



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

العدد الحادي عشر / الجزء الثاني شباط 2022

**TRADITIONAL TANNING IN WESTERN SUDAN: TYPES, ARTISANS' GROUPS AND
PROCESSES OF PRODUCTION.**

الدباغة التقليدية في غرب السودان: الأنماط وجماعات الحرفيين وطرق الانتاج.

ABDAL MAGEED AHMAD ABDAL RAHMAN.

Faculty of Economic and Social Studies – Al-Neelain University –

Khartoum – SUDAN.

aaamageed@gmail.com

ABSTRACT.

The climatic variation prevailing in the Sudan has shaped the life of its societies, which is characterized by pastoral nomadism and keeping animals besides farming. This has led to availability of hide, the basic raw material for tanning, and to the rise of many groups working in the industry, especially in Western Sudan " Darfur and Kordofan". Different categories of tanners are discerned and identified according to a constructed typological classification. This study discloses that tanning tradition



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

has got certain production requirements, and that it will last for long time at least until new innovations for tanning all types and sizes of hide be introduced and widely diffused. Moreover, the different tanning methods adopted by tanners through time in the study area are thoroughly displayed.

Key words: Traditional tanning, tanners classification, Western Sudan, ecology and tanners, production methods and requirements.

المخلص.

شكلت اختلاف البيئات المناخية في السودان أنماط حياة المجتمعات التي تتسم بالرعي المتنقل عند بعض الجماعات والمزاوجة بين تربية الحيوان والرعي عند أخرى. قاد هذا النمط من الحياة إلى توغر الجلود، وهي المادة الخام الأساسية للدباغة وظهور جماعات تمتن عمليات الصناعات الجلدية خاصة في غرب السودان في ولايات دارفور وكردفان. وقد تم تمييز مجموعات مختلفة من الدباغين تبعاً للنموذج التصنيفي للأنماط الذي تم بناءه اعتماداً على تحليل وتصنيف هذه الجماعات. وقد كشفت هذه الدراسة أيضاً أن للدباغة التقليدية متطلبات معينة للإنتاج، أن المهنة ستستمر إلى وقت طويل رغم ظروف التغيرات السريعة، وعلى الأقل حتى إبتداع أو إبتكار أساليب وطرق جديدة قادرة على دباغة أنماط الجلود وأحجامها المختلفة وإنتشارها بصورة واسعة. هذا وقد قدمت الورقة عرضاً وافياً وتفصيلياً للطرق ولأساليب المستخدمة في الدباغة.

الكلمات المفتاحية:

الدباغة التقليدية، تصنيف الدباغين، غرب السودان، البيئة والدباغون، طرق ومتطلبات الإنتاج.



1. INTRODUCTION;

The Sudan is one of the richest countries that possess animal resources mounting about 138.2 million according to 2006 estimates (Ministry of Council of Ministers 2007, 16). The country's ecology has greatly influenced the shape of the Sudanese life. Hence, several groups have adopted nomadic life, whereas other sedentary ones have kept small number of animals, and/or carried wild animals hunting expeditions besides their primary occupations, mainly farming. The by-product of animals, wild and domestic, especially hide, comprises the basic raw materials for tanneries. In other words, the availability of hide, has led to the rise and/or diffusion, popularization and adoption of leather crafts industries and traditional tanneries. All this is bound to the needs and cultural determinants of the intended group(s).

This paper seeks to study and document the present state of traditional tanneries in Western Sudan, including that process of the raw materials, artisan's organization, and marketing system. The overall spectrum of this sector provides a basement complex from which further studies and development perspectives can be speculated and executed.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

The significance of these tanneries display the pivot role they play. It recruits many people, creates chances for thousands of workers, adds much to the rise, popularization and continuation of the leather-made crafts, and provides an instance to avoid environmental degradation in a micro-locality. It is estimated that the annual production of tanneries in Africa ranges 3000000 tanned pieces of leather, while in the Sudan it is said that it tanned hides contribute by about \$35 million in 2014 (Sami M. A. Hassan and Tawfieg Dafallah,:2017).

