

# **TRADITIONAL SUDANESE MEDICINE**

A primer for health care providers, researchers, and  
students

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## PREFACE

I was born in the Sudan of Sudanese Muslim parents in Al-Dueim, on the west bank of the White Nile, central Sudan. I spent my early years in this town, and I went to school there. Since then, I have visited many towns and villages throughout the country. My mother tongue is Arabic, the main language of the country. I had a typical Sudanese childhood. I shared the daily life and activities of the people. My basic norms and values, I dare say, are those of the communities I describe in this book.

At the age of four, I joined the *khalwa* (Quranic School), learned rudimentary Arabic, and memorized the first short chapters of the Holy Book. While I was there, I gained my first insight into the inner circle of religious healers, and at an early age, I saw the *maseed* (colloquial for mosque) and the Sufi followers.

Many families in the Sudan have their patron saints that they consult or invoke in times of stress and need. Al-Mikashfi Abu-Umar of Shikanieba village, central Sudan, is the patron *shaiikh* of our clan. At the age of five, my parents took me to his shrine, half a day's journey from my hometown. There, I saw the local asylum, for the first time, and was excited to see the mentally ill inmates under treatment. I had my first haircut there. My parents, with other worshippers, paid homage to the holy man. An impressive scene remained deeply engraved in my memory.

During my childhood, I suffered every summer from attacks of epistaxis; I bled through the left nostril. Hospital treatment did not help. One morning my father decided to try his friend *shaiikh* Awad Rahama, a laundry man in the market place, who was known as a traditional healer as well. He was particularly noted for his effective recipes for nose bleeding. The *shaiikh* welcomed us and asked me to sit. He washed my forehead with water, and on it wrote some Quranic verses in copying pencil. He then gave me a *hijab* (amulet) to wear. That was the last time I ever had epistaxis!

During my early life, I wore a variety of amulets. Some were to combat the evil eye, some to ensure success at school, while others were *hafidhas*

(protectors). Some were paper *hijabs*, and others were *mihaya* (erasure of holy verse) that I had to drink or *bakbra* to burn and fumigate myself with.

Several types of treatment and healing séances are vivid in my memory. For example, I saw the bonesetter in action. There was one in every neighbourhood in every village or town. Many were notably skilful and experienced. They used no painkillers while setting a broken bone or manipulating a sprained joint, because they knew none, and, hence, had to work dexterously. I remember *Al-faki* Al-Zubair and *Al-faki* Hamoda, the two notable religious healers in our neighbourhood. They also led the congregation prayers, taught the Quran, and stood as masters of ceremonies in weddings. I joined the Quranic School of the first, and had many amulets and *bakbras* from the second.

The therapeutic musical extravaganza of the *zar* is a popular feature in northern Sudan. The *zar* is an exclusively women's congregation in which lavish musical ceremonies are performed. Several times, I escaped my parents' notice, and sometimes-even school, to sneak into one of the *zar* houses. I found the ceremonies fascinating, and still remember them vividly, and with pleasure. The rhythm of the *zar* music and the heavy fragrances that escape from the ceremony houses are unforgettable.

Many Muslim Sudanese towns have religious Sufi fraternities called *turuq Sufiyya* (Sufi orders). In these *turuq*, people perform *ziker*, remembrance chants in praise of the Prophet Muhammad and Sufi saints. The ceremonies range from the highly rhythmic type of the *Qadiriyya* order, to the quiet melodies of the *Burhamiyya*. We joined the *ziker* circles whenever there was a ceremony in the neighbourhood; we danced, chanted, and always waited for that dervish who would dance himself into a trance.

Every time I was on my way to a school test, my parents would take me to the nearest *faki*. They would ask him to prescribe *mihaya* for me to drink. He also would write a small *hijab* to wear. My parents considered these steps essential if I were to succeed. Whenever I ran a fever, my parents would fumigate me with *bakbur al-taiman* (the twin's incense). This was the first measure they performed to detect and banish the

evildoer. This *bakbur* was and still is widely acclaimed as a means of exorcising the evil eye.

