The History and Development of the three Indigenous Cattle Breeds of Zimbabwe

by Keith Harvey

My favourite definition of history is that it is a record of events that probably never happened, written by somebody who wasn't there.

Firstly, in setting out to write this paper I soon came to two conclusions. The subject is too large and complicated to be covered in 20 minutes except in the briefest detail and, secondly, there is considerable scope for further study, research and evaluation of the vast amount of performance and production data that has accumulated over the past forty years.

Therefore in presenting this 'layman's version' of a very fascinating subject, I must state quite emphatically that the views expressed are entirely my own and do not necessarily reflect those of the management.

History

The theory of the origins and migrations of the many diverse types of African cattle have been well documented (Curzon & Thornton, Epstein & Faulkner) and can be briefly described as follows:

In Pleistocene times, from one common wild ancestor, three regional species of the genus Bos evolved; in Southern Europe, North Africa and Central Asia. As the great polar ice caps began retreating at the end of the most recent glacial period, the Stone Age men began emerging from their caves and inventing things like metal implements, community development and social security. They also succeeded in domesticating certain wild animals like the cat, the dog, the goat and the cow.

Some western Asiatic tribes, the Children of Ham, seem to have been leaders in the export field and introduced their cattle to the Egyptians about 7 000 years ago. These animals, as depicted in the local media, were longhorned and humpless. Some 2 500 years later, further exports from Asia took place of an improved breed of humpless cattle, the original shorthorns. They soon dominated the scene at shows in the Nile Valley as far south as Ethiopia, and the disenchanted longhorn breeders moved to the west coast where they are still found today.

Meanwhile in the Indian sub-continent, by means of some tricky genetic engineering, a completely new model had evolved which not only had shorthorns but also a fancy floppy hump over its shoulders. The Indian and Arab salesmen this time bypassed Egypt, which was now in a state of economic depression, and exported direct to the more prosperous east African states.

These smooth coated, loose skinned, heat tolerant animals, which became known as the Thorasic-humped Zebu, were ideally adapted to the tropics and subtropics of Africa and soon pushed the hapless, humpless out of the market place.

However some crafty humpless breeders now invented heterosis, in the form of a three way cross between the two old established breeds and the Zebu, and their PRO came up with a rather catchy name - 'The Sanga'.

This last word in improved breeds not only had all the desirable characteristics of the Zebu but the hump was smaller, neater and conveniently moved forward to the neck.

About this time, 6th century AD, successive waves of Bantu people started migrating southwards down the route of the Rift Valley lakes of East Africa, eventually reaching the south and south west shores of the continent. Being essentially pastoralists, they took their Sanga cattle with them.

Both archaeological and historical evidence indicates that the Shona forebears began establishing themselves on the high plateau between the Zambezi and Sabi-Limpopo watersheds some 1 200 years ago. The little Bushmen artists recorded their arrival in cave murals of remarkable accuracy and detail, the most famous of which are those of 'Diana's Vow' near Rusape. Among other things these late Stone Age paintings depict for the first time the presence of domestic cattle and dogs, and the cattle are unmistakably 'Sanga' in outline...

When the Portuguese penetrated into the interior in the 15th century, they found substantial herds of cattle, as did the early hunters and missionaries from South Africa. While the low country to the north and south was infested with tsetse fly and uninhabitable for most of the year, the high plateau provided a beneficial habitat for both man and beast, and some remarkably advanced Iron Age cultures developed, culminating in the unique city state of Great Zimbabwe. Cattle undoubtedly played a very important economic and cultural role in these societies. The cattle holding of the Zimbabwe people may well have numbered as many as 50 000, and it is probable that the environmental degradation resulting from such large herds, coupled with a series of drought years, could well have precipitated the break-up and dispersal of this affluent and powerful dynasty.

The late Harry Posselt who, with his brother Willie, visited the ruins in 1880, told me that the surrounds were treeless for many thousands of acres, and had obviously been heavily overgrazed in bygone times. He said there was then no sign of large herds in the Victoria district, only scattered communities with small numbers of livestock grazing close to their granite fortresses.

These changed circumstances were undoubtedly due to the fact that in the first half of the 19th century there had been successive invasions of marauding Nguni people from south of the Limpopo. The two most significant were the Zwangendabe who drove up through the eastern districts with such momentum that it carried them right across the Zambezi to Malawi. The second were the Amandabele whose route from Zululand took them across the Transvaal, past the fringe of Khamas domains to the Matobo hills, where they established themselves after subjugating the local tribes.

