BOAT BUILDING IN THE SUDAN:
MATERIAL CULTURE AND ITS CONTRIBUTION TO THE UNDERSTANDING OF SUDANESE CULTURAL MORPHOLOGY

YOUSIF HASSAN MADANI

Submitted in accordance with the requirements
for the degree of
Doctor of Philosophy
in
The Institute of Dialect and Folklife Studies
School of English
University of Leeds
September 1986

ABSTRACT

In this thesis the writer is examining the nature and historical development of Sudanese culture, through the examination of the activities of boat builders and users in the Sudan.

Chapter One explains the aims of the ~~Study~~ study, definition and objectives of the subject of material culture. The state of material culture scholarship in the Sudan is also discussed with special emphasis on the study of boats in the Sudan.

Chapter Two is a general survey of the history and development of boat building in the Sudan from ancient times to the modern and contemporary period. For this the writer depends on the archaeological evidence, works of classical writers, works of medieval Arab writers, works of the European travellers of the early modern period, works of the historians of the modern period and the ethnographic evidence collected by the present writer about the contemporary boat builders and users. This last category provides material for the contents of Chapters Three, Four and Six.

Chapter Three is a documentary chapter about the work of the boat builder, describing his technical skills, how he assembles the hull planking and prepares the rigging, the processes he follows and the tools he uses. Moreover, the terms used to describe the parts of the boat and the tools are also documented

Chapter Four deals with the types of boats in the Sudan at different centres on the basis of their functions. Regional variations in construction, rigging details, technical terms are

also dealt with. The adaptability of river transport to its surroundings and the problem of cultural borrowing and contact is also discussed.

Chapter Five is a broad survey of the history of the different cultural influences that formed the fabric of the present Sudanese cultural setting.

The materials cited in Chapter Six show how these different cultural influences described in Chapter Five have created the present cultural blend. This syncretism of diverse cultural influences is reflected by the terminology of boat building and handling, some texts of the song tradition and beliefs and practices in their historical and social perspective.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF PLATES

Abbreviations

I.A.A.S. ..... Institute of African and Asian Studies

ACKNOWLEDGEMENTS

Help rendered to finish this work is very much appreciated. I would like to acknowledge here my indebtedness to the University of Khartoum for sponsoring the study course and the fieldwork. I am also grateful to Professor Sayyid Hurreiz, Director of the Institute of African and Asian Studies and Dr. Ahmad Nasr, head of the Department of Folklore, University of Khartoum, for their advice in planning the field programme.

I am also thankful to the British Arab Chamber, Leeds University, Leeds University Student Union and the School of English for their support during ~~fiencial~~ financial difficulties.

I would like also to express my gratitude to my friends and colleagues Walīd Mahammad Hamad and Abdu Mohammad Moḥjūb for helping me to get in touch with the informants and boat builders in Dongola. To Mahdi Shammad and his sons Abdullah and Sefaldīn, Ṣālih Moḥammad Abdal Rahim and his sons Ḥasan and Yousif in Labab Island and Abdullāhi Fagīr Ali, for their great help, kindness and hospitality. I should also mention the help rendered by my relatives in Karima. My friend and colleague Abdullahi Mohammad Aḥmad Lōka and my brothers and sisters in Shendi for their support and encouragement. Thanks are also due to my friends Taj Salāma and Taj Moḥjub and their families in Wad Medani. In al Sūki I would like to thank my colleague Marghani Abdalla Madani and his family. Omar Mūsa al ʻimēri and his family in Kosti. Also many thanks are expressed to the headmaster of Kosti Intermediate School, Ustaẓ Abul Gāsim Abdal Gādir and his family.

To all the informants in Dongola, Karīma, Shendi, Omdurmān, Wad Medani, al Sūki, Kosti, Culi, whose names are mentioned in Appendix One, without whose help and patience during the long sessions of interviewing, this work would not have been accomplished.

I am grateful to Dr. A. Shivtiel, the head of the Department of Arabic, University of Leeds, whose help and advice has been of great use.

To my Supervisor, Professor Stewart Sanderson, in Leeds university, who has been most helpful, enthusiastic and encouraging, to him and my co-supervisor Dr. David Richard, School of English, University of Leeds, for his continuous help and useful advice I am very much indebted.

Also help rendered by Miss Audrey Stead, the Administrative Assistant, School of English, University of Leeds, is also acknowledged.

I am thankful to Mrs. Carter and Mrs. Brown of Leeds University who patiently typed the final manuscript of this thesis.

And finally to my dear wife, Nadia, whose support and tolerance has been of great help to me.

Yousif H. Madani

Leeds 1986

CHAPTER ONE

INTRODUCTION

I

Aims, Fieldwork Methods and Problems

The aim of the present study is to examine the nature and the historical development of Sudanese culture through an examination of the activity of the boat builders and users in the Middle Nile region. What this study purports to accomplish is an analysis of the tradition of the boat builders and users as a cultural component which contains a large body of vernacular technical terms, techniques, designs, beliefs and practices. The activities of such craftsmen are the visible dynamic expression or surface manifestations of a long history of cultural contacts.

Also by observing the changes in the methods of manufacture and design diachronically, some contribution to the understanding of culture change may be made. It is to be stated clearly that as students of material culture our concern is not only with the objects themselves but also with the people who make and use them, or else our study will be merely a kind of antiquarianism.

One of the basic characteristics of Sudanese culture is the interplay of diverse cultural traits. You find an interplay of African, Arab, European and other ~~Aramaic~~ Aramaic, Syriac, Jewish , Persian and Turkish cultural traits. This is noticed specifically when we examine the etymology of the vernacular technical terms and beliefs and practices. One might

perhaps expect a conflict between the different groups to decide which is to be dominant. But between these cultures there is a covert dialogue and interaction leading to a harmonious cultural blend which is shaped without the consciousness of this or that group. Cultural traits are borrowed and transformed to fit into a certain social and environmental setting in which they serve particular social or economic functions. So this thesis is going to concentrate on how the study of objects of material culture can contribute to the understanding of Sudanese culture which is highly diverse and intricately complicated.

We need to decide whether there is something like a central dominant culture surrounded by other peripheral minor cultures. We need to test the over-simplification of classifying this or that as an African, Arab-Islamic, Christian or European trait. To me our cultural setting is more complicated than this; all these elements can be found in this or that group of people, are spoken and performed indiscriminately, and are retained and held as their traditional folk culture which is handed down from one generation to the other over the centuries. For example, among the boat builders and users in the Sudan you notice that there is a cluster of practices that, when analysed, reveals the discrete origins of every single word, belief, custom or practice. Yet if you consider the cluster as a whole you recognise the possibility of cultural unity overriding these diversities.

As part of this thesis a documentary descriptive section endeavours to record in detail the skill of the boat builder from A to Z together with the tools he uses to complete his work. Also the impact of modern technological advancement on the old ways of living

will be considered. Scholars pay much attention to the fact that the old ways of living are disappearing often without any record being made of them. It is, for example, explicitly expressed by Geraint Jenkins that life today is vastly different from the past:

> ...and the whole character of our rural communities is becoming so standardized materially and socially that they are rapidly losing their identity. [1]

It is, of course, important to keep a full record of our national heritage, and museums can be established for that purpose. But history never stops and culture is ever changing. It will go on changing as long as people are moving, migrating, meeting and interacting. Modern means of transportation and communication accelerate this interaction and consequently the process of cultural change. Moreover, manufactured goods are now replacing handmade ones. Modern life with its standardization is now threatening the 'old ways of living'.

However, it is to be stated clearly that modernisation with its technological advancement is threatening the old ways of living but not threatening 'tradition'. I use the phrase 'old ways of living' because I believe that tradition can never be threatened. Tradition persists, changes or disappears according to the present circumstances:

---

[1] Jenkins, J.G. Traditional Country Craftsmen. Routledge and Kegan Paul, (London 1965), p.2.

that is to say, tradition can be made every now and then, and in every stage of development a new body of tradition is created with always some co-existence of old and new as the situation implies.

This view agrees partly with what Dr. Lorwerth Peate says in this connection:

> I have already indicated that we deal with communities comparatively unaffected by a high degree of industrialization...but even in the most affected parts evidence of the persistence of the traditional way of life has remained to this day. Mushroom urban growths, like Cardiff,... still show many traces of an old cultural pattern. We have to concern ourselves with that pattern, where it is strong and where it is weak down to our own day. [2]

That could stand true but my disagreement comes with the way he interprets tradition; i.e. by equating 'traditional way of life' with 'traces of an old cultural pattern'. I believe that <u>tradition</u> does not imply <u>old</u>; for if there is a persistence of a combination of old and new elements in our present cultural pattern, this in itself constitutes a new tradition which could be different in structure, function and setting from what existed before. There has always been a misconception in understanding 'tradition' as being remote in time and place.

The crucial question here is why should we worry about the disappearing old ways of living since we are not able to stop history.

---

[2]Peate, L.C. 'The Study of Folklife: and its Part in the Defence of Civilization', <u>Gwerin</u> Vol. II, no. 3 (1959), p.101.

Man's activity and struggle towards a suitable way of life never stops and people are always making history and living in history.

What we can do in this connection, as students of material culture, is to ask why these old ways of living are disappearing and why and how culture is changing, and thus arrive at the study of those aspects of culture which govern the production and use of artifacts. It is also important to concern ourselves with vernacular technical terms used to describe the object, also with beliefs and practices associated with them, thus trying to understand objectively the nature of our cultural setting.

To conclude, I must say that the relationship between development and tradition is a positive one. When a split occurs in the cultural structure by means of any of the factors that cause culture change, as happened, for example, in all the African countries both during and after the Colonial period, some old ways of living and working disappeared, giving room for new ones to take place. In the Sudan, for example, the electric lathe replaced the hand-driven or bow-lathe[3] among the bed makers as a result of the change generated by modernization and industrialization during the Colonial period and after. And even before that the bow-lathe replaced the adze in shaping the legs of the beds as a result of trading with the East during the sixteenth century

---

[3]For more on this subject see Madani, Y.H. Al- angareb, A Traditional bed craft industry in the Sudan, M.A. Thesis, University of Khartoum, (1980).

and up to the beginning of colonial rule at the close of the nineteenth century. The same can be said about the ox-drawn plough and the water wheel when they were replaced by the tractor and water pump. With every development stage there grows a body of designs and skills, tales, songs and other forms of literary expressions which can be said to comprise the total tradition of that stage.

Fieldwork Methods and Problems

The primary purpose of my fieldwork has been the recording of the activity of boat building and ~~using~~ use in the Sudan from the point of view of material and non-material culture. This activity has to be recorded with its details in the past and its continuity to the present as a living tradition. This has been stated by the Libraries, Museums and Art Galleries Report of 1951 as an important requirement to make our studies meaningful:

> History never ceases to be made, we are never at the end of time but always in the middle of it. With every economic, social or industrial change, there goes an atmosphere, a whole world of habit, incident, thought and terminology the memory and the savour of which can be preserved only if recovered from the lips of those who lived in it and through it. [4]

The fieldwork has not concentrated only on rural areas; the tradition of big urban centres has been explored as well, bearing in mind the fact that folklore and folklife studies are not always concerned

---

[4] Libraries, Museums and Art Galleries Report 1951, p.91.

with matters which are remote in time and place. We must also bear in mind the fact that the recording of objects of material culture is not an end in itself: we have to explore the whole tradition and the life that gave existence to those material objects and examine their function and use.

It has also been important to explore this tradition spatially and temporally regardless of the present political boundaries. This is to follow the factors of culture change at points of culture contacts, as well as the indigenous local changes. That is designed to reveal whether a given culture can live and persist in isolation from other outside influences. A question might be posed here; what determines whether a certain culture is dynamic or static?

As far as the history and development of boat building and use is concerned, one has to depend greatly on archaeological findings, travellers' accounts along the centuries, and mainly on material collected by the fieldworker about the contemporary craft at the site of operations.

In selecting the areas for the collection of the fieldwork data it was my intention to secure a wide range of material to allow some chance for regional variation to appear. The chosen areas are localities well-known among other centres of this craft along the River Nile. They fall at different distances along a strip of the Nile which stretches from North to South for about one thousand miles. After making some contacts and studying library resources, I decided to start working at Dongola, the most Northern area known of boat building activity, and then to work southwards. The other localities

chosen are Omdurman in the centre at the confluence of the Blue and the White Niles, Wad-Medani and al-Suki on the Blue Nile and Kosti on the White Nile to the South.

Methods and Problems in the Field

The actual fieldwork on the site of operation of boat building can only be carried out during a certain limited period of the year, excluding the months of the River Nile floods. So the main problem of fieldwork has been the time factor in relation to the big area to be covered. The closed season is the time of the Nile floods which start in July and end in October; that means the work on the site of operation must be carried out between the end of October and the end of June.

Because of external circumstances my fieldwork had to start in April, giving me only three months to record the work of the boat builders on the site of operation. My first intention was to cover the whole area concentrating only on observation, photograph taking, note making and drawing sketches between April and the end of June. Bearing in mind that I had to finish my fieldwork by the end of August, this would have given me just two months to go all over the same area again to finish interviewing the informants and to get the material recorded on tapes during the closed season, when they would have more time for interviews. But with this approach, in addition to the tight time factor there arises a major problem of finance. To travel those long distances twice has heavy financial implications.

Accordingly I decided to carry out both operations during one visit. I decided to undertake photography, note-making and the production of drawings during the day while the craftsmen were at work, and to undertake interviewing in the evenings. But this method also turned out to have its own problems.

The fieldwork started early in April 1982. Before setting foot in any of the areas I had selected for my field collecting programme, I gathered as much information as I could about the famous or known craftsmen, and others who could be found of help, while I was still in Khartoum.

Armed with this preliminary information I set out for Dongola, the most northern locality I visited to collect information about boat building. The approach I followed there seemed to be applicable all through the areas I visited afterwards. Therefore, I will concentrate on the Dongola example to avoid long detailed repetition.

When I reached Dongola airport I did not have any contacts there except the names of some craftsmen and well-known people in the area. I had been provided with letters from the Head of the Department of Folklore, University of Khartoum, requesting the Commissioner of the province to render any kind of help he could afford in any respect and explaining the nature of the work I was intending to undertake. However, things looked different from the very moment I got there, because at Dongola airport I met one of my friends and colleagues as students at the University of Khartoum. Dongola is his home town and he is a government official there. I therefore decided to leave the

formal papers on one side and try to obtain leads and guides through this friend, on the grounds that private and personal contacts would be more helpful than official contacts. So I spent a few days in Dongola before starting to do any actual collecting and recording of material. I needed some time to become familiar with the area and people and, on the other hand, to let people know about me and the kind of work I was intending to do. My friend appreciated this and understood exactly what I wanted. He started contacting people in Dongola who could help me to get in touch with boat builders in the area. I knew beforehand that Labab Island is one of the best known centres of boat building in the country. I therefore asked my friend to lead his enquiries in that direction. We were able to meet one of the residents of the island who turned out to be the most helpful person I ever met during my field trip. Shortly after being introduced to each other we became very close friends. His house became my permanent residence while staying in Labab Island and he introduced me to all the boat builders there.

There are two major problems which faced me while collecting from the boat builders and sailors whom I was interviewing through directive interviews. A set of questions was formulated for the boat builder and another for the sailor.

The first of these two problems is that natural context, or even induced natural context, is impossible. That is because boat builders and sailors are not at all known as story tellers. This was the first time ever that they were interviewed so I faced difficulty in getting them to talk while I was recording. I decided, therefore,

to leave the matter of recording for a while till they got used to the presence of the equipment. Furthermore, the material I was looking for deals with their skills, their work from A to Z, their customs and beliefs, the terminology they use and their tools. This kind of information is not normally sought by the community around them. They are not accustomed to being asked about these matters. I soon discovered that all members of this guild find difficulty in describing how they build the boats, for they are accustomed to doing, not to describing what they do. I had to supplement the interviews by just observing the stages of work during the day-time and making notes and taking photographs.

The other major problem is very much attached to the first one. As mentioned before I decided to leave the task of interviewing till the evenings. But when evening comes the craftsman is usually terribly tired and it is not wise to involve him in long sessions of interviewing, bearing in mind the fact that he starts work early in the morning at about half-past five and finishes at six in the evening.

A last word about the fieldworker and the community's role in helping him to achieve his goals. I must say that the Sudanese community and other communities who still retain their communal and co-operative character are of good help to the fieldworker. In such communities the fieldworker, in my experience both while collecting material for this thesis and when writing my M.A. dissertation and also when I was a student in the Department of Archaeology, often gets better results if he is presented to the informants through personal contacts than through official contacts or the administrative

processes of government agencies. Informants usually respond to individuals introduced informally whereas they often maintain a distance or a suspicious attitude to those appearing under official auspices. After you gain their confidence in this way you will then receive every help they can afford to make your mission successful.

This study is based on thirty-one tapes of interviews with boatboilders, skippers and crew, and on some two hundred and fifty photographs of which a selection will be included in the thesis.

II

The State of Material Culture Scholarship in the Sudan with Special Emphasis on the Study of Boats

Before starting to discuss the state of material culture scholarship in the Sudan, it would be appropriate to present some ideas leading towards a definition of the study of material culture.

Since the word folklore was first coined in 1846 by the English folklorist W.J. Thoms it has generally meant the study of man's traditional oral literary expressions, such as folktales, folkpoetry, myth and legend etc. Most of the definitions given to folklore follow this direction. In most specific terms fourteen out of the twenty-one definitions cited in the Standard Dictionary of Folklore Mythology and Legend concern themselves with oral literary expressions.[5]

But there is an important part of folklore that has been neglected for a long period; that is, the study of physical aspects of culture, generally called material culture, as distinguished from oral literary expressions.

Among the definitions that embrace both material and non-material aspects of culture are those of Archer Taylor and Theodor Gaster. Taylor defines folklore as:

---

[5]Funk and Wagnalls Standard Dictionary of Folklore Mythology and Legend, 2 Vols., ed. Marcia Leach, (New York 1949), pp.398-403.

> ...Materials that are handed on traditionally from generation to generation without reliable ascription to an inventor or author...the materials handed on traditionally may be physical objects, ideas or words. The folklore of physical objects includes the shapes and uses of tools, costumes and the form of villages and homes.[6]

A more comprehensive definition was given by Theodor Gaster, who defines folklore as:

> ...that part of people's culture which is preserved consciously or unconsciously in beliefs and practices, customs, and observances of general currency; in myth, legends and tales of common acceptance and in art and crafts which express the temper and genius of a group rather of an individual.[7]

It is clear from the above definitions that folklore can embrace both material and oral culture as well as customs and beliefs.

What, then, is material culture? The earliest usage of this term was to denote artifacts and techniques as elements of culture. But in the light of a more recent criticism a more appropriate definition of the term might be given as follows:

> Material culture denotes those aspects of culture which govern the production and use of artifacts.[8]

---

[6]Ibid., p.402.

[7]Ibid., p.399.

[8]A Dictionary of Social Sciences, p.414.

In the view of the present writer it can be a false dichotomy to distinguish between the study of material and non-material culture as two separate disciplines. Their use in this way might be misleading. The study of certain objects of material culture, for example, does not only concern their structure and their outward forms. This, of course, is important; but it is also important to know how they are made and used, and how these objects function in daily life in addition to knowledge about transmission and distribution. It is also important to know what these objects can tell us about the people who make and use them. So we are not in need of using words like:

> In direct contrast to this oral folklore is physical folklife, generally called material culture. [9]

There are two points that need to be cleared in what Dorson says. First, folklife can embrace both folklore and material culture. Secondly, material culture and folklore are not in contrast, but rather they are integral parts of one body that are supplementing and complementing each other. To take for example the study of marriage ceremonies in a certain area in the Sudan, if one wants to study them comprehensively one needs to record all the customs, beliefs and practices, with their related costumes, objects, ornaments and perfumes, as well as songs and tales connected with the ceremonies. The same can be said about recording harvest festivals.

In the light of what has been said before, the material objects of man's activities can be defined as the visual expression

---

[9]Dorson, R. Folklore and Folklife, University of Chicago Press, (1972), p.2.

or surface manifestations of a long history of cultural contacts. They reflect the level of technology, the economic needs, social values, religious ideals, the artistic taste, beliefs and practices, thus leading us towards an understanding of the cultural morphology. This would help us to know about the limitations of the studies done on Sudanese material culture.

Interest in the study of material culture in the Sudan started in the early twentieth century. Work on the subject was initiated and carried on during the first half of the century by European archaeologists and British administrators. There are only seven activities of material culture that have been treated at any length. These are; pottery, coinage, architecture, boats, weapons and spinning and weaving. Most of these studies are concerned with Western Sudan which attracted the attention of the researchers. So there appeared studies like 'Darfur Pottery' by Arkell,[10] and 'Nuba Pots in Gordon's College' by Bentley and Crowfoot.[11]

The available literature on coinage comprise 'The Coinage of Ali Dinar' by Walker,[12] and 'The coinage of the Mahdi and the Khalifa' by Job.[13]

---

[10]Arkell, A.J. Sudan Notes and Records Vol. 22, No. 1, (1939), pp.79-88.

[11]Bentley and Crowfoot, Sudan Notes and Records Vol. 7, No. 2, (1924), pp.18-28.

[12]Walker, J. Sudan Notes and Records Vol. 19, No. 1, (1936), pp.147-49.

[13]Job, H.S. Sudan Notes and Records Vol. 3, No. 3, (1920), pp.163-196.

On architecture there are only two articles. The first is the 'Nuba Houses' by J.W.T.,[14] and the other is 'The Red Sea Style' by Derek Matthews.[15]

On boats there is only one study in two parts on 'The Frameless boats of the Middle Nile' by James Hornell.[16]

On Sudanese weapons one finds studies concentrating on throwing knives and throwing sticks. There are two detailed descriptive accounts of this kind, 'Throwing knives in the Sudan' by Nadler,[17] and 'Throwing Sticks and throwing knives in Darfur' by Arkell.[18]

G.M. Crowfoot became interested in Spinning and Weaving and wrote 'Spinning and Weaving in the Sudan'.[19]

---

[14] J.W.T. Sudan Notes and Records vol. 14, No. 2, (1931).

[15] Matthews, D.H. Kush vol. 1, (1953), pp.60-86.

[16] Hornell, J. Mariner's Mirror, vol. 25, No. 4, (1939), pp.417-432. And Mariner's Mirror, vol. 26, No. 2, (1940), pp.125-144.

[17] Nadler, L.F. Sudan Notes and Records 28, 2, (1935), pp.297-302.

[18] Arkell, A.J. Sudan Notes and Records vol. 22, 1, (1939), pp.251-268.

[19] Crowfoot, G.M. Sudan Notes and Records vol. 7, 2, (1924), pp.20-39.

As for beds and bed-making, there is no work except for a short note given by Reisner[20] and 'A note on the stringing of Sudanese beds and stools' by G.M. Crowfoot.[21]

This is broadly what was done by the Europeans on Sudanese material folk culture during the first half of the twentieth century. These studies are descriptive and taxonomic in nature, laying emphasis on classification and typology. Although this is important, we need to investigate the socio-cultural significance of the objects of material folk culture as well. We need to know what these objects can tell us about the people who make and use them. We also need to know what these objects and the corpus of oral tradition accompanying them can tell us about cultural morphology and culture change at points of culture contacts. It is also equally important to know the cultural context and geographical distribution of the objects. If our concern were only with objects in isolation, our study would be merely antiquarianism.

During the second half of the present century there started a revival of interest in Sudanese material folk culture. Sudanese researchers became aware of the importance of studies of this kind. This revival of interest was manifested in the establishment of the Ethnographical Museum of Khartoum, and in the accounts of A.M. At-Tayyib

---

[20]Reisner, G.A. Excavation at Kerma, vol. 4. Harvard University Press, Cambridge, Mass., (1923), pp.4-6.

[21]Crowfoot, G.M. Dryad, vol. 3, 1, (1932), pp.12-19.

on fishing techniques,[22] boats,[23] houses,[24] ornaments,[25] and other aspects of material folk culture. A.M.A. Hakim[26] and M. Wenzel[27] have contributed to the Study of Nubian house decoration.

Recently a study entitled 'An Illustrated Record of Sudanese National Costumes' by G. At-Tayyib,[28] has been completed. There is also a paper on the Shaigiyya ornaments prepared by M.A. Abu Sabib.[29] Three detailed studies were completed in 1980, one on the fishing techniques of the Nile Valley by Ocholla Ayayo,[30] the second on

---

[22] At-Tayyib, A.M. al-Hayah, No. 90, June (1962), pp.12-16.

[23] At Tayyib, A.M. al-Hayah, No. 86, (1969), pp.14-15 and No. 88, 1969, pp.16-17.

[24] At-Tayyib, A.M. al-Khartoum, April (1971).

[25] At-Tayyib, A.M. al-Khartoum, September (1971).

[26] Hakim, A.M.A. House decoration in Wadi Halfa, Sudan Unit, University of Khartoum, (1965).

[27] Wenzel, M. House decoration in Nubia, ~~Duckworth~~ Duckworth, (London, 1972).

[28] At-Tayyib, G. M.A. dissertation, Department of Folklore, Institute of African and Asian Studies, University of Khartoum, (1976).

[29] Abu Sabib, M.A.Diploma dissertation, Department of Folklore, I.A.A.S., University of Khartoum, (1979).

[30] Ocholla-Ayayo, Waza vol. 1, No. 1,(1980), pp.76-96.

Al -sagiya, the water wheel by M.I. Abu Salim,[31] and the third on bed making in the Sudan by Y.H. Madani.[32] Only two of these studies, however, have been published, that of Ocholla Ayayo and that of Abu Salim.

Apart from the descriptive accounts of A.M. at-Tayyib, the rest of the studies incorporate historical and cultural insights that go beyond the mere description and classification which was started by the writers of the first half of the present century. Those writers were among the British administrators of the colonial era, and did not profess any kind of training in the field of history or ethnology.

Research in Sudanese folklife in general and material culture in particular, has been encouraged and given a great impetus by the establishment of the Department of Folklore as one of the departments of the Institute of African and Asian Studies at the University of Khartoum.

The above survey of the state of material culture scholarship in the Sudan indicates that the Sudan is virtually a virgin territory for future students of material culture.

---

[31] Abu Salim M.I. Al-Sagiya Khartoum University Press, (Khartoum 1980).

[32] Madani, Y.H. M.A. dissertation, Department of Folklore, I.A.S.S. University of Khartoum, 1980

Turning now to the field of the present thesis, James Hornell wrote his account of the frameless boats of the Middle Nile in 1939. His work appeared in Mariner's Mirror in two parts published in 1939 and 1940 and subsequently reprinted as an integral article in Sudan Notes and Records, vol. 25, No. 1, pp.1-36, 1942.

Although one might appreciate the recognition of this subject by James Hornell as early as 1939 as a line worthy of study, and also his attempt to describe the Sudanese boats and classify their various kinds according to function, for certain reasons the work is far from exhaustive. But without Hornell's effort this pioneering documentary work on Sudanese boats would have remained lacking: we can say that he has given us a chance to look back four decades and see what this trade looked like at that time.

However, like the above mentioned studies of other crafts which were carried out during the first half of the present century, Hornell's account is taxonomic and concentrates mainly on classification and typology as one might expect.

Concerning Hornell's work itself, it seems that no systematic fieldwork was carried out from the way he goes about describing the Sudanese boat. The photographs and illustrations are not exhaustive.

Apart from the plates showing boats under construction and an incomplete description of boat building, there is nothing to show that he has gone deep enough to collect full or complete evidence. This is clear from the totally incomplete record of the craftsman's tools,

their names in vernacular language and their measurements. His glossary[33] of the parts of the boat in vernacular language stands as one evidence of the incompleteness of his description. His glossary contains only thirty-three terms, whereas in the Middle Nile region the boat has got fifty seven terms in the vernacular language covering all its parts. This may be thought to be due to two missing qualifications; one is the lack of training in fieldwork methods and the other is the lack of mastery of the colloquial language.

Amongst other gaps in Hornell's work, evidence on the customs when beginning to build a new boat, and on launching it, is also lacking. Also no evidence has been collected concerning the skipper and his crew, the division of labour and income, or their practices, beliefs, customs and work songs.

The account written of boats by A.M. at-Tayyib is even shorter and also of a descriptive nature. He touched upon some evidence concerning the customs of the builders and sailors but with no attempt to see their significance in historical and socio-cultural terms. His account was published in May 1969,[34] and on the whole one might say that this account is far from being an academic study; it remains more or less at the level of journalism.

A short account of the socio-economic implications of boat building in Omdurman., written by A.A. Abdal Rahman, appeared in 1983.

---

[33]For his glossary see Mariner's Mirror vol. 26, No. 2, 1940 p.138.

[34]at-Tayyib, A.M. al-Hayah vol. 86, May 1969 pp.14-15

Although the writer has attempted to collect material concerning the terminology of all parts of the boat and the tools used, it is incompletely recorded and no cultural inferences have been made.[35]

This thesis is also not a complete account of the subject, for the study of boat building and use takes more than one person and one research to cover fully. Other aspects of the craft are left for further studies to complete. This is on the one hand, and on the other, to cover fully all the aspects of the craft are beyond the time limit of this study course.

In the present work the writer is intending to follow the history of the boat during different periods of history and to document the contemporary craft of boat building from start to finish together with the types of boats. On the other hand a study of the etymology and origin of the vernacular technical terms and beliefs and practices is attempted. The material selected is meant to put the craft in its historical, socio-cultural as well as ecological perspective. This work is also accompanied by a comprehensive record of photographs and illustrations.

Material on the sociology of the craft, the skipper and his crew, their technical skills of operating the boat in different

---

[35]Abdal Rahman, A.A. 'Traditional Technology of Boat Construction and its socio-economic implication in Omdurman'. Journal of Sudanese Folklore vol. 1, Part I, (1983). pp.16-30.

parts of the river and in different directions, their work songs, the division of labour and income among them has been left for further consideration. But, it is noteworthy that material on these aspects has been collected by the present writer and they are available for future students. Part of this material which is of relevance to our present purpose is used in the text as well as parts of the appendices.

Notes on the System of Transliteration

The transliteration of Sudanese colloquial Arabic and texts follow the system proposed by the editorial board of Sudan Notes and Record, a journal which comprises the proceedings of the Sudanese Philosophic Society.

This system goes as follows:

أ	at the beginning of word omit, hamza (') elsewhere
ب	b
ت	t
ث	th (coll. t or s)
ج	j
ح	ḥ
خ	kh
د	d

ذ	=	dh (coll. d)
ر	=	r
ز	=	z
س	=	s
ش	=	sh
ص	=	S
ض	=	d.
ط	=	t.
ظ	=	z.
ع	=	‘
غ	=	gh
ف	=	f
ق	=	q (coll. g)
ك	=	k
ل	=	l
م	=	m
ن	=	n
ه	=	h
و	=	w
ي	=	y

Vowels

fatha ◌ a. lengthened ā

kasra ◌ i " ī

ḍamma ◌ u " ū

The silent t (ō) is omitted.

Diphthongs

ى - ai (as in aisle)

و - au (as in mauser)

Notes

(1) The system is not applied to well known names, such as Khartoum instead of Khartūm.

(2) The vowel sound of e in "get" and o in "hot", with the corresponding vowels (a in "gate" and o in "home"), which occur only in the colloquial are expressed by e, o, ē, ō.

e.g. beled, Mohammed, bēt (or bait), hōsh.

ei may be used as alternative to show the long ē.

(3) In geographical names the conventional spelling used by the Sudan Government Survey Department is followed, although not always agreeing with the above transliteration.

CHAPTER TWO

HISTORICAL BACKGROUND

Although our concern in this thesis is to explain how by examining the work of the boat builders and users in the Sudan we can cast some light on the problems of cultural morphology and diversity from the point of view of cultural history, it seems also important to give a general idea of the history and development of boatbuilding and use. It is also necessary to explain that by historical background I do not intend to give a comprehensive account of boat archaeology along the line of historical development since earliest times. Such an account would be shadowy and speculative as long as the archaeological evidence is limited by the raw material of boat building which is highly perishable and does not survive the centuries, unlike stone or pottery. The other limitation which seems to be due to the first one is that no specialist in the field of archaeological research has paid much attention to the subject in the Sudan. Another limitation as to the possibility of finding direct archaeological evidence, one might find unexpected. This is due to the practice among boat users and communities along the Nile in the Sudan, of using the parts of the old boats after dismantling them, as firewood. If we assume that this practice has been going on since early times, there would be less room for expecting to find direct archaeological evidence.

The evidence available to us whether in the mention of the use of boats during a certain period of time or references to

their types and forms in historical texts, allows us some opportunity of discussing the historical background. Our evidence lies in six categories:

(1) The archaeological evidence.

(2) The historical works of classical writers.

(3) Medieval Arab writers.

(4) Works of European travellers and explorers in the early modern period.

(5) Works of the historians in the modern period.

(6) The ethnographic evidence collected about the contemporary boats, their builders and users. This category will be dealt with in Chapters Three and Four.

The archaeological evidence, as mentioned before, is lacking with regard to the boat building industry during earlier periods. Reports of different archaeological excavations in the Sudan brought together rich material concerning different sorts of man's activities, for instance, material on buildings, pottery, stone, copper, iron industries and even some wood crafts like stools, beds, beads and other objects, preserved in the tombs and temples of different periods. But no direct archaeological evidence is available to help us to follow the story of boat building activity during earlier times.

The archaeological publications provide us with some inscriptions and paintings concerning boats in Nubia and some inferences

and assumptions put forward by the archaeologists.

Some archaeologists, like G.A. Reisner and A.J. Arkell inform us about boats in Nubia. These are on a very small scale, judging from some of their finds, mainly inscriptions, that contain a mention of certain kinds of boats during earlier times. But there is no information as to the form or structure of these boats whatsoever. This textual and pictorial evidence is enough to inform us of little more than the mere existence of the craft of boat building since ancient times.

An assumption is put forward by A.J. Arkell with regard to the existence of boats in the Sudan during prehistoric times. A prehistoric site was excavated by the Sudan Antiquities Service at al-Shaheinab in 1949. The site is situated on the left bank of the Nile about thirty miles north of Omdurman. He assumes that

> "... the "gouge" which was hafted in the same way as the axe was also given some polish on the outside of the cutting edge. It is probable that these "gouges" were used axe-fashion for hollowing out tree trunks and making dug-out canoes, for the people must have needed some form of river transport to visit settlements on the other side of the river..." (1)

If we accepted this assumption then it would be the earliest evidence, so far, of the use of boats in the Sudan. Two radio-carbon dates were obtained for this site as dating from 5060 ± 450 B.P. or 5446 ± 330 B.P. (Before Present).(2)

---

(1) Arkell, A.J. A history of the Sudan, University of London, the Athlone Press, 1961), pp.30-31.

(2) Arkell, A.J. Ibid. pp.30-31.

