

SUDAN & NUBIA

The Sudan Archaeological Research Society



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Egypt

RED SEA

Sudan

Eritrea

Ethiopia

ASWAN
1st cataract

Aniba
Qasr Ibrim

WADI HALFA
2nd cataract

3rd cataract
Tombos
Tabo

Kawa

KARIEMA
4th cataract

ABU HAMED

5th cataract

Dangeil

Akad
ATBARA

6th cataract

OMDURMAN
KHARTOUM

Soba East

Botri

WAD MEDANI

KOSTI

SENNAR

KASSALA

GEDAREF

The Sudan Archaeological Research Society Concession

▲ Ancient sites

● MODERN TOWNS



N

0 250 km

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Contents

Kirwan Memorial Lecture

- Death at Tombos: Pyramids, Iron and the Rise of the Napatan Dynasty 2
Stuart Tyson Smith
-

The Merowe Dam Archaeological Salvage Project

- Survey and excavations in the vicinity of ed-Doma (AKSE) and et-Tereif (AKSCW), 2006-2007 15
Derek A. Welsby
- Preliminary Report on the Second Season of Excavations Conducted on Mis Island (AKSC) 20
Andrew Ginns
- The 4th Season of the SARS Anglo-German Expedition to the Fourth Nile Cataract 26
Pawel Wolf and Ulrike Nowotnick
- Rock art and archaeology: the Hadiab Survey 34
Cornelia Kleimitz
- The Value and Future Potential of Human Skeletal Remains Excavated at the Fourth Cataract 43
Tina Jakob
-

Reports

- A Century of Archaeological Salvage, 1907-2007 48
William Y. Adams
- The Nubian Cemetery at Hierakonpolis, Egypt. Results of the 2007 Season 57
The C-Group Cemetery at Locality HK27C
Renée Friedman
- Overview of the Hierakonpolis C-Group Palaeopathology 63
Margaret Judd
- Overview of the Hierakonpolis C-Group Dental Remains 66
Joel D. Irish
- The Taharqo wall painting rescue project 72
Eric Miller, Pamela Rose and David Singleton
- Excavations in the Palace of Aspelta at Jebel Barkal, March 2007 82
Timothy Kendall and Pawel Wolf

- Bread Moulds from the Amun Temple at Dangeil, Nile State – an Addendum. 89
Julie R. Anderson, A. Catherine D'Andrea, Amanda Logan and Salah Mohamed Ahmed

- Rescue Excavation of a Late-Meroitic Tomb at Botri, South of Khartoum. Preliminary Report 94
Mahmoud Suliman Bashir

Akad Excavation Project

- Preliminary report on the 2005 and 2006 Seasons 98
Mohamed Faroug, Yassin M. Saeed and Alexandros Tsakos

- Report on the human skeletal material from Akad 107
Husna Taha el-Ata and Hwida Mohamed Adam

- Archaeological Reconnaissance in the Nuba Mountains, Sudan 112
Helen Taylor and Michal Bieniada

- The Sultan Ali Dinar Museum, el-Fasher. A window on Darfur's history 119
Pieter Tesch

- Victorian Gunboats in the 21st Century 122
Henry Keonn-Boyd

- A visit to a traditional leather tannery in Central Sudan 125
Lucy Skinner
-

Miscellaneous

- Obituaries -
Friedrich Wilhelm Hinkel (1925-2007) 127
Janice Yellin and William Y. Adams

- Patrice Lenoble (1942-2007) 128
Jacques Reinold

- Peter Lewis Shinnie (1915-2007) 129
Krzysztof Grzymski

- Bruce Graham Trigger (1937-2006) 130
Krzysztof Grzymski

Review -

- Włodzimierz Godlewski 2005. *Pachoras. The Cathedrals of Aetios, Paulos and Petros. The Architecture* 132
Julie R. Anderson
-

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.

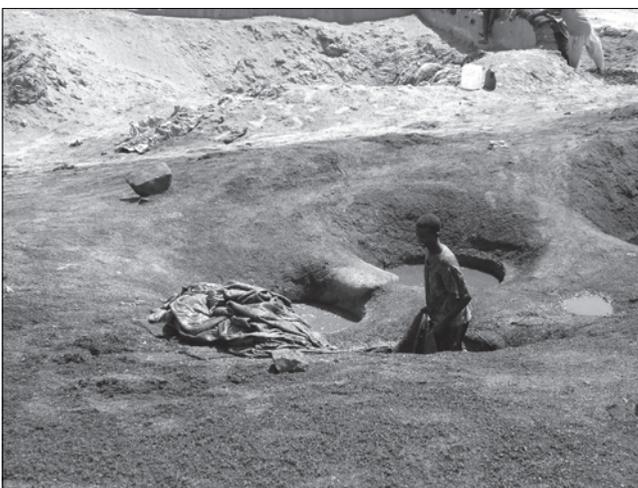


Plate 4. *The bating process.*

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

Thanks to the conservation and curatorial staff at the National Corporation for Antiquities and Museums, Sudan, for arranging such a fascinating trip. Also, to Elmonter Dafalla for sharing his photographs with the author, some of which are included in this article.

*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).*