As I grew up, I went through all the initiation rites that a Sudanese male child or adult would go through in life. I also clearly remember female rites, and indeed, all the rituals associated with the various social occasions in the northern and central parts of the country. I have tried to relive this lifelong experience in this book. In doing so, I have presented the data in a form that I hope will be of help to professionals and perhaps also to a wider spectrum of readers. This book, however, is not only an historical narrative; it is also a description of the contemporary situation and a platform for looking into the future. I describe in this book the field of traditional medicine in the Sudan, both past and present. I also give guidelines that may help in studying it better in the future. As the title indicates, the book is written primarily with health care providers, researchers and students in mind, but will, I hope, interest other readers.

Over the last 30 years, I have visited most of the healing centres, watched many healing séances, and documented the results. I have observed and interviewed many people - healers and patients, whether literate or illiterate. They all had something to say. I have reviewed most of the literature and have checked and rechecked information whether read, seen, or heard, whenever it has been possible to do so.

The Sudanese society has its own values and norms, customs and beliefs. Some of these have radically changed due to the recent impact of rapid urbanization, migration, education, and changing modes of life. This work does not attempt to evaluate such values and norms, nor does it enter in any depth into people's beliefs and faith, and, certainly, it passes no moral judgments. I have tried to interpret data carefully, and have generalized only when I felt justified by sound premises. I naturally hope future research lends further support to my general conclusions.

Many values characterize the people of northern Sudan. These Muslim communities have been described as firm believers in God, His Prophets, and their Companions and in holy men. They have also been described as modest, courageous, helpful, hospitable, and caring people who have maintained their standards of behaviour, health, and beauty.

Many European travellers, explorers, naturalists, and so on have visited the Sudan in the last two centuries. They have documented their impressions in memoirs, books, letters, or in official reports. From a Western standpoint, they have identified some virtues, but many vices. These values, be they as they may, do dictate social behaviour and explain some health habits. They also could explain the tenacious adherence to certain practices harmful to health.

Some cursory historians have called certain surgical procedures they encountered in the Sudan, brutal. Such procedures included tattooing, facial scarring and nose and lip perforation. Many communities, however, genuinely hold these selfsame practices to be beautifying. They are part of the culture, and they cannot be separated from or studied outside it.

A modest and chaste female is held in high esteem. This, most probably, inspires the lay mind to practice what all researchers have agreed as mutilating, brutal, and harmful-female circumcision. Similarly, some other practices, which might be seen as whimsical, may well have developed because they satisfy a certain social necessity. Examples are *dilka* (scented massage), *dukhan* (scented smoke bath) and *kebumra* (pot pourri), which have been evaluated differently by foreigners.

In studying traditional medicine, I have tried to appreciate the difficulties facing those interested in or concerned with this field. Local sources for the study of traditional medicine are often unavailable; those that do exist are widely scattered. I have looked for data pertinent to the health sphere in a variety of written material. I have consulted sources as diverse as *Al-Arabiya fi Al-Sudan* by Abd Allah Abd Al-Rahman *Al-Ahaji* by Abd Allah Al-Tayib, *Al-Amthal Al-Sudaniyya* by Babiker Badri and many other Sudanese literary works. I have reviewed as many folklore genres as possible: Sudanese fables, riddles, myths, epics and quizzes, as well as literary prose and poetry.

This work is intended to be a primer in Sudanese traditional medicine, or, better still, a compendium of health culture. I hope it becomes a handy manual for researchers in the medical, pharmaceutical, and related social sciences, and for as broad a sector of readers as the English language permits.

This book draws a sketch map for the field, places the necessary landmarks, and provides some explanations of common features. In doing so, I sincerely hope to stimulate research that would establish traditional medicine as a recognized body of knowledge, with its own claims to excellence and distinction. The more we study traditional medicine, and the more we clarify its domains, the easier it will become for policy-makers and educators to take positive attitudes. I hope that this book helps Physicians and Pharmacists to be better social workers. They would be, I am sure, if they were better informed about how wisely the Sudanese people use the resources of the environment in managing their health.