Evidence of the existence of boats at a later date South of Wadi Hafa in Northern Sudan, is also reported in Arkell:

> "... dating, however approximately from 3100 B.C. The excavators called these people the A. Group ... And recently a scene cut on a slab of sandstone on the top of Jebel Sheikh Suliman to the South of Wadi Halfa on the West bank of the Nile ... has been identified as a record of the conquest of the Shellal - Wadi Halfa reach by King Jer ... but there can still be seen today a boat with the high prow and vertical stern typical of the first dynasty and believed to originate in Iraq." (3)

This scene, to the present writer cannot stand as evidence of an Egyptian or Iraqi cultural influence. All it can tell is the report of an Egyptian military invasion. The boat drawn on the sandstone slab on the top of Jebel Sheikh Suliman represents an Egyptian boat type and was necessarily drawn by an Egyptian artist. And, naturally, he would not reflect the shape and dimensions of a Sudanese boat. Also the idea of a cultural influence from Iraq is unacceptable; first because the writer does not produce any evidence of cultural contacts between Iraq and Sudan during that early age. And the second contradiction is that boats have developed all over the world in different ways at different speeds. Their development has been conditioned by the geography of the local waters, climate, function and the kind of raw material available. It is also conditioned, in addition to environmental surroundings, by the social setting and economic needs of the people making

---

(3) Arkell, A.J. Ibid., pp.39-40.

and using them. So we can say that different types of boats develop in different environments. Furthermore, even if some similarities appear to exist between the boats of this and that area, evidence must be produced to prove their route of cultural contact. If such evidence is lacking there will be enough chance to say that people under similar environmental conditions succeed in achieving similar results and that the idea of origins and centres of cultural diffusion will remain in the minds of those who assumed it, so we are back once more at the classic debate between diffusionism and evolutionism. Further consideration will be given to this problem later in this chapter.

Two statements by G.A. Reisner, quoted below, might be of some relevance to what has been explained above. First Reisner states that:

> "in the Middle Empire ... the population of Dongola Province was negroid but not negro, and yet Sesostoris II in his Semnah proclamation forbade the "boats of the negroes" to pass Semnah except to go to a certain market place further north" (4)

Secondly he states that:

> "The markets at Iken (near Halfa) and at Assuan were probably visited by traders from Egypt as well as by the Ethiopians from beyond Semnah. Egyptian officials

---

(4) Reisner, G.A. "Outline of the ancient history of the Sudan". Sudan Notes and Records, Vol. I, no. 1, (1981), p.7.

> were continually passing. The greater part of this traffic was by boat and must have required the frequent services of the local boatsmen who alone would have been familiar with the changing river channel."

With regard to the first quotation, the phrase "boats of the negroes" might be said to denote boats of a different type to that of the Egyptians. The boats of the "negroes" would, for sure, have been different from those of the Egyptians because the nature of the waters of each area is different. The shoals and cataracts of the Sudanese waters which are difficult to navigate, must necessitate the building of a kind of boat suitable and strong enough to go through these obstacles. And if the "traffic was by boat and must have required the services of the local boatsmen" ... as the second quotation tells, therefore it is evident that the geography of the local waters in Nubia which is full of cataracts and islands gave the local boatsmen a different experience and probably a different tradition of the craft of boatbuilding.

Perhaps there is no other evidence about boats during later times other than the evidence provided by Herodotus the Greek classical historian of the 5th century B.C. The evidence he gives concerns the boats of the Egyptians, but the type of craft described is typical of the Sudanese boats of today. Strangely enough, the type he describes as being in Egypt at the time of his journey is not known to be present there today. Herodotus informs us that:

> "Their ships in which they convey merchandise are made of acacia ... From this acacia they cut planks about two cubits in length and join them together like bricks, building their ships in the following manner: they fasten the planks of two cubits length round stout and long ties; when they have thus built the hull, they lay branches across them. They make no use of ribs, but caulk the seams inside with byblus. They make only one rudder and that is driven through the keel. They use a mast of acacia and sails of byblus. These vessels are unable to sail up the stream unless a fair wind prevails..." (5)

During the time when Herodotus made his journey to Egypt, the Meroitic kingdom was flourishing in the Sudan or Ethiopia as the classical writers call it. No evidence is present, either historical or archaeological, with regard to boat building techniques during this period. The similarity of the type of craft used today in the Sudan to the type described by Herodotus might tempt one to take it as a direct origin of the Sudanese craft of today. Hornell took it for granted, using Herodotus's story and other evidence, that:

> "... all the sailing craft trafficing in this region is directly comparable... with those characteristics of the boats found in a twelfth dynasty tomb at Dahshūr and now safely housed in Cairo Museum. We may indeed go even further and infer with confidence that these Sudanese craft, so far as their hull is concerned are the direct and lineal descendants of the Egyptian river craft of the early and middle dynastic times." (6)

---

(5) Herodotus (Translator) Henry Cary, George Routledge and Sons Limited, (London, 1891), Book II p.111.

(6) Hornell, J. Water transport, origins and early evolution, (Cambridge University Press, 1946), p.215.

What Hornell is positing is that modern Sudan is a relic area of a boat type which in earlier times was distributed throughout both Egypt and the Sudan. And as mentioned earlier, this similarity of the present day Sudanese craft which will be described in the next chapter, to the Dahshūr boat or that described by Herodotus is not enough to make it possible for us to "infer with confidence" an Egyptian origin. There is no proof that these boats derive from Egypt, nor is there any reason why one should look for an external origin.

In the absence of archaeological or historical evidence with regard to boat structure in the Sudan, the inference of an Egyptian origin would remain difficult to accept. Even if the similarity is archaeologically established by finding direct archaeological evidence, we need dating to establish which existed earlier. That is to decide the direction of diffusion whether it is from Egypt to the Sudan or from the Sudan to Egypt.

The medieval Arab writers do not provide in their works any evidence concerning the shape or structure of boat craft employed in the Sudan during the times they wrote about. Some material will be cited below to show how far the evidence provided by the Arab writers can lead us along the disconnected chain of the boat's life history in the Sudan.

The Arab historians who wrote about Nubia, like al-Tabari (A.D. 823-922), Ibn al-Athir (A.D. 1160-1233), Ibn Battuta (A.D. 1304-1377), or al-Maqrizi (A.D. 1364-1442) do not give us in their accounts any

guidance towards the kind of river craft employed in Nubia during their times. But mention of boats in Nubia can be found in Ibn Sulaym al-Aswāni who was sent to Nubia by the Fatimid general Jawhar on a special mission. The probable date of this mission as mentioned by Hasan was A.D.975.(7) Boats in Nubia are also mentioned by Ibn Khaldun, the 14th century historian.

Unfortunately the work of Ibn Sulaym is known only in a transcribed or translated form. The present writer depends on the translation attempted by Burkhardt, the nineteenth century traveller. Ibn Sulaym's work is translated and attached to Burkhardt's Travels as a part of the appendix.(8) Ibn Sulaym's account is described by Burkhardt as more detailed, accurate and satisfactory, with regard to Nubia, than that of any other Arabian geographer or historian.(9)

In Burkhardt's translation Ibn-Sulaym informs us, though very briefly, about two forms of river transport. He generally mentions that the banks of both the White and Green rivers:

> "...are all inhabited and cultivated; they are navigated by ships and other vessels." (10)

---

(7) Hasan, Y.F. The Arabs and the Sudan, Khartoum University Press, Khartoum, 1973), p.190.

(8) Burkhardt, J.L. Travels in Nubia, John Murray, Albermarle Street, (London, 1822), pp.448-475.

(9) Ibid., p.448.

(10) Ibid., p.454.

He also tells us that:

> "[illegible] supply of corn for the city of Aloa and for their chief, comes from these parts; they send their ships and load there" (11)

But more specifically he tells us about two different forms of river craft employed along and across the Nile during the tenth century A.D. In fact he is the first historian to tell us about the existence of some types of wooden boats and rafts above the 6th cataract as early as the tenth century A.D.

He continues:

> "In the time of high waters, the Green Nile (Blue Nile) carries down the woods of sadj, and bekam and kena ... and large beams of which helms of ships are made." (12)

The word "helms" provides information about the existence of a kind of boat, the structure of which is not revealed to us, but for sure it was a proper wooden boat with a helm or a tiller, probably of the type made today, by which the rudder is managed. This could be the type used for long distance trade along the Nile. But another type of river transport was used by the inhabitants to cross the river, probably of a raft type:

> "The gourds grow to a large size, they make ships of them upon which they cross the river." (13)

---

(11) Ibid., p.455.

(12) Ibid., p.453.

(13) Ibid., p.457.

This type is certainly a raft type if it was floated by gourds. And the use of the word ship to describe it might be an erroneous interpretation of the Arabic word used by Ibn Sulaym.

Abdal-Rahman ibn Muhammad ibn Khaldun of Tunis who lived and wrote his history during the fourteenth century A.D., tells us about Dongola, the capital city of Nubia and about the trade along the Nile between Sudan and Egypt. He tells us that because of the shoals and cataracts the cargo of the Sudanese boats was transhipped to the Egyptian boats and vice versa.(14)

This practice must have been going on since early times, for archaeologists like Arkell, when talking about trade between Egypt and Nubia under the Egyptian New Kingdom, assumes that:

> "The main function of the Egyptian settlement at Iken must have been that of a depot where the larger boats that had sailed up from the first cataract discharged their cargo which was then loaded onto smaller boats for the journey through the rocks and shoals that stretch as far as Kerma beyond the third cataract." (15)

During the early modern period there is also little to learn about boats from the accounts of the travellers and explorers.

---

(14) Ibn Khaldun, Abdal-Rahman Ibn Mohammed, al-Maqaddima, al ibar wa-Diwān al-muttadā' wal-Khabar, Vol. I, (Beirūt, 1967), p.95, (in Arabic).

(15) Arkell, A.J. A history of the Sudan. University of London, the Athlone Press, (1961), p.63.

For instance Poncet of the seventeenth century mentions nothing of value to our present subject.(16) Later, during the eighteenth and the nineteenth centuries Bruce and Burkhardt, successively, wrote a few lines, but fortunately about several different types of river transport.

Bruce tells us that at Jadid on the Blue Nile:

> "The boats here are large and better made than any other part of the river." (17)

Boats, rafts and canoes are mentioned by Burkhardt, but all were used as ferries and not for long distance trade:

> "There is no communication by water between Sennār, Shendi and Berber; boats are used only as ferries, but even these are extremely scarce, and the usual mode of passing the river is upon the Ramus, or small rafts of reeds" (18)

Dug-out canoes were also encountered by Burkhardt at Damer:

---

(16) Poncet, J. The Red Sea and adjacent countries at the close of the seventeenth century, (William Foster, ed.) Hakluyt Society, (London 1949).

(17) Bruce, J. Travels to discover the sources of the Nile, Vol. IV, (Edinburgh 1790), p.513.

(18) Burkhardt, J.L. Travels in Nubia, John Murray, Albermarle Street, (London 1822), p.314.

> "on the west bank of the river, opposite the town, is a small village, called Damer el Gharbi, or the western Damer. The communication between the two places is kept up by ferry boats, of the rudest workmanship, consisting merely of the excavated trunk of a large Nebek tree." (19)

From the above survey of the literature on the historical development of boat building in the Sudan, it appears that boats existed in the Sudan along the river Nile in different forms during the different periods of history. Like other parts of the world the types of boats or river transport in the Sudan range between ~~planed~~ planked boats, rafts and dug-outs.

To the present writer, the question of whether boats developed from simpler types of log, dug-out or raft is of no relevance. This is because, as mentioned earlier, (page 31) the existence and emergence of a certain type of river transport at a certain time in a certain place is conditioned by the geography of the local waters, climate, function and the kind of raw material available. It is also conditioned by the tradition of local craftsmanship, the social setting and the cultural level of the people making and using them.

Basil Greenhill has tackled this point giving some hypothetical examples which I believe are of relevance here.(20) He says:

---

(19) Burkhardt, J.L. Travels in Nubia, John Murry, Albermarle Street, (London 1882), p.240.

(20) Greenhill, B. Archaeology of the Boat. Adams and Charles Black, (London 1976), p.24.

> "...if a lot of timber grew close to the water in the territory of a people and there were enough of them to provide labour, then - if the timber was small, the climate benificent and particularly if the waters to be navigated were sheltered, rafts would probably be developed; if the timber was big and the climate colder we might expect to find single or double logs shaped into boats - dugouts. If the timber was very small and there were skin bearing animals which could be hunted then skin boats made by stitching skin over frameworks of light branches would probably be built ... It is only in sophisticated societies which are rich enough to have a considerable degree of choice that ideal boatbuilding timbers, and even ideal timber for particular types of boat, begin to be regarded."

What Greenhill says can be qualified by the material cited above. As we have seen, the type of river transport employed differs, although the historical record of boats in the Sudan is fragmentary, but nevertheless, one can notice that in each period of history at a certain place there emerges a different type of river transport. And in a nutshell, the emergence of a certain type of river transport at a certain time and place is governed by the needs of people living at that time and place, and by the social and environmental surroundings.

Also the accounts of the historians of the modern period, as will be shown below, as well as the ethnographic evidence collected by the present writer, agree with what has been explained above.

Apart from the work of Hornell, the historians of the modern period have paid very little to the craft of boat building in

the Sudan. But among those who are mainly interested in administrative and political history some have given short accounts of boats and their types in relation with their endeavour to discuss the development of river transport. Some extracts from their works will be cited and discussed below in accordance with the overall theme of the chapter. Richard Hill, for instance, says:

> "We know very little of the state of shipping on the Nile before the Egyptian occupation except that it could not have been very important." (21)

By the Egyptian occupation he means the period of the Turco-Egyptian rule (1820-1883) when Mohammed Ali of Egypt conquered the Sudan to exploit its human (slave trade) and natural gold resources.

The Egyptians, continues Hill:

> "...introduced types of crafts never before seen on the Sudanese reaches of the river: the qayasa, the large cargo carrier; the dhahabiya, the passenger carrier, ... and the kanja; the dhahabiya's smaller sister." (22)

The ethnographic evidence tells us that all the three types mentioned by Hill are no longer existent in the Sudan today and the informants who were interviewed by the present writer seem to know nothing of them. The craft of today in the Sudan is rather completely different from the types mentioned above.

---

(21) Hill, R. Egypt in the Sudan. Oxford University Press, (1959), p.60.

(22) Ibid., p.60.

The types mentioned by Hill were, clearly, introduced by the Egyptians during the period of Turko-Egyptian rule to serve the objectives of the colonizers, to help them in the transportation of the slaves and the other resources they were after.

Shipyards were established for the purpose as Hill tells us:

> "Inhis first report on Sennār, dated 1826 Khurshid wrote of a shipyard at Manjara on the White Nile near Wad-Shala i, ... As there was no timber to spare in Egypt, Khurshid was advised to cut planks from the local wood and make a trial with two or three hulls. Maltese foremen were employed in the shipyards." (23)

Also Hill tells us about the establishment of other shipyards on the Blue Nile at al-Kamlin, a third in Berber province(24) and others between Karari and al-Duwaim on the White Nile.(25)

Hill also tells us that the Egyptian governors undertook the task of teaching the local people the craft of boat building. And he mentions that the captain of Manjara tried to sign on natives of the White Nile as boatmen, but they fled. That might be the reason why the Egyptian governors brought Maltese and Egyptian craftsmen to build boats at the different shipyards they established along the Nile.(26)

---

(23) Ibid., p.61.

(24) Ibid., p.61.

(25 Ibid., p.62.

(26) Ibid., p.61.

One can explain, in the light of our knowledge of the history of boat building in the Sudan, why the natives fled when their rulers during the Turco-Egyptian period tried to teach them the craft of boat building.

As mentioned earlier, the Sudanese, during different periods of history knew how to make different types of river transport adapted to their local environment and socio-economic needs. So two explanations are possible; first it may be because they were abruptly compelled to make a type of craft alien to their environment, their needs and their tradition of craftsmanship. They knew how to make things to serve their local needs and they were not accustomed to the task of profit making, paid work and working under pressure; so they fled despite the fact that the rulers promised to employ them and offer them good pay.(27)

The other explanation may be that it was a sort of disguised resentment and refusal to serve the objectives of a brutal alien government. The brutality of the Turko-Egyptian rulers in their treatment of the Sudanese people is well-known to anyone who studies or knows the history of that period.

This explains why the rulers of the Sudan at that time sought the assistance of craftsmen from other nationalities, the Maltese, for instance, who are praised by Hill:

---

(27) Ibid., p.61.

> "These British subjects, trained artisans, played a great, if unrecognised, part in the technical development of the Sudan both during the Egyptian regime and in the early days of the Condominium Government." (28)

If what Hill says is true, why, then, did the types of boats introduced during that period disappear? One might expect continuity in one type or another, but they actually disappeared with the factors that dictated their introduction and with the end of the Turko-Egyptian rule. And there remained the types that are functional and adaptable to the socio-economic and natural environment. These age-old types which were in continuous use may date from the times of Herodotus or even earlier; and they are different in their hull construction, their rigging and their sail. Even after only two decades from the end of the Turko-Egyptian rule, Na'ōm Shuqair who wrote his history of the Sudan around 1903, during the Anglo-Egyptian condominium rule (1898-1956) did not recognize the types mentioned by Hill. But rather he mentions types which are different from Hill's types, and which are in use today, the (nagur) for instance, the large cargo boat and the (ma'adiyya) the ferry boat. Most importantly, he observes that the Sudanese boats are larger and more durable than the Egyptian boats. Moreover he describes the sail of the Sudanese boat as rectangular, unlike the triangular Egyptian sail. When he asked the natives why? the answer was obviously because the rectangular sail is more

---

(28) Ibid., p.61.

useful in helping the boat to pass through the rocks of shoals and cataracts,[29] natural phenomena unknown to the Egyptians. And above all he recognizes the Nubians as skillful in river navigation and very experienced in handling their boats through the cataracts.[30]

In 1939 Hornell also recognized, and in two articles[31] describes in much more detail, the types mentioned by Shuqair, but makes no mention of the types of Hill. That is, obviously, due to the simple fact that they were not there. This explains the firm belief of the present writer that the emergence of a certain river craft at a certain time and place is governed by the socio-economic needs and the environmental surroundings of the people living at that time and place. Sometimes a break in the cultural record happens, and appears to be due to an influx of a migratory group or of invaders. The processes of cultural and social changes are gradual and slow processes. That is why sometimes abrupt and deliberately implanted changes disappear with the disappearance of the factors that cause them. This is exemplified by the types of boats introduced during the Turko-Egyptian rule and disappearing shortly afterwards; also for more examples and discussion of the subject see Chapter Four page 65-90 .

---

(29) Shuqair, N. History and Geography of the Sudan, al-Ma ārif Press, (Cairo 1903), p.146. (in Arabic).

(30) Ibid., p.196.

(31) Hornell, J. Mariner's Mirror, (1939), Vol. 25, No. 4, pp.417-432. and Mariner's Mirror, (1940), Vol. 26, No. 2, pp. 125-144.

Other historians also seem to believe the account given by Hill and interpret it as a push towards the development of river transport during the Turko-Egyptian rule. Hasan Ahmad Ibrahim,(32) a Sudanese historian writing in the seventies, quotes Hill and mentions his three types, being introduced by the Egyptians as a step forward taken to develop river navigation in the Sudan. But no further attempt is made to corroborate the validity and significance of the account from the point of view of culture history. He also seems to believe that river navigation between Egypt and the Sudan was of no importance before the Turko-Egyptian rule. This was due, as he writes quoting Nasim Maggār, to the cataracts and to the fact that the Sudanese knew nothing about boat building.(33)

The historical and the archaeological evidence collected and discussed earlier in this chapter, although fragmentary as I have mentioned before, is enough to contradict what the historians of the modern period are trying to tell us. But no blame is laid on them as they are mainly interested in political and administrative history, and the task of considering the objects of material culture as important in relation to the understanding of people's cultural history, might not have crossed their minds.

Following the history of boat building and use in the Sudan, one can notice that, during periods of history, complex and simple forms of river transport co-existed side by side, each serving a

---

(32) Ibrahim, H.A. Mohammed Ali in the Sudan, Khartoum University Press, Khartoum (N.D.) (in Arabic) p.50 and p.150.

(33) Ibid., p.149.

certain economic function and being well adapted to the natural environment and the socio-economic needs. This is confusing to a certain degree, in the sense that you cannot decide which one preceded the other or whether the complex forms developed from the simple forms. You would rather be inclined to think that these forms existed side by side all along the different periods of history, each made and utilized for its own separate purpose.

Therefore, the question of whether the large planked boats have developed from simple forms of dug-outs, skin boats or rafts is of no importance to our present endeavour. This is because each has got its own separate function and it is possible that all can co-exist at one time in certain places, or it is possible for them to exist at different times in different places. In the Sudan today as in earlier times, as I have shown, all these forms of river transport exist side by side, each serving a certain economic function.

This historical survey of the life history of the boat in the Sudan can be concluded by saying that there is always a chance for human creativity and inventive abilities to enrich the cultural record whenever conditions are favourable. This discussion is to be continued with examples in Chapter Four.

CHAPTER THREE

THE CONTEMPORARY CRAFT

This chapter will endeavour to describe the work of the craftsman. It is meant to describe technologically how he assembles the hull planking and prepares the rigging, the processes he follows and the tools he uses. The names of the parts of both the hull and the rigging will be written in English with their equivalent verhacular technical terms underlined. Fuller discussion of the terminology is to be found in Chapter Six.

Building and fitting the Hull

The kind of wood mainly used for boat building in the Sudan is acacia nilotica which is known locally as sunt. The first task the craftsman usually undertakes is to go out to the woods and select the trees that are to be felled. Through long experience the craftsman, while in the woods, can tell what parts of the tree are suitable for this or that part of the boat. After the logs are cut to the required lengths they are transported to the workshop which is usually beside the river.

Before going on to describe the work of the boat builder it is worth mentioning that all the boats we are about to describe are similar in the method of their hull construction, though they exhibit some differences in the details of their rig and other features. This common feature is that the hull planking is assembled without a prior preparation of transverse frames. The planks are nailed one above the other, edge to edge, in a carvel form.

The craftsman needs about six helpers. Two of them are employed in sawing the planks, using a special kind of saw (munshār ta'līga (Plate 1)(Fig. 1) which means 'the hanging saw'. This saw is used to cut the planks to their required width and curvature (plate 2). The other four helpers provide assistance as the work goes on. These four start by getting the logs squared for sawing and by preparing the planks. They begin by putting the log in the middle, with two of them at each side. Using their axes, they cut through to a depth of two inches at intervals on each side. These sides are then trimmed also (For the axe see Fig. 2) by the axe to make a square log ready for sawing. Then the master craftsman comes to mark the curvature of the planks on the log. For this he uses a string dipped in black paint (plate 3) After the plank's curvature has been marked the log is ready for sawing. The two sawyers follow the lines marked by the master craftsman to split the log into several planks (plate 2). Each log usually yields about three to seven planks depending on the thickness of the planks and the size of the log. After the sawing of all the needed planks is finished, the actual work of building the boat begins.

The keel

The keel al-madda , also known as al-itrābil in some other parts of the country. For the keel a long straight and strong beam is always needed. If it is difficult to find such a beam two short beams are rabbeted and nailed to give the required length. After the craftsman gets the keel straightly squared, shaped and cut to the required length, he starts placing the keel on the stocks. The stocks are strong short wooden uprights set in the ground along a straight line. The keel is kept in position on the stocks by means of long spikes

hammered vertically on the keel to pass through to the heads of the stocks.

When the keel is set on the stocks, the first step in making a balanced boat is then undertaken. Once more a string dipped in black paint is used; in fact it is this string which throughout the whole operation helps the craftsman with his measurements and in keeping the balance of his boat. The string is held by two of his helpers, one at each end, so as to run lengthwise exactly in the middle. Then the master craftsman pulls the string and releases it to mark a black line along the keel (Plate 4).

The Stern Frame (ad-daraga)

The craftsman is now ready to join the transom stern frame (daraga) to the after end of the keel. The stern frame is the first part of the boat to be shaped. The stern consists of the stern post (al-wastāni) with two divergent arms sing. dura, pl. dura'at and cross planking (kiswat ad-draga) nailed to the aft side of the arms (Plate 5). The cross planking and the arms are rabbeted to the stern post and then nailed. The stern post has got also another rabbet kullbān at its lower end so as to be joined and nailed to the after end of the keel (Fig. 3). The tools used to cut the rabbets are the crosscut saw munshār gātū (Plate 6)(Fig. 4) and the adze (gaddūm)(Fig. 5). For hammering the nails or spikes they use a claw-hammer (gurnās)(Fig. 6) which serves the two jobs of hammering in and pulling out, if a spike is not straightly hammered. The stern is not nailed to the after end of the keel until they have made sure that it is exactly balanced. To measure the balance they use a string.

Once more I draw attention to the fact that the only measuring device the craftsman uses is the string, working with this and the eye only.

To measure the balance of the stern, a spike is nailed at any distance on the line that has been marked along the keel in the way we explained earlier (p. 51). Centred on that spike, a string is stretched to reach one arm of the stern and another to reach the other arm. Then the two strings are brought together to see if they are equal in length. If they are, the stern is balanced, and will be nailed to the after end of the keel. If not, the stern has to be held down and the rabbets of both the stern and the keel must be trimmed by the adze. This will be repeated as often as necessary till they make sure that the two strings are exactly equal, which means the stern is balanced and ready to be nailed.

The Prow

After fitting the stern in position a curved prow (migdim) is rabbeted and nailed into the fore end of the keel. The prow is very heavy so in fear of its being broken, a beam is set obliquely against it to hold it in position.

As mentioned earlier the axe, the saw and the adze are the tools used to shape the ~~plnak~~planks and the beams. The rabbets are first cut by the saw, then trimmed and shaped to the required position by the adze. The prow especially needs long treatment by the adze to secure its proper curvature (Plate 7).

The Hull Planking

The lowermost plank spiked to the side of the keel (al-ʿajamiyyah) and the bottom of the stern post, is the first plank to start with, working from stern to stem. This plank is the most difficult to shape. It is not sawn like the others out of a big log as explained on page 50. For this one a whole separate log is needed and it is shaped and trimmed by the adze and the axe only. The saw is used only to cut off the parts that are not needed by running down through the marked line to make the rabbet at its forward end. Great care is paid and a long time is taken to shape this plank, first because it has not got an even shape and secondly because the balance of the other planks and the boat herself depends on it. Four planks of this type are needed, two on each side.

When a suitable log is chosen the master craftsman marks the parts that need to be trimmed off. He uses a short thin stick dipped in black paint to mark the lines. The axe is used first to cut through at intervals along the lines marked by the craftsman to show the parts that need to be trimmed off. These cuts made by the axe make it easier for the craftsman to trim and shape the plank by the adze. When this plank is ready to be nailed to the keel, its after end should stand vertically, ready to be spiked to the bottom of the stern post. As it goes forward along the keel it starts to flatten gradually till it lies horizontally at its fore end, where a rabbet is made ready to receive the coming plank to form the garboard strake (alwāh al-farish) (Plate 8) (Fig. 3).

To fix a plank in position three steps are taken. The first is to make sure that the lower side of the plank fits smoothly along the seam so that the minimum of caulking (galfata) is needed, as the

vessel must be made watertight. For this process clay paint is used. The outer side of the lower plank is painted with this paint, the upper plank is then placed on top and held in position by two or three helpers. The master strikes its top with the back of an adze or an axe. When they put it down the paint sticks onto the inner side of the upper plank at some points. That means these points are protruding and need to be trimmed off with the adze. This is done repeatedly till the inner side of the upper plank takes the shape of the outer side of the lower plank. This is realized only when all the paint of the lower plank sticks on the inner side of the upper plank, leaving less room for caulking along the seam.

The second step is to use a ~~hand~~ auger drill (birrima) (Fig 7) to drill holes in the outer side of the lower plank (Plate 9) to receive the ends of the spikes. Holes are also drilled alternatively in the lower inner and outer surfaces of the upper plank at an angle so that the spikes, when hammered, pass obliquely through the seam into the plank below.

The third step is to carve oval pits over the holes of the upper plank, with their lower ends cut deeper than the upper so that the heads of the spikes when hammered in can recess as shown on plate 10 and so be countersunk to present a flush surface. These oval pits are carved with the aid of a gouge-like chisel (~~dufa~~ dufra) and a mallet (mudgag).

It is usually impossible to find a plank long enough to form an entire strake; therefore two or three planks are joined together to

form a strake. If three planks are used it is the one in the middle which has two rabbets, one at each end, one to join it to the after plank and the other to join it to the fore plank (Fig. 8). Then two spikes are hammered into each rabbet with their ends clenched on the outside. The rears of the after planks are spiked to the sides of the stern cross planking and the arms on each side (Plate 10)(Figs. 9 and 10). The same is done to the fore planks with their heads spiked to the sides of the prow (Plate 11). More stocks are added each time a strake is finished (Plate 12).

These steps are followed each time a plank is added. When the last strake is in place, the craftsman should make sure that the two sides at each side of the line drawn along the keel are equal. If they are not, after being measured, the craftsman uses the adze to trim the excess length along any strake that needs that treatment.

The Thwarts

The boat is now ready to receive the thwarts (pl. Jawagūs, sing. Jāgūs) (Plate 13) (Fig. 11). The ends of numerous transverse beams are fitted into cuts made by the saw in the upper edge of the top strake. The longest of these thwarts is the one in the middle and it is the first to be placed. It should be placed exactly in the middle of the boat, dividing it into the fore part and the after part which should be equal. To make sure that the thwart in the middle is placed exactly in the middle, a string is stretched longitudinally from the fore tip

of the prow to the after tip of the stern post. This string is then folded to get half of its length which means half the boat herself and stretched again from the prow backwards. Another string with a weight at its lower end is held vertically from the spot the folded string has reached, thus marking the place of the thwart in the middle. The thwarts are fitted horizontally between the top strakes at a right angle to the keel and are commonly used as boat seats. They are also meant to brace the hull. Three thwarts are fitted fore and aft of the thwart in the middle; this is the average number, but usually the number varies with the size of the boat, for their various numbers see Appendix 2, p. 189.

To support the thwarts underneath, stout wooden upright stocks are set and nailed at right angles. Their number also varies with the length of the thwart. The nearer to the mast the thwart is, the more stocks it gets, bearing in mind that the boat is nearly spoon shaped. After fitting the thwarts and the stocks underneath, the gunwale (batūs) is then fitted all around on top of the top strakes to secure more support to the hull and to keep the thwarts in position (Plate 13) (Fig. 11). The gunwale consists of several flat curved planks spiked horizontally all around on top of the top strakes. When this is finished the mast step mēda is spiked lingitudinally on top of the keel exactly in the middle. The mast step is a wooden block seated on top of the keel with a hollow space to receive the heel of the mast (hazu) (Plate 14).

The Deck

Decking is not present in all boats. It appears mostly on the big cargo boats (nugūra, sing. nagur). The deck (budūsa) consists of a number

of planks spiked longitudinally fore and after the middle thwart (Jāgūs al-wastāni).

The Mast

The mast (as-sāri) is lashed onto the after side of the middle thwart between two big cleats (inglīz) (Fig. 11) that are themselves spiked to the after side of the middle thwart.

Bollards

A stout long bollard (al-Gāḍi) is spiked to the inner side of the prow (migdim). Four other smaller bollards (sham āt, sing. sham a) are spiked to the inner side of the top strake, two at the fore end and two at the after end. These are used for securing ropes to, while in harbour (Fig. 11).

The Rudder

The rudder (ad-daffa) consists of two main parts, the rudder blade (al-bāb)and the tiller (yad-ad-daffa). The blade is formed by a number of planks set vertically edge to edge and held by means of battens on both sides (Plate 15)(Fig. 12). Long spikes are hammered into the battens to hold them in position. The inner three or four planks of the rudder blade are the longest. They reach down between the battens and at the top they fit into the slotted butt of the tiller to form the rudder head (ras-ad-daffa). The outer section of the rudder blade consists of shorter planks which start to curve as they go downwards towards the outer edge of the rudder blade. (Plate 15).

The tiller (yad-ad-daffa) is arched immediately inwards from the rudder blade. The slotted butt of the tiller is formed by the use of chisel, mallet and saw. The chisel and mallet are used first to form an opening by carving two cuts through both the fore and the after ends. Then the saw is used to cut away the timber in between, thus making the slotted butt in which the upper end of the rudder head sits, (Fig.I2).

Two pairs of gudgeons (mafassatat, sing.mafassla) are used to hang the rudder on the stern post and the keel. The upper gudgeon fixture on the hull is fixed around the stern post head with a loop projecting aft to marry with a loop attached to the rudder blade. The arms of this other loop run along the rudder blade and are spiked to it on both sides, then a long iron pin (khabūr) is passed through the gudgeon holes (Fig. 12). The same is done to the lower pair of gudgeons, except that the part which has its loop projecting outward is nailed into the keel (Fig. 12).

When the rudder is fixed in position the work of the boat builder is finished. The mast, the sail and rigging is the speciality of the skipper (rayis) and his crew (nawātiya, sing. nawati or nūti).

Fitting the Mast, Sail and Rigging

The Mast

The mast is a long stout wooden beam which rests its heel (hazu) on the mast step (mēdah) and is supported by two massive cleats (inglīz). The mast heel (hazu) is a short projection trimmed in a tenon shape fitted into a mortise-like hole carved into the mast step, (Plate I4) (Fig.I3).

The mast (as-sari) is put vertically abaft the middle thwart (aj-jāgūs al-wastāni) and lashed between the two cleats, (inglīz). Moreover the mast is supported by a number of shrouds that will be described when we come to the boat rigging. For the mast an old telephone pole is used if one can be secured. If not, a number of short poles are joined together by means of iron spikes and raw cowhide binding.

The masthead consists of two parts, the halyard affix (aj-jāmur) and masthead collar (al-bardaʿa). The halyard affix is a short stout piece of wood with a hole opened immediately beneath its peak which is spliced to the mast by spikes and straps of raw cowhide (Plate 16). The hole of the halyard affix is made for the halyard (faya) to pass through when hoisting the upper yard of the sail (garya-al-fōgani). This will be detailed later when describing the sail and rigging of the boat.

The other part of the masthead is the masthead collar (al-bardaʿa). The collar is made of raw cowhide and a filling of two small pieces of wood and rags. The hide used is usually wet.

The piece of hide is first opened in the middle and pushed along the halyard affix. Small holes are also made for the wire loops that are already lashed around the mast neck. These loops pass through the holes and are made to receive the upper ends of the side shrouds. The filling of the collar is then put under the piece of hide and finally all the sides of the hide are brought together to encompass the filling and to be nailed and bound with a piece of strong wire to the mast. This collar is designed to keep the friction of the upper yard of the sail away from the mast and to hold the loops that receive the upper ends of the shrouds.

Shrouds and Stays

There are three types of shrouds and one stay in the Sudanese boat. There are:

(1) The side ~~shrouds~~ vangs (ṭurūf, sing. ṭarif) that support the mast.

(2) The rear ~~shrouds~~ vangs ('aba yir) that direct the position of the upper yard (garya al-fōgāni) and consequently the direction of the sail.

(3) The fore ~~shrouds~~ stays ('iyārāt, sing. 'iyār) that function as a support for the mast but are mainly used for dismantling the sail for repair and hoisting it afterwards. For details of the boat rigging and sail see Fig. 13.

(1) The side shrouds: (ṭurūf)

Usually there are three on each side but the big cargo boats have four or five on each side. These shrouds consist of thick double ropes. Their upper ends are passed through the loops already prepared on the masthead collar and are then fastened tightly. Their looped lower ends are lashed to a strong wire ring looped around each thwart. Another way of connecting the lower end is by lashing them to a wire loop (dafīn) passed through a wire bolt (khurus) driven into the inner side of the upper strake. Each ring bolt is driven under one of the thwarts. In the first kind of fitting the fore shroud is fastened to the last of the fore thwarts, the one in the middle is fastened to the middle thwarts, and the after shroud to the first of the after thwarts. More tension is yielded by means of thick ropes lashed horizontally abridging the distances between the shrouds as it pulls each shroud inwards towards the other. This abridging rope is called nash-shālā, pl. nash-shālāt, ratlines.

