

# SUDAN & NUBIA

The Sudan Archaeological Research Society



*Bulletin No. 11*

2007







Egypt

RED SEA

Sudan

Eritrea

Ethiopia

- The Sudan Archaeological Research Society Concession
- ▲ Ancient sites
- MODERN TOWNS



0 250 km

N

ASWAN  
1st cataract

Aniba  
Qasr Ibrim

WADI HALFA  
2nd cataract

3rd cataract  
Tombos  
Tabo  
Kerma/Dokki Gel

Kawa

KARIEMA  
Jebel Barkal  
4th cataract

ED-DEBBA

ABU HAMED

5th cataract

Dangeil

Akad  
ATBARA

6th cataract

OMDURMAN  
KHARTOUM  
Soba East

Botri

WAD MEDANI

SENNAR

KOSTI

KASSALA

GEDAREF

Wadi el-Allaqi

Wadi Gabgaba

Nije

Wadi Howar

Wadi el-Meilik

Wadi Muqaddam

Atbara

White Nile

Blue Nile

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Front cover: Village on the Island of Dirbi in the SARS concession above the Fourth Nile Cataract (photo: D. A. Welsby).



## A visit to a traditional leather tannery in Central Sudan

*Lucy Skinner*

During September 2006, a visit to a traditional Sudanese leather tannery was organised, to coincide with a UNESCO funded workshop which took place at the Sudan National Museum in Khartoum, concerning the manufacture and conservation of leather.

There are at least two leather tanneries in the vicinity of Khartoum. One is a state-run tannery on the outskirts of the old district of Omdurman and another, the one which we visited, is a traditional open air tannery about ten miles beyond Omdurman to the west of the city in Almyaelik (Colour plate XLIX).

The pungent odour which one notices, on approaching the Almyaelik tannery announces its location, far from human habitation. The site is on a slight mound in the middle of a wide flat plain, with very little vegetation. The mound has formed gradually, over the years, since the tannery has been in existence, from the waste hair and flesh left over from skin processing and also soil from digging the tanning pits. Amongst the waste piles there are odd scaly pieces of snake skin, crocodile bone, with decayed skin still attached, and fragments of turtle shell. Occasionally, exotic animal skins are tanned here, as well as the more typical goat, sheep and cattle hides.

The tannery has 15 to 20 men and boys who live onsite during the week and work in the two main tanning areas. The tanners' arms and legs are coated in a dried layer of lime. This is as a result of repeatedly wading inside to remove skins from the lime pits, without protective gloves and boots.

The tannery only prepares the second or third rate hides and produces cheap leather for local uses. Dried and salted skins are purchased in the Omdurman souk and brought from there to Almyaelik. The industrial tannery in Omdurman has first pickings of all the animal skins and much of their leather is exported to the Middle East, predominantly Saudi Arabia.

The first stage once they reach the tannery is to soak and wash the skins to remove the salt which coats them during the curing process. The skins are allowed to rehydrate after which they are moved on to the next stage and immersed in pits containing lime water.

Virtually all the materials used at the tannery are sourced and collected from the immediate vicinity. This includes the lime which is prepared using limestone quarried from nearby. The tanners have built a furnace (Plate 1) into which the limestone is layered with charcoal. A fire is built underneath the furnace to cook the lime. Once baked, they remove the lime, grind it and dissolve it in water. Once again, the



*Plate 1. The lime furnace.*

tanners do not wear gloves, masks or boots to provide protection from the burning effect of the lime.

The lime baths at the tannery are large, rectangular-shaped pits containing a murky white liquid. Skins, with their hair still attached, are soaked in these to loosen the hairs in the follicles, open up the collagen fibres and remove fats in the skin. After four days, the men remove the skins from the lime water and pile them up to one side. At this point the hides are 'scudded' whereby the hair and excess flesh is removed from the exterior (Plate 2). The skin is stretched



*Plate 2. Scudding to remove hair and fats from the skin (photo Elmonter Dafalla).*

over a curved wooden beam and scraped with a slightly curved, blunt knife which has handles at either end, positioned at a right angle to the blade. The waste hair and flesh is put onto one of the huge waste piles dotted around the tannery (Plate 3).

