauri* (people believed to be invincible to weapons made of iron), *Wanzamai* (barbers), and *Mallamai* (learned men) who prepared protective charms and offered prayers for success in battle.

Two types of war should be distinguished: great wars planned and organized by the central government which consisted of hierarchical ordering of military commanders and the general army all under the control of the *Sarki* (king); and the smaller raids and military operations carried out by individuals or bands of free looters who, though, had to obtain permission from the king, retained most of the booty. This paper is concerned with the first type of war.

In pre-colonial Hausaland, there were a variety of weapons of attack and of defence which were consciously modified to cope with changes in the tactics of warfare. For every new weapon devised or improved, a defensive mechanism had to be invented to counter it. Thus, while arms were designed to cut, pierce or crush the enemy, armour to counter it. Thus, while arms were designed to cut, pierce or crush the enemy, armour was meant to absorb shock or offer a glancing surface to deflect the enemy's weapon. Armour, therefore, was steadily improved to counteract improvements in weapons of attack and tactics of war. It was these continuous modifications effected in arms, armour and tactics which made certain societies to thrive while others who could not do so declined.

BACKGROUND OF WARFARE

The geographical location of Hausaland in the Savanna belt of the Nigerian area influenced the types of weapons and tactics of warfare. Here, unlike the Forest belt, long range missiles like the sling, catapult, javelin and the bow and arrow could be used. Absence of thick forests and tsetse flies enabled the use of cavalry. Coupled with these is the seasonal nature of rainfall in this zone. In the rainy season, farmers

are engaged in cultivation, but in the dry season, they had spare time to engage in part-time jobs such as trading, blacksmithing, smelting, weaving, carving and military activities. These occupations were made possible because of the availability of such raw materials like iron ore, wood, hide and skins, cotton and silk cotton.

The dry season being the period of harvest and abundant commodities was also the time for military attacks so that enough booty could be secured (Achi, 1982). Thus, warfare was a seasonal affair. This led to the mobilization of military specialists and professionals of related fields towards war effort. Blacksmiths, for example, were organized into a hierarchy of officials, for the manufacture of war and war-related implements like *Masu* (spears), *Takuba* (swords) *Kibawu* (arrows), *Gatura* (battle axes), *Barandami* (fighting knives), *Sangwami* (digging knives) and horse-trappings like bridles, bits, stirrups and spurs. They were also required to rivet metal sheets into *Kyauraye* (metal doors) and locks for city gates—apart from agricultural and industrial tools to meet the technological needs of the society (e.g. Jagger, 1973). Leather workers on their part made horse reins, leather finishings on saddles, sword and dagger sheaths, whips, amulet covers for warriors and horses, hide shields, *Salka* (water bags), *Zabira* (food bags) and bow strings (Achi, 1985a). Cotton and silk weavers wove *Rigunar Yaki* (war dress), *Lifidi* (quilted cotton arrow—proof armour) and *Kwalkwali* (helmet). Wood carvers produced hollow wooden cylinders of drums for war and state music and bows. They also made sword handles. Mention has been made of the mobilization of traditional medicinemen barbers, and the clerics towards success in battle. Mobilization and encouragement thus given to military specialists by the *Sarakuna* (kings) led to the search for excellence in the military profession.

People like Mabogunje are of the opinion that the open terrain always made the inhabitants of the area imperialists as they were tempted to conquer and dominate others (Mabogunje, 1967). This view of seeing the Savanna as creating hardships which forced the Hausa to wage wars with the intent of snatching from a cruel nature a difficult sustenance is erroneous. The peoples of the Savanna waged wars against groups in the same zone and against peoples in the Guinea and Forest belts. For example, Kano which is in the same Savanna belt with Katsina, waged war against Katsina, attacked the Maradawa of Niger Republic, the Umutawa of Bauchi region and was attacked by Bornu and the Kwararrafa. The urge to conquer and dominate others does not, therefore, lie in the environment alone, for environment does not wholly determine people's temperament nor success in warfare. The existence of militaristic states in the Forest belt like Old Oyo, Ile-Ife and Benin means that environment was not the major factor for war even though it affected the weapons, tactics and strategies of war since the topography of the opponents had to be studied as part of the offensive plan (De Gaulle, 1960).