(2) Rear vangs (ʿabayir)

vangs are better described in connection with the sail because they are designed to keep the position of the sail in the right direction as they are attached to the upper yard of the sail.

(3) The fore stays (ʿiyārāt)

These support the mast and are mainly used as levers as they are provided with purchases. Small boats are provided with only one fore shroud but in big cargo boats there are two or three fore shrouds.

Each stay consists of four double ropes, two to connect the upper purchase to the lower and two to pass through the pulley wheels of the two purchases acting as a belt. The upper end of each front shroud is fastened to the loops pendant from the masthead collar and their lower ends are fastened to the first of the fore thwarts. They are used as levers only when hoisting a sail on a newly built boat or in case of repairing the sail.

The only stay one can encounter in a Sudanese boat is the halyard (al-faya) which hoists the upper yard of the sail with the help of the fore shrouds. The halyard is designed to keep the upper yard in position as its upper end is passed through the hole formed in the mast-head affix and lashed around the upper yard. As it is pulled down very strongly along the mast by two or three persons its lower end is lashed tightly around the mast and middle thwart. To help the halyard to carry the heavy weight of the upper yard a strong double rope (al-ma'tn) is used to fasten the upper yard to the masthead affix.

The Sail

The sail (al-gumāsh) or (shurā') consists of a longer upper yard (al-garya al-fōgāni), a shorter lower yard (al-garya at-tibtani) and a nearly square sail made up of overlapping pieces of locally made cotton cloth sewn together. The longer upper side of the sail is tied at intervals along the upper yard and the shorter side is tied at intervals with short pieces of rope along the lower yard.

The two upper and lower yards are formed of short sections of

wood spliced together by means of nails, wire and raw cowhide. The top of the upper yard is capped by a strip of goat skin (ṭartur al-ghaṭa) lashed around the head. A flag (mindēra) mounted on a thin stick is lashed to the upper end of the upper yard to indicate the direction of the wind. The direction of the sail is controlled by the two ~~rear shrouds~~ vangs (ʿabayir) mentioned earlier (page 61). The upper ends of these shrouds are attached to the upper yards at the same point, nearly in the middle of the distance between the masthead and the lower end of the upper yard. At the lower end of each ~~rear shroud~~ vang there are two tackle purchases without sheaves. The lower end of the shroud is looped around the groove of the upper purchase (al-karkar al-fōgani). A hole is made through the flat sides of the two purchases for a loosely knotted rope to pass through, connecting the two purchases. This rope (al-jarrar) is used to shorten or elongate the shroud as the situation implies. A rope or a piece of wire is looped around the groove of the lower purchase (al-karkar at-tihtani). The lower end of this piece of rope or wire (ad-daffīn) is fastened to a ring bolt driven into the outside of the stern transom.

Immediately above the heel of the lower yard (al-garya al-tihtani) a cross bar is passed through a hole opened through the yard or alternatively the cross bar may be lashed across the lower yard. This cross bar (al-malawīena) (Fig. 13) is used as a handle to turn the lower yard when reefing the sail. Reefing to reduce the area of the sail or spreading it fully is dictated by the speed of the wind. If the wind is slow a full sail is needed and vice versa. To keep the lower yard in position after reducing or spreading the sail, the head of the cross bar is set against the mast. Moreover the heel of

the lower yard is rested inside a curved piece of wood (wagif) which is nailed on the middle thwart at a short distance from the mast.

The two yards hold the sail between them. The sail is almost square but longer on the upper edge. The edges of the sail are prepared so as to ensure their strength. First the edges are turned in over a rope called musrān which passes all around the sail. Then a bolt rope (sigala or risgala) firmly secured to the musrān, is again passed all around the sail. The upper and lower edges of the sail are tied at intervals to the upper and lower yards. This is done by means of loops of rope (gabālīs sing. giblīs) that connect the sail to both yards; they are passed through the bolt rope (sigala) and each of them is fastened by being knotted over the yard.

This description of the processes of boat building is identical to all areas covered by the present writer. Regional variations in some constructional details is discussed in connection with types of boats in Chapter Four.

CHAPTER FOUR

TYPES OF BOATS

This chapter deals with the types of boats in the Sudan at different centres on the basis of their functions. These centres range from Dongola in the North, Omdurman in the centre, to al-Sūki and Wad-Medani south on the Blue Nile and Kosti, further south on the White Nile. Also regional variation in construction, rigging details and vernacular technical terms used in each area will be dealt with.

If we classify the boats trafficing the waters of the four Centres on their functional basis, we will find no differences between the types for each function at the different localities. There are four main types of boats. Three of these types can be encountered anywhere in the Sudan along the River Nile, but the fourth type is found in restricted distribution.

These types, according to material collected on tapes and observed by the present writer, are:

(1) The large cargo boats, (nugūra, s. nagur)

(2) The ferry boats, (ma'addiyyāt, s. ma'adiyya)

(3) The fishing boats, (murkab sammāka or sayyadiyya)

(4) The dug-out or planked canoes, known as(bungulu) on the Blue Nile and as(sharōg)on the White Nile.

This last type is found along the Blue Nile and the White Nile and not along the main Nile.

All in all, these types of boats are quite identical in the way their hulls are assembled, the spoon-shaped frameless type of hull which was described in Chapter Three. Regional differences will appear only in the vernacular terms used to describe the parts of the boats and other details. We will also find that the four types exist side by side, each serving a particular economic function. This is to follow further and exemplify our argument against the idea of the development of boats from a hypothetical simple log or dug-out to complex constructions, thus contributing to our argument that simple and complex forms existed side by side at different periods of history at different places, each made and utilized for its own separate purpose. And, of course, their existence is governed by the needs of the society that makes them and also to the environmental surroundings.

It is important to note that one type or another might not be existent in this or that area; for instance, the large cargo boats nugūra are no longer found along the Blue Nile. The factors which created this situation will be described when we come to detail the distribution of each type.

Before starting our present classification I think it is important to consider some ideas concerning the origin of water craft put forward by scholars concerned with its study.

As I have noted above, the development of complex forms of river craft from simple forms of either raft boat, skin boat, bark

boat or dug-out remains hypothetical. Judging from the functions each boat serves we can say that development of water craft is additive rather than substitutive. That is to say, in a certain area, as we have in the Sudan today, complex forms of water transport developed at their own pace to their final form, apart from simple forms which are made and used in a separate way.

I am not denying the fact that the archaeological evidence from different parts of the world tells us that man had first used simple forms of water craft to meet his simple needs. Those ancient simple types were suited to man's simple needs, whether that of fishing or ferrying. I am only denying the idea of taking these forms as being the forms from which complex sophisticated forms developed. These were invented later, of course considering the factor of trial and error, when the culture of man became more complex and demanding.

The introduction of these complex forms which were made for purposes of long distance trade, war or leisure, did not mean the disappearance of simple forms. On the contrary, today, simple forms and complex forms exist side by side each serving a separate function. Not only, writes Greenhill:

> ... does the dugout canoe still greet the steel diesel containership in some Asian and African ports, the same dugout lies on the river banks alongside highly sophisticated wooden boats which have developed from dug-out origins and less sophisticated wooden boats which represent intermediate stages in the development. [1]

---

[1] Greenhill, B. Archaeology of the Boat, Adam and Charles Black, (London 1976), p.22.

It seems from the above quotation that some scholars are concerned with the question of origin more than studying the phenomenon itself in its socio-cultural and natural context. It is more appropriate to state that the creation of water craft is

> ...determined by different local conditions and cultural traditions. [2]

It is agreed by some scholars that the origins of water craft are based on postulation and assumption. For instance Angelucci states that:

> the origins of navigation are lost in the mists of ages... To attempt to pierce the haze of pre-history, really means, that, for the most part, one is relying on supposition - giving imagination free rein on the difficult path back into the past but hoping that discipline of common sense will lead to an approximation of the truth. [3]

Furthermore Johnstone adds that:

> Thus it seems easier to say what early craft would not have been rather than what they were. However, an examination of the simple forms of water-craft used by the people of the recent past may throw some light on this matter and show how early man may have progressed from the postulated single-log stage in his mastery of water transport. [4]

---

[2] Wolfgang, R. Boats, rafts and ships, Adlard Coles Limited, (London 1974) p.11.

[3] Angelucci, E. Encyclopaedia of Ships, the Hamlyn Publishing Group Limited, (Middlesex 1970), p.4.

[4] Johnstone, P. The sea craft of Prehistory, Routledge and Kegan Paul, (London and Henley 1980), p.7.

This explains what I discussed in Chapter Two (p.40) and throws more light on what is discussed below.

It is also noteworthy that, when we say the four types exist side by side we are referring to their existence in the Sudan today, bearing in mind that the tradition of craftsmanship might change to suit, for example, the socio-economic changes generated by an introduction of some sort of modern technological advancement. That is to say, the first three types are existent in all localities along the Nile from Dongola to Omdurman and Kosti on the White Nile. But, as mentioned above, the cargo boat is not found along the Blue Nile in addition to the fact that the dug-out and planked canoes are restricted to the areas along the White Nile and the Blue Nile.

The description of boat building attempted in Chapter Three concerns the type of boats made in the Dongola area. Other types from, for instance, Omdurman (or the other areas) will be compared to the Dongola type to see how far they differ in the vernacular technical terms used to describe the parts of the boat or any other details. And I would like to state clearly that the comparison to the Dongola type is made as a convenient method of classification and not for any other reason.

As I have mentioned earlier, boats in the middle Nile region will be classified primarily on the basis of their functions. This is because, if we use, for instance, their measurements as a basis, we would find them immensely diverse even within one type. Even features like the rig detail or the tiller on the prow, by which Hornell[5]

---

[5] Hornell, J. "The Frameless boats of the middle Nile Part 1". Mariner's Mirror, Vol. 25, No. 4, (October 1939), p.417.

classifies the boats in the Sudan, cannot be appropriate criteria for classifying types of boats. This is so because, for instance, the tiller of the ferry boat of the same area can be different from that of the big cargo boat, or, to give another example, the sail or rig details of cargo boats in this area are different in their structure and in the terms used to describe them in another area. So we can simply use their function as a classificatory criterion and see how and why they differ from each other. It is very confusing to use such constructional features to classify river craft in an area as large as the middle Nile region. And although Hornell states that he uses these features for classification, in actual fact he too uses their function for classification.

It will appear from this classification, cited below, that he implicitly uses functional criteria while explicitly stating that he uses some features of construction to classify the river craft in this area. I do not know for what good reason he did that. It could be because he is comparing the Sudanese river craft to the Egyptian river craft North of Wadi Halfa. But still the criterion implicitly used by him in both countries is the function of each separate type.

His classification goes as follows:[6]

> The principal local differences in practice consist of divergences in the character of the rig and in the shape of the two ends. Utilizing these features we are enabled to classify Upper Nile boats into two main groups, each divisible into several local types, in the following manner, namely:
> Group A:
> Wholly without transverse frames; single vertical mast; square sterned and with a low prow; tiller curved.

---

[6]Hornell, J. Ibid., 417-418.

Local type: (a) Fishing boats and ferryboats of small size, hoisting a true square-sail set without the lower yard or boom. Without shrouds and stays. Found everywhere in Nubia.
(b) The great cargo nuggars of Lateen rig that centre on Omdurman, where most are built; stays very numerous.
(c) The small boat called markab which ply in the Dongola bend of the Nile between the 3rd and the 4th Cataracts. These carry a narrow oblong sail set aslant on the mast with upper and lower yards.

We are concerned here with Hornell's attempted classification of river craft in the Sudan. What he calls 'Group B' covers the classification of boats along the Egyptian part of the Nile north of Wadi Halfa, a region which is not covered by the present writer through systematic fieldwork. But for purpose of comparison this group is cited in the footnote below.[7]

According to the material collected by the present writer, as mentioned earlier, one can propose to classify the river craft in the Sudan by function. But it should be explicitly expressed that local differences of constructional features within each type are to be accounted for by the different environmental factors at each locality in which each type operates functionally. These environmental factors include:

---

7 Hornell, J. Ibid., p 418.
Hornell's Group B:

With a few inserted ribs. Lateen rigged; with tiller straight; prow upturned after the Egyptian manner; mast or masts raked.

Local types: (a) with the stern square. Found between Wadi Halfa and Aswan. Usually single-masted.
(b) With sharp stern - double-ended. These ply between Aswan, Esna, Edfu and Luxur. One or two masts according to size.

(a) climate, (e.g. cabins against rain)

(b) the nature of the local waters

(c) the nature of raw material available for boat building

(d) the economic needs of the people who make and use them.

As was noted earlier in this Chapter, the river craft of the Sudan can be classified by function into four types. The fourth of these types, namely the dug-out and planked canoes, is not included in Hornell's classification. This is simply because, as we shall see later, this type is a recent introduction in this area as a result of contacts with the areas further south. When Hornell wrote his account of the boats of the middle Nile region this type did not actually exist in this area. Furthermore, from his classification quoted above, Hornell considers the Dongola cargo boat, which he calls markab ,[8] as a separate type from that of Omdurman or the areas further south. But the evidence collected for the present work shows that they all belong to one type; the large cargo boat known everywhere in the Sudan as nagur, s. nugūra,pl. It is true that in some features the nagur of Dongola is different from the nagur of Omdurman and other areas; but these features are related to the environment in which they function.

---

[8]The word markab is used in Egypt, but in Sudanese Arabic it is murkab and both words are derived from the word mirkab in the standard Arabic language, which can be a boat or any other form of transport including animals. It is not a word used to describe a particular type of boat.

1. The Cargo Boats: (al-nagur)

The large cargo boats are present in the Dongola region in the north, in Omdurman in the centre and along the White Nile up to Malakāl in the south. Material to be cited below will show that the cargo boats were once in use along the Blue Nile[9] between Omdurman and Sinja, but for some reason they are no longer there today. Their disappearance from this area could be attributed to the introduction of modern means of transport which are far more quick and easier to operate. This type has also disappeared for the same reason between Atbara, Shendi and Omdurman.

It has not disappeared along the White Nile between Omdurman and Malakal because such boats are still needed for trade between the the North and the South. The southern region is an area of heavy rainfall and thick forests and modern means of teansport like trucks and lorries cannot go through.

Differences between the Dongola cargo boats and those of Omdurman and the White Nile are now considered below. These differences include variation in structure and in the vernacular technical terms used to describe the parts of the boat.

---

[9]For the description of this type of boat see Hornell, J. "The Outrigger of the Blue Nile" Antiquity, Vol. XII, (1938), pp.354-359.

As mentioned above, this type of boat is known locally as nagur. There are some features which are shared by both Omdurman and Dongola cargo boats, while they differ in other features.

In both, the way the hull is assembled is exactly the same. But they differ in certain terms used to describe a number of their parts and also in details of their rigging.

The way in which the hull of the Sudanese boat is assembled has already been described in Chapter Three (see pp.49–64) Therefore we will consider here the differences in vernacular technical terms used to describe the parts in both areas.

The table below shows differences in terms used in both areas. It can also be noticed that some parts of the boat and consequently the terms to describe them may be absent in this or that area. This is to be accounted for by the factors of physical environment when we come to discuss constructional differences in their sail rig. These will also be shown in the table below.

Differences in the technical terms with regard to the first four terms used in both areas will be discussed in Chapter Six. That is when we come to the task of discussing the etymology of the words. But regarding the other five terms which include parts of the sail rig, we will find that natural environmental factors are responsible for these differences.

	English	Dongola	Omdurman and the White Nile
1	keel	madda	itrābil
2	rabbet	kallbān	gura
3	stern	daraga	tiriss
4	prow	migdim	badan
5	lower yard	algarya-ttiḥtāni	-
6	turning handle inserted crosswise through the heel of the lower yard	malawīna	-
7	cabin	-	ʿarsha
8	sheet	-	furūn
9	sheet	-	rāji ʿ

As we have shown earlier, the way the hull is assembled and the method of building these cargo boats is identical in all parts of the Sudan. It can also be added here that the tools and the terms used to describe them are also the same wherever you go along the reach of the Nile covered by the present writer. But great differences can be noticed in their sail rig.

As we can see from the table above, the lower yard (algarya at-tiḥtānī) is not present on the Omdurman and White Nile cargo boats, whereas the Dongola cargo boats have got both yards, lower and upper (see Chapter Three, p.49.64 for a fuller description of the Dongola boats). This difference can be attributed to the different nature of the local waters in which each type navigates.

The Dongola area is full of shoals and cataracts which are difficult to go through without a greater effort. So the lower yard and the turning handle (malawīna), inserted crosswise the head of the lower yard, are designed to put more control on the sail during the difficult and dangerous journey across the cataracts. But from Omdurman southwards along the White Nile the nature of the local water is different; no shoals or cataracts are present and the journey from Omdurman to the South is much easier. Therefore there is no need for a lower yard, because one can simply control the direction of the sail by means of two ropes, one at the fore end (furūn) and another at the after end (rajiʿ). From the table above we can also see that these ropes are, of course, not present on the Dongola cargo boat.

One more part which is not present in the Dongola cargo boat is the cabin (ʿarsha). This is an arched-roof cabin which is always built on the Omdurman and White Nile cargo boats. The cabin of Omdurman cargo boats is made of wickerwork covered with locally made mats (burūsh sing. birish) and other materials. This cabin is arched over the waist of the boat from one gunwale to the other at the after end of the boat(Plate I7). For the cargo boat of Dongola area see Plate 18. The presence or absence of this feature can be attributed to the

nature of the climate of the areas along which each type operates. The area from Omdurman southwards is an area of a heavy rainfall, compared to the Dongola area which has an occasional light rainfall.

Evidence as to the adaptability of river craft to its social and natural environment is collected also in the form of stories told by informants from different localities concerning the cargo boat (nagur). All the versions agree on the fact that newly introduced types are not accepted in preference to the local indigenous type which is made to suit its local surroundings.

One story is selected as an example and cited below, first in Sudanese colloquial Arabic, then transliterated and afterwards translated. As to other versions it suffices to give the name of the informant, his locality and the number of tape on which it is recorded:

(1) Ibrāhim al-Faḍul Moḥammad Mahdi,
Omdurman, Tape number/I.A.A.S./2584.

(2) Ḥāmid Moḥammad Ḥamdalla al-ʿImēri, Guli,
North of Kosti on the White Nile,
Tape number/I.A.A.S./2594.

(3) Jadalkarīm Mohammad Ali Hilāl, Wad Madani on
the Blue Nile, Tape number/I.A.A.S./2609.

This story was collected from al-Sūki on the Blue Nile in July 1952 as told by one of my informants there. His name is Hasan Ibēdalla Muṣṭafa, tape number/I.A.A.S/2606.

Sudanese Colloquial Arabic:

كان حتى نوع عندو صنع بين إطنا شر لى
طلطا شر ضلعه قايمه زى شكل البدن،
ويستمر عليها اللوح من جوه ومن برّه،
تلون حشوه من جوه والضلع تانى ما بتشاف،
وبعرين يعملوا ليها جاقوس وباطس. يكون
الألواح من الزان أو السبنط الرهيف،
لكين بناع المركب الأصليه يكون تلاته
بوصه واتنين بوصه ونص. المركب
رى جابوها من برة، كان جابا المفتش
الإنقليزى، من قديم كانت ما فى، جابوها
الخواجات. المفتش اسمو هانلوك
جابا حتى مركز سنجه، بعدين المركب
رى قدمت وما سألناهو جابا من وين.
تشتغل بس للمفتش. زمان كان ما فى
عربات وبتطوناتت. تسوقو المركب
تودّيهو محل ما داير. الكلام ده كان
سنه ٤٩ - ١٩٥٠ استمرت سنين
تلاته ووقفت لكين الخواجه جابا سنه
١٩٤٦. كانت حاجه غريبه بالنسبه لينا
واختفت لأنها ما قويه للسفر. الناس
عندها المراكب الأصليه أحسن.
اختفت لانو خشبا رهيف وخناهنا

بندور الخشب التخين بتاعتنا لازم ، المركب
بتاعتنا لازم تكون مسمار قوى ولوح تخين
لأنها بتضرب فى الحجر ، يضارف فى حجر
فى المويه أو عود شدر فى المويه
يضربا يكسرا . هى ما بتشتغل لأنها
المسافات بعيده وان لاقاها أى عود
ولا حجر يعوقا لأنو خشبا رهيف .
بتاعتنا ألواحا تخينه ، تلاته بوصه
ونص ، تستحمل الحموله والضرب ،
يعنى نوع المراكب دى ما استمر .

Transliteration:

kan Fi nō' 'indu dula' bēn iṭnāshar lē ṭalaṭṭāshar dul'a, gayma zay shakl al badan wa yissammar 'alēha al-lōḥ min juwa wu min barra, takūn ḥashwa min juwa wa al-dula' tāni ma bitinshāf, wa ba'adēn ya'malu lēha jāgūs wu bātūs. bikūn al-alwāḥ min khashab al-zān aw al sunut al-rahīf, lakīn bitā al-murkab al-asliyya bikūn talata būṣa wu itnēn būsa wu nus · al-murkab di jabōha min barra, kān jaba mufattish inglīzi ismu hankūk jaba fi markaz sinja wu ba'adēn al murkab di gidmat wu ma sa'alnāhu jaba mim wēn, tashtaghil bas lelmfattish, zaman māfi 'arabat wu banṭōnat,tasūgu al murkab tawadīhu maḥal ma dayir.

Al-kalam da kan sanat tis'a wa-rba'īn khamsīn, istamarrat sanatēn talata wu wagafat. lākīn al-khawja jaba sanat sitta wa-rba'īn, kanat ḥaja gharība bilnisba lēna wikhtafat li'nnaha ma gawiyya le-safar. al-nās 'indaha al-marākib al'sliyya aḥsan ikhtafat Li'nnu khashaba rahīf wu niḥḥa hina bindūr al-khashab al-takhīn,'ashān al-murkab bita'atna Lazim takūn musmār gawy wu lōh takīn Li'nnaha bitaḍrub fil-ḥajar, yiṣaḍif fi ḥajar fil-mōya aw 'ūd shadar fil-mōya yiḍruba yiksira. hi ma bitishtaghil li' nnaha al-masāfāt ba'ida wu in lāgaha 'ūd walla ḥajar bi'awiga Li' nnu khashaba rahīf bitā' atna al wāḥa takhina talata buṣa talata wu nuṣ, tistaḥmal al-ḥumūla wal-ḍarib ya'ni nō' al-marākib di ma istamarra.

Translation:

There was a type of boat with a frame of ribs. They were between twelve to thirteen ribs taking the shape of the hull. The planks were spiked on the outside and the inside. The ribs act like a filling between them and they cannot be seen. Also it had thwarts and a gunwale. The planks were thin usually of sunt (acacia nilotica), or (zān)(a kind of imported wood). But the planks of the local indigenous boat are thick, between two and a half inches to three inches.

This boat was brought from outside the country. It was brought by the English Commissioner of Sinja whose name was Hankook or Hancock. The boat grew old and we did not ask him where he brought it from. This boat was only used by the Commissioner. At that time there were no motor cars or steamers. This boat was brought by the Commissioner in 1946 and continued up to 1949-50.

For us, it was an alien and a strange thing. It disappeared and did not continue because it was not strong. People preferred the local indigenous type. It disappeared because its planks were thin. Our local boat should have thick planks and strong spikes so that it can resist the hazards of the local waters, like rocks or floating large logs. The boat which has thin planks cannot resist these hazards and it can easily be broken. Our boat is strong and durable. In short, that type boat did not continue.

All the other versions tell us about an English commissioner, sometime during the Anglo-Egyptian rule (1898-1956), trying to introduce a new type of boat but failing. The type of boat described in these versions is clearly of foreign origin which has a frame of ribs as opposed to the Sudanese boat which is frameless. One informant, Ibrāhim al-Fadul Mohammad Mahadi, clearly specifies the type introduced as Egyptian, but it could be of a European type -

Combining this evidence with the historical evidence discussed in Chapter Two (pp.42-48) about the introduction of new types of boats during the Turko-Egyptian rule (1821-1885), gives us solid ground for our argument that abrupt and deliberately implanted changes disappear with the disappearance of the factors that caused them.

A positive evidence concerning the fact that the process of cultural change and borrowing is slow and gradual, this on one hand and on the other, that borrowed cultural traits should be modified to adapt to the natural environment and the needs of society, is exemplified by the adaptation of planked canoes along the White Nile (see pp.84-90)

2. The Ferry boats:

This type is locally known as ma'adiyya, pl. ma'adiyyāt . They are smaller in size than the large cargo boats. They are used for the purpose of crossing the river from bank to bank, for both passengers and goods. They are present everywhere along the area of

the Nile covered by the present writer from Dongola in the North to as-sūki further south on the Blue Nile and Kosti further south on the White Nile. The ferry boats of Omdurman, the Blue and the White Nile are identical in their rig details and the hull structure. The differences between the craft of these areas and the craft of Dongola are the same differences shown above with regard to the large cargo boats. The only similarity between these ferry boats and those of Dongola is that none of them have cabins (ʿarsha), in view of the fact that they are used only for the short journey between the two banks.

3. The Fishing Boats:

With regard to fishing boats, it is true as Hornell says that boats used for the purpose of ferrying and those used for fishing are sometimes used interchaneably if a need arises. But the boats built specially as fishing boats are smaller than those built for ferrying. The fishing boats, as Hornell[10] puts it,

> ...are notably narrower in the ratio of beam to length and the fittings of necessity are different. The last named consist of sagging palm-fibre stringings between the second and the third thwart to form a hammock-like receptacle wherein to throw the fish as caught and killed. Abaft the mast another pair of thwarts are similarly fitted to provide another fish bag.

---

[10] Hornell, J. "The Frameless Boats of the Middle Nile, part I", Marinor's Mirror, Vol. 25, No. 4 (Oct. 1939), pp.421-422.

In fact Hornell's description of the ferry and the fishing boat is giving a comprehensive idea of what these vessels look like in their rig detail and structure and measurements. To avoid duplication and repetition it is better to refer to the material cited in his two articles in the Mariner's Mirror,[11] especially with regard to the measurements of the large cargoboats, the ferry and the fishing boats, which I find in total agreement with the material I have collected.

4. The Dug-out and Planked Canoes:

These have not been described or even mentioned by Hornell as I have said earlier. The dug-out canoes are mainly present along the Blue Nile and are known locally as bungulu. The planked canoes prevail along the White Nile between Omdurman and Kosti, and might be found further to the south. I have not myself been to the areas south of Kosti. This planked canoe is known locally as sharōg. This type of canoe is in fact a recent development in this area due to certain socio-economic and environmental factors which will be specified later.

The presence of the dug-outs along the Blue Nile is not as dense as the presence of the planked canoes along the White Nile. In fact I have encountered only three dug-outs along the Blue Nile

---

[11] Hornell, J. "The Frameless Boats of the Middle Nile" Part 1 Mariner's Mirror, Vol. 25, No. 4, (Oct. 1939), pp.417-432 and Part 2 Mariner's Mirror, Vol. 26, No. 2 (April 1940), pp.125-144

from Omdurman to al-Sūki. For the dug-out of the Blue Nile see Plate 19. The low rate of their presence could be due to the strong current of the Blue Nile which makes them less useful for crossing the river. Actually they are used to carry people and some goods and they are rowed along the bank of the river from one spot to another, that is to say they are not used to cross the river. They are smaller in length and width than the planked canoes of the White Nile. They measure fifteen feet in length and three feet in width, whereas the planked canoe of the White Nile measures on average twenty-one feet in length and four feet in width at the middle thwart (Plate 20).

The planked canoes of the White Nile have a long story as told by two of my informants, Omar Musa al-ʿimēri, a boat builder at Kosti, and Ali Ibrāhim Musa, a fisherman at Kosti as well.[12]

Both accounts agree that the appearance of these planked canoes (s. sharōg, pl. sharōgāt) is quite recent on this reach of the White Nile.

It is well known that further south of Kosti the Nilotic people of the upper Nile region use the dug-out canoes for fishing and transport on the swamp and the Sudd area. They confirm that people

---

[12]These stories are recorded and the tapes are given serial numbers along the archival collection of the Institute of African and Asian Studies, University of Khartoum, These two tapes bear the numbers I.A.A.S. 2590 and I.A.A.S. 2586 successively. For the numbers of the whole collection of the present thesis together with the names of the informants see Appendix One.

from this area of the White Nile borrowed the idea of the dug-out through their contact with the people further south.

First they made and used them here the way they saw them made in the South. That is to say that a typical southern dug-out was made and used. But the idea did not work because, one can deduce, these dug-outs are suited to navigate the shallow waters of the swamps and the Sudd areas of the southern region of the Sudan. Alī Ibrāhīm Musa says that they did not work in our part of the Nile because water at this reach is deep and the dug-out is heavy and if it should sink it goes straight down and people can hardly escape death. This means to say that the dug-out is environmentally unsuitable for use in this area. Some kind of adaptation should have been made to this dug-out to modify it so as to suit the environmental surroundings. One possible economic factor in favour of this modification is that it is cheaper to build a canoe than to build a boat proper the way described earlier, for either fishing or ferrying. This is what we would explain below.

So we have the environmental factor which prevents the use of the dug-out in the same form as it was borrowed from the south, and we have also the economic factor which favours its use. There are thus two conflicting factors, a conflict which should result in some sort of a compromise. Here comes the role of the creative abilities of people represented in their capabilities of adaptation. What we need to explain now is when and how the planked canoes of the White Nile emerged as the compromise of these two conflicting factors.

The dates given by the informants as to when these canoes appeared are of great value to our discussion. Omar Musa al'imēri said in 1982 that they appeared about ten to twelve years before. He even goes further in giving a reason for that: he says they appeared because the sudd plants crept northwards to this area and made it difficult for us to traverse these waters with large boats. Ali Ibrahim Musa gives another date. He says that they appeared about twenty-five to thirty years ago. It is clear that there is a fifteen to eighteen year difference between the dates given by the two informants, which makes them seem conflicting. But a quick look at the modern history of the Sudan can solve the problem.

During the colonial era (1898-1956) the British imposed two measures to prevent contact between the North which is predominantly Arabised and the South which was predominantly African. The idea was to isolate the South from the infiltration of the Arabic culture so as to give a full chance to Christian missionaries to operate.[13]

---

[13]For further details on this policy see these references:

(1) Beshir, M.O. The Southern Sudan - Background to conflict. (Khartoum University Press 1979), pp.37-70.

(2) Hurreiz, S.H. Linguistic Diversity and Language Planning in the Sudan. African Studies Seminar Paper No. 5, Sudan Research Unit, University of Khartoum (1968), pp.10-22.

(3) Holt, P.M. The History of the Sudan 138-9, 184. Weidenfeld and Nicolson, (London 1979), pp.138-9 and 184.

The first measure was the creation of a no-mans' land, involving the movement of some Southern tribes, which were in close contact with neighbouring Arabs to the North and were moved away from their home areas. Whoever tried to cross this no-mans land was not allowed.

The second measure was the Closed District Ordinance in 1929 - This measure declared some parts of Southern Sudan as well as the Southern, Eastern and Western Nuba Mountains in Western Sudan to be closed areas. Movement to and from these areas was completely prohibited. Beshir writes that:

> A pass system, similar to that applied at present in South Africa, was applied, in order to control the contact between North and South. [14]

The above historical account becomes relevant to our present discussion when we know that after independence in 1956 contact between the two parts of the Sudan was enhanced by the cancellation of the measures which prevented this contact during the colonial period.

So, to the benefit of our discussion, we can say that the dug-out canoe as borrowed from the South started to appear in this area

---

[14] Beshir, M.O. The Southern Sudan-Background to Conflict Khartoum University Press (Khartoum, 1979) p.51.

shortly after independence when people started to move freely between the North and the South. Accordingly we can take the date given by Ali Ibrahim Musa which is 25 to 30 years ago, as the date when the dug-out made its first appearance in this area.

The data given by Omar Musa al-ʿimēri which is 10 to 12 years ago, is clearly the date when the planked canoes became popular in this area after fifteen to eighteen years of trial and error to make the canoe adaptable for navigating the waters of this reach of the Nile. Consequently we can confidently say there is no contradiction between the two dates suggested by these informants, if we bear in mind the fact that borrowed cultural traits do not become widely used overnight. The process of culture change and adaptability takes a certain amount of time before borrowed cultural traits are widely accepted. This is one fact of the argument; and the other, taking the example of the planked canoe, is that borrowed cultural traits are not used in their original form in the areas to which they migrate. Some modification must take place to make them adaptable to environmental surroundings and the economic needs of society. And, of course, referring to the first point, this breeding of new forms as they are modified takes some time to achieve.

To complete the picture we need to see how this modification happened. First the basic idea of the original dug-out together with its dimensions are retained. But the method of manufacture and building followed the prevailing tradition of craftsmanship in the area; that is to say the hull planking is assembled without a prior preparation of a transverse frame. The planks are nailed one over the other, edge to

edge, in carvel form. A new innovation is sought in another kind of wood. The craftsmen, in their endeavour to make a light type of canoe, replaced the kind of wood generally used to make the dug-out in their Southern natural habitat, the acacia nilotica, locally known as sunt, with some kind of imported long lightweight planks. But for the ~~front~~ bow and ~~back~~ stern of this planked canoe they still use the local acacia wood because it is hard and makes the canoe more resistant if it should hit any floating object. No sail is made for this canoe but they use a punting pole and two oars fastened to the middle thwart.

From what we have discussed above, it became evident that the important characteristic of river craft is its adpatability to its surroundings. Consequently, we can say that borrowed cultural traits should be modified to adapt to the local setting. According to this characteristic we will be able to say that abruptly introduced types disappear with the factors that dictated their introduction.

CHAPTER FIVE

BOAT BUILDING TRADITION:

A HISTORICAL SURVEY OF CULTURAL INFLUENCES

IN THE SUDAN

As has been mentioned earlier (p. I) the study of the historical development of the objects of material folk culture in their structure, types and function is not the only objective of the students of material folk culture. Beside this it is equally important to know what implications these objects have for the form of society in socio-cultural terms or else our study will be merely a kind of technological antiquarianism. It is important to know what these objects can tell us about the people who make and use them.

The endeavour in this chapter and the following chapter is to see how the contents of this cultural component can help us to describe and so to understand better the cultural morphology in the Sudan.

The contents of this cultural component are:-

(1) vernacular technical terms used to describe the different parts of the boat and the tools used in this craft;

(2) beliefs and practices.

These contents I believe can, when analysed and traced back to their origins, tell us about how different cultural influences can come together from different origins to form the features of a certain

culture. This is brought about in the course of time at the points of cultural contacts by the media of the different factors that lead to culture change. And in the end this cultural process would lead to the creation of a harmonious cultural blend which can be held by a group of people as their own culture, accepted and transmitted from one generation to the next.

This blend bears the elements and features of the indigenous culture as well as the newly introduced. It will be performed by members of the group unconscious of what is indigenous and what is foreign.

As was mentioned earlier (p.I) that the basic characteristic of Sudanese culture is the interplay of diverse cultural features, African, Asian and European. Between cultures, as will appear from the material cited below, there is always a covert dialogue and interaction leading to a harmonious cultural blend which is shaped without the intention or consciousness of this or that group.