After liming, the skins take on a pale colour (Colour plate L). The next stage in the process helps to maintain this colour at the same time as making the skins supple, washing out the lime and neutralising the alkalinity. This is called



Plate 3. The waste pile.

bating and entails immersing the hides in a large rectangular pit containing water and pigeon guano (Plate 4). The tanner climbs down into the pit to agitate and pummel the skins, helping the solution to penetrate further into the structure of the skin. In addition, corn husks are mixed into this bath in order to help to rub away the scaly epidermis and remove remaining fats and hair.

Small piles of folded goatskins may be seen on the ground near the tanning pits. These are not treated in the lime and dung pits, but immersed in tanning solution immediately after washing and scudding. By omitting the lime and bating part of the process, hair will remain attached to the skin, producing furskins, which are used by the local people as simple prayer mats.

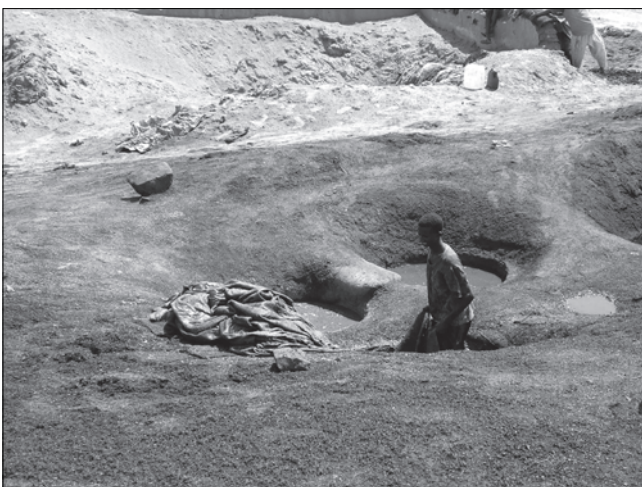


Plate 4. The bating process.

The tanning pits themselves have a circular profile and are lined with large fire-darkened bricks (Colour plate LI). The tanning solution is prepared by combining water with

the seed pods of the acacia tree. These pods, called 'sumt', or 'garrad', by the locals, are ground up and the extract deposited inside the pods, dissolved in the water. *Garrad* is a highly effective and stable form of 'mimosa' vegetable tannin. Mimosa extract is used for tanning throughout Africa, although the tannin is often derived from acacia tree bark (which elicits a higher concentration of tan) and not the seed pods. The tanners at Almyaelik tannery use seed pods, rather than bark, because the pods provide a more sustainable and local supply of mimosa. Removing the bark from the acacia trees would result in the destruction of the precious few trees which grow in this dry region of Sudan.

The skins are immersed in the tan-pits for four to six hours, which is all the time it takes to make the leather stable. As soon as they are tanned, the skins can be oiled and dried (Plate 5). However, before drying, some of the leather is dyed. The dyeing takes place in circular baths lined with bricks, similar to the tan-pits. The only colour employed at Almyaelik is a red dye used to give a red/orange coloured leather. Red leather is very popular for making the knife and sword sheaths and leather containers seen commonly in the Omdurman souk. The dye is the only material, other than the skins themselves, which is not produced or sourced locally. It has to be purchased from the *souk*.



Plate 5. The drying area.

The tanned leather is rubbed with sesame oil and hung up to dry on ropes suspended between wooden poles.

The tanning process takes just over one week from start to finish. It is a relatively simple, but highly effective process which has probably changed very little in central Sudan over two millennia.

## Acknowledgements

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*Colour Plate XLIX.  
Almyaelik tannery. The  
tanning and dyeing pits  
(photo Elmonter Dafalla).*



*Colour Plate L. Almyaelik tannery. Sorting the  
skin after removal from the  
lime bath.*

*Colour Plate LI. Almyaelik tannery.  
A tanning pit, garrad seed pods can be  
seen floating on the surface  
(photo Elmonter Dafalla).*