These Nguni people probably brought some cattle with them from the south, but they were great rustlers, and acquired additional large numbers of stock in their far ranging raids on their Shona neighbours.

They in turn were subdued by the final invasion from the south; this time by a tribe of stock thieves of Caucasian origin - and the colonial era was established.

The tribulations of our embryo cattle industry were not at an end however, for it was to be scourged by two devastating epizootics, the Rinderpest of 1896 and the East Coast Fever of 1902, both fatal or near fatal diseases. In those six years, an estimated herd of half a million head was reduced to 50 000 or even less.

To help build up numbers again, the colonial administration purchased breeding stock from Northern Rhodesia (Zambia). These cows were probably Angoni type shorthorn Zebu and were widely distributed, mainly in Mashonaland. From about this time too, both Government and private ranchers set about 'improving' the native stock, by introducing imported bulls. They were mostly of the Afrikaner type but the spectrum was wide indeed; Hereford, Sussex and Angus onto the big highveld ranches, Scottish Shorthorns to the 3 million acre Nuanetsi Ranch, South Devons and Red Polls to promote cream production in Charter district and South Matopos. Each Native Commissioner had his own pet theory about genetic improvement and soon there were more variations than Heinz ever dreamed of.

Given such a depleted and heterogeneous background, and generations of indiscriminate crossbreeding, was it possible for any trace of purebred indigenous blood left? Strangely enough there was, particularly in the more remote tribal areas where the processes of natural selection were still functioning.

In 1927 E.A. Nobbs published his 'Survey of the Native Cattle of Southern Rhodesia'. He identified three broad types which he called the Makalanga, the Matabele and the Mangwato.

By far the most numerous were the small, rounded, fine boned, predominately black cattle found in all Shona speaking areas and much of southern Matabeleland. In the drier south western areas was found a very much larger type with enormous lateral spreading horns (my father had a photograph of a pair in the Mafeking Club that measured 9 ft 6 ins. from tip to tip). Their hide colours were predominately red and white. The third and intermediate type were the remnants of the Ndebele cattle, many of which still retained the distinctive Inkone colour pattern of the royal herd.

It would be ridiculous to suggest that any degree of genetic uniformity existed in any of these groups, but at least there were now certain individuals both within Government service and in the farming community who saw the urgent need to save the indigenous cattle from extinction. It was suggested that if herds could be established consisting of animals of desirable phenotypic characteristics, it should be possible to breed progressively and selectively for trueness to type.

The first such herds were established independently of each other in 1941 by F. B. Willoughby of Ellerton Farm, Salisbury South, and E. A. B. McLeod, a Native Commissioner in Mhandoro Reserve.

A few years later. Mr. R.M. Davies, the Director of Native Agriculture, and his Deputy D.A.R. Robinson, persuaded their seniors in the Department of Native Affairs to establish several regional cattle breeding stations. These were sited at Mrewa in Mashonaland East, Msengedzi in Mashonaland West, Makoholi in Victoria Province, Gwanda in Matabeleland South and Tjolotjo in Matabeleland North, and foundation herds were assembled by the late 1940s.

At this point in time the history of the three types diverged, some interesting new characters appeared on the stage and the process of genetic selection and more distinct breed development became more objective.

The Mashona Breed

Willoughby, and McLeod, who by then had been transferred to Essexvale and had trekked his small herd with him first to Gokwe and then on to Matabeleland, met in Bulawayo on 16th January 1950, and together with a few other enthusiasts, mainly civil servants, formed the Rhodesian Indigenous Cattle Society. Willoughby became the first President and McLeod the first Secretary. A constitution and rules were adopted and a herd book opened for the registration of foundation stock. The first entry was that of a polled bull that had walked to Ellerton from Buhera district, well over 150 kilometres, as a calf at foot. Three other promising bulls were entered at the same time, one each from Ellerton, McLeod and Mrewa Breeding Station. The Makoholi herd was also registered.

The new Society gained support throughout Mashonaland, herds being formed at Umvukwes and Macheke and there was sufficient enthusiasm in the Banket farming area to form, in 1953, the Lomagundi East Branch, with Mr. A. T. (Fred) Barron of 'Gomo' farm its first Chairman.

The Southern Rhodesia Government, particularly the Division of African Agriculture, continued to give active support to the promotion of the breed. After World War II, many exceptionally talented young men were recruited into Government service and it is only correct that I should record in this paper names such as K. S. Ainslie, A. P. Conradie, P. A. Davies, R. C. Elliott, A. T. Stubbs and last but not least our host today, H. K. Ward. All of them made significant contributions to the Mashona breed.