This will happen and it is very important to stress this for the benefit of our present discussion if three conditions are met, namely that:

(1) peaceful means of interaction are granted

(2) the power of each group is observed not threatened

(3) the one-sidedness of a central government cultural policy is avoided.

By understanding our cultural setting in this way, we will be able to help the cultural policy makers to formulate and adopt a more open-minded and just cultural policy. We need to decide whether there is a so-called central dominant culture surrounded by other peripheral minor cultures.

The successive governments failed to adopt objective policies. The policies adopted did not pay much attention to the reality of cultural diversity in the Sudan. The impression was that the imposition and promotion of the central dominant culture, "the culture of the majority" would lead to national unity and integration.

Two examples from our modern and contemporary history prove that this one-sidedness in cultural policy making has been the cause of two periods of socio-political unrest which amounted to civil war. This happened between 1955-1972 and again between 1983 and the present day.

I believe that the way out of these problems is to understand objectively the reality and need of our society. In a nutshell, our endeavour should be to understand and not to pass pre-conceived judgements and, also, not to make cultural and economic policies subject to one-sided dogmas.

Before going further in detail towards achieving the objectives of this Chapter, I think it is important to survey historically the different cultural influences that affected the cultural setting in the Sudan during different periods of time. In the light of this historical survey we can clearly see how the present cultural setting

has been formed. Then we will be able to trace back the origins of the contents of our present cultural component so as to be able to comprehend the present morphology of the Sudanese culture in the light of its historical background. The historical perspective is needed for understanding the present, especially if the cultural setting is of a diverse nature. At the same time we will be able to test the validity of our hypothesis against the historical and ethnographic data.

From the historical and the archaeological record it is evident that the Sudan, Nubia, Kush (or Aethiopia as it is sometimes referred to since the time of Herodotus the Greek historian and traveller of the 5th century B.C.) have established relations with African and non-African cultures since ancient times. The contact happened either through war, migration or trade. These are the factors that are known to be responsible for culture contact and eventually culture change, although this does not, of course, mean that we should rule out the factor of indigenous cultural existence, invention and adaptability.

By the Sudan we refer to the present republic of the Sudan, the largest African country, covering an area of nearly one million square miles. It shares borders with Egypt and Libya to the north, Ethiopia and the Red Sea to the east, Kenya, Uganda and Zaire to the south, Chad and Central African Republic to the west. It is important to distinguish between the term 'the Sudan' and the term 'Bilad as-Sudan' - the Land of the Blacks - which covers a wider geographical area. The term 'Bilad as-Sudan' was used by the medieval Arab writers to describe the area south of the Sahara between the Red Sea and Atlantic Ocean.

This area has been inhabited since ancient times. The archaeological record shows that stone tool industries were discovered at many Stone Age sites such as Khor Abu ʿAnja, a Palaeolithic site near Omdurman and the Neolithic site of Shaheināb a little further north, besides many other sites up and down the country. It is evident that the area was inhabited long before its contacts with the outside world, with its own indigenous population and its own distinctive stone, pottery and wood industries.[1]

The ancient Egyptians were the first to create military and trade contacts with the Sudan which brought with them Egyptian cultural influences. The ancient Egyptians throughout the different periods of their history looked towards the south to protect their southern borders from the attacks of the Sudanese. They were also interested in the resources of the area, its gold, ivory and slaves.

As early as 3000 B.C. the pharaohs of the first dynasty conquered the Sudan and captured the area of Wadi Halfa of the present day. Then they began to settle and penetrate further south. Hurreiz summarises this contact as follows:

> Egyptian military expeditions to Nubia may be traced as early as 2700 B.C. These early contacts resulted from the exchange of Egyptian and Nubian commodities ... Later between 1530 - 1520 B.C. the Egyptians advanced further

---

[1]For more elaborate discussion on the subject see Adams, W.Y. Nubia, Corridor to Africa, Allen Lane, (London 1977), pp.3-20.

> south in the direction of the Land of the Ja'aliyyin and established their frontier at Kurgus between the Fourth and the Fifth cataracts. ... Between 750 - 664 B.C., the Sudanese (Kushites) dominated Egypt and for the first time Egypt and Kush constituted a united kingdom. This unity is evident in the traditions of Northern Sudan and Egypt, especially Upper Egypt.[2]

This ancient contact between Egypt and the Sudan happend only along the areas close to the Nile Valley, for instance:

> The culture of the Nomadic Beja did not exhibit the same degree of Egyptian influence as their neighbours along the Nile Valley.[3]

But, nevertheless, the importance of Egypt in the history of the Sudan cannot be underestimated because it has affected the cultures of Sudan in two ways,

> ... first by transmitting ancient Egyptian culture traits to Nubia; and secondly by serving as a gateway for transmitting non-African, e.g. Greek and Roman influences to the Sudan.[4]

---

[2]Hurreiz, S.H. Ja'aliyyin Folktales, Indiana University Press, (Bloomington 1977), p.16.

[3]Hasan, Y.F. The Arabs and the Sudan. Khartoum University Press (Khartoum 1973) p.10.

[4]Hurreiz, S.H. op. cit. p.16.

It is not only the Romans and Greeks whose cultural influences affected the Sudan through Egypt, but also the Persians as well as the Muslim Arabs. Cambyses, the Persian conquerer of Egypt, writes Adams:

> ...is reported by Herodotus to have ascended the Nile as far as the Fourth cataract... A Roman army reached and sacked Naplata in the first century B.C. [5]

Although he summarises the history of the cultural influences in the Sudan very briefly, this suffices for our present purpose which is to show generally, not in detail, how the present cultural setting was formed from earliest times through the medieval times of the Christian and Islamic periods to other influences during the early modern and modern periods. Adams states that:

> ... Arab armies, which elsewhere swept Christianity from the face of North Africa, arrived before Dongola, within ten years of Mohammed's death - and there concluded a treaty which left Nubia in Christian hands for another 800 years. [6]

From the above historical survey it is clear that the home-land of the indigenous population of the Sudan, the Kushites, who were:

> ...Hamitic speaking people, basically akin to predynastic Egyptians. [7]

---

[5] Adams, W.Y. op.cit. p.17.

[6] Ibid., p.17.

[7] Hasan, Y.F. op.cit. p.3.

was subject to a variety of cultural influences either through trade, military invasion or a combination of trade, invasion and migration in the case of contacts with the Arabs during the Pre-Islamic period,[8] and the Muslim Arabs during the Islamic period.

The fall of the kingdom of Meroe which flourished between 725 B.C. and A.D. 350 marked the beginning of a new era in the history of the Sudan, the Christian era. The end of Meroe, which extended southwards to Sōba "...and may well have reached Sinnār",[9] came as a result of its invasion by Ezana, the Ethiopian king of Axum in A.D.350.[10]

Shortly after the fall of Meroe there emerged three Christian kingdoms in the area. Although their history is shrouded in obscurity they are known as al-Maris, al-Muqurra and Alwa.[11]

It is clearly stated by Hasan that:

---

[8]For more information about the Pre-Islamic contact with Arabia, see Hasan, Y.F. Ibid., pp.12-16.

[9]Hasan, Y.F. Ibid., p.3.

[10]Kirwan, L.P. The international position of the Sudan in the Roman and Medieval times. Sudan Notes and Records Vol. XL. (1959), pp.23-28.

[11]For a brief description of these kingdoms see Hasan, Y.F. Op.cit., pp.4-12.

> the advent of christianity marked the beginning of a new epoch in the Sudan. The two northern kingdoms al-Maris and al-Muqurra were culturally superior and more sensitive to development in Egypt. The Southern kingdom, though endowed with rich resources, culturally lagged behind the other two because of its close proximity to the primitive southern tribes. The two larger blocks, al-Muqurra and Alwa were thus drifting apart, however their adoption of the christian faith created a cultural stimulus and new moral bond. [12]

Although the quotation is used to conclude the story up to the beginning of the Christian era, the two phrases "culturally superior" and "culturally lagged behind", must not be accepted without caution. This is because it entails questions like, what is meant by culture? and whether one can legitimately speak of cultural superiority, and cultural inferiority. One should also note, in the words of the same historian, that:

> Evidence as to the condition of these kingdoms is patchy and scattered. [13]

What concerns us there is that there is enough evidence to suggest that Christianity was introduced to the northern kingdom al-Maris in A.D. 543 and reached al-Muqurra and Alwa in A.D. 569.[14]

---

[12] Hasan, Y.F. Op. cit., p.8.

[13] Hasan, Y.F. Ibid., p.4.
Also see Adams, W.Y. Op.cit., pp.461-2.

[14] Hurreiz, S.H. Op.cit., p.20.

The three kingdoms continued to adopt the Christian faith and monasteries and churches were erected in different parts of these kingdoms.[15]

Christianity remained, writes Adams:

> ... the official faith of the Nubian kingdoms until the fourteenth century. ... The Church had grown increasingly aloof from everyday affairs ... Thus as successive parts of Nubia fell under Moslem rule, either through dynastic succession or through Arab encroachment the church was deprived of its traditional and necessary support ...[16]

A few Christian cultural traits, writes Hurreiz:

> Still survive among the Ja'aliyyin, as well as among other Riverian tribes of the Sudan.[17]

The following example is cited by Hurreiz:

> ... Drawing the sign of the cross on the forehead and palms of the newborn is presumably a Christian vestige.[18]

The subsequent history of culture in the Sudan, during and after the fall of the Christian kingdoms, witnessed the influence of the Muslim Arabs.

---

[15] Adams, W.Y. Op.cit., pp.471-88.

[16] Adams, W.Y. Ibid. p.545.

[17] Hurreiz, S.H. Op.cit., p.20.

[18] Ibid., p.9.

This infiltration of the country by the Muslim Arabs led in the end to the establishment of the Funj Kingdom of Sinnar. The Funj kingdom is the first known Islamic Sudanese kingdom. This kingdom lasted well over three centuries from 1504 to 1821 A.D.[19]

The process of Islamization and Arabization of the Northern and Central Sudan was, on the whole, slow and peaceful although sometimes wars ~~was~~ erupted and treaties were concluded between the Muslim rulers of Egypt and the kingdoms of Nubia and the Beja. It was peaceful co-existence between the Arabs and indigenous population of the Sudan which helped the processes of Arabization and Islamization.

All contemporary Sudanese and foreign scholars agree on this. To mention only a few, MacMichael,[20] Trimingham,[21] Hasan,[22] Hurreiz,[23] and Deng[24] all agree that the process was gradual and peaceful either through trade or migration, and consequently leading to cultural

---

[19]Crawford, O.G.S. The Funj Kingdom of Sennar, (Gloucester 1951), is one of the main references devoted to the history of this period in the Sudan.

[20]MacMichael, H.A. A history of the Arabs in the Sudan, Cambridge University Press, (Cambridge 1967), Vol. 1, pp.3-4.

[21]Trimingham, J.S. Islam in the Sudan, Oxford University Press, (London 1949), pp.82-83.

[22]Hasan, Y.F. Op.cit., p.18.

[23]Hurreiz, S.H. op.cit., pp.20-21.

[24]Deng, F.M. Dynamics of Identification. A Basis for National integration in the Sudan. Khartoum University Press (Khartoum 1973), pp.12-15.

interaction between the indigenous cultural element which is an admixture of Nubian, ancient Egyptian, Roman and Christian, with the Muslim-Arab culture.

New elements were later added to the cultural setting in the Sudan. These are the Turkish and British elements, the last two threads in the Sudanese cultural fabric. Between the two periods of Turkish rule and British rule there exist the period of Mahadiyya (1885-1898), which is, culturally speaking, a continuation of the Muslim-Arab influence already existing.

The Turkish occupation of the Sudan was completed in 1821, this marking the beginning of the Turkish rule which left a profound effect on the culture of the country, and lasting up to the beginning of the Mahadiyya in 1885. The Turkish language was introduced. Mohammed Ali and his followers, writes Adams:

> ... were Ottomans, if not specifically Turks; like the Mamelukes they spoke Turish rather than Arabic, and under their administration Turkish remained the language of governing elites in Egypt and the Sudan until the late nineteenth century. [25]

Although, as Adams says, the Turkish language remained the language of the governing elites, yet Turkish words, suffixes or refixes found their way into the Sudanese Arabic.[26] And of course with

---

[25] Adams, W.Y. Op.cit., pp.615-16.

[26] Gasim, A.A. Some Aspects of Sudanese Colloquial Arabic. Sudan Notes and Records, Vol. 46, (1965), pp.47-48.

language came other aspects of cultural influences.[27] They also affected the country's tribal structure, which was replaced by a central government to achieve the economic objectives which were the main reasons for the Turkish conquest of the Sudan. These were the same, writes Adams,

> ... as those which prompted the pharaohs to conquer the country 3,000 years earlier: the lust for slaves and gold.[28]

The means employed to achieve these economic goals were very brutal and savage, the memories of which, as has been pointed out by Hurreiz,[29] are still preserved and reflected in Sudanese folklore. This savagery of the Turko-Egyptian rule helped the Mahdi to gain support among the oppressed people of the Sudan and eventually led to his victory and the beginning of the Mahdiyya (1885-1889).

The Mahdiyya did not last long, for the Sudan was reconquered by the British in 1889, the year which marked the beginning of the British rule which continued until 1956, when the Sudan gained her political independence.

---

[27] Gasim, A.A. Ibid., p.48.

[28] Adams, W.Y. Op.cit., p.635.

[29] Hurreiz, S.H. Op.cit., p.23.

The British rule which lasted for more than half a century had its profound cultural impact on the culture of the Sudanese people.

The main vehicles, writes Beshir:

> ... used for the imposition of European cultural values were the colonial economic systems, the legal and educational systems. The economy of the African countries was structured in such a way as to ensure and maximize the profits of the Europeans. Competition and profit making replaced the traditional economies based on cooperation and satisfaction of the local needs in the first place. European legal concepts and codes replaced the customary laws. The African traditional systems of education which combined both learning and participation in the daily activities of societies was replaced by a new system which took the children away from their environments, put them in walled schools and instructed them in foreign language.[30]

Here we come to the end of the broad sketch of the history of the different cultural influences that formed the fabric of the Sudanese cultural setting.

The materials cited in Chapter Six show how these different cultural influences have created the present cultural blend. This process of cultural accumulation has been visualised by Gasim:

---

[30] Beshir, M.O. Diversity, Regionalism and National Unity, Research Report No. 54, the Scandinavian Institute of African Studies, (Uppsala 1979), pp.16-17.

> ... as a horizontal tape extending through time on the surface of which are imprinted the various cultural currents which succeeded each other in the region. For the Sudan was an important highway for civilization and had become a meeting point of cultures and the colloquial language represents in this respect the final product of this process of cultural cross fertilization. [31]

It must be noted clearly that it is not my intention to favour this or that cultural influence, but rather to show objectively how culture or a culture of a certain group of people is formed through contact with other cultures, thus creating, through time, a cultural admixture which is very much alive, dynamic and changing as long as people are meeting and exchanging their cultural values. It is a give and take ongoing process. For we ourselves are not at the end of time.

---

[31] Gasim, A.A. Op.cit., p.40.

CHAPTER SIX

LANGUAGE, BELIEFS AND PRACTICES: ORIGINS AND RELATIONSHIPS

In this chapter I propose to consider firstly the terminology of boat building and handling; and secondly - though in less detail - some aspect of the song tradition. From this material and its complex etymological background I hope to demonstrate in specific detail the synthesis of the various cultural influences described in Chapter Five. Thirdly I shall consider beliefs and practices in their historical and social perspective as yet a further reflector of the diverse cultural setting and syncretism.

Section One

Vernacular Technical Terms

The reader is referred to the Note on the System of Transliteration at the end of Chapter One of this Thesis for the conventions used in presenting the technical terms and the texts cited and discussed below. With regard to the vernacular technical terms there is no specialised etymological dictionary of Arabic, so for tracing these words etymologically I have mainly depended on the sources listed below:

(1) Gāsim, A.A.: qāmūs al-lahja al āmiyya fis-Sudān (Dictionary of Colloquial Dialect in the Sudan).

(2) Armbruster: Dongolese Nubian: A Lexicon.

(3) Ibn Manẓūr: Lisān al-ʿArab.

(4) Hans Wehr: A Dictionary of Modern Written Arabic.

(5) Muṣtafa, I. et al.: al-muʿjam al-wasiṭ.

(6) Frayḥa, A.: Muʿjam al-alfāẓ al ʿāmiyya.

(7) Maʿaluf, 1.: al-munjid.

(8) Baʿalabaki, M.: al-mawrid: English Arabic Dictionary.

(9) al-Zaiyāt, Ḥ. Muʿjam al-marakib wa al-sufun fil Islam.

(10) Smith, J. Payne: A Compendious Syriac Dictionary.

The technical terms studied include:

(1) Parts of the boat

(2) Types of sails

(3) Types of boats

(4) Tools

(5) The crew.

The terms of the parts of the boat are ordered in terms of the sequence of boat building so that the reader can follow the list in connection with Chapter Three. They are listed below with their source language and Arabic and English equivalents. But if there is no equivalent in either Arabic or English or the source language is not known, a question mark will be inserted instead. If some words need further explanation or comment, this is provided after the complete list. These words are numbered in the list.

I will not resort to percentages because, as has been mentioned earlier (p.105) we are not in a position to discuss or decide which cultural current is dominant, but simply to show how cultural traits can come together from different sources to comprise the culture of a group. In any case these percentages vary from one cultural component to another. Also they are abstractions which do not reflect cultural unity; for example, one might find that the percentage of the Arabic words used to describe the parts of the Sudanese water wheel (sāgiya), is very low compared to the Nubian words. The opposite might stand true with regard to Sudanese costumes and ornaments whether of daily life or wedding ceremonies. The result could also be an equal share to more than two cultural influences and so on. Our end product would lead to a vicious circle of abstractions which would take the discussion far from its objectives.

It is also important to note that the ~~lignuistic~~ linguistic origin of the word used to describe a certain part does not necessarily correlate with ~~to~~ the ethnic origin of that part, nor does it mean that a certain group of people is responsible for adding that part. It simply means,

if we accept what has been said before about the adaptability of river craft to its surroundings, that parts change their names from time to time in accordance with the prevailing cultural influence or influences. This can be verified by the fact that one part can have two names of different linguistic origin. For example the keel has two names, madda and itrābil. The rabbet is called kalban in Northern Sudan, whereas it is gura in central Sudan. The stern is daraga in the North but tiriss in the Centre. Also the prow is migdim in the North but badan in the Centre. See the table (p. 75)

1. Parts of the boat

Colloquial Sudanese technical terms	Source language	Arabic	English
madda	Arabic	madda from مدّ ، يمد عارضه تمتد على طول قعر المركب	keel
(1) itrabil	?	,, ,, ,, ,, ,, ,,	keel
lōh	Arabic	lawḥ لَوْح	plank
(daraga	Arabic	daraga	stern
(tiris	Arabic	both literally meaning shield turs تُرْس	stern
al-wastāni	Arabic	alqā'im aklawthalī القائم الكوثلى or alwasit أو الوسيط	stern post

Colloquial Sudanese technical term	Source language	Arabic	English
dura'āt (sing. dura')	Arabic	dhira'āt (sing. dhira) ذراع	stern divergent arms
lōḥ al mēzān	Arabic	Lawḥual mīzān لوح الميزان	cross planking of the stern
(2) kalbān	Nubian	alfarza الضرزه	rabbet
or (3) gura	?	alfarza الفرزه	rabbet
migdim or badan	Arabic ~~Arabic~~ Greek from Βάδισιο (Badizen)	qaydūm ~~qaydūm~~ badan	prow prow

Colloquial Sudanese technical terms	Source Language	Arabic		English
al ajamiyya	Arabic	ʿajami	عجمي	aft lower plank
shaṭfiyyat (sing. shaṭfiyya)	Syriac ܫܕܦ (Shadaf)	shiṭfa	شطفه	
(4) ʿarmūs	?	?		seam
(5) Jagūs	?	maqaʿad almujaddif	مقعد المجدّف	thwart
(6) inglīz	English	marbiṭ	مربط	cleat
(7) bacṭūs	?	alshafīr	الشفير	gunwale

Colloquial technical terms	Source Language	Arabic	English
(8) budūsa	?	ẓahr al mirkab ظهر المركب	deck
mēḍa	Arabic	mīda or mīḍa ميدة أو ميضة	mast step, lintel or breastsummer
as-sāri	Arabic	sāriya or ساريه،	
		daqal/dawqal دقل أو دوقل	mast
hazu	Arabic	from ḥazza حزّ	heel of the mast
al-gāḍi	Arabic	qāḍi قاضي	main bollard

Colloquial technical terms	Source Language	Arabic		English
sham'āt (sing. sham'a)	Arabic	sham'a	شمعه	small bollards
ad-daffa	Arabic	sukkān/	سكّان	
		kawthal/	كوثل	rudder
		khaizurana	خيزرانه	
al-bāb	Arabic		الباب	rudder blade
yad ad-daffa	Arabic	dhira ad-daffa	ذراع الدفه	tiller
rubāṭ	Arabic	ribāt	رباط	batten
rās ad-daffa	Arabic	r' as u-lddaffa	رأس الدفه	rudder head

Colloquial technical terms	Source Language	Arabic		English
ḥadaiyd or	Arabic from ḥadīd meaning metal	almurtakaz	المُرتَكَز	gudgeons
mafaṣṣalāt	Arabic	mafṣil	مِفصِل	gudgeons
khābūr	Syriac or Hebrew (Hibbūr) meaning to join	almismar almi'ṣami	المِسمار المِعصَمي	gudgeon pin
mugdāf	Arabic	mijdāf	مِجداف	oar
midra	Arabic	murdiyu or al-qaiqatan	المُرِيّ أو القَيْقَلان	punting pole
ras as-asāri	Arabic	al-qub	القُبّ	masthead

Colloquial technical terms	Source Language	Arabic	English
aj-jāmūr	Arabic	al-jamūr الجامور or شحم النخله shahm al-nakhla	the halyard affix
al-barda'a	Persian or Syriac from بردعتا (marda'ta)	bardha'a برذعه	masthead collar
al-fāya	?	alkarru الكرّ	halyard
iyārāt	?	hablu-s-sāri حبل الساري	fore shrouds

Colloquial technical terms	Source Language	Arabic	English
ṭurūf (sing. ṭarif)	Arabic	ṭaraf طَرَفْ Literally means outermost point	side shrouds
abāyir	?	?	after shrouds
ad-dafīn	Arabic	dafīn دَفِيْن Literally means buried or hidden	wire loop at the lower end of the shroud
khurus	Arabic	from khirṣ خِرْصْ or khurṣ خُرْصْ	ringbolt
nash-shāla	Arabic	from nashala نشـــل which means to raise, raise aloft; to gather up	rope abridging the side shroud

Colloquial technical terms	Source Language	Arabic		English
shurā'	Arabic	shirā'	شِرَاع	the sail
or gumāsh	Arabic	qimāsh	قِمَاش	
al-garya	Arabic	al quariyya	القَرِيَّة	the sail yard
ṭarṭūr alghata	Arabic	ṭurṭur	طُرْطُور	goatskin cap to sail yard
malawīna	Arabic	from lawā, to twist or turn around	لَوَى	cross bar to rotate the yard
al-ma'īn	Arabic	Mu'īn	مُعِيْن	ropelashed around to fasten the yard to the mast neck

Colloquial Sudanese technical terms	Source Language	Arabic		English
sigāla	Italian	siqāla	سقاله	bolt rope
or				
risgāla	Italian	siqala	سقاله	bolt rope
al-muṣrān	Arabic	muṣrān	مصران	thin rope passing inside the turned-in edges of the sail
(9) gabālīs (sing. giblīs)	?	halaqa أو حلقه		loops connecting sail to the yards
		or ʿoqda	عقده	
al-mindēra	Italian, from bandiera	al ʿalam	العلم	flag on top of the yard to indicate direction of wind
		or	أو	
		al-rāya	الرايه	

Colloquial Sudanese technical terms	Source Language	Arabic		English
aṭ-ṭārma	?	khizana	خِزَانَة	stern locker
hilib	Arabic	hilb	حِلْب	anchor
al-murkab	Arabic	al-mirkab	المِرْكَب	the boat herself
kantīn/kintīn	English	ḫānūt	حانوت	roving shop boat (canteen)

2. Types of sails

Colloquial Sudanese technical terms	Source Language	Arabic	English
trinkīt	English	?	trinket
(10) gaṭafōr	?	?	?
(11) ʿabʿab	?	?	?
(12) maḥrut			

3. Types of Boats

Colloquial Sudanese technical terms	Source Language	Arabic	English
nagur	Arabic	naqīra نَقِيرَة	
		mirkab tijariyya مركب تجاريه	big cargo boat
		or ḥarbiyya أو حربيه	or corvette
ḥawwātiyya	Arabic (from ḥūt which means fish)	Mirkab ṣayd مركب صيد	fishing boat
ma'addiyya	Arabic	mu'addiya مُعَدِّيَة	ferry boat
sharōg	Arabic	from shirāq which means lightwood	canoe
(13) bungulu	?	?	canoe

4. Tools

Colloquial Sudanese technical terms	Source Language		Arabic	English
gaddūm	Aramic/Hebrew, Syriac in all these languages it is quardūm	qaddūm	قَدُّوم	adze
fās or	Arabic	fa's	فَأْس	axe
balṭa	Turkish	fa's	فَأْس	axe
izmīl	Aramic or Persian	izmīl	إزميل	chizel
gurnāṣ	Syriac/ ܓܪܢܨܐ Aramic/ גרנסא (qurnasa)	al mitraqa المطرقه المخلبيّه al mikhlabiyya		clawhammer
munshār gatū'	Arabic	minshar qat' muta'āriḍ	منشار قطع متعارض	cross-cut saw

Colloquial Sudanese technical terms	Source Language	Arabic	English
munshār ta'līga	Arabic	minshar منشار mua'allaq معلّق	hanging saw
birrīma	Arabic	birrīma بريمة or mithqab مِثقب	drill or auger
mubrad	Arabic	mibrad مِبرد	file or rasp
ḍuffra	Arabic	miẓfār مِظفار or izmīl maqa'ar إزميل مُقعّر	gouge-like chisel
mudgāg	Syriac from (midaqat) مِدقة	miṭraqa	mallet
munjara	Syriac from (nujra)	?	vice-like block of wood for holding the planks when drills are opened

5. The Crew

Colloquial Sudanese technical terms	Source Language	Arabic	English
rayis	Arabic	ra'īs رئيس or rubbān رُبّان	skipper
Nawwāti or Nūti	Greek (from nautikos)	nūti نوتي baḥḥar بحّار	sailor
ummal'wl	Arabic	jariya or khādim	a woman servant
(14) fār al murkab	Arabic	?	a small boy serving the crew

The tables of the technical terms above, make it clear that the Sudanese Dialect of Arabic has incorporated words of diverse origins. Words of Nubian, Arabic, Syriac, Persian, Greek, Aramic, Hebrew, Italian, Turkish and English origins are used, thus reflecting the syncretistic character of the Sudanese colloquial dialect.

We can also notice that the occurrence of Nubian words is minimal. There is only one word which we are sure is of Nubian origin as explained by Armbruster in his Dongolese Nubian: A Lexicon. The word is kalbān, which means rabbet (number 2 in the list). Armbruster asserts that it is a Nubian word which is originally formed of two words; kūl meaning protrude, hole, cavity, extract and bān meaning, let it lie. The meaning of the two words combined together provides the meaning of rabbeting.

With regard to the words which I could not trace to their source language, a Nubian origin might be postulated until further investigation verify or falsify, bearing in mind the fact that the Nubian language is the least documented language of all the languages mentioned above. These words are among the words numbered in the list, namely words (1) itrābil, (3) gura, (4) ʿarmūs, (5) jāgūs, (7) batūs, (8) budūsa, (9) giblīs, (10) gaṭafōr, (11) ʿabʿab, (12) maḥrūt and (13) bungulu.

On the other hand, for some of the above mentioned words we may deduce by analogy, a Greek origin. There are some words which are etymologically Greek and are widely used in Arabic. All these words have got the suffix ʾūś, like, gadūs which is "a water-wheel

bucket", qāmūs which means "dictionary", fānūs which means "lantern". Compared to these words one might be able to say that words like ʻarmūs, jāgūs, batūs are also of Greek origin.

As for word number (6) in our list which is the word ingliz literally meaning English, but it is used in this context to denote the cleats supporting the mast on both sides. They are two massive planks spiked to the middle thwart to keep the mast in position.

Most of the informants interviewed by the present writer say that they do not know any other name for this part of the boat. Furthermore, when asked about why they call it ingliz, the answer is always because the English colonizers were firm, strict and strong, just like the cleats which are strongly supporting and keeping the mast in position. So one could deduce that the name of this part conveys a metaphor ascribing the qualities of the strongest part of the boat to the qualities of the English which people in the Sudan have experienced during the colonial period.

Section Two

Texts of Song Tradition

The many linguistic influences which are reflected in the material are also to be found in praise songs and the work songs of the sailors. While it is not feasible to analyse these songs in depth and detail here, the following texts are selected and cited in this section as a further example of the syncretism we have noted.

Text number one:

This text is originally recorded in Dongolese Nubian.[1] A transliteration, Arabic and English translation will be cited below the original text. All the following texts will be treated the same way. As the Dongolese Nubian is not a written language, the original text will be provided in Arabic script. The first text is a praise song for a sailor composed by his wife describing his qualities which make him the best among the other men who hold other occupations.

---

[1] The informant is a man who was once a skipper.
His name is Abdal Hādi Monammad Ali Hasan.
Tape number: I.A.A.S. 2602.
Date of recording: 7.6.1982.
Place of recording: the house of the informant in village of Wad Nimēri which lies on the east bank of the river Nile, South of Dongola, the Northern Province.

الراوى : الرئيس - عبد الهادى محمد على حسن
رقم الشريط : م ر أ أ ٢٦٠٧
تاريخ التسجيل : ٧/٦/ ١٩٨٢
مكان التسجيل : منزل الراوى بقرية ور نميرى
الواقعه شرق النيل - جنوب رنقلا -
المديريه الشماليه

النص بالرنقلاوى : The Dongolese Text

أيوا لا مسافر كزمن
كلّ يوسته قونشمن
جواب فامنى قرييمن

ولا أُمره كرمن
كلّ يوم تشكارى قابلى منون
باىّ السّير أنىّ مِرمُن

ولا تربال كرمن
رينق هقوار تيقا كوبمن

ولا تاجر كرمن
بعد اليل هساب كاومن

أى ريس أنجب
ليلقى هرى رال أنجب
بتّى شبّ رال أنجب

صندك ساڑی کول أنجب
قنن مدرهه کول أنجب
موجی هاسبل أنجب
رفّه جوم هليل أنجب

Sudanese Colloquial Arabic Translation

ترجمة النص العربيه كما ترجمها الراوى :

أناولا نتزوج المسافر ما عندنا رعيه في المسافر كل يوم انتظر وأعاين كل بوسته وأقرا الجواب فاضى .
ولا يتزوّج العمده أقابل كل يوم الضيوف وأحش البصل وأقطع يدّى .
ولا يتزوّج الترباك المزارع وآخر السنه أسدّد الدين بالورتابه .
ولا يتزوج التاجر البحسب قروشو كل آخر ليل .

أنا البعجبنى الريّس السهران الليل ،
وعجبنى خامّى كل الأصناف المعروفه
يعجبنى أبو مدرهه قنا وأبو ساڑ صندل
يعجبنى البضايع الموج
وان ضرب الرفة يخلعها .

Transliteration of the Nubian Dongolese text:

aiwa la musāfir kedmun

kullu būsta gūnshimun

jawāb fadi garyēmun

wala ʻumda kedmun

kullu yōm tishkari gblē munun

billē - s - sēr anni mermun

wala turbāl kedmun

dēng hagawrtega kobmun

wala tājir kedmun

baʻad al-lēl hisab kawmun

ai rayis annajab

lēlgi sihrē dāl annajab

bitti shabba dal annajab

sandal sari kōl annajab

ganan midra kōl annajab

mōjki hasibēl annajab

daffā jom halēl annajab

English translation:

I will not get married to the man who travels away
The one who sends empty letters
Every day I wait for the post and he
sends no money.

I will not get married to the mayor
Who gets a lot of guests
Everyday I meet them. With the knife I cut
onions to prepare food, I also cut my hands
and get hurt.

I ~~will~~ will not get married to the farmer
who is always in debt.

I will not get married to the merchant
who only likes his money which he
counts at the end of each night.

I like the skipper who is watchful and vigilant
The one who keeps awake all night and he comes
back to me with all sorts of things that are
not usually available to others.

I like the skipper who has got the mast
of his boat made from sandalwood
and whose punting pole is a bamboo pole.

الراوى : يونس عبد الله خبر الله
رقم الشريط : م د أ أ ٢٦٠٧
تاريخ التسجيل : ١٩٨٢/٧/٣١
مكان التسجيل : المورده بمدينة ودمدنى، غرب النيل الأزرق

The Text in Sudanese Colloquial Arabic:

يلا، يا ليهما ، الله يا ليهما ، الله يا ليهما
يا الشيخ الشوم
يا ود أم مريوم
إنكسر الكوم
يلا لى قدام يلا لى ورا
يا ليهما ، ليهما يا على ، ليهما يا شبى
هوّن علينا ، الفجيه شينه
يا الشيخ أبونا، يا العدو الموته
يا ود حسونه
هى ليهما ، الله يا ليهما
يا أخوانا أرُولو قدر طولو
هوى يا ود ام مريوم ، يلا لى قدام
كُلكُم صبايا ، كُلكُم نقايا
التمساح ينقّى الخاين
الخاين الله يخونو

I like the one who is courageous and
who can fight his way through the waves, and
who is also strong because if he hits
the rudder, it will be dislocated.

Text number two:

The following text is a work song. It is sung by the crew when the boat hits shallow water, especially in summer when the water level is low. So while pulling the boat through, the crew sing the following song:[2] For the text in Sudanese Colloquial Arabic see page 133.

Transliteration:

yalla ya <u>liṣa</u> Allah ya <u>liṣa</u>

Allah ya <u>liṣa</u>

ya alshēkh alTōm
ywad am maryōm
inkasar alkōm

yalla Lē giddām yalla lē wara

ya <u>liṣa</u>

<u>Liṣa</u> ya ʿAli

<u>Lisa</u> ya nabi

---

2 The informant is a skipper from the town of Wad Medani on the West bank of the Blue Nile.
Name: Yūnis Abdalla Khēralla.
Tape number: I.A.A.S. 2607.
Date of recording: 31.7.1982.
Place of recording: Site of boat building at Wad Medami.

hawwin ʿalēna alfijja shēna

ya al shēkh abūna ya al ʿindu-lmūna

ya Wad Hisūna

hēy Lisa Allah ya Lisa

ya akhwanna addūlu garī ṭūlū

Hōy ya wad Om-Maryōm

yalla lē giddām

kullakum ṣabāya kullakum nagaya

altumsāh yinaggi alkhayin

alkhayin Alla yikhunu.

In this song and the following ones there are some words for which I could not find any meaning or equivalent. Therefore, these words which are underlined in the original text and the transliteration will remain as they are in the translation. The explanation which one could give now for the occurrence of such words in these songs is that they are meant to keep the songs and work in rhythm. This can be accounted for by the fact that they appear in a number greater than any other name used, whether the name of God, a prophet or a saint. For instance, in this text such words are exemplified by the word lisa which occurs eight times.