The nature and the distribution of tanners' workshops over Western Sudan and the variation of the groups holding the tradition dictated that the samples for this paper should cover wide area. A fieldwork was carried for that purpose by a team composed by three persons headed by the present writer. The survey covered many villages and urban centres in Western Sudan based on interviews with both 143 tanners and 28 inhabitants. Hence, the study adopted descriptive method for analyzing, interpreting data and inferring findings.

2. TANNERS AND TANNERIES IN WESTERN SUDAN:

Western Sudan in this study refers to Southern and Eastern Darfur, Northern and Western Kordofan states. The natives there have strong consciousness of being westerners due to the interrelated common history and resemblance of life style in many aspects. The region is said to be a victim of the growth pole strategy that



المجلة العربية للعلوم الإنسانية والاجتماعية

Arab Journal for Humanities and Social Sciences

concentrated investment and modernized style of development in central Sudan (Hansohm and Karl 1991).

The history of this craftsmanship is hardly traceable in Western Sudan for the simple fact of the scarcity of archaeological discoveries and poor attention to studies covering those early periods (Arkell 1951, 37-70, Mac Michael 1967). It is reported that since 1600 A.D. Darfur was comparatively highly developed state, and probably Kordofan. The emphasis of the merchants of that time was to bring in luxury goods for the rulers (Hansohm and Karl 1988). The merchants' choice of those goods rather than basic ones was probably due to development of crafts manufacturing that must have included tanning and leather-made ones. It is thought that the tribal societies are more or less self-sufficient. Such assumption leads us to conclude that crafts, especially the ones under our consideration, must have been well developed and flourishing much earlier, or else the merchants would have been stimulated to bring in resembling ones to satisfy the folk's needs. Again, it could be argued that skin crafts manufacturing had preceded traditional tanning, since the need for diversified and developed artifacts for the different life purposes is the main reason behind the introduction of various types of crafts made of leather obtained through tanning procedures.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

It turns out, therefore, this study does not address itself to the modern capital, highly manufactured mechanized tanneries. Hence forward, the target group consists of the traditional tanners in Western Sudan whose knowledge has been transmitted from ancestors over time. Tanners group are thinly dispersed over a wide area, almost in every village and urban centre. Their units of production are in most cases not registered in the governmental records, a fact that undermines the great role they significantly play to satisfy important social needs. Such lack of information about the number of traditional tanneries could be traced in many countries such as Seirraleone (Allal and Chuta: *n.d*, 53), where the registered number is approximately half as much as the actual units, and the same could be found in Bangladesh (Sharma,1979: 32) and in León city in Mexico (Allen Blackman and Arne Kildegaard, 2010: 118). . Hence, the figures and percentages appear now and then about this question in those areas seem only to adorn researches to appear more scientifically approached and statistically based.

In fact a call for an urgent survey seems vital especially in the traditional tanneries and other traditional material culture to delimit figuratively the actual role of these sectors. Significantly, the role of traditional tanneries seems to be more sounding from the random sampling of our fieldwork as will be shown.

3. TRADITIONAL TANNERS CLASSIFICATION:



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

The history and development of the present traditional tanneries in Western Sudan are difficult to trace due to the lack of information. However, tanners in different localities present a short exposition of the craftsmanship including mainly the localities where tanneries had been once established and sometimes description of the groups holding this occupation.

Tanners in Western Sudan can be classified typologically into three major categories according to the procedures utilized there, they are:

- a- Home duties fulfillment group.
- b- Tanners and Producers of tradable and non-tradable manufactures.
- c- Specialized tanners.

This classification is built according to similarities in the following entities:

- a- The choice of location where the operation is done.
- b- The way of obtaining hide and skin and their quantities.
- c- The ethnic groups that carry the tradition.
- d- Gender division: Whether women or men only or both are involved in tanning hides and skin tradition.
- e- The purposes of production.

The classification indicated provides a view of the development of the occupation from the home task fulfillment group. They are portrayed by the society as doers or



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

carriers of some home responsibilities. Next came the transition when tanning procedures are different and require quality specifications to suit the type of handicrafts they produce; but it is not a main occupation. It is done when a member of this group finds a driving cause to make a craft. The last group is a specialized one. In this last group work is carried almost every day unless there is difficulty in obtaining skin and hide, or due to some other factors such as rainfall or participation in social occasions e.g., marriage, ceremony, condolence, etc. This specialized group usually tans large quantities of hide and skin, and the occupation seeks perfection and high quality production. Appendix (1) illustrates typological classification of tanners and hence traditional tanneries.