The open terrain in Hausaland rather than spurring the inhabitants to seek to conquer others, created a dire need for security since they had to erect thick and high walls with formidable thickets and ditches (Achi, 1985a). Thus the large number of such static fortifications in many settled areas of pre-colonial Hausaland indicates that defense had the upper hand over assault.

It was, therefore, necessity rather than environment which compelled the Hausa

people to mould themselves on militaristic lines and to give military affairs their studious attention. This is seen in the way arms and armour were invented and modified to cope with the constant changes in tactics and strategies of war.

TYPES OF ARMS AND ARMOUR

The arms of pre-colonial Hausaland can be divided into two:

- (a) Those that could be hurled at a distance, missiles, which included slings, bows, stones, javelins, catapults, and the throwing spear.
- (b) Those used in close combat, shock weapons, which included clubs, spears, lances, pikes, swords and war bracelets.

The locally made long range weapons were the earliest to be used in Hausaland when man was a predator. They were all-purpose tools used in hunting and warfare (Achi, 1982). For example, rocks were used to hurl at the hunted prey or enemy. Later, man developed the use of the sling and catapult for hurling small, smooth rocks with greater force for greater distances than was possible by arm power alone. These were at first defensive weapons against wild animals that posed a threat to man's existence, but later, became powerful offensive weapons and one of the simplest missile deliverers ever devised. The sling, for example, consisted of a strip of leather wide in the middle where the missile fitted, and tapered at the ends. One end was wrapped tightly around the throwing hand, while the other was held loosely in the same hand. It was wielded around the head and the loose end was released at the right moment, sending the stone speedily to its target. In the hands of an expert marksman, it was a powerful offensive weapon.

Arrows were made of blunt wood, flint or were tipped with iron. The flint-headed and blunt-wood headed arrows rather wounded than killed the enemy. By the 7th century when iron was discovered and used in Hausaland (e.g. Willet, 1971; Sutton, 1977), arrow heads were tipped with iron and could hit a moving target at 400 feet. These were carried in quiver which was slung across the back or around the shoulder on the left side. The bows on which arrows were fixed were made of pliable wood and strings of ox-gut. Their use in warfare led to the emergence of skilled archers. These long range missiles with the exception of the spear and iron-tipped arrows were in use in Hausaland long before the 7th century A.D. They did not require any training in their use. Their materials were simple and readily available within the environment and the techniques of their construction was uncomplicated.

The shock action counterpart of the missiles was introduced in warfare with the knowledge and use of iron. This became more pronounced in the 14th century with the introduction and use of the Dongola type of horse in Hausa warfare (e.g. Law, 1973; Fisher, 1973).

With the horses came the spears, swords, axes, knives and clubs. These light, portable, manual shock weapons, were effective for harrying tactics. Because they are short-range weapons, they were used for close combat. Though their introduction did not replace the long range projectiles, yet it was a military revolution as they enabled their users to fight at close quarters and could deliver a decisive blow. This trans-

formed the structure of military organization fundamentally. An elaborate form of army organization newly developed. It was made up of an offensive force structure of cavalry and infantry and of their defensive accoutrements including elaborate static fortifications. It was this military sophistication which took root in the 16th century that marked the era of military professionalism in Hausaland (Achi, 1982).

The sword, an elongation of the dagger, was made up of a short, straight blade of iron with a stabbing point, sometimes with two cutting edges. There was also the short stabbing sword like the *Gajere* (short sword) of Katsina with a slightly curved blade and a sharp front edge. Then, there was the two edged sword of a straight shape like the Bayajida sword at Daura, while the sword of Kanta at Argungu was a very flexible type, with two edges and it was long, used for cutting than thrusting (Bivar, 1964).

War bracelets commonly used among the Kabbawa were metal rings worn round the wrists, sharpened at the outer edge which was protected by strips of hide and it was used for close combat in cutting the adversary.

