Abstract

The phenomenon of modifying an animal’s horn was widespread in ancient and modern cultures, especially in African tribes. The modification was typically to one horn whilst the second was allowed to grow naturally, but occasionally both horns were adapted.

The Ancient Egyptian undertook the modification to distinguish the animal intended for similarly, modern African tribes follow this tradition and their cattle selected for horn modification have a very important role in both religious and economic lives of north and north-eastern African citizens. Their economic dependency is a result of the religious and symbolic importance of the cattle. Such African communities are not breeding cattle for the benefit of their milk, but to increase the length of their horns, which represents a special religious significance. The important religious and symbolic role of modified horns can be clarified by observing the traditions of contemporary African tribes who still worship cattle; a tradition that has a close similarity with that of a similar practice by the Ancient Egyptians. This Ancient Egyptian phenomenon, and its continuity in some African areas, is described by Anthropologists as “Cultural Survival”, and its study is the aim of this paper.

Keywords

African Tribes, Ancient Egypt, Bull, Horn, Modification
INTRODUCTION

Cattle breeding played an important role in the economic and religious life of ancient Egyptian and modern African communities. Indeed, Economic dependency on these animals had both religious and symbolic importance. Some African tribes not only bred cattle for milk and meat consumption, but also for their longer horns which had a special importance when modified. The religious and symbolic role of cattle's modified horns can be illustrated through the modern African tribal traditions; which are still sanctified. These customs are very similar to the practices of the ancient Egyptian's (Chaix 2004, p. 335). Frankfort (1948, p. 163), describes the cultural traces of the past being transferred into modern times, where the modification of animal horns by human intervention was adopted on wide scale in ancient and modern civilizations. This study is devoted to the existence of this phenomenon in ancient Egypt and modern African tribes.

1. THE EMERGENCE AND SPREAD OF MODIFYING ANIMAL HORSNS

This phenomenon appeared and spread during the Predynastic Period in ancient Egypt. Amongst the rock engravings found in the eastern desert at Upper Egypt; there is a remarkable scene depicting three bulls; two of which had modified horns. The significance demonstrates the different modification techniques which were adopted. One bull depicts one horn bent towards the inside whilst its second horn is un-modified and normal. The second bull depicts one horn bent downwards resting on his cheeks, while the other horn is growing normally. The significance in this engraving is the accuracy of the bull's illustration in comparison to that of the poorly engraved man and this may indicate the importance of animals to the artist (Winkler 1938, pl. XVII, 2) (Plate 1).

Amulets in the shape of oxen and cows' heads, each depicting modified horns downwards were found in the Predynastic Egypt. Some of them were worn as necklaces (Hendrickx 2002, p. 285, fig. 16, 4) and found in many sites such as Abu-Sir el Malaq, Abydos, Hou, Abadiya, Tarkhan, Nekhen, Matamir, Badary, Monshat Omar, dating from Naqqada I and Naqqada II periods to the early dynasties. The amulets were made from varying materials but principally ivory, bones, flint, and red garnet.¹ The Brooklyn Museum- New York houses an ivory animal head amulet with hollowed out eyes (Figure 1). Needler (1984, pp. 317-18, pl. 56) believes that this amulet was worn as a necklace for both adornment and protection. She adds that

the downward modified horns were not unique, as they had been observed in a scene engraved on a tusk depicting heads of bulls and their horns modified downwards, dating to Dynasty Zero, found in Hierakonpolis (currently El-kom El-ahmar), housed in the Egyptian Museum- Cairo (Quibell & Green 1900, p. 7, pl. XIV) (Figure 2).

An Ox headed amulet with one modified horn, was found in Naqqada, dating to the Predynastic Period, and depicting a modified horn downwards beside the ox head. Although the second horn is missing (Figure 3), we can conclude that the missing horn was modified up and downwards; which means it was a normal unmodified horn (Schäfer 1896, s. 160, abb. 6; Lepp 1999, p. 103; fig. 6 a).

This trend appeared in scenes throughout the earlier dynasties:

From Old Kingdom tombs:
1. Tomb of Ankh-Ir-s, chief of all royal work, number 15, Saqqara necropolis, fourth dynasty or afterwards (PM III/ 2, p. 452; Seligman 1932, pl. 74a) (Figure 4).
2. User Neteru tomb, Chief of all royal work, number 78, Saqqara necropolis, Fifth dynasty (PM III/ 2, p. 485; Murray 1905, pl. XXII) (Figure 5).
3. Ma-Nefer tomb in Saqqara necropolis, fifth dynasty (Seligman 1932, pl. 74e) (Figure 6).
4. Ty tomb in Saqqara necropolis, old kingdom (Steindorff 1913, tafel 128) (Plate 2).
5. Petah- Hotep tomb in Saqqara necropolis, fifth dynasty (Davies 1900, pls. III, XXI) (Figure 7a and 7b).
6. Vizier Mereruka tomb in Saqqara, dates back to reign of king Tity, sixth dynasty, (Kanawati 2011, pl. 77) (Figure 8).