Although the categorization of tanners portrayed in the classification provides a sequence of the occupational development through time, its present status displays that all these categories are still working simultaneously in Western Sudan.

(A) Home duties fulfillment groups:

Knowledge is conventionally acquired from within the family. Family members are trained from childhood to make some crafts and repair others as part of their home duties. These groups of tanners is not assigned as proper specialized traditional tanners among their groups, but has the traditional knowledge, and so practice



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

tanning. They usually obtain hide and skin from goats, sheep and cows they slaughter at home in occasions.

Tanning procedure is not tedious task to members of the group. They stretch the skin on the ground, fix it with small pieces of wood with sharpened edges ' i.e. pegs'. The woolen side of the skin is placed to the ground surface. The upper side, woodless one, is covered with moistened *acacia nilotica* seeds powder. The skin is left until it gets dry, then it is plunged into water to be moistened before carrying tanning procedures. Tanning accomplishes after two or three days of moistening and remoistening the skin.

The tanned skin is used more often as a prayer mat, or to make a big water skin or a small water skin. This group of tanners does not make any other crafts. The small and big water containers do not necessitate high experience in their production. They are finished by sewing the edges of the skin with fiber "*adeansonina Digitata Park* they are appropriately fulfilling home needs of those crafts.

The skin prepared for tanning may occasionally have some holes in it due to imperfection in the slaughtering process of the animal. Under such circumstances the skin is grafted after finishing all tanning procedures. This is specially done for skin and hide, which are prepared for manufacturing water and grain containers so as to silt the holes.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

Skin grafting is part of the home duties, and normally practiced by this group of tanners that comprise most of the western rural population. It is part and parcel of the repair experience people learn to solve such immediate and casual life problems. It is also a vocational training, which is practiced in restricted fashion within the family systems.

(B) Tanners and producers of tradable and non-tradable handicrafts:

This group of tanners and producers of leather-work crafts is comprised of women only. They obtain the skin from animals slaughtered at their homes or ordered by other women for tanning. The quantity of skin for tanning at a time rarely exceeds a single one or two. Most of the members of this group are nomads. They belong to Kababish, Dar Hamid, Kawahla, and Majaneen of Northern Kordofan; the Baggara Group of Western Kordofan, Southern and Eastern Darfur and the Hammar Group of Western Kordofan. The latter group is now more or less sedentary group; yet their tradition in this respect has been kept intact in the rural areas.

Several factors seem to be determinant for the rise of tanning as an occupation among those women, these are:

a- The scattered nature of the members of the tribal groups along the clan migration route are seeking pasture for their herds.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

b- The remoteness of the market places and centres from the regions they took their animals for selling their skin.

c- The basic raw material for tanning skin and hide is a by-product of the animals they herd, and they have abundant quantities to tan than to waste. In fact, most of the women find themselves engaged in leather tanning.

d- The collection and accumulation of hide in quantities for a long time before selling them in the centre does not suit transhumance. This is because of the voluminous nature of hide, and that tanning gets them packed, compact and easily manufacturable.

e- The immediate environment helps also the rise of the tradition by the availability of the tanning ingredients, mainly acacia nilotic seeds, silac "*Leiocarpus Lanifolius*", and water for tanning only one or two hides at a time. This is especially true for those in Western Kordofan or Southern and Eastern Darfur.

f- This type of leather crafts manufactures needs the least and the smallest equipment for production which in turn suits the mode of their life that requires transhumance. Needless to emphasize that the tools used for tanning are fewer and smaller. These are the knife, a container for bringing water, and stick that is used only once, because of its availability at every corner of the immediate surroundings.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

These women satisfy their own needs of social life by manufacturing ornamental leather handicrafts for cows and camels and objects of beautification for their tents. They are the leather-made cushions , large grain sacks , small grain sacks and containers for drawing water from wells called ‘ *Dalu and Ramboya* “. Mothers traditionally prepare leather-works and ornaments for their daughters as part of the basic needs of the bride’s house.