These new military weapons and their accoutrements were costly. The horse, for example, was so costly that only the rich and powerful in society could afford it. Clapperton estimated the cost of a good war horse in Kano in the 19th century to be between 100 and 120 dollars, whereas, the same horse could be bought at 80 dollars at Kouka (Cecil, 1955). In terms of slaves, a horse could cost as many as between 15 to 20 slaves in Gazargamu (Africanus, 1896) and definitely more in Hausaland. Apart from the high cost of horses, they also involved large expenditures. They consumed large quantity of corn and stalk and could not, therefore, be maintained by societies with low agricultural production (White, 1962).⁽¹⁾ Horses also had to have bridles, bit, reins and spurs to prick the mount to move faster. They had to be equipped with saddles which act as a shock absorber and also keep the rider firm on the seat; while stirrups are worn by the rider on his feet and horse shoe to enable the rider and his horse move easily through thickets. These were also used for offensive purposes. These were not all. Horses got killed in battle or could be wounded. In order to be effective in battle, remounts had to be acquired by the rich riders. Horses could also get alarmed and throw away their riders and escape leaving such victims on foot. This is why mares were highly prized in Hausaland, because they do not neigh on approaching other horses, a quality which made them very fit for warfare (Africanus, 1896). It was this great expense on cavalry that necessitated increased raids, taxation, exploitation and the establishment of royal agricultural estates, cultivated through corvee and slave labour, to meet the economic needs of warfare (Achi, 1987a, 1987b).

As the violence of warfare increased due to the introduction of new weapons or modification of existing ones, armours were built for the cavalry and infantry and were equally modified over time to cope with the changes in weapons of attacked. One of the earliest armours was the Garkuwa (*shield*), made of tanned hide, circular or rectangular in shape about 4 feet long and 2-1/2 feet wide. It was held in the left hand leaving the right arm free to wield a weapon. Though it was light and supple, yet, was durable and superior to those of metal or wood (Smaldon, 1977). To counteract the protective effects of leather shields, spears and arrows were modified. They

were provided with long shafts and barbs to ensure accuracy and was made weightier to make it difficult for force of wind to deflect so that they would have greater penetration (Cowper, 1977). To counteract this measure, leather was boiled or soaked in hot wax for days so that it became hard and was used in making armour. This compelled the opponent armed with arrows and spears to exhaust his weapon stockpile.

Other protective armours included the *Lifidi* (quilted cotton arrow-proof armour), locally manufactured from the loose fibre of silk cotton tree and was worn by the rider and his horse (Smaldone, 1977). A new tactic of fighting the armourer was adopted. Incidiary arrows were used, which on contact with the armourer, caught fire, thus, destroying him. This tactic was employed by Sarkin Kazaure, Muhammadu Magayaki against Damagaram in the 19th century (Magali, n.d.). Weavers of quilted cotton arrow-proof armour were compelled to carry water in special bags as a precautionary measure against fire-tipped arrows.

As the violence of shock combat increased, heavier and metallic armours were built for the horse and his rider. They were both provided with a body shield, the *Sulke* (chain armour), against the deadly pointed missiles of the opponent. This was composed of iron chains that covered the rider from the throat to the knees, divided at the back and partly covering the horse on each side. On the rider's head was the *Kwalkwali* (helmet), with chin pieces strong enough to ward off the shock of spear, arrow and sword cuts. The horse's head also had plates of iron or bronze just leaving enough room for the eyes of the animal (Cecil, 1977). It was convenient because it was well ventilated and not too heavy. All armours, weapons or horse-trappings were locally made with the exception of the chain mail (Gowers, 1921). No tradition exists to indicate that this chain mail was manufactured in Hausaland. It was probably invented in the Near East but known and used in European as far back as the 2nd century B. C., but was introduced in Hausaland in the 14th century (Bivar, 1964).