From the Middle Kingdom:
1. Akh- hotep tomb, chief of stamps, tomb A3, Mir necropolis, dates back to the reign of king Senusret I till King Amenemhat II’s reign (PM IV, p. 249; Blackman 1914, pls. IX- XI) (Figure 9a- 9b).
2. Amenemhat tomb, the general chief of ibex Nome, tomb number 2, Beni Hassan necropolis, King Sensurt I reign (PM IV, p. 141; Newberry 1893 pl. XIII) (Figure 10).
3. Khnom-Hotep III tomb, Chief of western tribes, 12th dynasty, tomb number 3 in Beni Hassan necropolis (PM IV, p. 144; Newberry 1893, pl. XXXV; Prisse d’Avennes 2000, p. 112) (Plate 3).
From the New Kingdom:
1. Ken-Amon Tomb, the grain warehouseman, number 162, Deraa Abo-Elnaga necropolis, Amenhotep III reign (PM I/1, p. 275; Davies & Faulkner 1947, pl. VIII). (Figure 11).
2. Kheper-Ra-Senb, Amon high priest, Tutmosis III reign, Number 86, Sheikh Abdel qurna necropolis (PM I/ 1, p. 175; Davies & Davies, 1933, pl. XIV) (Figure 12).
3. On a wall of Ramses II’s temple in Abydos (Mariette 1880, pl. 7; Tonic 2010, pp. 178- 79) (Figure 13).
4. Scene of Ramses II’s procession, in south western side in the first court in Luxor temple (Leclant 1956, pp. 133- 34; Capart 1925, pp. 279- 80; fig. 193) (Plate 4).

The modification of animals remained a tradition in the late 20th century common among many African tribes (Figure 14 and 15). The procedure was undertaken by vets who were more usually responsible for cows in calf, barren bulls, fractures and wounds (Schwabe 1984, p. 141).

2. METHODS OF HORN MODIFICATION

2.1. HORN MODIFICATION IN ANCIENT EGYPT

The Ancient Egyptians operated on animals’ horns; in order to modify their shape and to differentiate the bull or cow destined for sacrifice at a later date. This modification was not only physical in appearance but also resulted in functional change, preventing these animals from bullfighting during the mating period.

The process of modification began when the calves small, and during active growth of the horns. This ensured that one horn would grow horizontally then downward onto the cheek, while the other horn is allowed to grow normally, upwards and backward. These calves grew in stature and importance as they were destined for slaughter and for religious ritual (Schwabe 1984, p. 138; Seligman 1932, pp. 460-61). A scene engraved on a princess stone sarcophagus, represents a cow with only one modified horn, being sacrificed, and dates to the 11th dynasty (Kees 1926, s. 96) (Plate 5).

It was also practice for the ancient Egyptians to modify both horns, equally, to grow up forward downward (Figure 2). This is evidenced a scene carved on a huge hippopotamus tusk found in Hierakonpolis, and dates to Dynasty Zero. It shows a tall façade of a building depicting skulls of bulls with their horns modified downwards, beside their cheeks, in an abnormal way. The
tusk is now preserved in the Egyptian Museum – Cairo (Quibell & Green 1900, pl. XIV; Van Dijk 2013, p. 458).

Murray (1944) commented that many African tribes contemporary at the time modified their animals’ horns. As in ancient Egypt, the operation was undertaken on calves at the onset of horn growth. The vet made a vertical cut with a saw to split the horn into two parts, forcing it to grow backwards. This procedure would have been painless. The operation is also of ancient origin depicted in the ancient Paleolithic caves in France (Murray 1944, p. 87). Murray noted that this operation might succeed in calves only when it was done repeatedly on successive stages, and the animal should be domesticated to facilitate this operation (Murray 1944, p. 89).

2.2. HORN MODIFICATION IN MODERN AFRICAN TRIBES

There were various ways of modification, but it was essentially similar to the process in ancient Egypt. The Dinka and Nuer tribes (Figure 16a), typically modified one horn forward and downward, while the other was left to grow normally backward and upward or both horns equally modified, reversing the normal. Such bulls were called “front horns bulls” both horns growing upwards and towards inside (Chaix 2006, pp. 50-51; figs. 1 & 3; Chaix 1996, pp. 95-97 (Figure 16b).