Gourd is light and suits the pastoral life. It is available in large quantities in the Baggara region of Darfur and Kordofan. Hence, a tradition for making leather touches to transform the gourd into a high beautiful and useful utensil is grown and developed. Many shapes for different purposes are introduced to suit their utility. The most striking one is the gourd rim ornamentation with tanned leather. It is used for milk preserving and butter extracting.

Tanning procedures among those groups begin by moistening goat/sheep skin if it is dried, and plunging it into silac ashes solution for two days, then the wool on the skin surface is crushed with carving knife. Tanning is accomplished by washing and plunging the skin once and again into acacia nilotica vegetables’ powder dissolved in water for two more days. In the end the leather is washed with warm water, straightened and exposed to the sun rays to dry. Similar procedure is used for cows and camels hide, but it takes fifteen days instead of four.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

Once getting the skin tanned, the women begin to manufacture the crafts they need for their domestic consumption and for the market in their leisure time especially in mid-day times.

Tanned Leather in the Northern region of North Kordofan State is getting rare due to the scarcity of the basic tanning materials extracted from accacia nolitica and silac trees. Those trees are scarce in the region as being part of the poor savanna region. Accordingly the alternative is to buy tanned leather from other areas in which these trees grow in dense or large marketing centres, such as El-Obeid town.

Some of these manufactured leather-works are kept for a long time and assembled before getting them to the market when the Baggara return from " Bahr Al-Arab River " in autumn in their northwards seasonal migration. The famous and the main market centres for selling their products and obtaining their needs, including leather shoes, are Rihaid Al-Birdi, Id-Al-Firsan, Tulus, Buram, Nyala, Al-Di'ain, Al-Firdus, Al-Mujlad, Babanosa, Rigl Al-Fula, Al-Nuhud and Abu Zabad.

Not inseparable from the above mentioned case is El-Fasher example and some areas north of it. In that region the Zayyadiyya group women tan and make fine leatherworks crafts, including handbags and purses. Similarly it is found that some women in the Arab Gulf involve in hide and skin tanning plus leather crafts



manufacturing. They accomplish all the processes of both tanning and leatherworks at home It is a female activity (Alkhatir 1990, 82).

(C) Specialized traditional tanners:

Leather tanning is the main occupation for the traditional specialized tanners, but in many cases it seems to be the sole one. Few of them practice farming as secondary occupation, and rarely do some serve as sellers of tanned leather. This stage of specialization is the climax of a series of developmental stages as our classification verifies. It is necessitated by production perfection, tanning large quantities of hides, dedicating all or much time for the occupation, and shifting the production site from home to workshops or “production area”. In fact the more the rural area becomes modernized, and its life style resembles that of the city, the less we find among their individuals those who perform dual occupational role or multi-occupational character. These are the symptoms of urbanization and modernization, it is what is diagnosed and known as “division of labour”. In actuality, those specialized traditional tanners are found only in towns or big villages with reliable aggregation of people and permanent markets, such as Nyala, Al-Di’ain, El-Obied, Al-Nuhud Abu Zabad, Rigl Al-Fula and Babanusa among other sites in the research area.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

The artisans of this class belong mainly to a single ethnic group over all the fieldwork area. They relate to the Hausa group. The very few exceptions encountered are those of the Bargu, and Barnu groups. It is remarked that the majority of those tanners are very old mounting fifty five years in average. The youngest tanner found is about thirty two years old. Examples of job entree provide that most of the artisans join the group at middle age. Accordingly one could hardly escape the conclusion that the promotion and development of traditional tanning in the Sudan, as their present status, have been highly influenced by West African culture including Western Sudan.

(4) PRODUCTION REQUIREMENTS FOR TRADITIONAL TANNING:

Traditional tanning have got “production requirements” as well as human factor requirement that necessitated specialization as has been shown before. These production requirements are:

a- The site:

It goes without saying that large quantities of hide and other tanning raw materials need wide space . The basin used for tanning processes occupies spacious area . Work takes most part of the day.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

The wastes needed to be carried out of the homestead, because the public health department does not allow tanning in the residential area even in big villages, and partly due to the objections and the voices of protest from the neighbours. All these have led the tanners to shift their work from home to workshops in the periphery of the residential quarters.