To check this new trend, a new tactical unit was developed. This was the phalanx where cavalry protected the flanks and charged the enemy after the initial shock delivered by the phalanx. Others armed with bows and arrows, javelins and spears also guarded the flanks of the phalanx and harrassed the enemy at a distance. This was employed by the Jihadists, against the Gobirawa (Smaldone, 1977).

But with the development of formidable fortifications surrounded by ditches and thickets, the enemy's advance was slowed and his use of weapons was impeded. This made it possible for the defenders of the walled city to refuse to come out from the city wall to fight pitched battles since they could stand on the battlements provided on the wall and fire missiles on their assailants using pitch-holes. The wall made the city an island of resistance so that new methods had to be devised to fight walled settlements. The siege tactic was, therefore, adopted where the enemy's territory was ravaged and their farmlands destroyed in order to starve them to submission or compel them to come out and fight. The Jukunawa from the Gongola valley employed this tactic against Zaria in the 17th century and defeated the walled city. The Hausa, being one of the great siege engineers of their time, could also assault walled fortifications through the use of several simultaneous attacks. While archers shot flights of arrows and darts over the walls, infantry from behind huge shields mounted scaling ladders,

while sappers tunnelled under the walls using *Sangwami* (digging knife) and *Masaba* (heavy iron rod used for digging or breaking) (Achi, 1985a).

Ditches and moats could be filled with stalks of Guinea corn and knives were used in clearing the thickets. The Hausa, therefore, without the use of the battering ram used in Europe to break castles, were able to pound at walls and gates making huge holes on the fortifications. The Hausa, however, learnt this tactic from the Bornoan forces who, in the 16th century under Mai Idris Aloma, first employed it against the Amchaka (Ibn Fartuwa, 1926).

Poisonous arrows and spears, known as '*dafin zabgai mai karen dangi*' (destructive poison), were used. This poison was a concentration from various leaves, roots and crushed heads of poisonous snakes (Bello, 1968; Smith, 1967). On contact with the body, the victim would fall dead with poison. It was, therefore, aimed at checking the harassment caused by the cavalry. In other areas, however, chemicals and incapacitating smokescreens were used by combatants while others used germs and gases. For example, Indians fought with smokescreens, incendiary devices and toxic fumes that caused slumber and yawning. The Spartans saturated wood with pitch and sulphur and placed it under the city wall of their opponents and set fire to it. Choking and poisonous fumes would rise and destroy the enemy (Hersh, 1968).

Apart from this scientific boost which warfare received in pre-colonial Hausaland, it was also given magical considerations. Charms, amulets and concoctions for warriors and their horses which were believed to be capable of emboldening the warriors and could make them and their horses invincible to the weapons of the opponents were prepared and used in warfare. There were also charms against poison from missiles and for protection from harm and wounds (Smaldone, 1977). City walls also had charms planted at their gates so that the charms would set the enemy in total retreat by causing panic (Achi, 1985a). The Waika Tablet which was found buried under the Waika gate of the Kano City wall with inscriptions in Arabic which is supposed to have 'magical powers to ward off evil' (Moody, 1968), is an example of the use of charms as an arm and armour.

Other people tried to show how powerful their charms were by rendering the protective charms of their opponents ineffective (Madauchi, 1968). In the continuous search for excellence in the military profession, graves and abode of jinns and *Iskoki* (spirits) were patronized. *Rigumar Yaki* (war dress) were charmed with Arabic scripts, decorations and written characters. These were mainly for cavalymen, though, very rich infantrymen could afford such costly war dresses. It was the wearers of these dresses that were active in battle, always in front of the *Sarki* (king) (Heathcote, 1974).

The roles which *mallamai* (clerics) and medicinemen performed during wars gave them enviable positions in society. At the verge of every State war, they were summoned by the commander of the army to decide the propitious day of battle, offer prayers for success and to provide protective charms to the soldiers (Fisher, 1971; Nadel, 1961).