Translation:

Come and get ready, O, lisa, O, God, O, Lisa

God, O, lisa

O, Shēkh al Tōm

O, Wad Om-Maryōm

The heap (or building) is being broken

Come push forward, come pull backward ,

O, Lisa ,

Lisa o, Ali, Lisa, O, prophet

Our saviour, make it easier for us

the place is dangerous .

O, al shēkh, our father who has got

aid and reinforcement, Oh Wad Hisūsa

O, lisa, Oh God, Oh lisa

Our brothers give as much as you can

O, Wad Om-Maryōm 3a

push forward ,

you are all strong, pure and faithful.

The crocodile kills the deceptive

God does not help the deceptive.

Text number three:

The following work song is sung when hoisting the sail:[3]

---

[3] Informant: Hasan Ibēdalla Mustfa, a former skipper
Tape number: I.A.A.S. 2606
Date of recording: 15.7.1982.
Place of recording: the informant's house, as-Sūki on the West bank of the Blue Nile.

3a I would like to explain that wad Om Maryōm, is Shēkh Hamad Wad Om Maryōm who lived during the Fung kingdom of Sinnār. He was a famous Muslim saint and people still believe in him as powerful saint. This note is needed so that the reader does not get confused or misinterpret- wad Om Maryōm as Christ son of Mary the virgin. See Tabaqāt, Hasan (ed.) P. 173 Khartoum University Press, Khartoum, (1971).

الراوى : حسن عبيد الله مصطفى
رقم الشريط : م د أ أ/٦٠٦ ج
تاريخ التسجيل : ١٩٨٢/٧/١٥
مكان التسجيل : منزل الراوى بمدينة السوكى الواقعه غرب النيل الأزرق

The Text in Sudanese Colloquial Arabic:

بِيْلَمَانْ يا بِيْلَمَانْ
الله الله يا بِيْلَمَانْ
بِيْلَمَانْ شُغَلَ الرِّجَالْ
الله الله يا بِيْلَمَانْ
بِيْلَمَانْ والشغل بانْ
الله الله يا بِيْلَمَانْ
بِيْلَمَانْ يا البيلمان
الله الله يا البِيْلَمَانْ
بِيْلَمَانْ مدرك وقماش
الله الله يا بِيْلَمَانْ

Transliteration:

bēlamān ya bēlamān

Allāh Allāh ya bēlaman

bēlaman shughul drujāl

Allāh Allāh ya bēlaman

bēlaman wa al shughli bān

Allāh Allāh ya bēlaman

bēlaman ya al bēlaman

Allāh Allāh ya al bēlamān

bēlamān midra w gumāsh

Allāh Allāh ya bēlaman

Translation:

bēlamān O, bēlamān

Allāh Allāh O, bēlamān

bēlamān, it is a hard work for strong men

Allāh Allāh O, bēlamān

bēlamān, hard work is showing good results

Allāh Allāh ya bēlaman

bēlamān ya al bēlamān

Allāh Allāh ya al bēlamān

bēlaman, the punting pole and the sail

Allāh Allāh ya bēlamān

Furthermore, the linguistic admixture of the Sudanese Dialect is reflected in the texts cited above. For example, one line of the lyrics of the praise song, text number one, contains three words each of a different linguistic origin. The second line of the text:

kullu būsta gūnshimun

which translates:

Every day I wait for the Post.

The word kullu is an Arabic word which means 'every '. būsta, derives from the English word post. And finally, gūnshimun is a Dongolese Nubian word which means waiting for.

Texts number two and three provide us with words like lisa and bēlamān for which I could not find any reference in all the sources consulted.

In text number two names of some Muslim saints are mentioned. Belief in saints and their ability to help their followers and mediate between man and God is one of the main features of Popular Islam in the Sudan. This will be discussed in more detail in Section Three below.

Section Three

Beliefs and Practices

Under this category fall the following:

(1) Animal sacrifice, karama.

(2) Fire building at the end of a working day.

(3) Launching ceremonies.

(4) Decoration.

All these will first be described and then discussed in terms of their origins and relationships (p.149).

1. Animal Sacrifice

The practice of animal sacrifice is called karama. This is an act in which animals are sacrificed and blood is shed to protect, or in the hope of protecting, lives and possessions from unknown evil happenings. In the context of my story it refers to the ceremonial slaughter of an animal as an offering to God to keep away evil and evil spirits from the owner of the boat, his household and the boat herself.

Two animals are slaughtered by the owner of the boat that is being built, one at the beginning of building the boat and another when the boat is finished and ready to be launched. The animal slaughtered is usually a ram or a goat, but a ram is always preferred if available.

Meat is free for everyone who attends the occasion.

Animal sacrifice in the Northern Sudan is not only associated with boat building. Animals are also slaughtered, for example, on the anniversaries of holy days, on a wedding day, on the occasion of birth in the family or circumcision and also on the building of a new house or any other building.

Evidence of animal sacrifice and other practices in connection with birth is provided by Hurreiz who writes:

> After birth, a sacrifice, usually a slaughtered sheep, is offered to Allah and the benevolent saints. Bones of the sheep are hung somewhere in the new mother's room to chase away evil spirits. The sign of the cross is drawn on the newborn's palms and forehead. The holy book the Qur'ān is put beside the child's bed and a hafiza (protective charm) is written by a Muslim priest.[4]

2. <u>Fire building at the end of a working day</u>

Everyday when the craftsman finishes his working day he collects some pieces of wood that were scraped or chopped off the different parts of the boat during the day. He places these pieces in front of the boat exactly under the fore end of its prow, lights the fire, leaves it burning and goes home. This takes place every day at exactly the same time, that is, when the sun goes down and disappears on the horizon, until the boat is finished.

This practice they believe, makes work and everything easier for them, chases away the devil <u>shaytān</u> and protects them against the evil eye.

[4] Hurreiz, S.H. <u>Ja'ahyyin Folktales</u>, Indiana University Press, Bloomington, 1977, p.6.

This practice is also observed at the same time from start to finish when building a new house.

3. Launching ceremonies

When the boat is finished and ready to go afloat, this calls for another ceremonial act. All those who attend should participate in the occasion. An animal is slaughtered as an offering to Allah, and again meat is free for all people. People of both sexes and different ages, men, women, old or young, boys and girls should attend. It is an occasion of goodness and happiness in which all people should take part.

After the boat is taken off the stocks (description p. 190) onto wooden rollers, men and boys start pushing and pulling with ropes; shouting delightedly ~~delightfully~~. Simultaneously one of the men jumps into the boat and stands on top of its fore end shouting the ādhān, which originally is the Islamic call to prayer. Al ādhān usually takes place at the mosque. But here in this context it is used first as a blessing, and secondly to encourage people to come and take part in this good act; for the act of building a boat is considered as a good deed and a virtue because it serves the whole community. The ādhān goes as follows:

The Arabic Text:

اللّهُ أكبر
أللّهُ أكبر
أشهد ألاّ إله إلا الله
أشهد ألا إله إلا الله
أشهد أنّ محمداً رسول الله
أشهد أنّ محمداً رسول الله
حيّ على الصلاة
حيّ على الصلاة
حيّ على الفلاح
حيّ على الفلاح
اللّهُ أكبر
اللّهُ اكبر
لا إله إلاّ الله

Transliteration:

Allāhu akbar, Allāhu Akbar

ashadu alla ilāha illa Allāh

ashadu alla ilāha illa Allāh

ashadu anna Moḥammadan rasūLu AUāh
ashadu anna Moḥammadan

rasūlu Allāh

hayya ala al-salāḥ

hayya ala al-salāḥ

hayya ala al-falāḥ

hayya ala al-falāḥ

Allāhu akbar, Allāhu akbar

La ilāha illa Allah

Translation:

Allāh is the greatest, Allāh is the greatest

I bear witness that there is no god but Allāh

I bear witness that there is no god but Allāh

I bear witness that Mohammad is the messenger of Allāh

I bear witness that Mohammad is the messenger of Allāh

come to prayer

come to prayer

come to goodness and virtue

come to goodness and virtue

Allāh is the greatest, Allāh is the greatest

There is no god but Allāh.

After the Adhān, women and girls start shouting special shrills known as zaghārid which are meant to encourage the men to work hard to finish the work.

Men start to pull the boat by means of two thick ropes lashed to the stern post, one on the port hand and the other on the starboard side. They stand in two rows holding the ropes. Then the skipper or the owner of the boat climbs in and stands in the boat to keep the rhythm and time of work, because all men on both sides should pull the boat together at one time. The man inside the boat acts like a conductor. He shouts out in a very loud and in a a strong voice:

hubb, which means something like 'go' or 'get ready'.

The men on both sides answer while pulling

hubb, salli ʿalēh

which means 'go, praise him' (meaning the prophet Mohammed).

Then they rest for a while and the same is said and done repeatedly until the boat reaches the river.

While the men are pulling, the boys take the freed wooden rollers to the front after each pull, ready for the next one. Also meanwhile the women and girls continue to shout zaghārid to encourage the men to work hard.

4. Decoration

Decoration on the Sudanese boat comprises the following categories:

(i) Incised and painted geometrical shapes

(ii) Amulets

(iii) The flag

These categories are only encountered on the large cargo boats nugūra, sing. nagur. They are not found on any other type. An explanation will be given later when we consider the whole body of beliefs and practices; meantime a description is given for each of these three categories.

(i) Incised and painted geometrical shapes:

Incised circles or triangles are usually noticed on the top strake, all around the boat. No colour is used here but only bare geometrical shapes. I have not been able to collect a particular name for it; wherever I asked about it the informant's answer was that it is a zina, meaning decoration or ornament. It is thus known only by a generalised term.

Colour is only used to paint triangles on the upper part of the rudder blade (albāb), and bands around the tiller (yad-ad-daffa). The colours used are either black, white or green (Plates 15 and 17).

Also a rosette is incised within two circles on the sides of the main bollard al-gadi. The rays of the rosette range between four, six and eight rays (Fig.14).

(ii) Amulets:

The Standard Dictionary of Folklore Mythology and Legend [5] defines amulets and their functions, worldwide, as follows:

> A material object, usually portable and durable, worn or carried on the person, placed in a house... to protect the owner from dangers such as death, shipwreck, lightning, attacks by thieves or animals, evil spirits, witchcraft, or the evil eye... The use of amulets is world-wide among almost all peoples...

The dictionary goes on to cite examples from different parts of the world. The range of examples is very wide, but mainly they fall under certain major headings, namely, objects, animal parts, plants or fruits and written amulets.

An amulet in the Sudan is known as hijāb, which means 'written amulets'. But if we take the definition given by the Standard Dictionary of Folklore, Mythology and Legend, we will find that there are many other types of amulets in use in the country.

---

[5] Maria Leach (ed.) Funk and Wagnalls Company, (New York, 1949), Vol. 1.

On the Sudanese boat, for example, there are two kinds of amulets. The only animal figure drawn on this sail is the crocodile, which they believe can give them protection. The amuletic character of the crocodile figure was noticed, recorded and recognized by Hornell[6] in the 1940's.

The other kind of amulets on the boat are written amulets. This amulet consists of a piece of paper written by a faki or fagir, a muslim priest. It contains verses from the Qur ān among other signs. This is what informants tell you, but you can not see what is written inside for the paper is usually kept in a bag of leather or another fabric and sealed.[7] It is a taboo to open an amulet. It is believed that it loses its protective power if opened and read. The belief is that this amulet protects the boat against shipwreck or the evil eye.

(iii) The Flag:

Every boat should have a flag, usually lashed to the top of the upper yard. The practical function of the flag is to show the crew the direction of the wind. But what concerns us here is the colour of the flag, which is connected to belief in Muslim shēkh or saints.

---

[6] Hornell, J. "The frameless boats of the middle Nile." Sudan Notes and Records Vol. 26, No. 2, April 1940, part two, p.134.

[7] But Trimingham who might have had the chance to see one described it as:

> containing Qur ānic verses and cabalistic signs arranged within squares called 'the seals'.

Trimingham, J.S. Islam in the Sudan, Oxford University Press, (London 1949), p.169. For more on amulets in the Sudan, see Ibid pp.129, 172-75, 169-70 and 180.

Every Muslim saint has got his own distinctive colour of flag. Consequently the colour of the flag on the boat is the colour of the flag of the saint that the owner or the skipper of the boat follows.

The majority of Sudanese Muslims believe in Muslim saints. They are divided between the existing religious orders. Each religious order is headed by a Muslim saint whether dead or alive. This saint plays an important role in the life of a Sudanese Muslim but mainly as a mediator between man and God.

ORIGIN AND RELATIONSHIPS

The above features to the present writer reflect a collection of practices of diverse origins. The setting in which these practices are performed is an Islamic one. But it is noteworthy that by Islamic we mean Popular Islam as distinguished from Orthodox Islam.

Popular Islam in the Sudan incorporates beliefs and practices that are related to cultures that were prevailing in the area before the coming of Islam. These, namely, are Animism and Fetishism which were followed by Christianity. There are, in addition to these, some Jewish or maybe Greek cultural elements.

Some practices might be thought of as Islamic, like the animal sacrifice, karāma, but, as is correctly stated by Bond it may be argued that:

> ... the practice of ceremonial slaughter is definitely laid down by Mohammedan and other religions, but there can be little doubt that in this, as in many other matters, religion has only regulated and codified previous custom.[8]

As we might all know the practice of human sacrifice was prevailing in ancient times among different peoples, and there is enough archaeological evidence to prove that.[9]

If we take this fact into consideration in addition to the story of Abraham, the Jewish prophet, we may be able to accept a Jewish influence with regard to animal sacrifice.

Abraham, whose story is mentioned in the Qur'ān, was ordered by God to slaughter his son. The order was meant to test Abraham's loyalty to God. Abraham obeyed, and when he was about to slaughter his son, God sent an angel with a ram from heaven to be slaughtered instead. Thus God ascertained that Abraham was obedient to God's command and his son was rescued.[10]

It is presumably since that day the ceremonial sacrifice of animals started among the Jews. The story and the practice was then transmitted to the Muslim Arabs who retained the practice and in their turn transmitted it to other nations. Muslims everywhere today celebrate the day of sacrifice by slaughtering a ram as an offering and a thanksgiving to God who rescued Abraham's son who happened to be Ismā īl from whom all Arabs trace their descent.

---

8 Bond, W.R.G. "Karama" in Hamilton, J.A. de C. (ed.) The Anglo Egyptian Sudan from within', Faber and Faber, London, 1935, p.246.

9 Abdal Hakim, Sh. Mawsū'at al Fulklōre Wa-l- Asatīr al- Arabiyya (Encyclopedia of Arabic Folklore and Mythology), Dar al- Awda, (Beirut 1982) pp.166-67, also see pp.170-175.

10 For more information on the subject see: Abdal Hakim, Sh.. Ibid., pp.164-169.

This event whether historical or mythical probably marks the end, or the beginning of the end, of human sacrifice which was practiced ceremonially during ancient times.

Again, the cabalistic signs in the Sudanese amulets, mentioned by Trimingham,[11] could be taken as a Jewish influence. The cabala or babbala, as defined by the Oxford Illustrated Dictionary, is the Jewish oral tradition handed down from Moses to the rabbis of the Mishna and Talmud, or the pretended tradition of the mystical interpretation of the Old Testament.

Christian elements are not persistent among boat builders. There is only one element which could possibly be interpreted as Christian. If we consider the rosette which is incised within two circles on the sides of the main bollard al-gāḍi, we might perhaps infer a Christian element. As mentioned before (p.147) the rays of the rosette range between four, six or eight. For the six and the eight I have no instant interpretation. But, with some reservation, I would say that the rosette with four rays stands, or can be interpreted as, the sign of the cross.

Christian cultural elements can be encountered in connection with other practices. Trimingham,[12] Hurreiz[13] and Madani[14] give us examples of practices of Christian origin, especially in connection with wedding, pregnancy, birth and newborn or children's illness.

---

[11] Trimingham, J.S. op.cit. p.169.

[12] Trimingham, J.S. Ibid., p.180.

[13] Hurreiz, S.H. op.cit. p.6 and 9.

[14] Madani, Y.H. al-ʿAngarēb, A traditional bed craft industry in the Sudan. An unpublished M.A. dissertation, Universoty of Khartoum, 1980, pp.109-110.

The ceremonial use of fire by people all over the world, old or contemporary, leaves us no chance to infer with any certainty the origin of this practice. However, the use of fire to protect people or their possessions from, for instance, (as is the case in the Sudan), the evil eye or evil spirits, Shaytan, or as a purifying element,[15] can be linked to the mythology of the origin of fire.

The Standard Dictionary of Folklore, Mythology and Legend mentions that:

> Throughout the world, from South America to Australia, Africa to Europe, Asia to North America, the myths indicate that the original fire of mankind, stolen usually from the gods or from some other previous owner, was hidden in the trees or in a specific tree, and that ever since man has had to rub this wood to produce fire.[16]

The present writer did not collect data on the mythical origin of fire from the Sudan. But the protective powers attributed to fire, as being able to protect people and their possessions from evil spirits and evil eye is, by definition, a fetishistic vestige; related to cultures that were prevailing in the area before Christianity and Islam.

---

[15] Examples of using fire as a purifying element are found in Maria Leach (ed.) op.cit. 1949, vol. I, p.389.

[16] Ibid, p.389.

One is also inclined to suggest an influence of Greek Mythology, represented by the spread of the myth of the culture hero Prometheus in the Arab world, especially Lebanon and Palestine.[17]

It is evident that there is a Greek cultural element in Sudanese culture as has been explained earlier (p.127), but there are certain points we need to explain in an attempt to infer that the use of fire by boat builders in the Sudan, in the way explained above (p.141) is a symbolic practice echoing the Prometheus Myth.

First we need to summarize the Arabic version as told in Abdal Hakim[18] by citing its main motifs. Second, we could relate the practice by breaking it down into symbolic elements, to the motifs of the myth.

The main motifs of the myth are:

(1) Zeus, the god of heaven was the possessor of the first fire who refused to give it to human beings.

(2) Prometheus stole the first fire from Zeus in a piece of wood and handed it to human beings.

---

[17]Abdal Hakim, Sh.op.cit., pp.100-101.

[18]Ibid, pp.100-101.

(3) Zeus saw fire at sunset and punished Prometheus eternally ~~externally~~.

The practice of fire building at the end of a working day by boat builders in the Sudan comprises the following symbols:

(1) fire

(2) wood

(3) fire burning at sunset.

With regard to the first two motifs and symbols, the mythical origins of fire as being stolen from a first owner and the association of fire to wood is worldwide, as has been mentioned before (p.152) That means these two motifs are not restricted to the Greeks. In fact it is the time, sunset, when Zeus saw fire on earth and when the boat builder builds his fire, which makes one suggest, or accept with reservation, a possible Greek influence. This may hold good until further investigation of myths of fire origin in the Sudan, shows otherwise or verifies the suggestion.

The relationship of the practice to the Greek myth in the opinion of the present writer, is as if man by building fire at sunset, symbolically defies Zeus who refused to give fire to man. At the same time, by this practice man commemorates Prometheus whose benevolent courage and concern about the welfare of mankind brought him to eternal torture.

Although, in some details, launching ceremonies and decoration reflect the influence of pre-Islamic cultures, they reflect mainly Islamic influence, either Orthodox or Popular. For instance, these

are reflected by the ādhān, the Islamic call to prayer and by shouting the name of prophet Mohammad while pulling the boat towards the river.

The geometrical shapes on the top strake, the rudder and tiller can be interpreted as representing or reflecting the character of Islamic art. Islamic art tends towards abstraction owing to the ban on images and real representation of human beings and animals. More evidence is given by Madani with regard to the influence of Islamic art on the works of the Sudanese craftsmen. He says that:

> We can find that these patterns bear the characteristics of Islamic art ... This is not only reflected in the bed stringing patterns but even in the designs of the bed legs in which we find no representation of human beings or any living organism. [19]

Moreover the Qur ānic verses written inside the amulet is again an Islamic influence, although the protective power attributed to the amulet could be interpreted as fetishistic. Also, the figure of the crocodile portrayed on the sail of the boat is non-Islamic.

Another decorative element, the colour of the flag which is described on p.148 is a reflection of Popular Islamic belief in the Sudan, related to belief in a divine Shēkh who is thought to be able to protect and mediate between man and God. In Orthodox Islam by contrast, man can communicate directly with God, without any need of

---

19 Madani, Y.H. op.cit. p.113, also for comparative material see p.47, p.114..

a mediator. The religious orders turug sūfiyya, sing. tarīga, known to Muslims in the Sudan are numerous, but it suffices to mention some famous orders such as al-Shādhiliyya, al-Qādiriyya, al-Tijāniyya, al-Mirghaniyya and al-Sammaniyya.[20]

The belief among Muslims in the Sudan as stated by Hurreiz:

> ... that everyone should have a muslim sheikh to lead him on the spiritual path and supervise his moral conduct and deter him from sinful desires. This is best illustrated by the saying prevalent among the Ja'aliyyin al ma indusheikh sheekhu ibliis (That one who does not have a sheikh is guided by the devil) [21]

Belief in saints as being able to protect people and their possessions and perform miracles is a common belief in the Christian faith. Sūfism or mysticism is not known to Orthodox Islam, thus one finds it possible to accept a Christian influence on the Sūfism of Popular Islam. This agrees with what Trimingham[22] has already explained:

> Original Islam has no deep connexion with mysticism, in spite of the attempts that have been made to read it into the meagre hints in the Qur'ān, but the expansion of Islam into Egypt, Syria, Iraq and Persia brought large Christian populations into the Islamic fold. These naturally brought with them their religious attitudes

---

For more information on religious orders in the Sudan see

[20] Trimingham, J.S. op.cit. pp.187-241.

[21] Hurreiz, S.H. op.cit. p.9.

[22] Trimingham, J.S. op.cit. p.187.

> to life, expressed it in Muslim forms and strongly influenced the ascetics of Islam from within ... Sūfism arose out of this asceticism of the first century of the Hijra. Wandering ascetics were first called Sūfis because of their practice, like that of the Christian ascetics, of wearing a woollen habit (sūf = wool) and so the word came to mean first ascetic and then mystic.

If this happened as early as the first century of the Hijra as mentioned above by Trimingham, then it is more likely to happen in the Sudan in which Christianity was once the official faith for more than eight hundred years.

This brings us to the last part of our present chapter. As was mentioned before, some of these practices and beliefs, like decoration with all its categories and the amulets, are encountered only on large cargo boats which travel for long distances along the Nile. The fact that they travel for long distances with heavy loads means there is some danger involved. So these practices could be attributed to a number of factors. These could include uncertainty and economic anxiety, or could be due to man's eternal fear of the unknown.

What has been discussed above about the beliefs and practices of boat builders is necessarily a reflection of what is happening in the community at large. These practices are uniform all along the area covered by the present writer, thus giving us the chance to look beyond the tribal boundaries to the national.

An example of this infusion of beliefs and practices of diverse origins incorporated in the occasion of birth can clearly be noticed as reported by Hurreiz, see his quotation (p.141) These practices are clearly of diverse origins. In the light of what has been mentioned before one can easily trace them to their origins.

As I have mentioned before (p.92) these practices are performed, retained and transmitted from one generation to another and held by people as their own folk culture regardless of origins. It is important to note at the end of this chapter that our concern with origins is meant to show how cultural contact and interaction could lead to a unified and harmonious cultural blend; in other words to show how unity of diversity could be achieved.

CONCLUSION

Objects of material folk culture, studied in their historical and socio-cultural context, can be of great use to help us to understand objectively our cultural setting. This is because these objects with the beliefs and practices associated with them are the visible dynamic manifestations of a long history of cultural contacts.

Documentation of the objects of material folk culture by description and classification is important, but it should not be the only objective of students of material culture because this would lead to an antiquarian approach to what is "living" material. Treating objects of material culture as having meaning in socio-cultural terms enables one also to study them in relation to modern technological advancements and the impact they leave on the old ways of living. In this connection one finds it feasible to say that the relationship between development and tradition is a positive one and examples have been given in this thesis.

From the survey of the state of material culture scholarship in the Sudan, it appears that the Sudan is a fertile but insufficiently explored territory for future students. The few studies which are available are descriptive and taxonomic in nature, especially the studies carried out during the first half of the present century by European archaeologists and British administrators.

During the second half of the century there started a revival of interest in the study of Sudanese material culture. Sudanese

researchers started to participate in the study of material culture. Apart from a few exceptions, the studies made in this half of the century are not merely descrptive but incorporate historical and socio-cultural insights.

With regard to the study of boat building, our present study, the only available account of considerable length dates from the 1940's. The writer of this account should be given credit for his recognition of the subject as early as four and a half decades ago, but still the work is very far from exhaustive. Two other shorter accounts have been published, one in 1969 and the other in 1983. For the writer's comments on these three accounts see pp. 22- 23 .

The attempt of the present writer is to view the craft of boat-building in its historical as well as its socio-cultural context. There is furthermore some attention paid to its relationship to natural resources and local ecology.

With regard to the historical background, it appears from the historical survey that, if we accept the assumptions put forward by archaeologists, boat-building in the Sudan dates back for some five thousand years.

During later periods archaeologists have assumed an Egyptian and Iraqi influence on Sudanese boat building. But the evidence as seen by the present writer is too incomplete to enable one to accept the notion of these external influences. It is the writer's belief that river transport has developed all over the world in different ways at different speeds.

Its development has been conditioned by the physical environment, the kind of raw material available, the socio-economic needs of the society that make and use them and its cultural heritage. Although, one might observe some similarities between the boats of this and that area, if the evidence of cultural contact either through trade, war, or migration is lacking, one will then be able to say no more than this, that under similar environmental conditions people achieve similar results. Even when evidence of cultural contact is available we need dating to know which examples are earlier, if we are to be able to recognize the direction of diffusion.

Even during much later periods, during the Turko-Egyptian rule (A.D. 1820 - 1883), when new types of boats from outside the frontiers were introduced, they did not last long and were not widely used. The same happened to the types introduced during the Anglo-Egyptain rule (A.D. 1889-1956). This is due to the simple fact that they are not suited to the local surroundings. Meanwhile there continued the age-old type which is the outcome of the local environment and which has probably been in use since the time of Heradotus in the 5th Century B.C.

The descrption and details of the contemprary craft show us that the contemprary Sudanese boat is built in a manner different from those existing in Egypt. The hull planking is assembled without a prior preparation of transverse frames. The planks are nailed one above the other, edge to edge in a carvel construction.

Investigation of the types of boats, classified on their functional basis, show us that in the Sudan today there are four types

of boats. Three of them, namely, the big cargo boat, the ferry boat and the fishing boat are encountered everywhere along the area covered by the present writer. The fourth type, the canoe, (dug-out or planked), is encountered only along the Blue and White Niles respectively.

The first three types are quite identical in the way their hulls are assembled; the spoon-shaped frameless type of hull with its planks joined in a carvel fashion. The existence of these complex and simple types side by side in the Sudan, each serving a particular function, is to exemplify and at the same time to verify, our argument that simple and complex types of river craft existed side by side at different periods of history, each made and utilized for its own separate purpose.

The planked canoe proved to be a recent introduction along the White Nile through contacts with the Southern region of the country, a contact which was impeded by the divisive policies and measures by the colonizers during the Anglo-Egyptian condominium (A.D. 1889-1956).

It has also become evident that river craft have to be adapted to the prevailing environmental conditions, the economic needs of society and the tradition of craftsmanship. The example of the planked canoe supplies direct evidence supporting the argument that peaceful and mutual cultural contact gives positive results in the process of cultural borrowing. Given time and the creative abilities of the craftsman borrowed cultural traits would emerge in their modified adapted forms thus creating a new tradition bearing the features of both old and new.

Contents of cultural components, studied in the way attempted in the present research, help us to describe and understand better the cultural morphology of the Sudan.

From the linguistic and other material it appears that the traditions observed today represent an amalgam of influences of diverse origins. Besides the indigenous cultural traits we find that the cultural setting in the Sudan has been affected through the centuries, by the ancient Egyptians, the Greeks, the Persians, the Romans who introduced Christianity, the Arabs who introduced Islam and finally the Turks and the British who concluded the history of cultural influences in the Sudan. These cultural influences have left their imprints on the cultural setting in the Sudan.

This study of the etymology of the technical terms together with the origins of beliefs and practices shows that cultural contact either through trade, migration or war, leads to a process of cultural change, which is an on-going process of reciprocal character.

When a certain culture is studied at a certain point of time, using the details of its cultural components as a means of entry, one finds that cultural elements of diverse origin can be brought together to constitute a harmonious cultural blend which is created unintentionally, through time. This cultural blend is created without the consciousness of this or that group. This is to say that between cultures there is always a covert dialogue which helps during the course of time to blend diverse cultural elements in one melting pot. These elements are retained by the members of society as their own culture, are spoken and performed indiscriminately without any distinction of

what is indigenous and what is foreign. Consequently this cultural amalgam is handed down from one generation to the next. And if a new element is to be introduced it has to be modified to adapt to the surrounding realities. Then it could be incorporated with the whole cultural complex, thus contributing to the ongoing process of culture change. We are not at the end of time; culture will go on changing as long as people are meeting and interacting.

By understanding our cultural setting in this way, students of folklife can contribute to the task of formulating cultural policy. That is to say, to help the cultural policy makers to avoid one-sidedness and to formulate and adopt more open-minded cultural policy whose quality of openness and receptivity is best calculated to ensure the kind of dynamic cohesion revealed in this study. It could indeed be argued that appreciation of this way of understanding the complexities of the cultures of modern nation-states could help such countries to avoid the adoption of policies which may carry in-built tendencies towards sharpening political differences. These differences could lead to internal disorder and even, in extreme cases, to the dangers of civil war which impedes the process of integration and national unity.

APPENDIX I

List of informants by locality with their corresponding tape numbers

1. Dongola

Informant	Tape Number
ʿAbdal Hādi Mohammad ʿAli Hasan, a former skipper from Dongola, age 53, started to work as a crew member with his grandfather at the age of eleven.	IAAS/2602 and IAAS/2610
ʿAbdal Latif saʿīd Abdal Karīm, a former skipper from Dongola, age 78, started to work as a member of a crew.	IAAS/2593 and IAAS/2595
ʿAbdal Ẓāhir Ḥisēnūn, a skipper from Dongola, age 60. He started to work as a member of a crew with his uncle since he was a small boy.	IAAS/2598
ʿAbdu ʿOsman Ṣālih, a former skipper from Dongola, age 53. Started to work as a member of a crew with his father who was also a skipper, in 1933.	IAAS/2582
Ahmad Ismaʿīl Arbāb, a former skipper from Dongola, age 67. Started to work as a member of a crew since he was a small boy. He does not remember exactly when.	IAAS/2597
Mirkaz Bilāl Mirkaz, a skipper from Dongola, age 60. Started to work as a member of a crew since he was a small boy.	IAAS/2601
Ṣāliḥ Moḥammed ʿAbdal Raḥim, a boat builder from Dongola, age 52. Started to work in boat building in 1942.	IAAS/2604 and IAAS/2605

Informant	Tape Number
Sharīf Sá'īd 'Alī al-Zibēr, a boat builder from Dongola, age 54. Started to work in boat building with his father who was a boat builder before him. He started in 1946.	IAAS/2589

2. Karima

Informant	Tape Number
'Abdal Majīd Hārūn, a skipper from Dongola but works in Karima, age 55. Started to work as a member of a crew with his father and grandfather since he was ten years old.	IAAS/2592
Sa'īd Aḥmad Massi, a former skipper from Karma now lives in Karima, started to work as a member of a crew with his father since he was ten years old, age 90.	IAAS/2591

3. Shendi

Informant	Tape Number
Bābikir 'Abdal Rahman Aṭal Mannān, a sailor from Shendi, age 75 yéars, started to work as a member of a crew with his father who was a skipper.	IAAS/2585

4. Omdurman

Informant	Tape Number
Hasan Babikir 'Atīg, a boat builder from Omdurman, originally from the Maḥas, started in boat building since he was a small boy, age 70.	IAAS/2600

Informant	Tape Number
Ibrāhim al-Faḍul Mohammad Mahdi, a skipper who is originally from Berber. He started to work as a member of the crew with his father since he was 18,age 59.	IAAS/2583 and IAAS/2584 and IAAS/2608

5. Guli - on the White Nile

Informant	Tape Number
ʿAli Ibrahim Musa, a fisherman, originally from Nigeria, age 40.	IAAS/2586
Buraʿi Zēnal-ʿĀbdīn ʿAbdal Raḥim, a skipper who started with his father since he was twenty, age 55.	IAAS/2599
Hāmid Mohammad Al ʿImēri, a boat builder. He started to work with his father and grandfather who were also boat builders. Age 50.	IAAS/2594 and IAAS/2611
Omar Mūsa Alʿ Imēri, a boat builder. He started to work with his father since 1924. Age 70.	IAAS/2590

6. Wad Medani - on the Blue Nile

Informant	Tape Number
ʿAwad Jabir Al Nagar, a skipper. He started to work with his father who was also a skipper before him. Age 55.	IAAS/2588
Jadal Karīm Mohammad ʿAli Ḥilāl, a boat builder. He started as an apprentice with a master craftsman. Age 60.	IAAS/2609

Informant	Tape Number
Yūnis ʿAbdalla Khēralla, a skipper. He started work as a member of a crew since he was seven years old. Age 45.	IAAS/2607

7. al-Sūki - on the Blue Nile

Informant	Tape Number
Ḥasan ʿIbēdalla Muṣṭafa, a skipper. He started to work as a member of a crew with his father who was also a skipper. Age 52.	IAAS/2603 IAAS/2606 IAAS/2612.
Ḥasan Moḥammad Aḥmad Ḥamdūn, a boat builder. He started to work with his father and grandfather who were also boat builders before him. Age 30.	IAAS/2603
Moḥammad Aḥmad Ḥamdūn, a boat builder. He started to work with his father who was also a boat builder before him. Age 60.	IAAS/2596
Marḥūm Moḥammad ʿAlī Abu Jamil, a boat builder. He started as an apprentice with a master craftsman. Age 68.	IAAS/2587

APPENDIX 2

Sample of Interview with a Boat Builder on boat building, Parts of the Boat and Beliefs and Practices

Informant: Ṣālih Moḥammad ʿAbdal Raḥīm

Tapes number: I.A.A.S./2604 and I.I.A.S./2605

Date of recording: 5.6.1982

Place of Recording: The house of the informant, the village of Wad Nimēri on the west bank of the River Nile, south of Dongola, the Northern Province.

SudaneseColloquial Arabic:

الراوى : البصير : صالح محمد عبدالرحيم
رقم الشريط : م د أ أ/٢٦٠٤ و ٢٦٠٥
تاريخ التسجيل : ١٩٨٤/٦/٥
مكان التسجيل : منزل الراوى بقريه ورنمرى ، غرب النيل ، جنوب دنقلا ، المديريه الشماليه

كم زول يعمل فى المركب ؟

اتنين متشرجيه ، واحد فوق وواحد تحت وأربعه أنفار تانى ، زى سته أنفار بجانب البصير . صنعة المركب لما يكون الناس بسيله تاخد خمسه وأربعين يوم وإذا كان العدد مكمل تاخد زى سته وعشرين يوم .