According to the close observation, the tanners locate their tanneries in the eastern and south-eastern direction of the town or village to avoid the pollution and the pungent smell that the wind could blow to the villagers. Experience taught these specialized tanners to choose such location, and they do it spontaneously and without paying much heed to reasons of the direction of the tanneries position. It has been adopted as a tradition.

Tanning tradition is reported to be carried on specialization basis as early as 1930s, and that the peripheral location of the tanneries has been first adopted from 1950s as could be inferred from the oral chronology of the tradition transmitted by the interviewed specialized tanners themselves. Similar incidents had happened in the tanneries of León city in Mexico, where tanneries have been relocated in the outskirts of the residential area to avoid environmental pollution there (Allen Blackman, Aug. 2005:118).



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

Closely related to this location requirement and the site choice for tanneries is the Nyala case, where the groups of tanners have once occupied some parts of the banks of the valley there called" *Wadi Birlī*". Later on when these banks have been used as gardens and the town has stretched to reach them, the tanners have assembled in the outskirts to form a group of tanneries concentrated in the south-eastern periphery in a strip near the recent Hay Al-Jebel quarter. The very replica of Nyala tanneries seems to have been recurring in most sites such as Rigl Al-Fula, Babanusa, Al-Nuhud and Shi'airiyya. Resulting from all these developments, there seems to be a general style of establishment of ' industrial area ' for leather tanning especially in the urban centres, whereas the rural scene has presented at least some of the former tradition of the establishment of tanneries in craftsmen's houses.

b- Availability of water:

The availability of adequate water and nearness of water sources are crucial factors for choosing the localities for establishment of tanneries. The sites of Al-Nuhud, Abu Zabad and Nyala are cases in point. Tanners at Ghibaish of Northern Kordofan have abolished their occupation, and some have departed due to the acute water short. Moreover, there were no tanneries at Al-'Udayya before digging the artisanwells there as has been reported by some informants.



c- Availability of adequate processing materials:

The presence of adequate processing materials is a prerequisite for the rise of specialized tanneries. These comprise large quantities of *accacia nilotica* seeds and lime. At many sites lime is brought from other towns, however, it does not constitute an obstacle, because only small quantities are needed for tanning hides. The introduction of lime in tanning procedures is a comparatively new development. Formerly the tanners use ash. Because of the short in processing materials at Dar Hamid and Dar Al-Kababish in Northern Kordofan, there grew no specialized tanners relating to this class.

d- Large quantities of hide and skin:

In the earlier stages of tanneries development the tanner needs only one or two hides to tan at a time. The introduction of new ingredients have led to the enlargement of tanneries' capacities. The tanners are then enabled to process fifty sheep/goat skin or ten cows hides at a time.

Need is there for growing a complementary body or some sort of backward and forward linkage to provide adequate hide and skin. Certainly the tanners are poor, and have not got high purchasing power to obtain such quantities of hides. Moreover, they could not stay waiting for those who want to tan them, nor do the villagers and town dwellers care for tanning theirs. Even when tanners receive skin from



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

individuals, normally not exceeding three or four, they find difficulty in identifying them from those in the tanning basin. They usually make some marks by making holes or tear part of the skin as a sign for identification. They allude with pride that they could identify that simple process. Hence, the mere incident is a direct reference to the immediate need to enforce and encourage education so that they could adopt better systems of identification. The combination of all these driving forces have led to the rise of a group of skin and hide merchants "i.e. skimmers".

The skimmers possess hide shops in the market place. Retrospectively, the occupation has appeared concurrently with the emergence of specialized tanners groups. They collect hide from within their locality and surrounding suburbs, and supply the tanneries in order to tan them on agreed fixed prices.