Thus, the society tried to equip itself with up to date weapons, armour and tactics. The armour took the forms of what could be worn on the body, of charms, prayer and static defences. It is, therefore, no surprise that Heinrich Barth was confronted

with the request by the Galadiman Katsina to provide him with *maganin yaki* (war medicine) to enable him (the Galadima), scare off his enemies (Kirk-Green, 1962). The increase in the use of charms and amulets in the 19th century in Hausa warfare was only an escalation of an age-old practice.

By the 1970s, a musketeer corps was introduced into Hausa warfare. These were mainly elite corps consisting of princes, the rich and their hangers-on. By limiting the possession of the deadly weapon to this class of people, the Hausa kings were able to control the acquisition and use of firearm.⁽²⁾ It was this control over the new dreadful weapons wielded by the *Sarakuna* (kings) that made them extremely wealthy, powerful and fearful, since these were used in raiding poorly equipped groups or opponents. It was at this time when the Hausa warriors became ruthless masters of psychological warfare as well. One of their favorite devices was to strike terror into the hearts of the defenders by impaling prisoners on stakes where they could be plainly seen by all. They also buried prisoners alive.⁽³⁾ It was by the employment of these brutal power and hideous atrocities in the field against their helpless captives that usually stiffened resolve against Hausa domination. This often precipitated the revolts that exhausted and weakened the capital.

It should not, however, be assumed that the introduction of firearms revolutionized warfare in Hausaland. The poor quality of the firearms as regards to range, accuracy and speed of reloading made it difficult for any serious changes to take place. This is why, despite the introduction of firearms, armour was never rendered obsolete. In Europe, the introduction of firearms led to the manufacture and use of bullet-proof armour. This was never introduced into pre-colonial Hausa warfare. Rather, the new weapons led to the reorganization of the army to incorporate the cavalry, infantry and musketeers.

ARMY ORGANIZATION

Arms, armour and tactics could not lead the battles to success unless effective mobilization and organization of sufficient number of determined and skillful soldiers are made. The number mobilized was of great importance because the size of the army was an important part of strategy. Mobilization made was initially through the imposition of levy on all eligible males by the *Sarki* (king) to fight a common enemy. These were often non-professional citizen armies and were disbanded after the immediate danger had been dealt with. Infantry formations consisted of the column for rapidity movement, the line for concentration of fire power and the square for resisting cavalry. The only pay they received was in the form of loot and they provided their own weapons and provisions.

With the modifications in arms and armour which led to the emergence of the professional soldiers, people became unwilling to enlist to fight state wars and force had to be used to recruit men for this purpose. In Zaria by the late 18th century, force was used on such satellite settlements like Igabi, Giwa, Soba, Ricifa and Kwasalo (Achi, 1985b). The use of force to recruit men for state wars marginalized the poor and made some of them escape to far away places in the dry season when wars

were fought, only to return in the wet season. Even where people were forcefully recruited, some usually straggled behind while on the march to the battlefield. This happened mainly among the infantry corps which were consisted of the common people wearing little or no armour. They were armed with clubs, arrows, javelins and spears, since they had come from the poorer classes of society. What also made them fearful was that they were expected to provide a solid base so that the more important and better armed groups could operate around them. The widespread settlements of Hausa in many parts of West Africa is not only connected by their commercial acumen or the need for evangelization but also by this forceful conscription to fight ad-hoc wars or to undertake community works like building city walls or to work on royal estates. The state hoped by this mode of mobilization to keep the expenses to the minimum. But since professionalism had superceded patriotism in the army, it was difficult to get those who were poorly equipped willingly enlist to fight state wars. This tendency led to the appointment of officials for mobilizing men and for executing the wars. Some of the notable leaders were *Madawaki*, *Barde*, *Galadima*, *Salama*, *Shamaki*, *Wambai*, *Sarkin Baka*, *Sarki Bindiga*, *Magayaki* and the morale boosters like the *Yan Tauri*, drummers, musicians, praise singers, barbers and the learned *Mallamai*. A brief look at the functions of some of these officials will clarify the point.