Each tribe had a distinctive method. The Dinka tribe modified only one horn of the animal forward and the other backwards (Figure 14), whilst the Nuer Tribe modified one horn upward and little to the back, the other horn being bent forward across the animal’s forehead (Seligman 1932, p. 461). (Plate 6 & Figure 15). The Dinka and Nuer tribes acquired their knowledge from South of Sudan but it is possible that it was from an earlier knowledge in ancient Egypt. The operation of modified animal horns was described as nagat in Neur and Murle tribes. (Chaix 2006, p. 50; Evans-Pritchard 1953, p. 187; Evans-Pritchard 1962, p. 256).

The Longarim tribe of Sudan used a different method. The young calves were chosen, castrated to calm them and only then were their horns modified as desired. The calf then named Nyamenat, was then raised, slaughtered and eaten after a ritual service. Whilst it was possible to have more than one Nyamenat in the Longarim tribe, it was only possible to have one unmodified bull. (Kronenberg 1961, p. 260). There were four methods of horn modification characteristic to the tribe:

1. The okodo, where both horns were modified towards each other and upwards and occasionally connected together like nakamer animal (Figure 16b).
2. The *otodo*, where both horns were modified together upwards, with their tips away from each other (Figure 16c).

3. The *ngelec*, where one horn grows downwards, while the other is left to grow normally upwards, some modify the horns leftwards, while others prefer the right (Figure 16a).


In addition to these Sudanese tribes, some other tribes in Cameroon adopt the same tradition modifying the two horns downward and hanging on the cheek of the animal (Kyselý 2010, p. 1242) (Plate 7). In Modern Ethiopia however, they modified their animal’s horns to grow together upwards and inside by fracturing the base of the horn-sheath with a stone weight, Afterwards, the forehead of the animal was cut and stick inserted in to maintain the tension on the rope attached to the horn (Chaix, Dubosson, Honegger 2012, pp. 202-204) (Plate 8a & 8b & Figure 16c).

3. THE IMPORTANCE OF MODIFIED ANIMAL HORNS AND ITS AIMS

There is a great social and religious importance of cattle with modified horns. In Ancient Egypt, the animals with modified horns had a symbolic importance in their owner life (Seligman 1932, p. 460; Chaix 2006, p. 50). In African tribes, the importance is attested by the animals being given special names such as *muor cien* or *macien*. Schwabe (1984, p. 142) reported male bulls which had been castrated distinguished by their red color and white belly (Murray 1944, p. 87), those names are better understood by the Dinka who also have some special color expressions; such as *malwal* for red animal, *majok* for white and valuable ones. Dinka and Nuers’ men formed their hands like *muor cien* or *macien* horns while dancing (Lienhardt 1961, p. 16). The *muor cien* or *macien* was an animal with modified horns with a bell in his neck as cattle’s leader. In some formal celebrations in the Neur tribe they make a hole at the end of the horn and thread through horse hair and a bell (Seligman 1932, pp. 460- 61). The ancient Egyptians also adorned their animal horns with feathers observed in Amarna period scenes (Davies 1903, pl. XIV). Seligman reported that bulls’ colors also were very important in Ancient Egypt as well as in modern African tribes (Seligman 1932, p. 462).

The bull’s horns of the Suk tribe in Kenya are modified in various ways. A *kamar* bull has one horn forward and the other backwards. He would be well cared for, and was adorned with ostrich feathers, taken to the river where soldiers danced around it on their knees holding their armor in a defense position, waving with their spears bragging about their courage. The bull was subsequently slaughtered and eaten in this ceremony (Beech 1911,
It was little different in ancient Egyptian where owners would decorate and pamper those animals destined for sacrifice. This ritual is that all was depicted on walls of tombs and temples, where animal processions were depicted in a beautiful and realistic way. Animal horns were very important that they were adorned differently (Leclant 1956, pp. 128-45).

The shape of animal’s horns was very important and symbolic to Longarim tribe who ritualistically brought the cattle together in a field before going to war. The bull with natural horns which called “arimor edicy” was slaughtered and eaten, and that was considered as special feast which signify and strengthen the relationship with the dead people, Longarim believed that their enemies would defeat them in the next battle if the bull was not with natural horns. In other ceremonies cattle with modified horns were seen as a connection between the living and dead. If one member of the tribe died then his ox should be slaughtered and eaten before his tomb. (Kronenberg 1961, p. 264).

4. CONCLUSION

1. The phenomenon of horn modification spread in ancient Egypt from the Prehistoric Period until the end of the pharaonic age and is still takes place in some modern African tribes.

2. There is a significant similarity between the phenomenon of modification of animals’ horns in ancient Egypt and modern African tribes.

3. The aim of this modification was largely symbolic and ritual ending in the animal’s sacrifice.

4. The long-horned animal is the most preferred for the procedure, although the ancient Egyptians sometimes chose the short horned animal for sacrifice.