أول حاجه بتعملو شنو فى صناعة المركب ؟

من غايتو نفصلو ، دهـ بيتفع فى الدرقه دهو يتفع فى المدة ، فى محلو نعرقو ، دهـ لوح القرش دهـ مجمية ، دهـ مقدم دهـ قرش . بعد ما جبنا الخشب بنبدا فى ضرب الكتل الكبيره للتربيع وبنبدا فى قلع الأخشاب على المنشار التعليقه ونجهز كل الألواح . أول حاجه بنعمل الدرقة - أولاً الوسطانى وبعدين الجرامات ونسمر عليهم الواح كسوة الدرقة ونوصلو بالمدة . الجرامات تركب فى كلبان على الوسطانى . بعد الدرقة نركب المدة مع الدرقه كلبان فى الوسطانى ونوقف المدة . المدة برضهو عندو كلبان فى آخره . المدة أولاً نرفع على أربعه أوتاد ، بعدين

تولف الوسطانى فى المدة . بعدين إن
دايرين نشيل المقدم وإن ما دايرين
نشيل المقدم نرفع العجمات . العجمة
مع الوسطانى يقيف على حيله وعندما
يمشى قدام فى الفرش يبرقد لشان
يقابل المدة واللوح اليايبى من الفرش ،
يكون ملغوف ، يكون مع الوسطانى
واقف على حيله وراقد مع الفرش .
قايم مع الوسطانى نايم مع الفرش

المركب فيها كم لوح بجمات ؟

أربعة بجمات اتنين من كل جانب ،
قايم نايم ، المقدام يبقى فرش والنص
التانى الرايح فى الوسطانى يبقى قيام .
بعد ذلك نبدأ تركيب الليحان . اللوح
نفتح ليهو كلها نين واحد وراقد
على وشو والمقدام وشو على فوق .

كيف توزنو المركب ؟

ميزانية المركب نجيبو بالخيبت ، نقسم
المدة بالخيبت المغمور فى العمار .
نغرز الخيبت فوق المدة ، فى نص المدة
لأنو الخيبت دة بيوزن الورقة والفرش
والمقدم وعليهو ميزانية المركب
لمّا تنتهى . نغرز مسمار فى نص المدة
وناخد الخيبت واحد باليمين وواحد
بالشمال عشان نوزن الكتفين بتاع
الورقة لحدّى ما الخيبتين يجى
مظبوط يساوى بعض . بعد ألواح الفرش
نربط المقدم . ممكن برضو عندما نجى
للشطفيات نشيل المقدم نربط عليهو
الشطفيات .

إسمها الشطفيات ليه ؟

شطفيات لانهم لتندهم كلمان واحد، بيمسك فى المدة والمقدم وعندو يمشى بتمرت . بى قدام مشطوف و عندها كلمان واحد فى آخرا يربط مع اللوح الوراهو و قدّام مشطوف ينوم مع المقدم .

الألواح مع بعضها توزنا كيف ؟

بالطين ، طين بحر يحلول بالموية و نجيب مثلاً جريدة نزقرها من قدام و نبل فى الطين و نمسح فى اللوح الراقد تحيت و بعدين نجيب الجريد فوق مِنّو . محل ما يشيل الطين نشيل مِنّو بالقدوم لحدّى ما اللوح الفوقانى يمسك كل الطين . كل لوح نذيهو بين عشرة لى اتنا شر مسمار .

المدة بيربط فى المقدم كيف ؟

المقدم يربط فى المدة بكلمان و نذيهو تلاته مسامير ، والمقدم نوزنو بالخيت برهنو ، زى وزنة الدرقه والمدة . بعد داك يمشى العمل يستمر . نبتدى الألواح من ورا لى قدام إلى النهاية .

المسافة على جهتين المركب تتوزن كيف ؟

فى وسط المدة فى خيت مهنزوب ونعدو عبار من المدة على جهة من الخيت المهنزوب

حتى وسط المدة . لازم تتساوى الجهتين
على جنبين الخيت ، مثلاً حنراع ونص
من هنا وحنراتم ونص من هنا ، وجه على
الفرش . انتهينا من الألواح ، نجي
نعبّر المركب من هنا ومن هنا .
الزايد من هنا نشيلو والزايد
من هنا نشيلو بالقدوم لغاية ما
يتساوى الجنبين . تمّ ده العبار
التالت . المركب عندو تلاتة عبارات ،
يوم ما تخلّص عندو عبار ، يوم ما تنتهي
من الفرش عندو عبار ويوم ما تنتهي
من الألواح عندو عبار . عندما عاوز
نجيب الجواقيس ، المركب داير ما يدور لازم
يكون موزون . بعد داك نجيب الجواقيس .
أوّل جاقوس نزيّو الجاقوس الوسطاني

كيف تعرفو توزنو محل الجاقوس الوسطاني ؟

عندما نقسم المركب وراء وقدام نخت
الجاقوس الوسطاني بالعبار تاع الخيت .
نمدّ الخيت على طول المركب من المقدم لغاية
الوسطاني ونطبقا الخيت النص ، نص
طول الخيت هو محل الجاقوس الوسطاني .
بعد داك نخت جواقيس الوش الوراوبعدو
نخت جواقيس الوش القدام . المركب
الكبيرة فيها حداش جاقوس ، خمسة
قدام وخمسة وراء وتاع النص حداش .
المركب المتوسط عندو تسعة جواقيس ،
أربعة قدام وأربعة وراء وتاع النص . المركب
الصغيّر سبعة جواقيس ، تلاتة قدام
وتلاتة وراء وتاع النص .
بعد ربط الجواقيس في حاجة تانية ،
باطون ، وهو البيريط المركب داير ما

يدور ، نختو فوق الحواتيس ، دهم السباطرس .
دهم الرباط فوق الحواتيس . بعدو تى الآخر
نقلفط بين العراميس ايما تنى بن اللوحين
كلو نقلفط بالدليق ، نذقو بالمقلام و قعر
القدوم . بعد داك بنعمل الرقه . أول
بنعمل الباب ، نعملو من الواح قايمة
لى فوق . بعد الباب بنعمل والرباط
من تحت ، خشبة من كل جانب كلو بالمسامير .
الباب على حسب الخشب تلاته الواح
يكفى اتنين يكفى أو أربعه أو خمسه
حسب غرض الخشب . بعدين نجيب
يد الرقه ، ننقر بالحنفرة من ورا وقدام ،
أوسط الباقى نشيلو بالمنشار ويدخل
فيهو الواح الباب .

كيفا يتربطو الرقه مى المركب ؟

صنا ، فى اتنين حديد فى المركب ، تحت واحد
وفوق واحد ، هى الوسطانى وفى الممرة .
وفى الرقه برضو حديدتين كلو واحد قدهاد
التانى . يتلاقو نجيب ننزلو فوق بعض
بى خابور ، تحت خابور وفوق خابور ،
بعد داك بقت على نزول السويه

المركب تنزلو بالأوتاد القايمه فوقا
المركب . نفكها وشرى الزراقات قدام
الدهو وجيب وندفر .

العادات عند النزول يعملو كراهه نضحى
خروف ، نجيب الناس من البلد
نلمهم عزى خمسين ستين يحضرو .
عندما ينزل المركب واحد يرفع الأذان
والحريم يزغرتو . أول واحد يطلع فى

المركب نرشُو بالمويه . زى موسم فيهو
كل الناس تتلمّ بالحريم والرجال والأولاد
والبنات .

بعد ما نزلت المويه نبتدى نعمل ليهو
الساري بالأول ، بى طروفو وراسو وكل
حاجه . بعدين نختو فى النص يرقد
فوق الميضه ، نقدّ ليهو بالمقلام
ونقطع حزوز حتى نهايه الساري من
تحت . بعدين نرط خشبتين على
الحاقوس الوسطانى على الجنبين تاع
الساري عشان يمسك الساري لا يمشى
كده ولا كده ، حسند للساري
بستّو .

الخشبتين ديل إسمم شنو ؟

إسمو الإنقليز ، ما معروف سبب
التسميه ، الناس القبلنا سموهو
إنقليز فحنا قلنا إنقليز .

الساري هى راسو الحامود ،
الخشبه الفيها الخرم عشان السلك يتاعى
القريه الفوقانى تخش فيهو وتجى /
ترطه تحت فى الحاقوس الوسطانى ويلتف
الساري مع الحاقوس الوسطانى ودى إسمها
القايه ، من السلك ، ترطه القريه الفوقانى
على راس الساري .

الطروف تحت يترطه فى شنو وفوق ،
يترطه فى شنو ؟
حبال الطروف تحت ترطه فى الحواقيس
وفوق ترطه فى راس الساري فحق
الحامود ، يكون ملبّس فيهو جلد
بقر فى راس الساري إسمها البردعه ،
لما لعه جنبها أضنين سدك ترطه فيهو
العيارات والطروف .

الساري يكون طوله كم ؟

طول الساري على حسب طول المركب، إذا كان المركب طلطا شر ذراع الساري يكون أربعطاشر ذراع، يكون أطول من طول المركب بذراع أو ذراعين، طول المركب من المقدم للوسطاني.

القريات بتقيسوهم كيف ؟

القريات تقيسم على حسب المركب، اذا كان القريه الفوقاني خمسطاشر ذراع التحتاني يكون اثنا شر أو حداشر ذراع. القريه التحتاني دايما ناقص. القريه الفوقاني على حسبا طول المركب، إذا كان المركب طلطا شر ذراع القريه الفوقاني يكون أربعه وعشرين أو سته وعشرين ذراع القريه الفوقاني دايما على طول المركب حرتين والتحتاني دايما أنقص من الفوقاني يكون عشرين أو تسعطا شر ذراع

في القماش، نجيب حبل ندخله جوه القماش في أطرافو إسمو المهران، ونجيب عليهو من برّه حبل على طول الأطراف برضو، إسمو السقاله، ونربط على القريات بالقبالين.

العاره بتاعه تولعو النار كل مغربيه
تحت المقدم بعد إنتهاء العمل
وى شنو ؟

رد برهنو من كبارنا كانو بيعملو
العمليه دهـ عاره ماشى فى البلد
بيقولو يستعمل العمل والإموزيه
شويه . نولعو تحت المقدم قدام
المرتب فى المغرب . بخنا شفنا
العمليه دهـ من كبارنا وبخنا كمان
بنعملو . برهنو بيقولو يطرد الشيطان
والعين .

Transliteration

kam zōl ya mal fi· lmurkab?

itnēn munsharjīyya, wahaid fōg wa wahid tihit wa arba'a anfār tani, zay sitta anfār bijanib al-basir. sin'at al-murkab lamma yikūn al-nās basita takhud khamsawa arba'in yōm, wa iza kān al 'adad muktamil tākhud zay sitta wa ishrīn yōm.

Awwal haja bita'malu shnu fi sina'ta al-murkab?

min ghābtu nafaṣṣilo, da yinfa' fi-d-darga, da yinfa' fil-madda, fi mahallu na'arfu. da lōh al-farish, da lōh al shaṭfiyya, da 'ajamiyya, da migdīm, da farish. ba'ad ma jibna al-khashab nabda fi ḍarb al-kutal al-kabīra le al-tarbī', wa nabda fi gat' al-akshāb ala al-munshār al ta'tiga wo najahhiz kul al alwāḥ.

Awwal haja bina'mal ad-daraga. Awwalan al wastāni wa ba'dēn ad-dura'āt wa nasammir 'alēhum alwāh kiswat ad-daraga wa nawaṣṣilu bil-madda. ad-dura'āt tarkab fi kalbān 'ala al wastāni. ba'ad ad-daraga narbuṭ al madda ma'a ad-daraga bikalbān fil-wasṭāni wa niwallif al-madda. al madda barḍo 'indu kalban fi ākhru . al madda awwal narfa' 'ala 'arba'a 'awtād. ba'dēn niwallif al wasṭāni fil-madda. ba dēn in dāirīn nashīl al migdim wa in ma dairīn nashīl al migdim narfa al 'ajamiyyāt. al 'ajamiyya ma'a al wastāni yigīf 'alē hēlu wa 'indama yimshi giddām fil-farish biyirgud 'ashān yigābil al madda wa al lōh al jaiyyi min al farish. yikūn malfūf, yikūn ma'a al wastani wāgif 'ala hēlu wa rāgid ma'a al farish. gaiyim ma'a al wasṭāni naiyim ma'a al farish.

al murkab fīha kam lōh ʿajamiyya?

Arbaʿa ʿajamiyyat; itnēn min kulli jānib. gaiyim naiyim, al giddām yibga farish wa- n-nuṣṣ al tāni yibga giyām. baʿad dāk nabda narakkib al lēḥan. al lōh naftaḥ lēho kalbānēn wāhid wara rāgid ʿala wishshu wa al giddāmi wishshu alē fōg.

kēf tawzinu al murkab?

mīzanit al murkab najibu bilkhēt. nagsim al madda bil Khēt al maghmūr fil-ʿamār nadrub al khēt fōg al madda fi nuṣṣ al madda la'annu al khēt da biyawzin al daraga wa al farish wa almigdim wa ʿalēhu mizanita al murkab lamma tantahi. naḍrub musmar fi nuṣṣ al madda wa nakhd al khēt wāhid bilyamin wa wāhid bil shimāl ʿashān nawzin al katfēn bitaʿ al daraga, lihaddi ma al khētēn yiji maẓbut yisāwi baʿaḍ. baʿad alwāh al farish narbuṭ al migdim, mumkim barḍu ʿindama naji lish-shaṭfiyyāt nashil al migdim narbuṭ ʿalēhu sh-shaṭfiyyāt.

ismaha shaṭfiyyāt lēh?

Shatfiyyāt la'annahum ʿindahum kalbān wāhid. biyimsik f l-madda wa al migdim wa ʿindu yimshi yamūt. bēgiddām mashṭuf wa ʿindaha kalbān wāhid fi akhira yarbuṭ maʿa-l-lōh al warahu wa giddām mashṭuf yinūm maʿa-l-migdim.

al-alwāh ma'a ba'ḍaha tawzina kēf?

bi-ṭ-ṭīn, baḥar mahlūl bilmōya wa najīb mathalan jarīda naduggaha min giddām wa nabil fi-ṭ-ṭin wa namsaḥ fi-l-lōh alrāgid tiḥit wa ba'adēn najīb al jadīd fōg minnu. maḥal ma yishīlaṭ-ṭin nashīl minnu bilgaddūm laḥaddi lamma al-lōḥ alfōgani yamsik kul aṭ-ṭin. kullu lōḥ naddihu bēn 'ashara lē iṭnāshar musmār.

al madda bīrbuṭ filmigdim kēf?

almigdim yirbuṭ fil madda bikalban wa naddīhu talata masamīr. wa al migdim nawzinu bēlkhēt barḍu zay waznat al daraga wa almadda. ba'ad dāk yimshi al 'amal yistamir. nabtadi al-alwāḥ min wara lē giddām ila al nihaya.

al masafa 'ala jihatēn al murkab titwazin kēf?

fi wast almadda fi khēt wa 'indu 'ibār min almadda 'alē jiha min alkhēt almaḍrūb fi wast almadda. Lazim tasāwi al jihatēn 'alē janbēn alkhēt mathalan durá-w-nuṣ. min hina wa durá -w-nuṣ min hina da fi al farish. intahēna min al-alwāḥ. naji na'abbir al murkab min hina-w-min hina. alzayid min hina nashīlu wa alzayid min hina mashīlu belgaddūm lighayat ma yitsāwa aljanbēn. baga da al ibār altālit. almurkab 'indu talata 'ibārat yōm ma takhuttu 'indu 'ibār yōm ma tintahi min al farish 'indu 'ibar wa yōm ma tintahi min al-alwāh 'indu 'ibar. 'indama 'āwiz tajīb al jawāgis almurkab dayir ma ydūr lazim yikūn mawzūn. ba'ad dāk najib aljawagīs.

awwal jagūs narbuṭ aljagūs alwasṭani.

kēf ta rifu tawzinu mahal aljāgūs alwasṭani?

ʿindama nagsim al murkab wara-w-giddām nakhut aljagūs alwasṭani. bel ʿibār bitaʿ alkhēt. namid alkhēt ʿala ṭūl al murkab min al migdim laghayat al-wasṭāni-wa naṭbug al khēt alnuṣ nuṣ ṭul alkhēt hwa mḥaal al jāgūs alwasṭāni. ba ʿad dak nakhut jawāgis alwish al wara wa baʿdu nakhut jawāgis alwish algiddam. almurkab alkabira fīha ḥidāshar jāgūs, khamsa giddām wa khamsa wara wa bitaʿ alnuṣ hidashar. al murkab al muṭwassit ʿindu tisʿa jawāgis arbaʿa giddām wa arbaʿa wara wa bita al nuṣ. al murkab al sighayir sabaʿa jawāgīs talata giddam wa talata wara wa bitaʿ alnuṣ baʿad rabṭ aljawāgis fi ḥaja tāni ; bātūs , da albiyirbuṭ al murkab dayir ma ydūr, nakhuttu fōg aljawagis. baʿadu fi-l'ākhir nagalfiṭ bēn alʿramis al māshi bēn al-lōhēn, kullu nagalfiṭ beddilig ,naduggu be-l-muglām-w-gaʿar al gaddūm. baʿad dāk binaʿmal ad-daffa. awwal binaʿmal albāb, naʿmalu min alwāḥ gayma lē fōg. baʿad al bab binaʿmal ar-rubāṭ min tiḥit khashaba min kulli janib kullube-l masamīr. al bāb ʿala hasab al khashab, talāta alwāh yikaffi itnēn yikaffi aw arbaʿa aw khamsa hasab ʿarḍa al khashab. baʿdēn nanjur yad-ad-daffa, nangur be-d-duffra min wara-w- giddām. alwasit albāgi nashilu be-l-munshār wa yadkhul fīhu alwāh albāb.

kēf biṭarbuṭu ad-daffa fil murkab ?

hina fi itnēn ḥadayyid fi-l-murkab, tiḥit waḥid-w-fōg waḥid, fi-l-wasṭani-w- fi-l-madda. wa fi-d-daffa bandu hadidtēn, kullu waḥid guṣad at-tani, yitlāgu najīb nanazzilu fōg baʿad bē khābūr. baʿad dāk bigat ʿalē nuzūl al mōya.

al murkab nanazzilu be-l 'awtad al gayma fōga al murkab.
nafikkaha-w-narmi ad-dardagat giddam almadda-w-najur-w-nadfir.

al'ādāt 'ind nuzūl ~~al murkab~~ bi'malu karāma, naḍbaḥ kharūf najīb-an-nās min albalad, nalimmahum zay khamsīn sittin yiḥḍaru. 'indama yinzil al murkab wāhid yirfa' al'āzān wa-l-harīm yizaghritu. awwal waḥid yiṭla' fi-l-murkab narushu be-l-mōya. zay mūsim fihu kull-an-nās titlam. be-l-harīm wa-r-rugal wa-l-'awlād wa-l-banat. ba'ad ma nazalat al mōya nabtadi na'mal lēhu-s- sāri be-l-'awwal, bē ṭurūfu-w-rāsu-w-kullu ḥāja. ba'dēn nakhuttu fi-n-nuṣ yargud fōg almēḍa, nagidda lēhu be-l-muglām wa nagta huzu fi nihayat a-s-sari min tihit. ba dēn narbuṭ khashabtēn ala-j-jāgūs alwasṭani ale-j-janbēn bitā a-s-sāri ashān yimsik a-s-sāri la yimshi kida wala kida, masnad le-s-sari bisabbitu.

alkhashabtēn dēl 'ismahum shinu?

ismu al'inglīz, ma ma'rūf sabab a-t-tasmiya a-n-nās al gabāna sammōhu inglīz niḥna gulna inglīz. a-s-sāri fi rāsu-j-jamūr, alkhashaba alfiha alkhurum 'ashan a-s-silik bita' algarya alfōgāni takhush fihu wa taji tarbuṭ tiḥit fi-j-jagūsalwasṭāni wa yikattif a-s-sari ma 'a-j-jagūs alwasṭāni-w-di ismaha al faya, min al sibik, ṭarbuṭ algarya alfōgani 'ala rās a-s-sāri.

aṭ-ṭurūf tiḥit biṭarbuṭ fishnu-w-fōg biṭarbuṭ fi shnu?

ḥubāl a-ṭ-ṭurūf tiḥit tarbuṭ fi-j-jawāgis-w-fōg trabuṭ fi ras a-s-sari ma'a a-j-jamūr, bikūn malabbas fihu jilid bagar fi ras a-s-sāri ismaha albarda'a, ṭala'a minnaha uḍēn silik tarbuṭ fihu al'iyārāt wa-ṭ-ṭurūf.

a-s-sari bikūn tūlu kam?

ṭūl a-s-sārī ʿala ḥasab al murkab iza kan al murkab ṭalaṭashar duraʿ , a-s-sari yikūn arbaʿṭāshar ḍuraʿ , bikūn aṭwal min ṭūl al murkals beduraʿ aw duraʿēn, ṭul al murkab min al migdim le-l-wastani.

algaryāt bitgīsūhum kēf?

algaryat nagīsum ʿala ḥasab al murkab, iza kan al garya alfōgani khamisṭashar duraʿ , algarya a-t-tihtani yikūn iṭnashar aw ḥidāshar duraʿ . algarya a-t-tiḥtāni dāyman nāgiṣ. algarya al fōgani ʿala ḥasab ṭūl al murkals, izakan al murkab ṭalaṭāshar dura algarya alfōgani yikūn arbaʿa-w-ʿishrin aw sitta-w-ʿishrin duraʿ. algarya alfōgani dāyman ʿala ṭūl al murkab marratēn, wa-t-tihtāni dāyman angaṣ min alfōgani yikūn ʿishrīn aw tasaʿ ṭāshar duraʿ

al gumāsh kēf bitarbuṭu fi-lgaryāt?

fi-lgumāsh najib ḥabil nadakhilu juwa algumash, ʿala ṭūl naliffu juwa al gumash fi aṭrāfu, ismu-l-musrān wa najīb ʿalēhu min barra ḥabil ʿala ṭūl al atrāf barḍu, ismū al sigāla wa narbuṭu ʿalē algaryat be-l-gabālīs.

alʿada bitaʿat tawalliʿu-n-nār kullu mughribiya tiḥit al migdim baʿad intiha' al ʿamal di shinu?

da barḍu min kubarna kānu biyi‘malu al ‘amaliya da, ‘āda mashī fi-l-balad, biyigūlu yisah-hil al ‘amal wa al’umūr shuwayya. nawalli‘u tiḥt al migdim giddām al murkab. niḥna shufna al amaliya da min kubārna-w-niḥna kamān bina‘malu. barḍu bigūlu yiṭrud ash-shayṭan wa al‘ēn.

Translation

How many persons work on the boat?

Six persons are needed to work on the boat, two sawyers and four other helpers, this is plus the master craftsman himself.

When there is less than that number work on a single boat lasts for forty-five days. But when we have the required number it takes twenty-six days to finish the boat.

What do you first do when you start building a boat?

While we are in the forest to cut the required wood we classify the logs from there; for instance, we can recognize which one is suitable for the stern, this is for the keel, this for the garboard strake, this is for the fore plank, this is for the aft lower plank, this is for the ~~prow~~ stem. After all the wood needed has been transported to the site of operation, we start to get the large logs squared. And the planks are obtained from these large logs using the hanging saw.

The first plank we prepare is the stern, first the stern post then the stern divergent arms on which we spike the stern cross planking. Then we join the stern to the keel. The stern divergent arms are rabbeted to the sternpost and spiked. After the stern frame is finished, we join the stern frame to the keel. The keel

has got a rabbet at its after end which joins it to the rabbet at the bottom of the sternpost. Then we place them on four stocks. After joining the sternframe to the keel we can either joint the prow to the keel,or spike the lower-most planks. The after end of the lowermost plank stands vertically when spiked to the bottom of the sternpost. As it goes forward along the keel it starts to flatten gradually till it lies horizontally at its fore end to be rabbeted to the planks of the garboard strake.

How many of these planks do you make for each boat?

Four lowermost planks of this shape, and two on each side. They are vertical at their after ends and horizontal at their fore end. The fore end becomes part of the garboard strake when joined to the other planks, the after end becomes the foundation upon which the other planks are built upwards.

After that we start joining the planks. We cut two rabbets on each plank, one facing upwards and the other downwards.

How do you secure the balance of the boat?

For this we use a string dipped in black paint. Using this string, we mark a line exactly in the middle of the keel.

This marked line helps us to keep the balance of the stern frame and prow. It is this line which secures the balance of the boat. The balance of the boat depends on it from start to finish. To make sure that the stern frame is balanced when we joint it to keel, we hammer a spike at any distance on the keel, but it should be exactly on the line marked in the middle of the keel. Centred on this spike, we stretch two strings, one to reach one arm of the stern and another to reach the other arm. This step is taken to secure the balance of the two sides of the stern frame. This is done repeatedly till we make sure that the two strings are equal in length.

After the planks of the ~~gardobard~~ garboard strake are joined we join the prow. It is also possible to join or leave the prow till we come to join the foreplanks.

Why do you call the fore planks shatfiyyāt?

This is because each has got only one rabbet at its after end which joins it to the plank at its after end. The fore ends of these planks are chipped to be spiked to the prow.

How do you fix the planks in an ~~balanced~~ adjusted position to make the boat watertight?

For this we use clay paint. For a brush, we use a branch of a dates plam tree. The outer side of the lower plank is painted with this paint, the upper plank is then placed on top, wherever the clay paint sticks on the inner side of the upper plank is trimmed off with the adze. This is repeated till all the paint sticks on the inner side of the upper plank. Ten to twelve spikes are hammered in on each plank.

How do you join the keel to the prow?

The prow is rabbeted to the keel. Three spikes are hammered to keep them in position. Its balance is secured by using the string in the same way the stern frame and the keel are balanced together. After that the work continues, we continue adding more planks from back to front till the work is finished.

How do you make sure that distances at both sides of the keel are equal?

We already have the marked line in the middle of the keel. We measure the distance on both sides of the marked line with the string. They should be exactly equal, for instance, one cubit and

a half on this side and another cubit and a half on the other side. This is done when we finish the planks of the garboard strakes. We measure the two sides, if they are not equal we trim them off with the adze and measure again. This is done repeatedly till the two sides become equal. Usually, the boat is measured three times during the process of building. When you place the keel the first measurement is taken, the second, when you finish the planks of the garboard strakes and the third is taken when the top strake is finished. When you want to place the thwarts in position the boat must be balanced and the measurements are taken carefully.

How do you place the middle thwart exactly in the middle of the boat?

After we divide the boat into two equal fore and after parts. We do this also using a string. We stretch the string lengthwise from the prow to the sternpost, then the string is folded to get half its length. Half of the string marks the position where the middle thwart is to be placed. After that we start placing the other thwarts, fore and after the middle thwart. A large boat would have eleven thwarts, five at the fore end and five at the after end. A boat of a small size would have nine thwarts, four at the fore end and four at the after end, making nine plus the middle thwart. A small boat would have seven thwarts, three at the fore end and three at the after end plus the one in the middle.

After we place all the thwarts inposition, we start to join and spike the gunwale all around the boat, above the thwarts. When this is finished, we start caulking the seams between the strakes. For this we use rags which are pressed into the seams using chisels and adzes. After caulking is finished, we make the rudder. First we make the rudder blade. The blade is formed by a number of planks set vertically and held in position by spiking two battens, one at the bottom of each side. For the rudder blade you can use three, four or five planks, depending on the width of the planks. After that we make the tiller. To make the slotted butt into which the top of the rudder blade is fitted, we use the gouge to carve the sides and the rest is sawed by the hand-saw.

How do you join the rudder to the boat?

Two pairs of gudgeons are used to join the rudder to the sternpost and the keel. One pair at the top and another at the bottom of the sternpost, the keel and the rudder blade. We join them by inserting two gudgeon pins, one at the top and another at the bottom. After that the boat is ready to go afloat. The first step we take in getting the boat afloat is to take the boat off the stocks, onto rollers. We put the rollers beneath the keel, pushing and pulling, till the boat reaches the river.

An animal is always slaughtered during the launching ceremonies. We call the people of the village to attend. Usually

fifty or sixty persons attend. People of both sexes and different ages, men, women, old or young boys and girls. When the boat is afloat, one of the men jumps into the boat and starts shouting the ādhān, which originally is the Islamic call to prayer. After the ādhān, women and girls start shouting special shrills known as zaghārid. The first person who jumps in the boat, the crowd spatter him with water. It is like a season in which all people gather together, men, women, boys and girls.

After we get the boat afloat we start to make its mast, with its shrouds, head and everything. We place it in the middle on the mast step. We open a mortise-like hole into the mast step with the chisel. Then we make a short projection trimmed in a tenon shape, thus making the heel of the mast. Then we place the mast between two cleats spiked abaft the middle thwart. These two cleats are on the sides of the mast and are meant to support the mast and keep it in position.

What is the name of these two cleats?

They are called the English (ingliz). We do not know why it is called ingliz. The name is transmitted to us from the generation before.

On the masthead we make a halyard affix which has got a hole. The hole of the halyard affix is made for the halyard to pass

through when hoisting the upper yard of the sail. Then it is pulled down vertically along the mast and its lower end is lashed tightly around the mast and the middle thwart. The halyard is a thick wire to keep the upper yard in position on the masthead.

How do you fix the shrouds in position, at their upper ends and lower ends?

The shrouds at their lower ends are fastened to the thwarts. Their upper ends are fastened to the mast head. On the masthead there is the halyard affix and the masthead collar which is made of raw cowhide, so their upper ends of the side and foreshrouds are passed through the wire loops already prepared on the masthead collar and fastened tightly.

How do you decide the length of the mast?

The length of the mast depends on the length of the boat. If the length of the boat is thirteen cubits, the mast would be fourteen cubits in length. The length of the mast is usually one or two cubits longer than the length of the boat from its prow to the stern post.

And the yards, how do you decide their length?

The length of the yards is also decided according to the length of the boat. The upper yard should be as twice as long as the length of the boat. If the boat is thirteen cubits long the upper yard should be twenty-four or twenty-six cubits. The lower yard is always shorter than the upper yard. If the upper yard is fifteen cubits long, the lower one should be twelve or eleven cubits, or if it is twenty-four cubits long, the lower yard should be twenty or nineteen cubits long.

The edges of the sail are turned in over a rope called musrān. Then a bolt rope is secured to the musrān all around the edges of the sail. The sail is tied to the yards by means of a loop of rope called gabālis.

Why do you build a fire under the prow at the end of each working day?

This is transmitted to us from our forefathers. We have seen them practising this and we are carrying on following in their footsteps. They say it makes work easier and chases away the devil and the evil eye.

APPENDIX 3

FIGURES

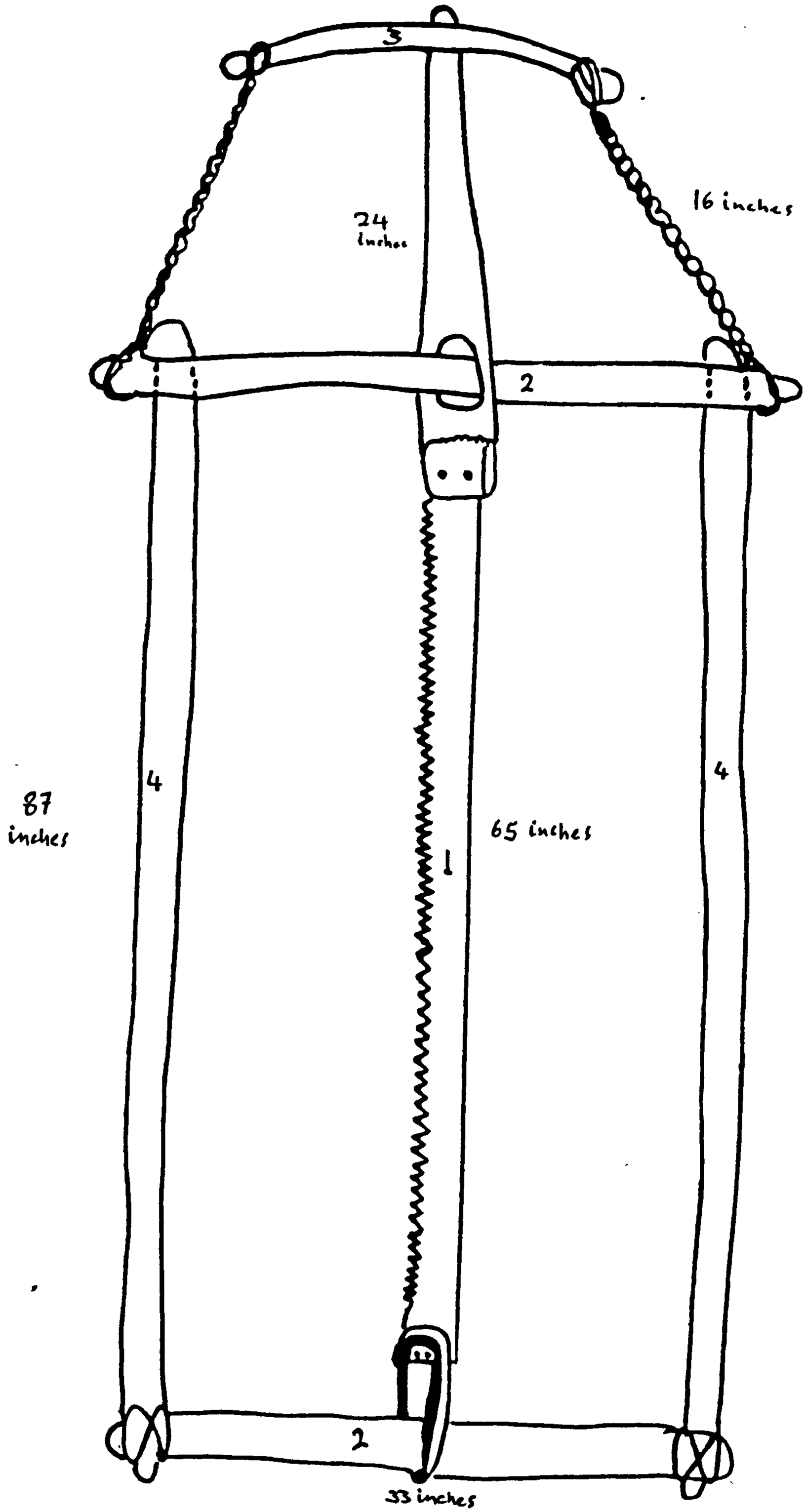


Fig. 1 The hanging saw used to cut the planks out of the large squared logs.