The *Madawaki*, for example, was the commander-in-chief of the infantry and cavalry with many subordinate titled officials under him. His responsibilities included directing military operations and issuance of mobilization orders to *Sarakunan garuruwa* (town chiefs). Each of these *Sarakunan garuruwa* collected his forces and put them under the command of his *Magayaki* (area commander), with instructions to converge to the state capital. He also rewarded brave warriors who excelled in the martial art and punished those who exhibited signs of laxity. Those who exhibited extraordinary military prowess were conferred with such titles as Jarumi (knight), Garkuwa (shield), Sarkin baka (bow expert) and Sarkin Yaki (Chief warrior) (Alkali, 1969). This made many people aspire to acquire or retain such titles by not only being fearless, but also, by being imaginative in the adoption of new tactical methods in warfare and kept up a sturdy opposition even in the face of unpleasant surprises. This was why slaves or people of slave origin occupied most of these posts because they not only devoted their lives to military service but were also used to many privations so that they could easily adjust themselves to the difficulties of military life. Some even served as auxiliary soldiers—maintained stables, beat war drums and gongs, acted as guides to the enemy's territory, rescued the wounded or carried shields (Achi, 1985a). These auxiliary soldiers including the *Sarki* (king) always remained behind the battle front as a precautionary measure intended to prevent the king from being wounded which would demoralize the soldiers.

Barde was the commander of the heavy cavalry while *Magayaki* was the leader of the reconnaissance force. He and his subordinate officials performed spying duty of the enemy's territory either through bridging gate-keepers, through the use of *Yan bada gari* (traitors) or by using deformed people like lepers, the blind or the crippled who went into the enemy's territories many days in advance as beggars but obtained

a lot of useful information to the army. Such information included an estimated size of the enemy's forces, their structure, weapons at their disposal and their general preparedness and morale.⁽⁴⁾

Galadima was in charge of the State Police. He and his men were responsible for the imposition and execution of royal commands, apprehended highway robbers, arrested war stragglers and protected the people from commercial fraud like general deceit in weights, measures and sizes and also of counterfeiting wares (Achi, 1985a).

Salama was in charge of the armoury and recommended the types and quality of weapons to be bought, manufactured or modified and distributed them to the king's confidants during each state war and ensured that all these weapons were returned after the war.

Shamaki—was in charge of the king's stables, recommended the breed of horses to be bought or locally bred, decided the amount of grains needed for their feeding, number of slaves for their maintenance and gave horses to those ordered by the *Sarki* (king) to be mounted.

Wambai—was responsible for treating wounded soldiers in battle. He had to be conversant with the various injuries sustained in battles like penetrating wounds, lacerations, abdominal wounds, poison and war neurosis caused by war stress and the various herbs for treating these. The seriously injured were left on the battlefield until after the battle. The *Wambai*, therefore, helped in reducing morbidity, mortality rate and thus, extended individual and group combat effectiveness to a certain level.

Thus, the officials appointed by the king for the effective execution of state wars ensured enough men, arms and armour were marshalled out for each state war. The leadership ensures group unity and group cohesiveness. This helped the group to resist against combat exhaustion by bringing out their heroic attributes leading to success. The Hausa, therefore, after making unsuccessful attempts to combat their neighbours decided to borrow ideas in military organization, arms, armour and tactics of warfare. The adoption and continuous modifications in arms, and armour necessitated changes in the structure of the army and the establishment of full-time, professional armies. These changes contributed to the military successes which Hausa states began to witness from the 16th century. Thus, the adoption of up-to-date weapons, tactics and the training and discipline of the army modernized warfare. Shaka the Zulu did the same and experienced military successes. He designed the short, broad-bladed stabbing spear, *Assegai*, the shield and also trained his soldiers in its use. The *Assegai* replaced the long, throwing spear and greatly helped in the wars of conquest and expansion of the Zulu political community into an empire of 128,000 kilometres (Ritter, 1968).