After the implementation of the modern mechanized tanneries at Khartoum and Wad-Medani towns, those skimmers began to classify the skin they collect into grades. The first and the second grades are sent to modern mechanized tanneries, while the third class is kept for the traditional ones. Although it may appear from the first instance that skin classification has ribbed traditional tanneries from large quantities of hide, and may lead to their extinction, the large quantities received by traditional tanneries belied and refute that expectation.



(4) TANNERIES AND TRADITIONAL TANNING PROCESSES:

Preparations of hide and skin for tanning begin at early stages before handing them to the tanners. In fact many important sectors contribute in this initial pre-tanning stage. It is at least realized at the time among tribal nomads and cattle tradesmen that their stock will be sent to the markets in the semi-town villages; and that the quality of the skin raises their value in the market. The notion has influenced directly the traditional codification of tribal brand normally made on the legs and back of the animal. This brand is made by drawing the tribe's code on the animal's skin by using very hot rod in order to identify the owner.

The tradition has changed by then both in terms of place of the brand on the animal's skin, and the codes used. The tribal brand is made by drawing vertical and/or horizontal lines in most cases; this is in addition to some circular or semi-circular codes. These codes are abolished in the recent times among tradesmen, because they occupy a wide area on the animal's skin, and make big holes in the skin after slaughtering, and thereafter spoil all or part of the skin in the tanning procedures. They are substituted by alphabets from either Arabic or English script denoting the first letter of the merchant's name in some cases. The second development in skin preservation, quality improvement and control is that the brand is made on the ear of the animal. However, the brand continued to be made on



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

animals' skin among the tribes that keep them, though the tradition is not strictly applied as in earlier times. All these preparatory stages for tanning disclose the intensive care and the grown tradition of skin and hide preservation before tanning processes begin. Cultural change is, therefore, taking place under the influence and consciousness of the benefits they realized to obtain accordingly.

Preliminary preparation of hide for tanning is made purposely by skinners. These groups of skinners are centred in urban cores and big villages. They are supplied by skin from both the centre and the suburb. Once they collected hide, they perform several roles. As for dried skin, they get them wetted, straightened, and finally salt is put on them before folding. The process is called salting "tamleeh ". The benefits of this procedure is that it helps preserving and storing skin for a long time not less than two years. Often, they use insecticide such as *dichloro diphenyl trichloro ethane* "D.D.T" after salting process to protect the skin. They encourage people to adopt that process once they have got skin after slaughtering, and their call has found success, because they pay much better than if salting process is not being done. As for wet skin, the skinners soon get them salted, and finally classified according to whether there are holes on them or not. Those with holes in them, the dried, and the smallest ones are classified third class, and are taken to the traditional tanneries for tanning. The bulk of the reminder is sent to the modern mechanized tanneries.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

Moistening dried hide with water is the first step of tanning. They are plunged into rectangular, square or rounded basins plastered with cement or lime. The skin is washed thoroughly by water thereafter, then plunged into a basin filled with lime dissolved in water and left for two or three days. In the past silac trees ash is used. About fifty hides are put at a time in the lime basin termed *tal'a*. Following this the skin is put on slant thick wood called *Al-warjiyya*, and the wool 'fur' is scraped from it by the use of a tool called *dasa*. Similar process is carried in Omdurman town by using biocides and ditheraarbanates for few days to unhair and desalt skin (Sami M. A. Hassan, May 2018: 3). In the Arab Gulf, perhaps due to the lack of silac trees ashes, the skin is put into moistened dates for only one day before wool clearance (Alkhatir1990, 82).

Zibla basin is the next stage in which the skin is plunged. It is filled with pigeons' dung dissolved in water, but often water is left for a long time until it gets rotten by plunging hides in it several times in the tanning process. Indeed, the skillful tanner knows by experience when the solution in the basin becomes no longer concentrated and functional, he, thereafter, decides whether or not it is to be changed or renewed. This stage is made to facilitate cleaning the skin from the meat remains left on its surface and reduce its thickness. The skin is again washed with water and plunged into *accacia nilotica* seeds solution . The seeds are first rendered to powder either



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

by pounding them with mortar and pestle, or by flour machines recently introduced such as in El-Obeid town case.

The quantity of accacia nilotica seeds powder and lime in the compound is estimated according to the quantities of hides to be tanned, and to the state of concentration of the solution in the tanning basins. Leather is then washed with warm water in the last stage .