There is no doubt that the early involvement of dedicated and enthusiastic individual farmers, so ably advised and assisted by extremely competent officers in Government service, not only prevented the irretrievable loss of much diverse and valuable genetic material but ultimately developed a breed of cattle which will continue to play a central role in the beef industry of Zimbabwe.

Additional Government herds were established at Domboshawa Training Institute and Grasslands Research Station. Professor R.M. (‘Canada’) Davies was instrumental in forming a herd on the University farm and one of his staff, Dr. John Oliver, became actively involved in the work of the Society and wrote several papers on the breed.

In more recent times, the Grasslands herd was transferred to Chibero Agricultural College and a herd started at Gwebi. In the seventies Dr. Elliott decided to transfer a group of Mashona heifers from Makoholi to Henderson Research Station and initiated some extremely valuable nutritional and physiological studies.

Support from the Federal Ministry of Agriculture was not equally generous with the notable exception of Dr. T. H. Vorster who initiated studies on environmental/breed interactions here at Matopos some 40 years ago and was almost branded a heretic when he pronounced the superior production capabilities of the 'native cattle'.

Indeed - in those early years the proponents of the indigenous breeds faced extreme prejudice and ridicule from the 'non-believers' - the first breakthrough only coming in 1959, when a Mashona carcass won the block test at Salisbury Show and a Mashona heifer was adjudicated Supreme Champion at Fort Victoria. The judges were K. S. Ainslie and R. K. Harvey! In the same year the Livestock Improvement Committee belatedly gave recognition to the three indigenous breeds.

In 1956 the Society had changed its name to the 'Mashona Cattle Society' and revised its rules for inspection and registration. These established a system by which successive generations could progress through subsequent volumes of the herd book only if they met certain standards of phenotype and conformation at a preliminary inspection. Final inspection and acceptance depended on such eligible animals being presented at a later date, with their progeny two successive calves, in the case of a female and one entire calf crop, in the case of a bull. I think the system is sufficiently well known not to require further elaboration.

As further aids to selection for important economic traits, all herds are required to participate in the official Beef Performance Recording Scheme and 19 performance tests of bulls have been undertaken at Makoholi Experiment Station since 1961.

The breed has made significant progress up to the present time in all aspects of functional efficiency and is now well recognised and accepted in the commercial farming sector. There are 15 registered herds with 1 678 females and 144 bulls currently in the herd book. The 1984 statistical returns showed there to be 741 'working' Mashona bulls in the commercial herds, making it the 8th most popular breed!

The greatest potential for the use of this improved Mashona genetic material will inevitably always lie in future development of the communal herd.

I suggest that one of the most important objectives of this workshop should be to make firm recommendations in this direction.

The Nkone Breed

For obvious reasons I have carried on at too great a length on my own breed, and I am going to be accused of not doing equal justice to the other two; I therefore apologise in advance for my shortcomings, which are entirely due to my lack of personal experience of these very admirable cattle, and not through any jealous prejudice.

It would seem logical, when one considers the complexity of its history, that there must be some strong genetic relationship between the Nkone and the Mashona breeds. They do differ significantly in size, milking ability and, of course, the favoured colour pattern, but these are traits that can be readily explained as resulting from environmental and management influences. I would like the workshop to expand somewhat on this subject, particularly if any recent blood typing or seriological evidence is available.

At the turn of the century, the largest concentration of cattle in the hands of the Amandabele people were found north and west of Bulawayo.

In early colonial days, they too were contaminated by the introduction of exotic genetic influences, particularly the Afrikaner breed, of which large numbers of bulls were being imported from South Africa by both the Government and by commercial ranchers.

However, specimens of the distinctive Inkone type could still be identified, and in 1946, a small herd was established at the Tjolotjo Breeding Station, in line with the Department of Native Agriculture's change in policy regarding the indigenous cattle. This foundation herd was unfortunately decimated three years later as the result of a serious contagious abortion outbreak, and experimental work was confined to milk production studies on a small number of cows.

A second herd was established at the Msengezi Experimental Farm near Hartley in 1953 to evaluate their performance under conditions of high rainfall sourveld. As had been attempted at Mrewa, an AI

service was set up, using 'barefoot inseminators', in the hope of achieving some genetic improvement in the neighbouring purchase land farms.

This station was closed in 1963, and the cattle used to reinforce the Tjolotjo herd, for which an adjoining ranch had been acquired and developed. Numbers were built up to some 800 head, and under the experienced management of J. W. I. Brownlee, a vigorous programme of selection based on performance recording was introduced. This resulted in a rapid improvement in all phases of production and functional breed characteristics on the very harsh and dry range conditions of the Nyamandhlovu area.