CONCLUSION

Contrary to the assertion that the Hausa people were imaginative and innovative than other groups in the Savanna belt of the Nigerian area, it was rather the prowess of those the Hausa people fought against that necessitated innovations in arms.

armour and tactics of Hausa warfare. For example, the heavy losses which Kenejeji, 1390–1410 of Kano suffered in the hands of the Umutawa of the Bauchi region, forced him to introduce protective armour for the cavalry and horses (Palmer, 1928). It was also the external threats that led to the construction of static fortifications as a preparation for these external assaults. Continuous blockade or siege of the walled area necessitated the continuous extension of the walls to provide for farmlands within the walls for safe cultivation and to admit rural refugees (Achi, 1985a). The changes in arms, armour and tactics, training and discipline now made warfare to cease from being a trial of strength in which opposing armies were pitted against each other. It became a contest of strength and skill combined, in which virtue of initiative often gave the offensive the advantage. It made the Hausa states aggressive and offensive in posture. Instead of continuing their defensive position, they aimed at conquering others and controlling their human resources, mineral wealth, rich agricultural fields and other forms of booty as a way of recouping national losses. These military accomplishments heightened the veneration of military heroes. Thus, military victories gave Hausa troops high morale that they could withstand the rigours of war most effectively even in times of disadvantage characterized by inferior numbers, few supplies, scant weaponry and prolonged combat.

On the other hand, small states which could not protect their populations against foreign invasion, were not able to engender in them any real sense of patriotism or aggressive search for excellence in the military art. They could not match the technical and artistic improvements in arms, armour and tactics that increased the efficiency of offence and defence. By the 20th century when British colonial rule was established, the pre-colonial arms and armour became obsolete due to the introduction of automatic weapons, guns, munitions and missiles. Other military technologies introduced which made Nigerians to lose initiatives in the manufacture and modifications of arms and armour included the press and telegraph wires for intercepting radio transmissions rather than way-laying couriers, the balloon zeppelin and air plane for fast transport of the army and the camera for distant sighting of the enemy. This technological and cultural imperialism has made society to specialize in importation of not only military technology but also of Western norms and ideals. But in an aggressive world dominated by military giants, no society can hope to protect itself by importing military technology, norms and ideals without adapting these to the needs of the society and without an aggressive search for self-sufficiency.

NOTES

- (1) Even today, horses are identified with the upper strata of society. Despite the fact that horses are no longer used in war today, they are still used for polo, horse racing and other duties making them the possession of a politically dominant class.
- (2) The Emirs of Zaria used the new firearms obtained through Nupeland to terrorize and enslave recalcitrant groups in the area east, south and west of capital (see, Smith, 1960).
- (3) Emir Kwassau of Zaria in one of his attacks against the Altyap (Kataf) people for failing to pay an arbitrarily imposed annual tribute to 100 slaves, is said to have impaled prisoners at stake and also buried some people alive.

(4) Sarkin Kano, Aliyu, is said to have appointed a leper as Masaurarin Kano who was stationed at Damagaram during the Kano-Damagaram wars of the 19th century (see, A. M. N. Magaji, n.d.).