By finishing tanning processes, the leather is stretched and exposed to the sun light to dry. The tanner continues straightening them by hand while drying. Finally the leather sheets are beaten with sticks to get them smooth and straight pieces before marketing, the very case is also made in León city of Mexico (Allen Blackman, 2010: 119).

The details about tanning procedures provided above are only crucial for skin which will be tanned without wool. In fact tanners find much difficulty in removing wool from skin of goats, sheep and other animals, and so they often tan it without removing the wool. This type of tanned leather is often called *Al-kadas*. All the hides being tanned without removing the wool, in addition to those of reptiles like boa and crocodile, are not subject to the stages of plunging into lime.

Finally, the tanners take the leather they have tanned back to the skimmers. Those tanners seem always to perform a self-contained role in administrating their



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

workshops. They possess donkeys to bring water to the tanneries, hide and other raw materials, and take them after tanning to the skimmers shops in the market.

The whole processes of tanning tradition, henceforward, recruits many people, creates chances for thousands of workers, adds much to the rise, popularization and continuation of leather-made crafts and provide an instance to avoid environmental degradation in a micro-locality, this is in addition to financial benefits generated.

(5) CONCLUSION:

a. Tanners in Western Sudan can be classified into three categories. They are the home duties fulfillment group, tanners and producers of tradable and not tradable leather handicrafts and the specialized ones.

b. The tradition is carried by different ethnic groups.

c. Tanning procedures among different groups display close similarities except for minor differences dictated by environmental variations.

d. The promotion and development of tanning tradition in the Sudan have been highly influenced by West African cultures including Western Sudan.

e. There are many production requirements facilitated the rise and flourishing of traditional tanning. These comprise availability of adequate water for tanning processes, sufficient processing materials, large quantities of hide, and



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

active skinners to provide forward and backward linkage to supply adequate hide and skin.

f. Traditional tanning in Western Sudan offers many changes and developments in terms of preservation methods and tanning procedures improvements.

REFERENCES:

1. Alkhatir, Sibaika Mohamed, (July 1990), " Some of Valuable Traditional Occupations ", *Al-Mathurat Al-Shabiyya, Quarterly Journal*, Qatar, 5th year, (9): pp.79 – 82.
2. A. Allal and Chuta (n.d.), *Cottage Industries and Handcrafts , Some Guidelines for Employment Promotion*, International Labour Office, Geneva.
- 3 . Arkell, A. J. (1951), The History of the Darfur 1200-1700 A. D., the contribution of Archaeology ' in *Sudan Notes and Records*,(32): 37 – 70.
4. Blackman, Allen (Aug. 2005), AdOption of Clean Leather-Tanning Technologies in Mexico , [www. rff. Org](http://www.rff.Org).
5. Blackman, Allen and Arne Kildagaarad (2010), Clean Technical Change in Developing- Country Industrial Clusters: Mexican Leather Tanning, in *Environmental Economies and Policy Studies*, (12) 115 – 132.



المجلة العربية للعلوم الإنسانية والاجتماعية
Arab Journal for Humanities and Social Sciences

6. Hansohm, Dirk & Karl Wolhmuth,(1991). Rural Small Industries and Crafts ,
edited by Graig G. M. (ed.), *The Agriculture of the Sudan*, Oxford University Press,
Walton Street, Oxford, New York, Toronto.

7. .Ministry of Council of Ministers, Central Bureau of Statistics, (2007),. *Sudan
in Figures, 2002-2006*, Khartoum.

8. .Mac Michael, H. A.,(1967). *A History of the Arabs in the Sudan and Some
Accounts of People who Preceded them and the Tribes Inhabiting Darfur*, London
and Edinburgh.

9. Sami M. A. Hassan and Tawfieg Awadallah Ahmed (July 2017), Tanning in
Omderman: Implications of Environmental Degradation and Urban Poverty in Sudan,
Sudan Geographical Journal, University of Khartoum, vol. 1 (7).

10. .Sharma, S. V. (1979). *Small Entrepreneurial Development in Some Asian
Countries*, Life and Light Publishers, Delhi..