Of passing interest was a lengthy investigation into the genetic integrity of the well known Inkone colour pattern and its variations: Usipo (roan), Emphlope (white), Embomvu (red) and Enco (red and white). The outcome was sufficiently inconclusive to justify any colour pattern discrimination in the breed's standard of excellence, and as far as I know is no longer an emotional issue within the Society!

A further semi-official herd was established at Mlezu Agricultural School near Kwekwe by the founder Principal, Fritz Meyer, and was later used for his initial studies on factors affecting the productivity of beef cows by F. D. Richardson, presently of this station.

Likewise, a herd was established at Esigodini Agricultural School by the then Principal, Roy Alvord, but unlike the other two breeds, commercial farmer involvement, with two notable exceptions, has been lacking, and to some extent has delayed the development and general acceptance of its intrinsic worth.

However, in 1966 the Nkone Cattle Breeders Club was formed to promote and regulate the breed and to establish a herd book. A progressive registration system similar to that of the Mashonas has been in use for 20 years and is processed through the Indigenous Breeds Bureau and the Zimbabwe Herd Book.

In 1977 for security reasons the mother herd was moved to Matopos Research Station with John Brownlee and his elephants, and they have continued to thrive ever since!

Like the Mashona, the Nkone breed undoubtedly has a major role to play in any future livestock improvement policies devised for our potentially most valuable source of sustained beef production, the vast herds of the communal lands.

Statistically there are only four registered herds comprising 326 females and 25 bulls but over 300 bulls are 'working' in the commercial sector - mainly in the Midlands and Matabeleland South.

The Tuli Breed

If ever a man created a living memorial to himself, it is Len Harvey.

From the earliest beginnings when he was a Land Development Officer in the Gwanda district until today where he lives in retirement on his farm east of Gweru, Len has played the dominant role in the development of a type of improved Sanga cattle that is acknowledged as the 'indigenous masterpiece' not only in Zimbabwe but in at least three adjoining territories.

Having observed a number of outstanding yellow dun cattle in the Gwanda tribal areas, in 1945 Len Harvey persuaded his superiors to allow him to start accumulating a small herd, which was accommodated on 3 000 acres set aside from the recently designated Special Native Area. Two years later it was officially proclaimed the Tuli Breeding Station.

By 1950, 20 000 further acres were acquired and Len given the green light to proceed on a full-time basis to develop the breed according to his own standards of type and excellence.

By 1956, numbers had built up to 1 000 head, and the selection process became increasingly strict and included the deliberate policy of line breeding to two prepotent bulls.

This soon resulted in a herd with a remarkable degree of uniformity in type, conformation, performance and colour, the famous 'golden dun'.

In 1961 the Tulis literally took the local Shows by storm winning the block test at the three major centres and doing well in the interbreed classes.

Although the original breeding policy was designed to supply improved material to the low rainfall communal areas, commercial ranchers became increasingly attracted to and involved in the Tuli breed and a society was formed in 1961 with Len Harvey as its first President. By adopting rules for registration and inspection similar to those in use by the Mashonas, steady progress continued to be made in the genetic and functional development of the breed until today it is the most popular of the three in the commercial farming areas of Zimbabwe - 881 working bulls in 1984 - and is significantly represented in both Botswana and the Republic of South Africa where it is the only Zimbabwe breed recognised by the South African Stud Book.

Like the Nkones, the parent herd had to be moved from Gwanda to Matopos Research Station in 1977 and was also placed under the direct management of John Brownlee. Now almost 10 years later it will surely be of interest to this workshop to be told how the two breeds have fared in an environment markedly different from those in which they were originally selected.

For the record there are 10 registered herds comprising 1 213 females and 167 bulls. Regionally they are more widely spread than either the Mashona or the Nkone and are produced under extremes of land use systems from intensive pastures in Karoi to lowveld ranching conditions in Chiredzi, Mwenezi, West Nicholson and Gwenda.

Genetically the Tuli is significantly distinct from the other two types and it is certainly superior in terms of growth and those present carcass characteristics emphasising mass suitability.

The beautiful golden colour inevitably proved to be heterozygous and could well have proved to be lethal had the Society not made the decision to make any colours optional - barring black.

In closing, may I express my appreciation of being invited to make my whimsical contribution to this important event which I am sure will go down as a major milestone in the long evolutionary road that started somewhere in Asia 10 000 years ago.

R. K. Harvey

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