REFERENCES

- Achi, B. 1982. Military technology, population growth and city walls: The case of Kano, c. 1200–1625 AD. *History Research of Ahmadu Bello University* Vol. VII: 1–26.
- 1985a. The development and functions of city walls in the savanna belt of the Nigerian area. M.A. thesis, Ahmadu Bello University, Zaria.
- 1985b. Hausa traditional architecture: The walls of Kano and Zaria. *Nigeria Magazine* 53(3): 3–8.
- 1987a. Military architecture and warfare in pre-colonial Hausaland. *Zaria Archaeology Papers* VII: 1–24.
- 1987b. The Gandu system in the economy of Hausaland. Paper presented at the 32nd Annual Congress of the Historical Society of Nigeria, University of Jos, 10th–15th May, pp. 1–27.
- 1987c. Warfare as an aspect of Ahtyap-Hausa relations in the 19th century. Paper presented at the National Conference on Confluence Nigerians, Lokoja, 27th Sept.–2nd Oct., pp. 1–21.
- Africanus, L. 1986. (J. Porry, trans.) *The History and Description of Africa*. Haklyut Society, London.
- Alkali, M. B. 1969. A Hausa community in crisis: Kebbi in the nineteenth century. M.A. unpublished thesis, Ahmadu Bello University, Zaria.
- Bello, A. N. 1968. *Gandoki*. Northern Nigeria Publishing Company, Zaria.
- Bivar, A. D. H. 1964. *Nigerian Panoply: Arms and Armour of the Northern Region*. Federal Department of Antiquities, Lagos.
- Cecil, H. (ed.) 1955. *West African Explorers*. Oxford University Press, London.
- Cowper, H. S. 1977. *The Art of Attack: Being a Study in the Development of Weapons and Appliances of Offence from the Earliest Times to the Age of Gunpowder*. E. P. Publishing Ltd., England.
- De Gaulle, C. 1960. (G. Hopkins, trans.) *The Edge of the Sword*. Faber and Faber, London.
- Fisher, J. H. 1971. Prayer and military activity in the history of Muslim African south of the Sahara. *Journal of African History* XII, 3: 391–408.
- 1973. He swallowed the ground with fierceness and rage: The horse in central Sudan, its use. *Journal of African History* IV, 3: 355–379.
- Gowers, W. F. 1921. *Gazetteer of Kano Province*. Waterlow, London.
- Heathcote, D. 1974. A Hausa charm gown. *Man* 9(4): 620–624.
- Hersh, S. H. 1968. *Chemical and Biological Warfare: The Hidden Arsenal*. Herald Press, London.
- Ibn Fartuwa, A. 1926. (H. R. H. Palmer, trans.) *History of the First Twelve Years of the Reign of Mai Idris Aloma of Borno, 1571–1583*. Frank Cass and Co., Ltd., London.
- Jagger, P. 1973. Kano city blacksmiths: Pre-colonial distribution, structure and organization. *Savanna* 21(1): 11–26.
- Kirk-Greene, A. H. M. 1962. *Barth's Travels in Nigeria: Extract from the Journal of Heinrich Barth's Travels in Nigeria, 1850–1855*. Oxford University Press, London.
- Law, R. 1973. Horses, firearms and political power in pre-colonial West Africa. *African History Seminar* (School of Oriental and African Studies, University of London).
- Mabogunje, A. 1967. The land and peoples of West Africa. In (J. F. A. Ajayi & M. Crowder, eds.) *History of West Africa*, Vol. I; pp. 1–32, Longman Publishers, Ibadan.
- Madauchi, I. B. (ed.) 1968. *Hausa Customs*. Northern Nigerian Publishing Company, Zaria.
- Magaji, A. M. N. n.d. *Kano State: Yau da Gobe, A.D. 1864–1968*. Gaskiya Corporation, Zaria.
- Moody, H. L. B. 1968. A Kano mystery: The Waika tablet. *Nigeria Magazine* 97: 63–78.
- Nadel, S. F. 1961. *A Black Byzantium: The Kingdom of Nupe in Nigeria*. Oxford University Press, London.

- Palmer, H. R. 1928. The Kano Chronid. *Sudanese Memoirs* Vol. 3: 1-120.
- Ritter, E. A. 1968. *Shaka the Zulu: The Rise of the Zulu Empire*. Longman, London.
- Smaldone, J. P. 1977. *Warfare in the Sokoto Caliphate: Historical and Sociological Perspectives*. Cambridge University Press, Cambridge.
- Smith, M. G. 1960. *Government in Zazzau: A Study of Government in the Hausa Chieftdom of Zaria in Northern Nigeria from 1800-1850*. Oxford University Press, London.
- Smith, R. 1967. Yoruba armament. *Journal of African History* Vol. 2, No. 1: 87-106.
- Sutton, J. E. G. 1977. Iron working around Zaria. *Zaria Archaeology Papers* 8: 1-20.
- White, L., Jr. 1962. *Medieval Technology and Social Change*. Oxford University Press, London.
- Willet, F. 1971. A survey of recent results in the radio-carbon chronology of western and northern Africa. *Journal of African History* XII, 3: 339-370.

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