(1) The blade (2) The cross bars (3) The handle (4) The rails

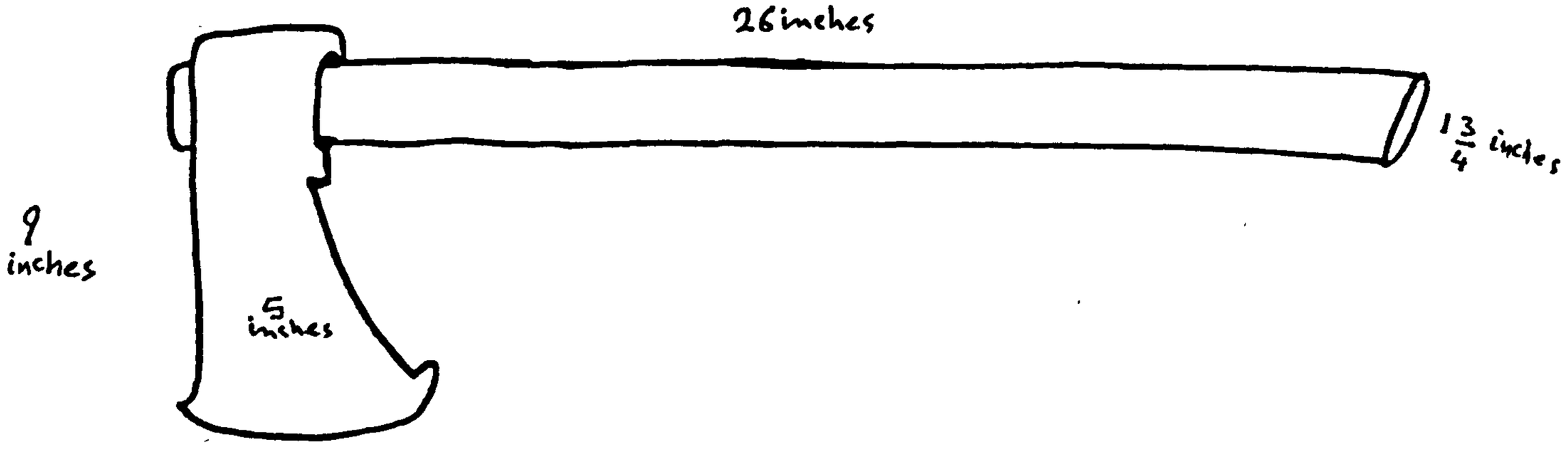


Fig. 2 The axe used mainly for getting the logs squared and shaping the lowermost planks.

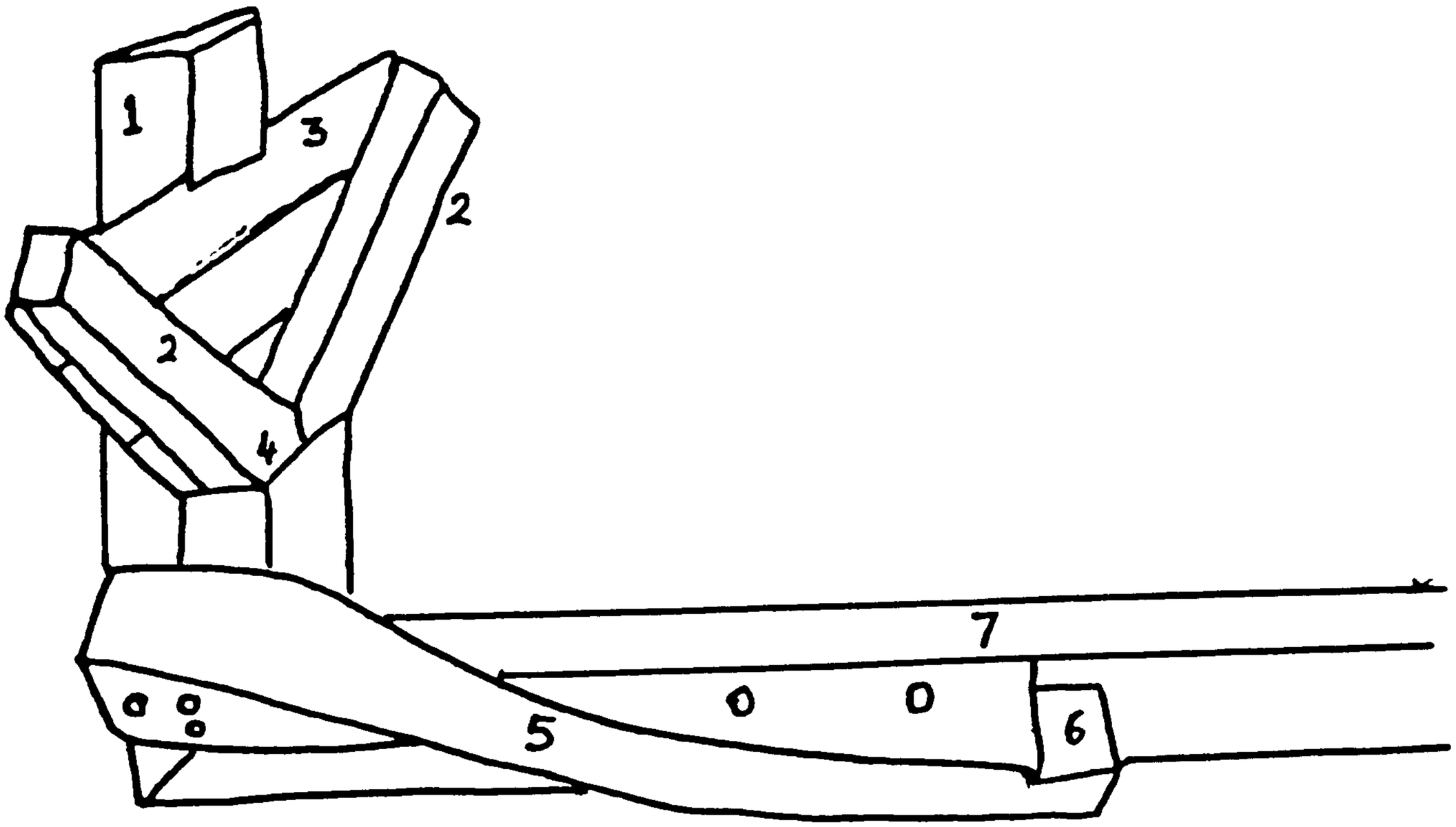


Fig. 3 The stern frame and other details.

(1) The stern post

(2) The stern divergent arms

(3) The stern planking

(4) The rabbet of the stern post on which the stern divergent arms are placed and spiked

(5) The lowermost plank as it appears standing vertically with the lower end of the sternpost and then flattens gradually till it lies horizontally at its fore end which is spiked to the keel and rabbeted to the coming plank, to form the garboard strake

(6) The rabbet of the lowermost plank

(7) The keel

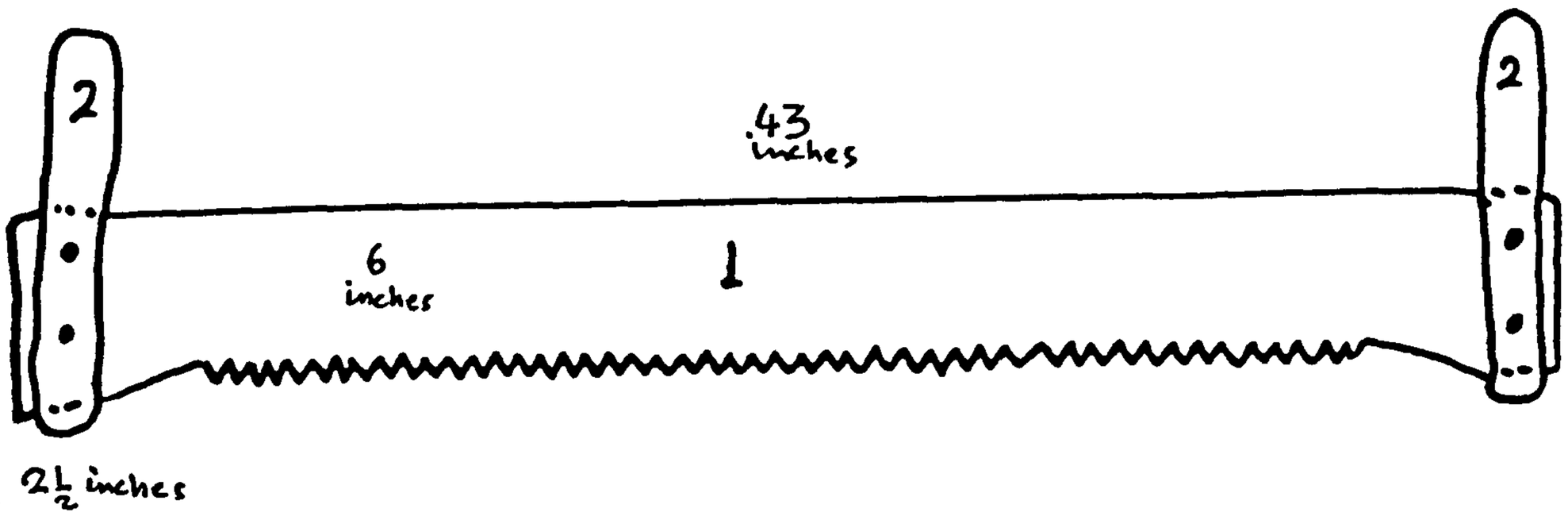


Fig. 4 The cross-cut saw used to cut the rabbets of the planks and small logs

(1) the blade

(2) the handles

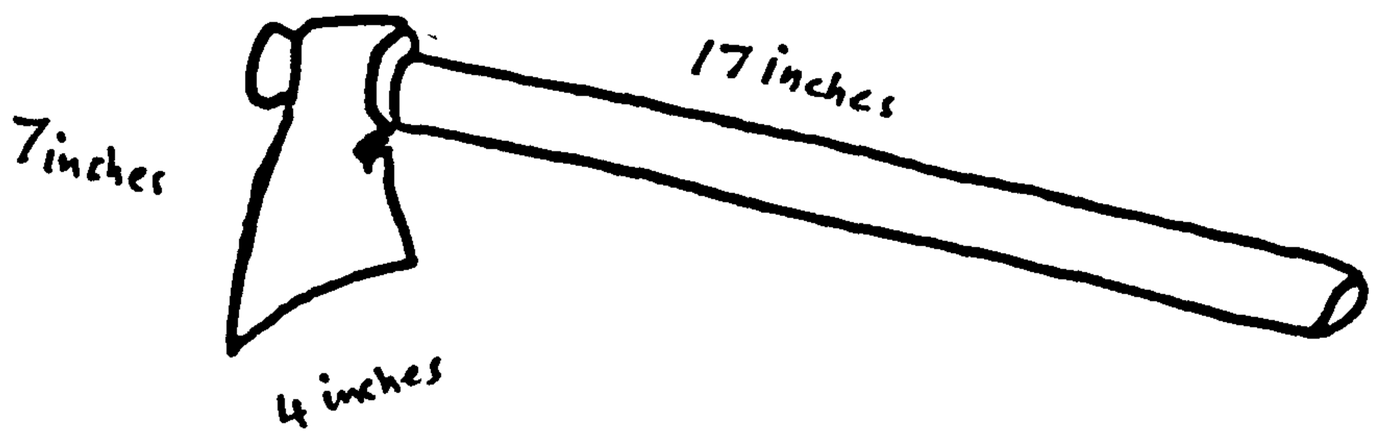


Fig. 5 The adze used for scraping and trimming

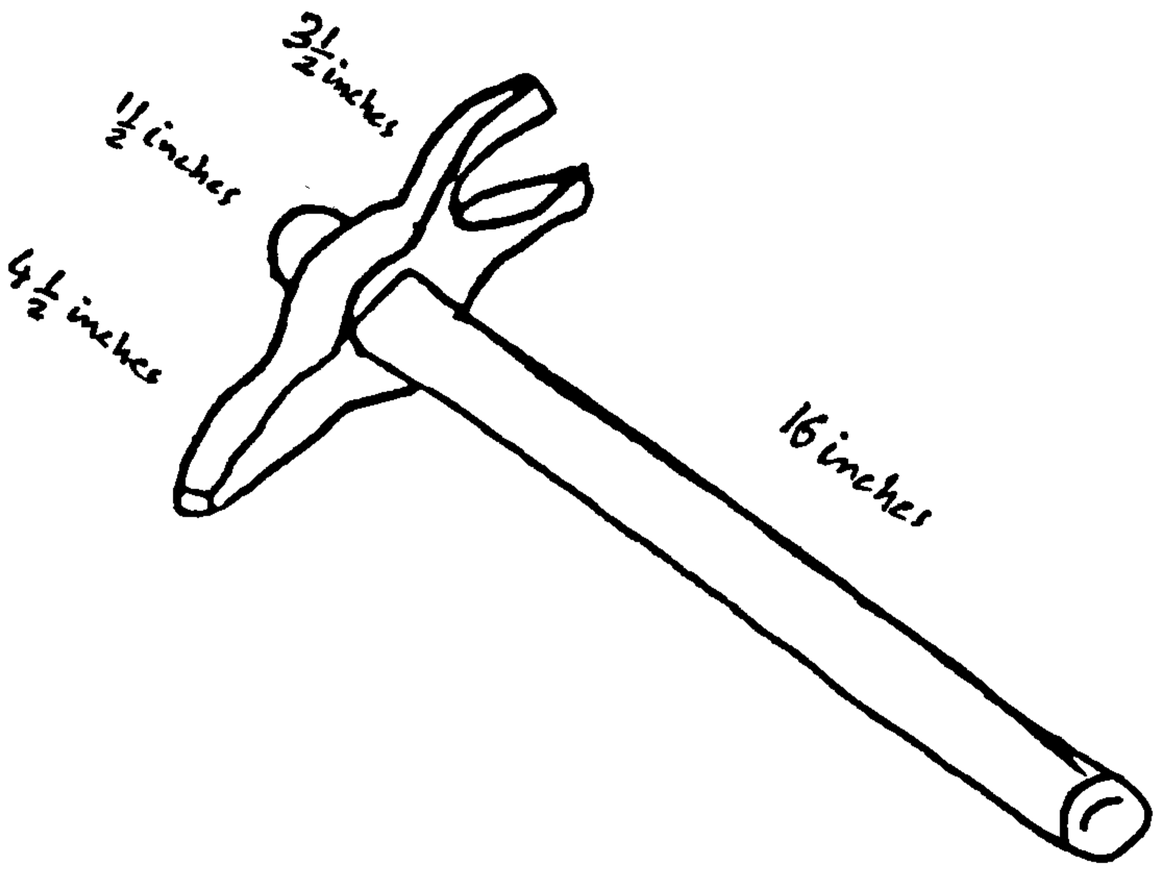


Fig. 6 The claw hammer used for both hammering in and pulling off the spikes if they are not properly hammered in

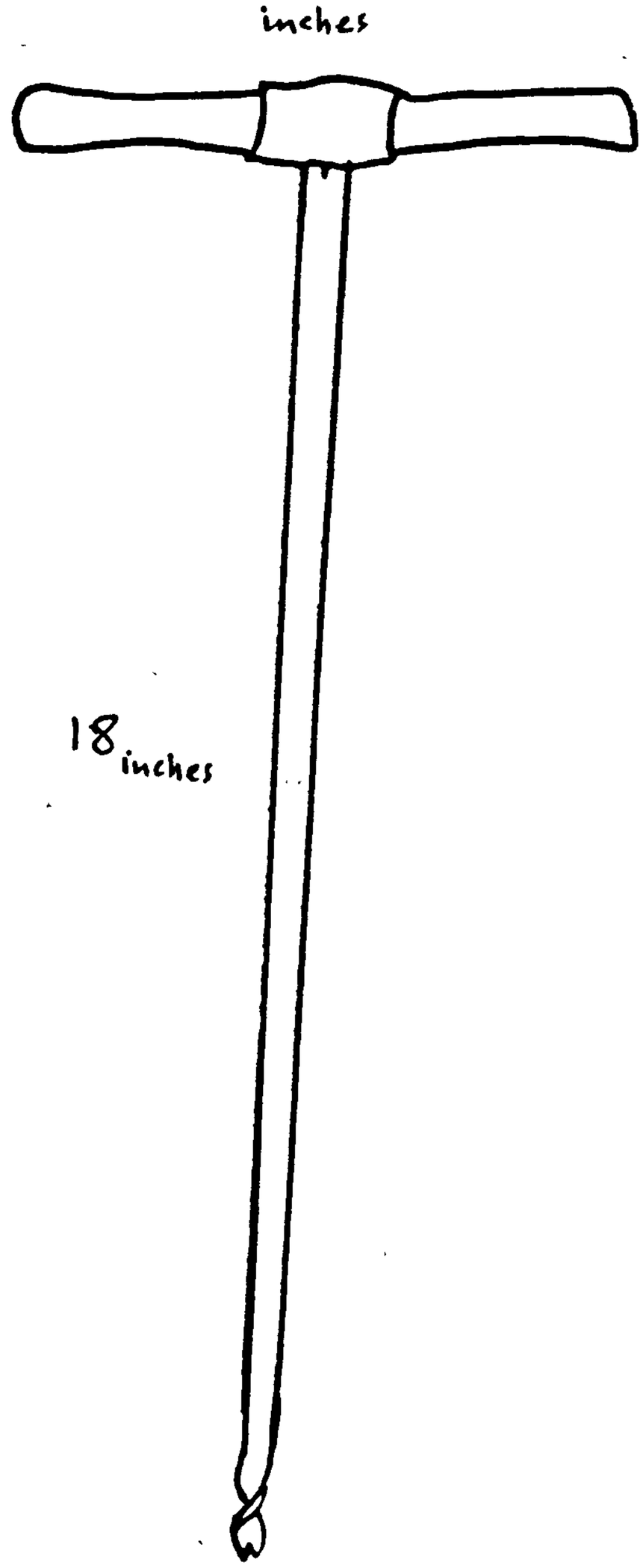


Fig. 7 The ~~drill~~ auger used to open holes before the planks are spiked

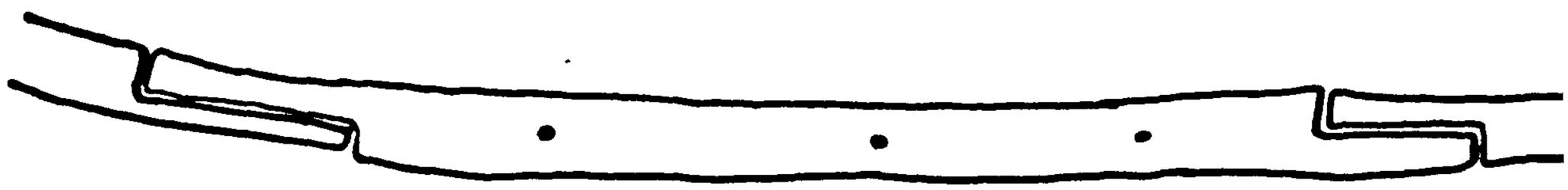


Fig. 8 Showing the way the planks are rabbeted to one another

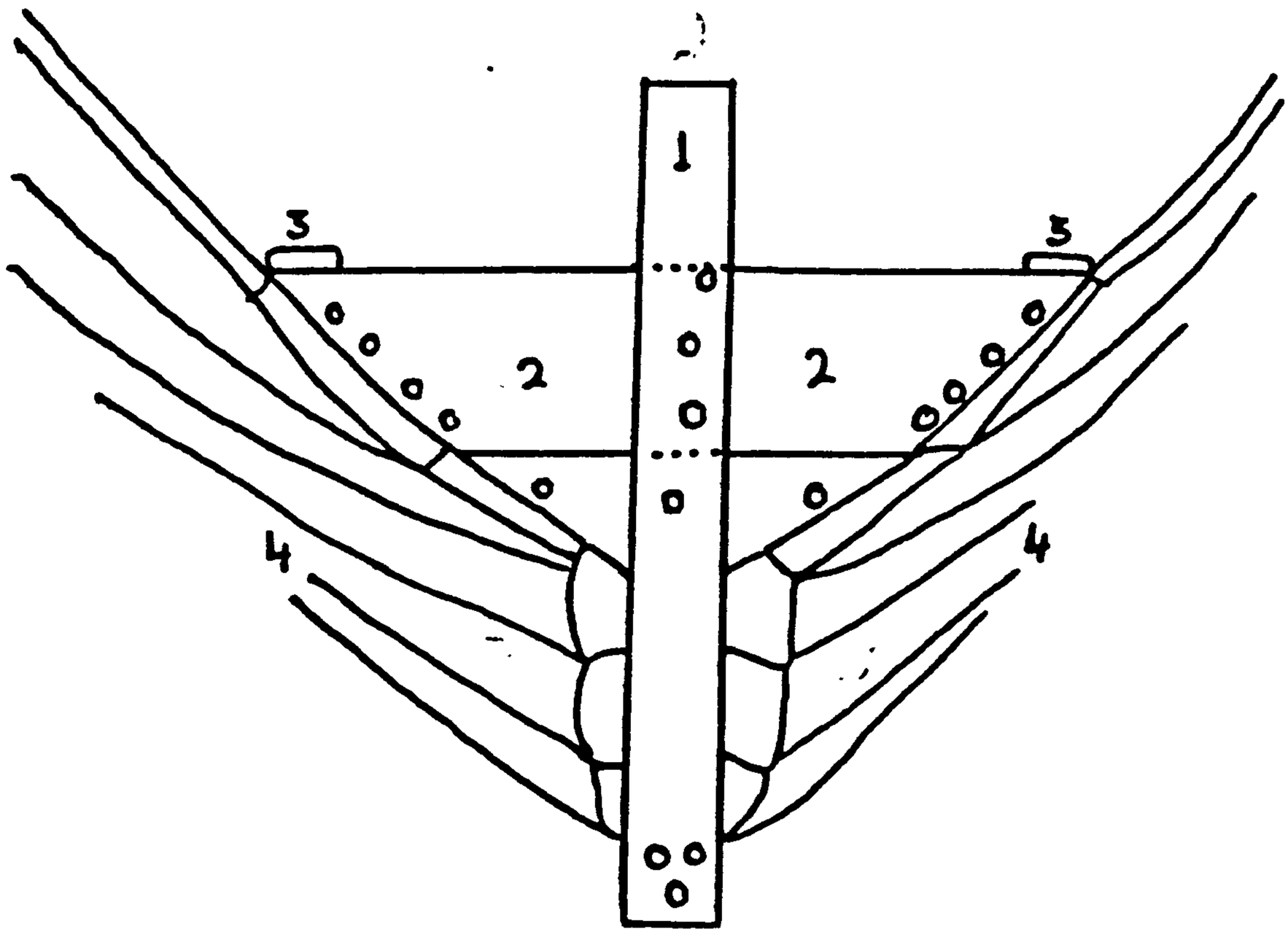


Fig. 9 Rears of the after planks spiked to the sides of the stern cross planking and the arms on each side, viewed from the back.

(1) The stern post

(2) the stern cross planking

(3) the stern divergent arms

(4) the planks

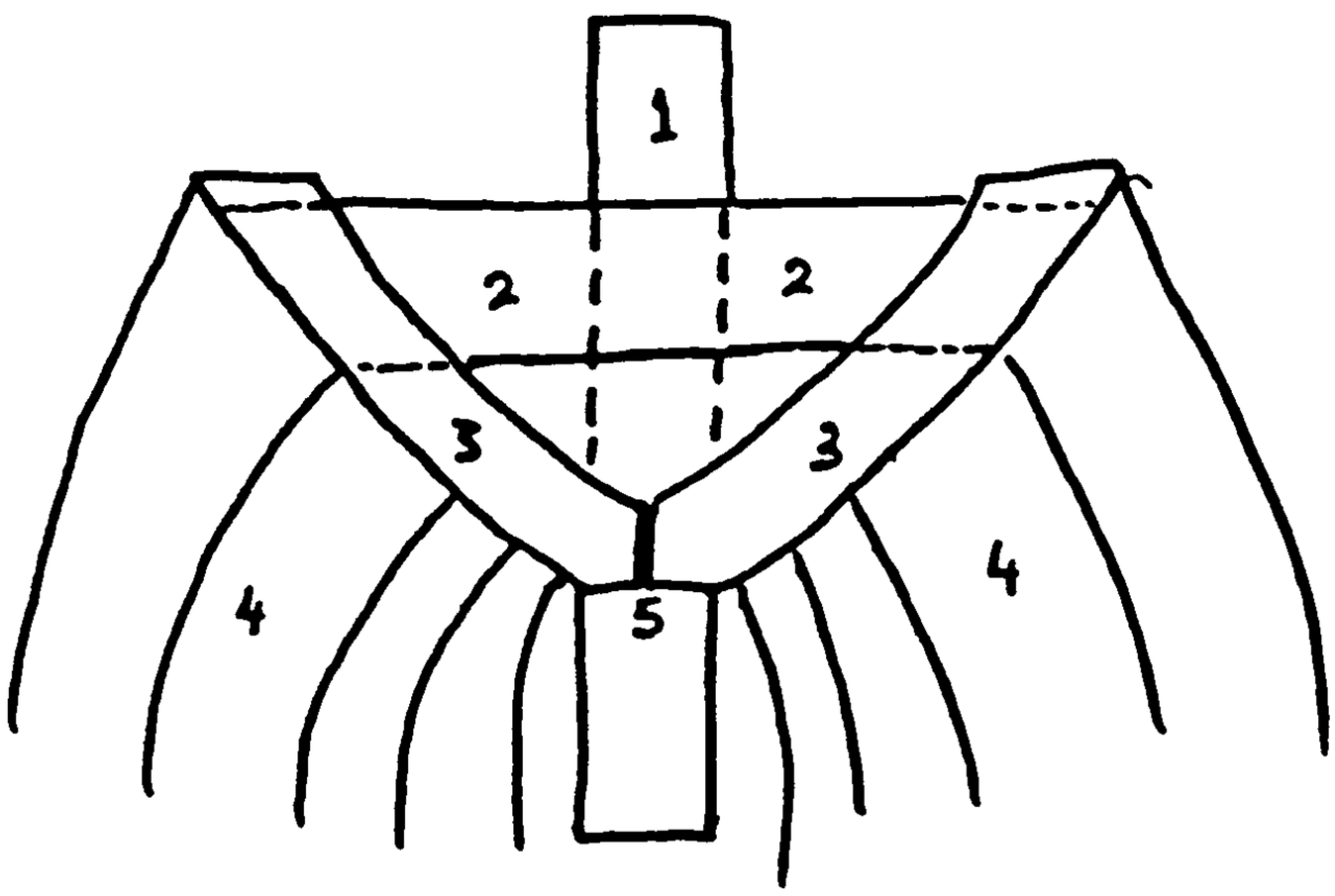


Fig. 10 Rears of the after planks spiked to the stern cross planking and the stern divergent arms rabbeted and spiked to the stern post, viewed from the front.

(1) The stern post

(2) the stern cross planking

(3) the stern divergent arms

(4) the planks

(5) the rabbet of the stern post on which the stern divergent arms are joined and spiked

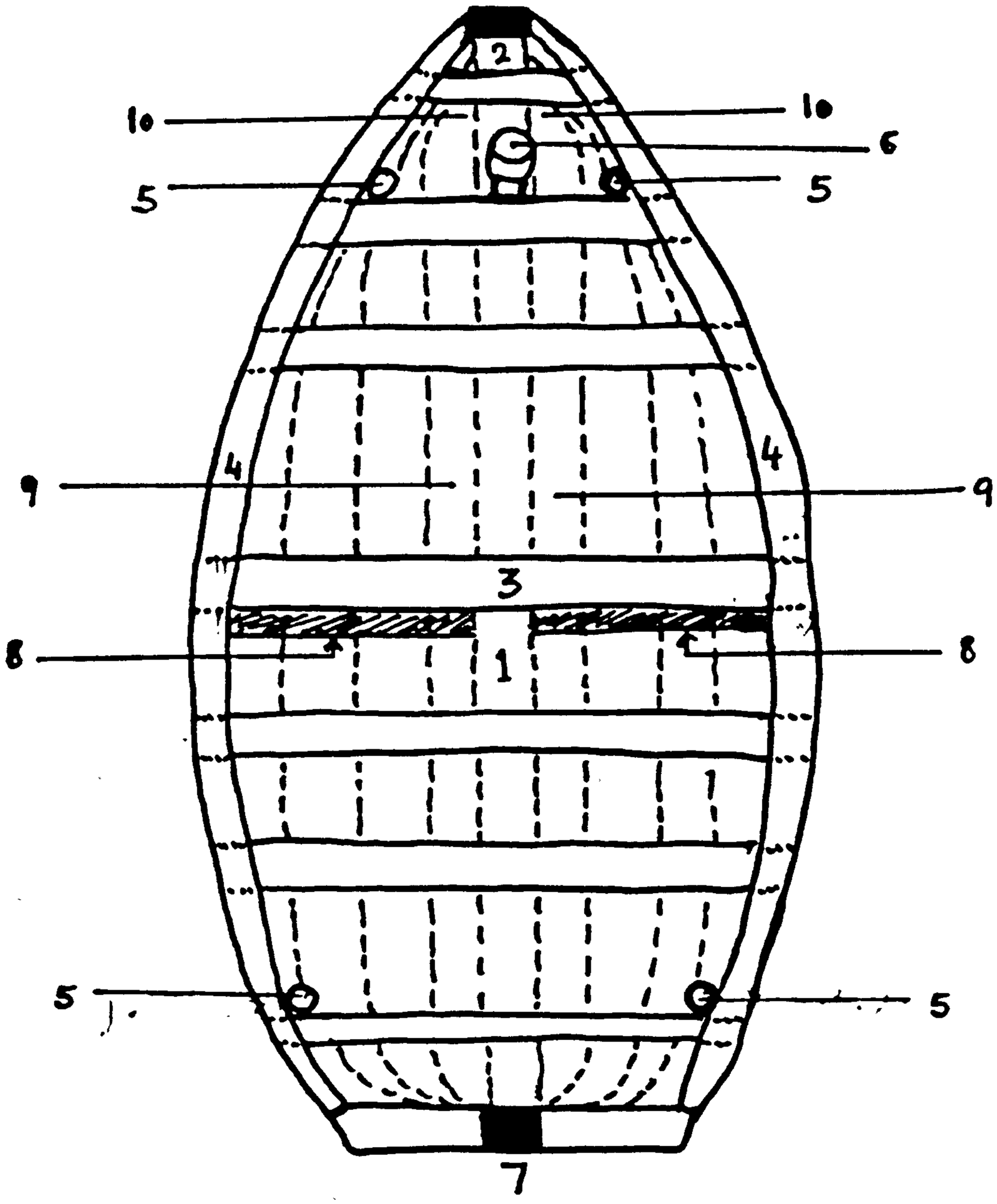


Fig. 11 Showing the details of the hull planking viewed from above

(1) The keel
(2) The prow
(3) The middle thwart
(4) The gunwale
(5) The small bollards
(6) The main bollard
(7) Stern post
(8) The two cleats supporting the mast
(9) The garboard strake
(10) The fore planks

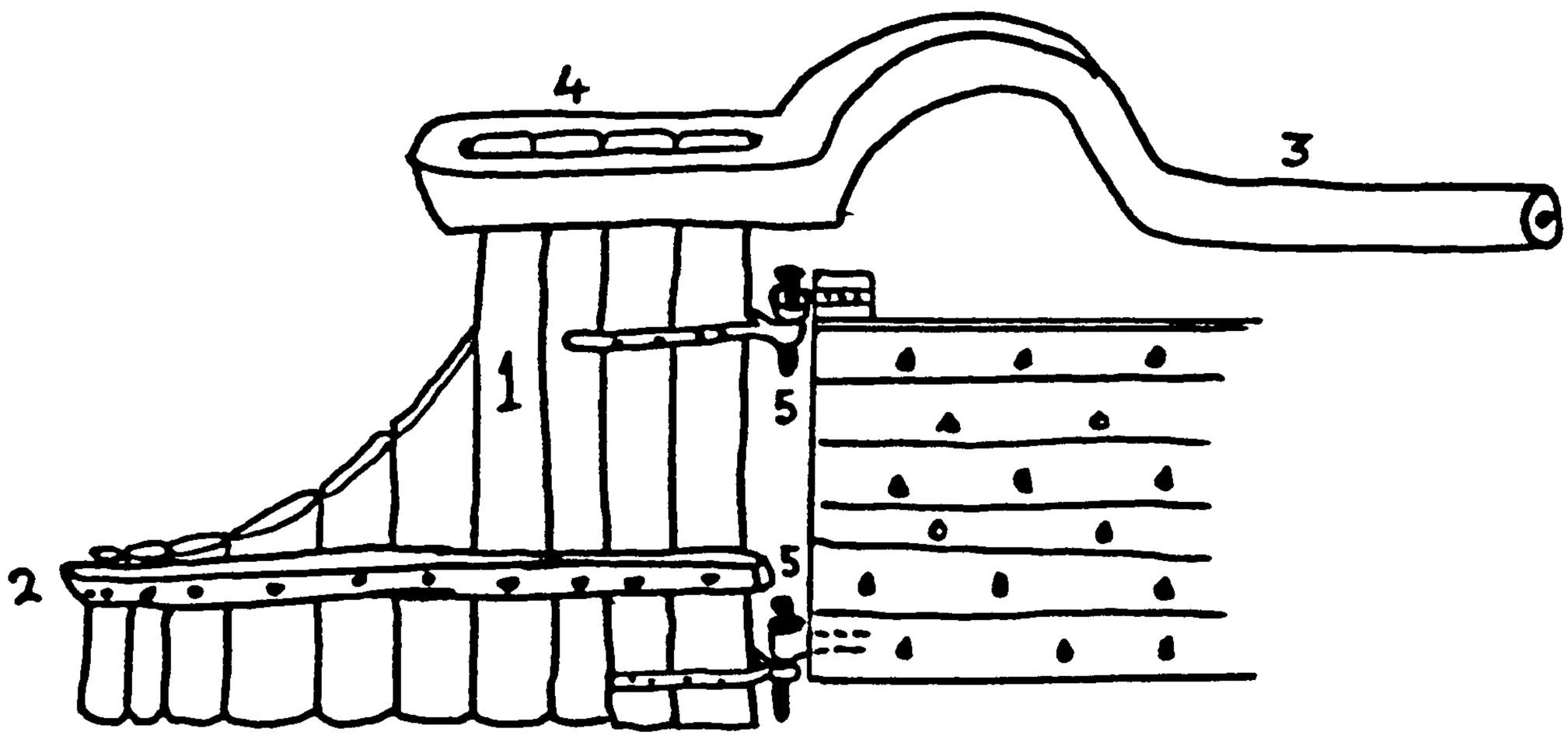


Fig. 12 Details of the rudder

(1) The rudder blade

(2) battens spiked on both sides of the rudder blade

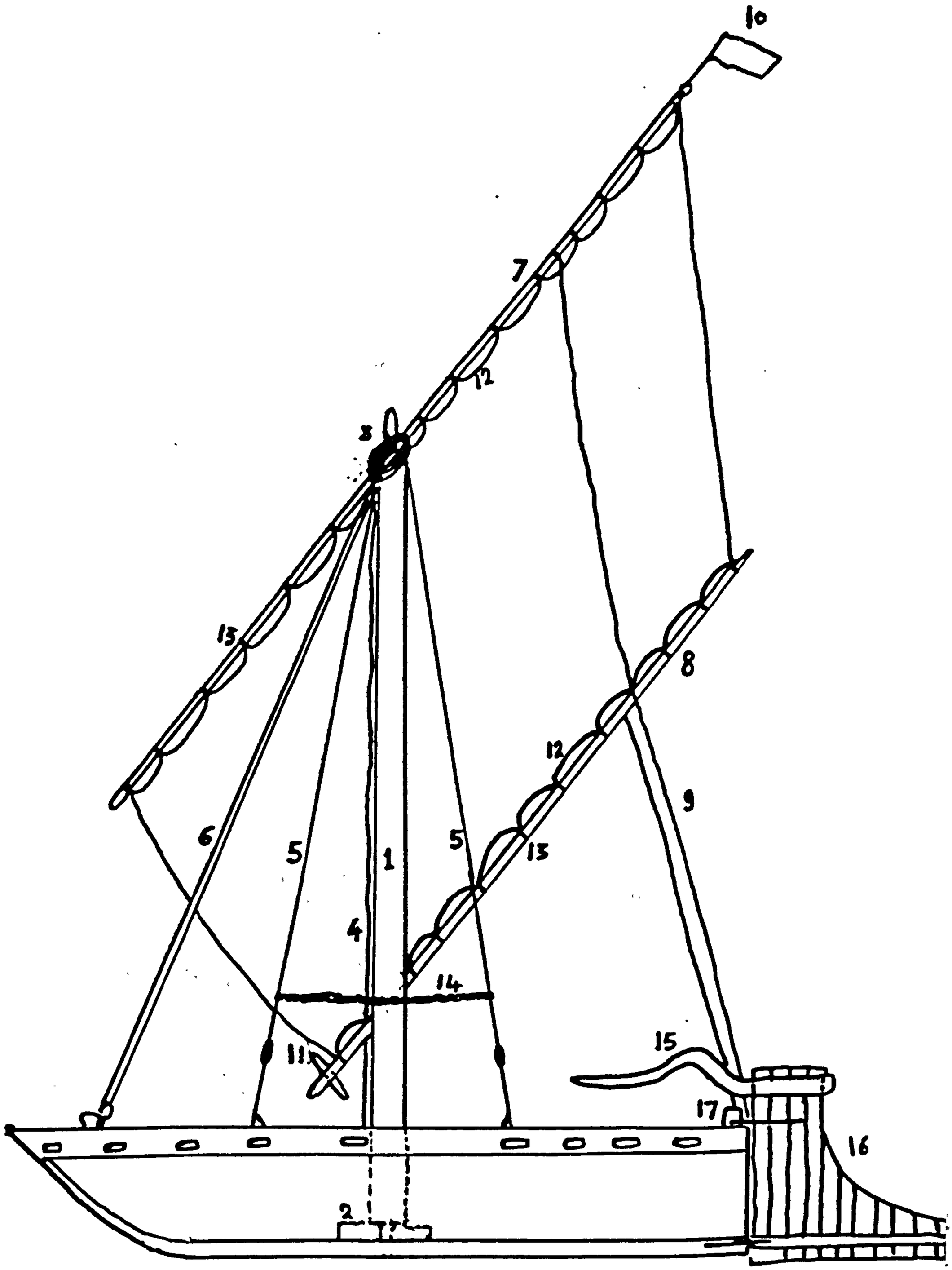
(3) the tiller

(4) the slotted butt of the tiller into which the rudder head is fitted

(5) the gudgeons and the gudgeon pins

Fig. 13 Details of the boat rigging and the sail and some other details

(1) the mast
(2) the maststep and heel of the mast
(3) the masthead
(4) the halyard
(5) the side shrouds
(6) the fore shrouds
(7) the upper yard
(8) the lower yard
(9) the rear ~~shrouds~~ vangs
(10) the flag
(11) the cross bar to rotate the lower yard
(12) thebolt rope (sigala) secured to the musrān
(13) the loops connection the sail to the yards (gabālis sing. giblis)
(14) the rope abridging the distance between the side shrouds
(15) the tiller
(16) the rudder blade
(17) the stern post