I also hope that this book increases informed awareness among groups already concerned with this subject, from museum curators, to legislators working in the medical field, and entrepreneurs looking for sound investment in medicinal plants. It might also be of value to medical historians surveying relics of the past, and may be useful to medical anthropologists and sociologists with little training in medical sciences, or medical personnel with little training in or knowledge of the social sciences.

My ultimate goal in this work is to remind Sudanese intellectuals in particular that a common health heritage is a significant aspect of the common cultural identity of the Sudanese people. This is why I have written this book in English instead of the more widely read Arabic. Many southern Sudanese intellectuals have no working knowledge of Arabic. This group concerns me most, and I particularly desire to address them. To do so, I have risked possible corruption of some vernacular names through the process of transliteration.

I do not claim that I have covered the whole field of traditional health culture. Neither do I claim perfection. My treatment of traditional medicine in the southern and southeastern Regions of the country is sketchy. Many tribes, ethnic groups and communities in different regions of the Sudan, still wait to be studied. We still know little about our sub-Saharan neighbours, among whom many Sudanese tribes live. We know even less about the ethnic groups that move freely across Sudan's extensive borders with neighbouring countries. These must be the

subjects of books other than this. If the present work provides a stimulus to their composition, it will have achieved one very important aim.

## INTRODUCTION

A large sector of the Sudanese population use traditional medicine to meet their primary health care needs. In addition to being accessible and affordable, it is part of their belief systems. Often, traditional medicine provides the only available health care service to the population in many parts of the country.

Bilad al-Sudan ‘the land of the blacks’ as given by medieval Muslim geographers signifies all sub-Saharan Africa extending from the Red Sea to the Atlantic Ocean. The word Sudan unqualified refers to the present political entity first used well after the Turco-Egyptian conquest of 1821.

Not much is yet known about pre-history of this region. Nevertheless, the Sudanese man appears to have gone through a typical world pattern of development from hunter to settled farmer, and then member of a centralized kingdom.

Kerma kingdom stands as the first centralized power in the Sudan. It is dated approximately from 2000 to 1600 BC, a powerful kingdom, which ruled the entire area between the second, and the fourth cataracts. The peak of the ancient Sudanese culture is thought to have been reached during the period from the second century BC to the third century AD, when the Meroitic civilization developed its own form of writing and its own style of art and of belief.

Along the Nile valley, a number of Christian kingdoms rose and fell, while the Beja of the eastern desert and Red Sea hills remained pagan through various waves of Islamic immigration. From the seventh century AD, waves of Arab tribes were infiltrating the country, bringing with them a new religion and a new culture.

The Islamization of the Sudan had gradual beginnings but was effective, achieving full sway by 1504 AD, when the Funj rulers established the first Muslim monarchy. The Funj Kingdom lasted for over three centuries before the Turkish forces conquered it. The Turkish rule ended in 1885 on the hands of the Mahdi. That independent state lasted only to 1898 when the country was re-conquered by the combined British and Egyptian forces.

The Sudan gained its independence in January 1956. Since then, the country witnessed major changes in health, education, mechanized farming, irrigation, and industry.

The Sudan is multi-ethnic and multi-lingual. Arabic is the lingua franca with considerable number of dialect variations. With an area of approximately 2.6 million square kilometres, the Republic of the Sudan is the largest African state. It is situated in the north-eastern part of the continent, extending from latitude 4° N to latitude 22° N and shares borders with nine countries Egypt, Libya, Chad, Central African Republic, Zaire, Uganda, Kenya, Ethiopia, and Eritrea. It also has a coastline of some 640 kilometres along the Red Sea. The land topography of the Sudan is generally flat with some hills to the extreme southeast, northeast, and west. The River Nile traverses the country from south to north with the Blue Nile and White Nile meeting at Khartoum, the capital of the country.

Recent projections estimated the population of the Sudan (circa 2004 for lack of accurate recent national census) to be 32.5 millions, 43% children below the age of 5 and 62% live in rural areas. The live expectancy is estimated to be 54 years with 10-11 years discounted for disability arising from disease and illness. Annual population growth rate of 2.6%, and total fertility rate 6.8 children born/woman, birth rate of 44 births/1000 population, death rate 14 deaths/1000 population, infant mortality rate 68/1000 live births; under five mortality 104/1000 live birth; maternal mortality 507-550/100,000 deliveries.