5. There is no evidence that any horned animal other than cows and bulls was used in the operations of horn modification.

6. The methods of modification varied from the number of horns adapted and the direction of the horn, but the young age of the calf at onset of the procedure was common in all, cultures, tribes and times.

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2 To know how animals were chosen to everyone and the importance of using these animals in many celebrations (Kronenberg 1961, pp. 259-60).
PLATES

PLATE 1
Scene of modified animal horns, rocks of the south of upper Egypt, Predynastic Period
Winkler 1938, pl. XVII (2)

PLATE 2
Cow with a modified horn, Ty tomb, Saqqara necropolis, old kingdom
Steindorff 1913, tafel 128
Plate 3
Colored cow with modified horn, Khnom-Hotep III tomb, no. 3, Beni Hassan necropolis, 12th dynasty
Prisse d’Avennes 2000, p. 11 = LD IV, bl. 129

Plate 4
A Nubian head between a modified horned of a bull, Scene of Ramses II’s procession, south western side in the first court in Luxor temple
Arkell 1955, pl. 8 (a)
Plate 5
Slaughtering of a modified horned cow for present the foreleg in a special rite, stone coffin of a princess from 11th dynasty
Kees 1926, s. 96

Plate 6
Bull with modified horn of Nuer tribe, Modern Sudan
Evans-Pritchard 1962, pl. XIII
Plate 7
Cattle with hanging horn, Modern Kamerun
Kyselý 2010, fig. 5

Plate 8a
Fracturing the base of the horn with a stone
Chaix, Dubosson, Honegger 2012, fig. 13

Plate 8b
Stick inserted in the animal forehead to maintain the tension on the rope attached to the horn
Chaix, Dubosson, Honegger 2012, fig. 14
FIGURES

Figure 1
Detailed figure of amulets for a bull’s head with two horns modified
Hendricks 2002, fig. 16.4

Figure 2
Painting of bulls’ skulls on a knapp of hippopotamus, Hierakonpolis,
Dynasty Zero, Egyptian Museum- Cairo
Quibell & Green 1900, pl. XIV
**Figure 3**
Amulet of bull head with one horn modified, Predynastic Period
Lepp 1999, fig. 6 a

**Figure 4**
Bull with modified horn, Ankh-Ir-s tomb, no. 15, Saqqara necropolis,
Fourth Dynasty or later
Seligman 1932, pl. 74a
Figure 5
Bull with modified horn, User Neteru tomb, no. 78, Saqqara necropolis, Fifth Dynasty
Murray 1905, pl. XXII

Figure 6
Cow with a modified horn, Ma-Nefer tomb, Saqqara necropolis, Fifth Dynasty
Seligman 1932, pl. 74e
**Figure 7a**
Scene of short horned cattle, one of them has a modified horn, 
Petah-Hotep tomb, Saqqara necropolis, Fifth Dynasty 
Davies 1900, pl. III

**Figure 7b**
Another scene of short horned cattle, one of them has a modified horn, 
Petah-Hotep tomb, Saqqara necropolis, Fifth Dynasty 
Davies 1900, pl. XXI
Figure 8
Scene of long horned cattle, one of them has a modified horn, Mereruka tomb, Saqqara necropolis, reign of king Tity, sixth dynasty
Kanawati 2011, pl. 77

Figure 9a
White cow with modified horn, Akh-hotep tomb, no. A3 in Mir, reign of king Senusret I till King Amenemhat II’s reign
Blackman 1914, pl. X
**Figure 9b**
Another scene of short horned cattle, one of them had a modified horn,
Akh-hotep tomb no. A3, Mir necropolis
Blackman 1914, pl. XI

**Figure 10**
Colored cow with modified horn,
Amenemhat tomb, no. 2, Beni Hassan necropolis, reign of king Sensurt I
Newberry 1893 pl. XIII

**Figure 11**
Short horned cattle presented as trading venture from Syrian to Egypt,
Ken-Amon tomb, no. 162, Deraa Abo-Elnaga necropolis, Amenhotep II’s reign
Davies & Faulkner 1947, pl. VIII
FIGURE 12
Different cattle, among them a modified horned cow, Kheper-Ra-Senb tomb, no. 86, Sheikh Abdel qurna necropolis
Davies & Davies, 1933, pl. XIV

FIGURE 13
Different modifications of horned cattle, wall from Ramses II’s temple in Abydos
Mariette 1880, pl. 7
Figure 14
A figure of a modified horned bull of Dinka tribe, Modern Sudan
Seligman 1932, p. 74d

Fig. 15
A figure of a modified horned bull of Nuer tribe, Modern Sudan
Seligman 1932, p. 74g
Fig. 16
Supposes of ways of horns modification
Chaix, Dubosson, Honegger 2012, figs. 7, 9 & 10
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