10
7
12
3
13
8
12
9
6
5
1
5
13
4
14
11
15
17
16
2

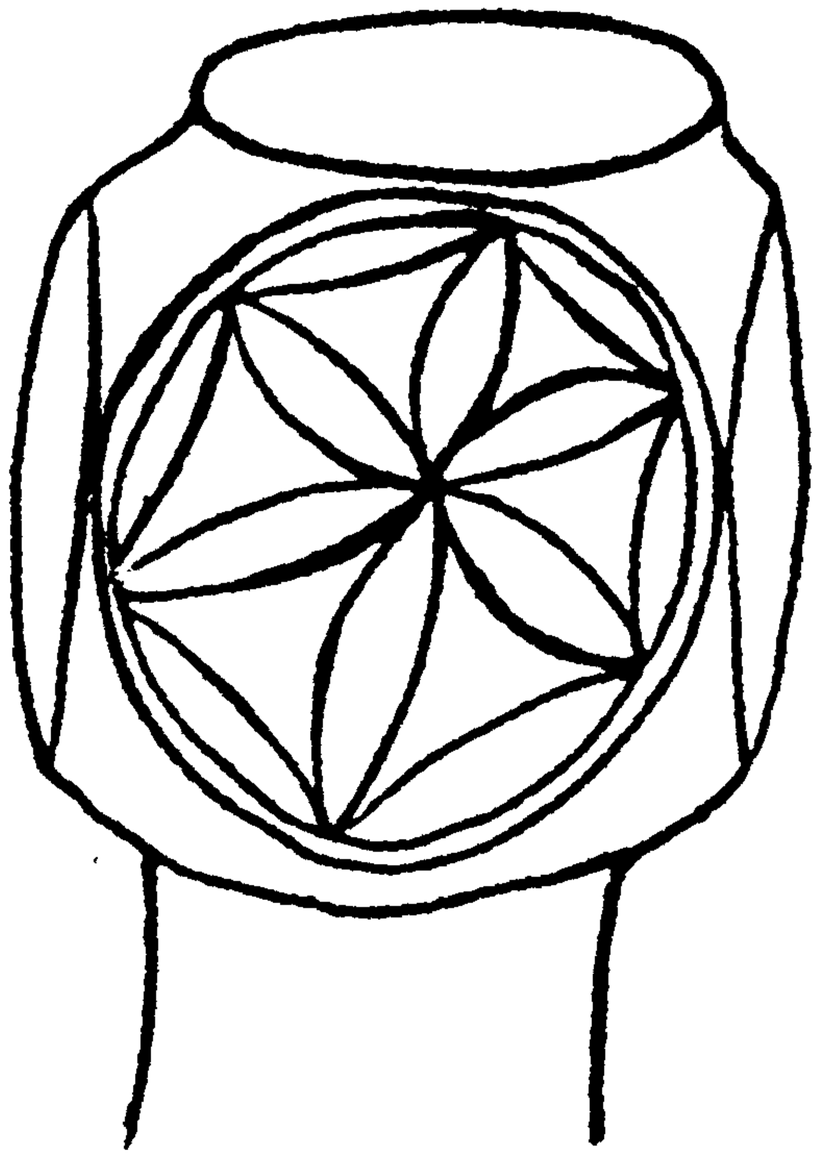


Fig. 14a

Rosette with six rays incised within two circles on the sides of the head of the main bollard.

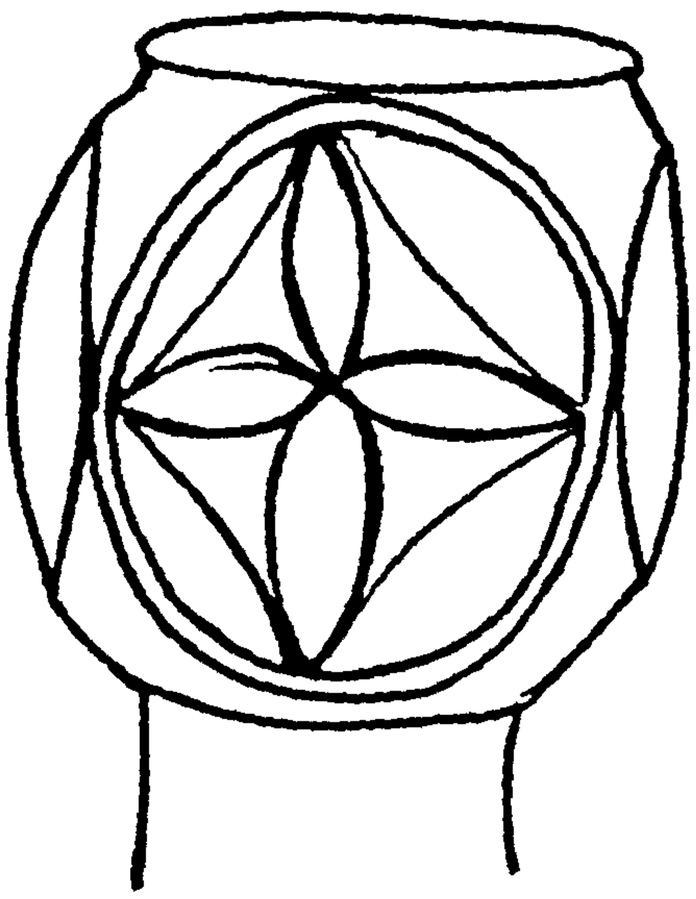


Fig. 14b
Rosette with four rays incised within two circles on the side of the head of the main bollard.

APPENDIX FOUR

PLATES

Plate 1. The 'hanging saw' used by two sawyers to cut the planks.

Plate 2. The planks, their width and curvature.

Plate 3. The master craftsman marking the curvature and width of the planks using a string dipped in black paint.

Plate 4. The line marked along the keel to divide it into two equal parts.

Plate 5. The stern frame, showing the stern post with two divergent arms and the cross planking.

Plate 6. The cross-cut saw which is also used by two sawyers. Sitting on the ground, facing each other, they keep the log they are sawing in position by their feet.

Plate 7. The craftsman scraping the prow by the adze to secure its proper curvature.

Plate 8. The lowermost planks spiked to the sides of the keel and the bottom of the stern post.

Plate 9. The craftsman using the ~~drill~~ auger to open holes for the spikes.

Plate 10. The oval pits on the planks where the heads of the spikes recess to make the boat countersunk.

Plate 11. The fore planks with their heads spiked to the sides of the prow.

Plate 12. The boat on the stocks during the process of its building.

Plate 13. The thwarts fitted horizontally between the top strakes and the gunwale above to keep them in position and support the hull.

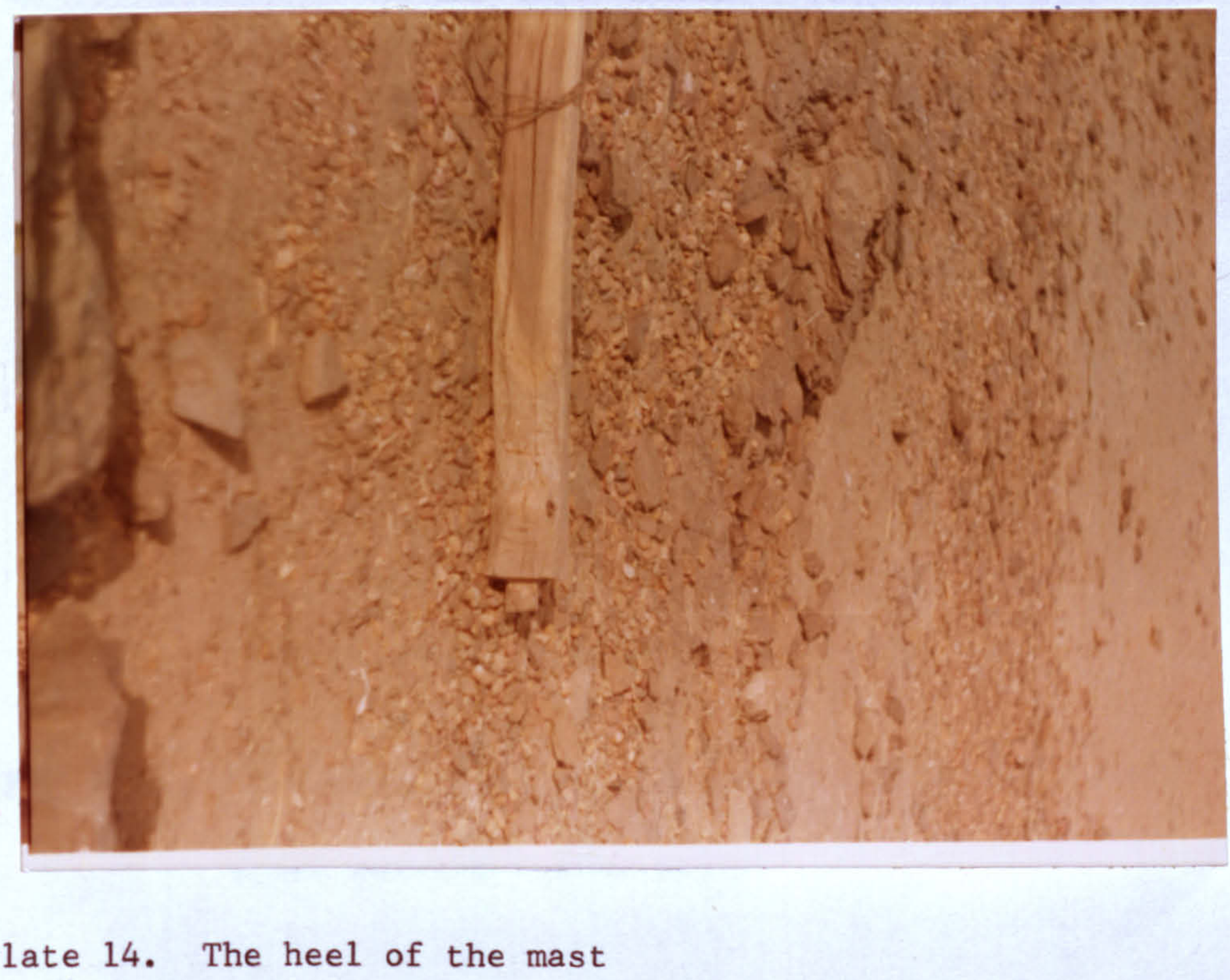


Plate 14. The heel of the mast

Plate 15. The rudder and its parts, the tiller, the rudder blade and the rudder head.

Plate 16. The masthead and its parts; the halyard affix, the mast collar and the wire loops.

Plate 17. Showing the cabin on the cargo boat of Omdurman and the White Nile

Plate 18. The cargo boat of Dongola area

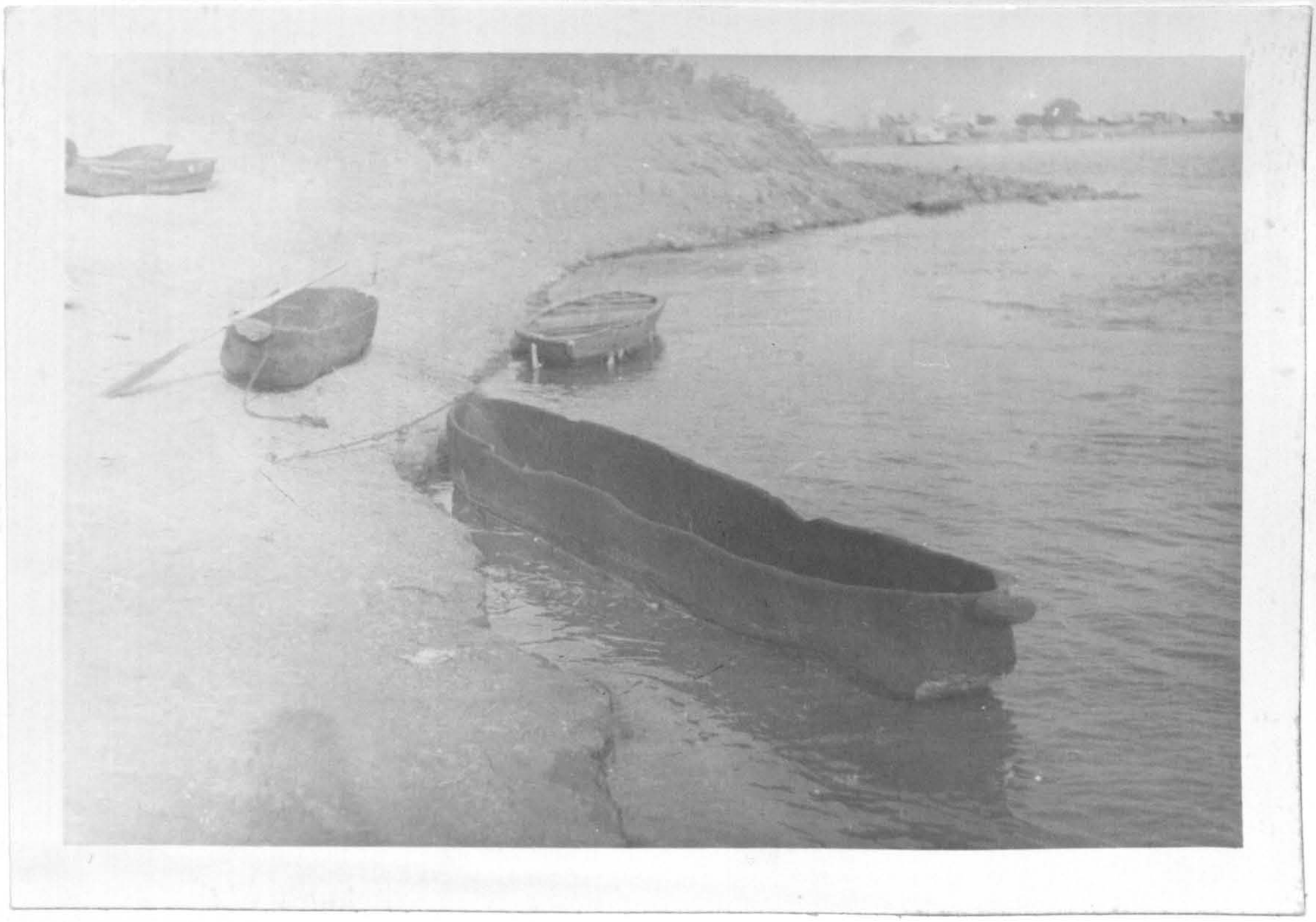


Plate 19. The dug-out of the Blue Nile.

Plate 20. The planked canoe of the White Nile.

BIBLIOGRAPHY

The Bibliography is divided into three sections:

(1) Works in Arabic

(2) Dictionaries

(3) Works in English.

(1) Works in Arabic

Abd al Hakīm, Sh. Mawsū'at al Fulklōr wa-l-Asāṭir al 'Arabiyya, Beirut, 1982.

Abdīn, A. Min Usūl al Lahjāt al Arabiyya fi-s-Sudan, Cairo, 1966.

Abdīn, A. Tārikh al Thaqafa al Arabiyya fi-s-Sudan, Beirut, 1967.

Abu Sabīb, M.A. al Ḥuli 'ind al Shaygiyya, Diploma Dissertation, Institute of African and Asian Studies, University of Khartoum, 1979.

Abu Salīm, M.I. al Saqiya, Khartoum University Press, Khartoum, 1980.

Al Maqrīzi, Aḥmad. Khitat, Cairo 1922, 2 Vols.

As Sāmurā'ī, A.M. 'Al Milāḥa ind al Arab Qabl al Islām', Al Faysal Magazine, Vol. 37, May 1980 pp.111-22.

At Tabari, Moḥammad Ibn Jarīr. Tārīkh al Rusul wa al Mulūk, Leiden, 1879-90, 3 vols.

At Ṭayyib, M.A. Muwaṣalatuna a-n-Nahriyya al Haya Magazine, Vol. 86, May 1969, pp.14-15.

Ḥākim, A.M.A. al Zakharif al Mi'mariyya fi Wadi Halfa Sudan Research Unit, University of Khartoum, 1965.

Ibn al Athīr, Ali Ibn Mohammad. Al Kamil fi al Tarīkh, Leiden, 1862-71, 11 Vols.

Ibn Baṭūṭa, Moḥammad. Riḥlāt Ibn Baṭūta, Beirut, 1960.

Ibn Khaldūn, Abd al Raḥmān Al 'ibar wa Dīwān al Mubtada' wa al Khabar, Beirut, 1967, 7 Vols.

Ibrāhīm, H.A. Moḥammad Ali fi al Sudan, Khartoum University Press, Khartoum, N.D.

Māhir, S. Al Bahriyya fi Miṣr al Islāmiyya, Cairo, 1967.

Shuqair, N. Tārikh wa Jughrafiyat al Sudān, al Ma'ārif Press, Cairo, 1903.

(2) Dictionaries

Al Zayyāt, Ḥ. — Muʿjam al Marākib wa al Sufun fi al Islam , Al mashriq Magazine, August-December, 1949, pp.321-364.

Armbruster, C.H. — Dongolese Nubian: A Lexicon, Cambridge University Press, Cambridge, 1965.

Baʿalabaki, M. — Al Mawrid, Dār ul- ilm Lilmalāyyin, Beirut, 1971.

Frayḥa, A. — Muʿjam al alfaẓ alʿāmiyya, Maktabat Libnān, Beirut, 1973.

Gāsim, A.A. — Qāmus al lahja alʿāmiyya fi al Sudan, Al Dār al Sūdāniyya, Khartoum, 1972.

Hans, W. — A Dictionary of Modern Written Arabic, Cowan, J.M. (ed.) Otto Harrassowitz, Wiesbaden, 1971.

Ibn Manẓur, Moḥammad Ibn Mukarram. — Lisān al Arab, Būlag, 1883-91, 20 Vols.

Maʿalūf, L. — Al Munjid, Al maṭbaʿa al Katholikkiyya, Beirut,

Muṣtafa, I. et al. — Al Muʿjam al Wasiṭ, Maṭbaʿat Miṣr, Cairo, 1961, 2 Vols.

Smith, J. Payn — A Compendious Syriac Dictionary, The Clarendon Press, Oxford, 1957.

(3) Works in English

'Abdal Rahman, A.A. 'Traditional technology of Boat construction and its socio-economic implication in Omdurman', Journal of Sudanese Folklore, Vol. 1, 1, 1983, pp.16-30.

Adams, W.Y. Nubia, Corridor to Africa, Allen Lane, London, 1977.

Alexander, B. Crafts and Craftsmen, Croom Helm, London, 1974.

Angelucci, E. Encyclopaedia of Ships, The Hamlyn Publishing Group Limited, Middlesex, 1940.

Arkell, A.J. A History of the Sudan, The Athlone Press, London, 1961.

Arkell, A.J. 'Darfur Pottery' Sudan Notes and Records, Vol. 22, 1, 1939, pp.79-88.

Arkell, A.J. 'Beads in Darfur and Wadai', Sudan Notes and Records, Vol. 26, 2, 1945, pp.305-310.

Arkell, A.J. 'Throwing Sticks and Throwing Knives in Darfur', Sudan Notes and Records, Vol. 22, 1, 1939, pp.251-268.

Arkell, A.J. 'Kuhl Pins', Sudan Notes and Records, Vol. 19, 1, 1936, pp.150-151.

At Ṭayyib, G. — An Illustrated Record of Sudanese National Costumes, M.A. Dissertation, Institue of African and Asian Studies, University of Khartoum, 1976.

Beer, C.W. — 'The Manufacture of the Nuba Stone Knob', Sudan Notes and Records, Vol. 18, 2, 1935, pp.294-296.

Benedict, R. — Patterns of Culture, Routledge and Kegan Paul, London and Henley, 1980.

Bently and Crowfoot, J.W. — 'Nuba Pots in Gordon's College', Sudan Notes and Records, Vol. 7, 2, 1924, pp.18-28.

Beshir, M.O. — Diversity, Regionalism and National Unity, Research Report No. 54, The Scandinavian Institute of African Studies, Upsala, 1979.

Beshir, M.O. — The Southern Sudan, Background to Conflict, Khartoum University Press, Khartoum, 1979.

Blandford, P.W. — Country Craft Tools, David and Charles, Newton Abbot, London, 1974.

Bond, W.R.G. 'Karama', in Hamilton, J.A. (ed.) The Anglo Egyptian Sudan from Within, Faber and Faber, London, 1935.

Bringeus, N.A. 'Swedish Ethnology today', Ethnologia Europea, Vol. 6, 1972, pp.205-26.

Bruce, J. Travels to Discover the Sources of the Nile., Edinburgh, 1790, 5 Vols.

Buchanan, R.H. 'Geography and Folklife', Folklife, Vol. 1, 1963, pp.5-15.

Burkhardt, J.L. Travels in Nubia, John Murry, Albermarle Street, London, 1822.

Crawford, O.G.S. The Funj Kingdom of Sennar, Gloucester, 1951.

Crowfoot, G.M. 'The Handspinning of Cotton in the Sudan', Sudan Notes and Records, Vol. 7, 2, 1924, pp.83-89.

Crowfoot, G.M. 'The Spinning and Weaving in the Sudan', Sudan Notes and Records, Vol. 4, 1, 1921, pp.20-39.

Crowfoot, G.M. 'The Sudanese Camel Girth', Kush, Vol. 4, 1956, pp.34-38.

Crowfoot, G.M. 'A Note on the Stringing of Sudanese Beds and Stools', Dryad, Vol. 3, 1, 1933, pp.12-19.

Daun, Å. 'Some New Trends within European Ethnology in Sweden'. Ethnologia Europea, Vol. 6, 1972, pp.227-38.

Deng, F.M. Dynamics of Identification, a Basis for National Integration in the Sudan, Khartoum University Press, Khartoum, 1973.

Dorson, R. (ed.) Folklore in the Modern World, Mowton Publishers, Paris, 1978.

Dorson, R. (ed.) Folklore and Folklife, University of Chicago Press, Chicago, 1972.

Dorson, R. (ed.) African Folklore, Indiana University Press, Indiana and London, 1972.

Erixon, S. 'Folklife Research in our Time', Gwerin, Vol. 3, 1962, pp.275-291.

Fenton, A. 'Material Culture as an Aid to Local History Studies in Scotland', Journal of the Folklore Institute, Vol. 2, 1965, pp.326-339.

Fenton, A. 'The Scope of Regional Ethnology', Folklife, Vol. 2, 1973, pp.5-14.

Gāsim, A.A. 'Some Aspects of Sudanese Colloquial Arabic' Sudan Notes and Records, Vol. 46, 1965, pp.40-49.

Glassie, H. Pattern in the Material Folk Culture of the Eastern United States, University of Pennsylvania Monographs in Folklore and Folklife Studies, no. 1. University of Pennsylvania Press, Pennsylvania, 1968.

Goldstein, K.S. A Guide for Fieldworkers in Folklore, Gale Research Company, Book Tower, Detroit, 1974.

Greenhill, B. Archaeology of the Boat, Adam and Charles Black, London, 1976.

Haberland, E. (ed.) Leo Frobenius 1873-1973 An Anthology, Franz Steiner Verlag GmbH, Wiesbaden, 1973.

Hasan, Y.F. (ed.) Sudan in Africa, Khartoum University Press, Khartoum, 1971.

Hasan, Y.F. The Arabs and the Sudan, Khartoum University Press, Khartoum, 1973.

Hasslöf, O. 'Ethnology and Living Tradition', in McGrail, S. (ed.) Sources and Techniques in Boat Archaeology, National Maritime Museum Series, no. 1, Greenwich, 1977, pp.65-76.

Hasslöf, O. — 'Sources of Maritime History and Methods of Research', Mariner's Mirror, Vol. 52, no, 2, 1966, pp.127-144.

Hasslöf, O. (ed.) — Ships and Shipyards, Copenhagen University Press, Copenhagen, 1972.

Herodotus, — (Translator) Henry Cary, George Routledge and Sons Limited, London, 1891.

Hill, R. — Egypt in the Sudan, Oxford University Press, Oxford, 1959.

Hollander, N. and Mertes, H. — The Last Sailors, The Final Days of the Working Sail, Angus and Robertson Publishers, in Association with Channel Four Television Company Limited, London, 1984.

Holt, P.M. and Daly, M.W. — The History of the Sudan from the Coming of Islam to the Present Day, Weidenfield and Nicolson, London, 1979.

Honko, L. — 'The Role of Fieldwork in Tradition Research', Ethnologia Scandinavia, 1977, pp.75-97.

Hornell, J. — Water Transport, Origins and Early Evolution, Cambridge University Press, Cambridge, 1946.

Hornell, J. 'The Frameless Boats of the Middle Nile, Part 1', Mariner's Mirror, Vol. 25, 4, October 1939, pp.417-432.

Hornell, J. 'The Frameless Boats of the Middle Nile, Part 2', Mariner's Mirror, Vol. 26, 2, 1940, pp.125-144.

Hornell, J. 'The Outrigger of the Blue Nile', Antiquity, Vol. 12, 1938, pp.354-59.

Hornell, J. Fishing in Many Waters, Cambridge University Press, Cambridge, 1950.

Hultkrantz, A. General Ethnological Concepts, Rosenkilde and Bagger, Copenhagen, 1960.

Ḥurreiz, S.H. Ja'aliyyin Folktales, Indiana University African Series no. 8, Indiana University Press, Bloomington, 1977.

Ḥurreiz, S.H. Linguistic Diversity and Language Planning in the Sudan, Sudan Research Unit, African Studies Seminar Paper no. 5, Khartoum University Press, Khartoum, 1968.

Jenkins, J.G. 'Post-Medieval Archaeology and Folklife Studies', Post-Medieval Archaeology, Vol. 2, 1968, pp.1-9.

Jenkins, J.G. Traditional Country Craftsmen, Routledge and Kegan Paul, London, 1965.

Jenkins, J.G. Nets and Coracles, David and Charles: Newton Abbot, London, 1974.

Jenkins, J.G. 'Fieldwork and Documentation in Folk-life Studies', Journal of the Royal Anthropological Institute Vol. 90, 2, 1960, pp.259-71.

Job, H.S. 'The Coinage of the Mahdi and the Khalifa', Sudan Notes and Records, Vol. 3, 3, 1920, pp.163-96.

Job, H.S. The Coinage of the Mahdi and the Khalifa' Sudan Notes and Records, Vol. 7, 2, 1924, pp.124-126.

Johnstone, P. The Sea Craft of Prehistory, Routledge and Kegan Paul, London and Henly, 1980.

Kirwan, L.P. 'The International Position of the Sudan in the Roman and Medieval Times' Sudan Notes and Records, Vol. 40, 1959, pp.23-37.

Landström, B. — The Ship, a Survey of the History of the Ship from the Promitive Craft to Nuclear Powered Submarine, Allen and Unwin, Sweden, 1961.

Leach, M. (ed.) — Standard Dictionary of Folklore, Mythology and Legend, Funk and Wagnalls, New York, 1949.

Madani, Y.H. — Al ʿangarēb, a Traditional Bed craft industry in the Sudan. M.A. Dissertation, Institute of African and Asian Studies, University of Khartoum, 1980.

Matthews, D.H. — 'The Red Sea Style', Kush, Vol. 1, 1953, pp.60-86.

McGrail, S. (ed.) — Sources and Techniques in Boat Archaeology, National Maritime Museum, Greenwich Archaeological Series, No. 1, 1977.

McGrail, S. — The Ship: Rafts, Boats and Ships from Prehistoric times to the Medieval Era. National Maritime Museum, No. I, Her Majesty's Stationery Office, London, 1981.

McMichael, H.A. — A History of the Arabs in the Sudan, Cambridge University Press, Cambridge, 1967.

Nadler, L.F. — 'Throwing Knives in the Sudan', Sudan Notes and Records, Vol. 18, 2, 1935, pp.297-302.

Ochola-Ayayo, A.B. — 'The Fishing techniques of the Nile Valley', Waza, Vol. 1, 1, 1980, pp.76-96.

Owen, T.M. — 'Some Trends in Regional Ethnology in Britain', Ethnologia Europea, Vol. 8, 1975, pp.56-62.

Owen, T.M. — 'Folklife Studies, Some Problems and Perspectives', Folklife, Vol. 19, 1981, pp.5-16.

Peate, [illegible] — 'Folk Culture', Antiquity, Vol. 13, 1939, pp.318-22.

Peate, [illegible] — 'The Study of Folklife: and its Part in the Defence of Civilization', Gwerin, Vol. 2, 1958-59, pp.97-109.

Pederson, O.C. — 'Skin or Wood? A Study of the Origin of the Scandinavian Plank-Boat', in Hasslof, O. et al. (eds.), Ships and Shiphards, Copenhagen University Press, Copenhagen, 1972, pp.208-34.

Poncet, J. — The Red Sea and the Adjacent Countries at the Close of the Seventeenth Century, William Foster (ed.), Hakluyt Society, London, 1949.

Riedl, F.N. — 'Folklore and the Study of Material Aspects of Culture', Journal of American Folklore', Vol. 79, 1966, pp.257-63.

Reisner, G.A. — 'Outline of the Ancient History of the Sudan', Part I, Sudan Notes and Records, vol. I, 1918, pp.3-15.

Reisner, G.A. — 'Outline of the Ancient History of the Sudan', Part II, Sudan Notes and Records, vol. I, 1918, pp.57-79.

Reisner, G.A. — 'Outline of the Ancient History of the Sudan', Part III, Sudan Notes and Records, vol. 1, 1918, pp.217-237.

Reisner, G.A. — 'Outline of the Ancient History of the Sudan', Part IV, Sudan Notes and Records, Vol. 2, 1919, pp.35-80.

Robert, W.E. — 'Material Culture: Folk crafts', in Dorson, R. (ed.), Folklore and Folklife, University of Chicago Press, Chicago, 1972, pp.232-52.

Robert, W.E. 'Fieldwork: Recording Material Culture', in Dorson, R. (ed.) Folklore and Folklife, University of Chicago Press, Chicago, 1972, pp.431-44.

Sanderson, S.F. 'The Tweed Salmon Coble', in Jenkins, G. (ed.), Studies in Folklife, Routledge and Kegan Paul, London 1969, pp.273-280.

Thomas, C. 'Archaeology and Folklife', Gwerin, Vol. 3, No. I, 1966, pp.7-17.

Trimingham, J.S. Islam in the Sudan, Oxford University Press, London, 1949.

UNESCO. Interrelations of Cultures: their contribution to International Understanding, Unesco, Paris, 1953.

Viirs, A. 'On the Methods of Studying the Material Culture of European People', Ethnologia Europea, Vol. 9, No. 1, 1976, pp.35-42.

Walker, J. 'The Coinage of Ali Dinār', Sudan Notes and Records, Vol. 19, 1, 1936, pp.147-49.

Wenzel, M. House Decoration in Nubia, Duckworth, London, 1972.

Wolfgang, R. — Boats, Rafts and Ships, Adlard Cole Limited, London, 1974.

Yoder, D. (ed.) — American Folklife, University of Texas Press, Austin and London, 1976.

correction: page 44

There was certainly a technical legacy, eg. the use of iron spikes and nails, as Hornell established. These seem to have been imported from Russia via Egypt during the Turko-Egptian rule. Probably the rudder suspension changed at that period also. The condominium period also saw the introduction of steamers, still called, in the Sudan babūr, a variant of the French word vapeur.

addition: page 126 and 127

gadūs comes from κάδος (kādos) a wine jar or water jar in classical Greek. Baṭūs, gunwale, might be from the Greek βάτης (Batēs) a cover. The gunwale covers the planks edges. Jagūs, thwart, could be from the Greek διάγω (diagō) to cross

'armūs, seam, the 'ain probably represents an original T. The root appears to be possibly τέρμα or τερμών (tarma) the Greek for a limit.

addition:

pages 138 and 139

Professor Murray guesses that the word bēlamān comes from vēlum, Latin for sail, and the working song or chanty, where the meaning of the original term is lost. He thinks that the meaning sail of or sails would fit perfectly as would the explanatory Arabic words in the penultimate line (midra wa gumāsh). The present writer thinks that the word bēlamān derives from the classic or standard Arabic word bil'īmān, meaning with faith. That is to say bēlamān is a Sudanization of the standard word. As long as the work song contains a good number of times where the crew mention the name of Allāh, God, asking him to help and facilitate their work, the derivation from the Arabic word might also stand true.