By virtue of these factors the historical, geographical, and cultural and the very nature of the present national economy and the dwindling manpower due to the escalating phenomenon of brain and muscle drain to the oil-rich countries, and the ever-worsening health care indicators, the Sudan needs to reconsider some aspects of its existing health delivery system. In this system traditional medicine - apparently so widely known and used - still enjoys the status of an incognito traveller, ever-present but rarely acknowledged. An all-embracing model that is open-minded to the roles of alternative systems of health care is needed; a model that is socially acceptable, cost-effective, efficient, self-reliant, and consonant with the existing realities of the country.

In such a model, we believe, the traditional health culture can be great asset to the policy maker. It offers not a second best alternative but a complementary system with uncountable intrinsic qualities and values.

This system is still in need of national policies that would ensure safety, quality, and efficacy of its recipes, practices, approaches, and knowledge. We need to use the current best evidence conscientiously, explicitly, and judiciously in making decisions about the application of this system in individual patient care.

This book delineates the general features of the system of traditional health and ill-health beliefs and practices in the Sudan. It also tries to describe the cognitive system and the roles healers, patients, and the community played. In this endeavour one hope to save some of this traditional wisdom from being lost to posterity, and there is a lot to be saved and preserved. Rapid urbanization, the settlement of nomads, the ravages of civil wars, mass exodus, and dislocation of ethnic groups from their natural habitat have all disrupted the social system. Human trespass on the environment, particularly plant genocide, has threatened floral life, including many medicinal plants. While documenting the Sudanese elements, the book also hopes to define concurrently foreign elements (Arab, African, Islamic, Christian, etc.) in the Sudanese heritage, and the interactions of these elements with the indigenous beliefs and practices.

### **What is traditional medicine?**

The laity in the Sudan designates their healing corpus as *tibb* and the sophisticated among them qualify it as *tibb baladi*, local medicine. They understand *tibb* as a fine skill that requires knowledge, intelligence, and probably supernatural endowments such as magical powers and divine assistance. Incidentally, the word *tibb* also denotes magic. People would describe a sick person as *matbub*, bewitched, and at the same time say *tabbab al-jarb*, treated the wound and *tabbab al-kasr*, set the broken bone. Due to beliefs in the supernatural causation of ill health, local medicine in the Sudan, like almost all other similar systems throughout the world, is integral to the systems describing cosmic relations-mystical, empirical or rational. Therefore, there are in the country as many systems of traditional medicine as there are ethnic or cultural groups.

Traditional medicine includes diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral-based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness.<sup>1</sup>

In its Traditional Medicine Strategy 2002-2005 document, WHO stated that “Traditional medicine is a comprehensive term used to refer both to traditional medicine systems such as traditional Chinese medicine, Indian ayurveda and Arabic Unani medicine, and to various forms of indigenous medicine. Traditional medicine therapies include medication therapies if they involve use of herbal medicines, animal parts, and/or minerals - and non-medication therapies - if they are carried out primarily without the use of medication, as in the case of acupuncture, manual therapies, and spiritual therapies.”

Earlier, a group of experts convened by the WHO Regional Office for Africa in Brazzaville in 1976 defined traditional medicine as:

“...The sum total of all the knowledge and practices, whether explicable or not, used in diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practical experience and observation handed down from generation to generation, whether verbally or in writing.”<sup>2</sup>

The terms “complementary,” “alternative,” “non-conventional,” or “parallel” are used to refer to a broad set of health care practices that are not part of a country’s own tradition, or not integrated into its dominant health care system.

For example, acupuncture<sup>3</sup> is a traditional Chinese medicine therapy. Nevertheless, many European countries define it as complementary and alternative medicine (CAM), because it does not form part of their own health care traditions. Similarly, since homeopathy<sup>4</sup> chiropractic,<sup>5</sup> and osteopathy<sup>6</sup> systems were developed in Europe and USA in the 18<sup>th</sup> Century, after the introduction of allopathic medicine, they are not categorized as traditional medicine systems nor incorporated into the dominant modes of health care in Europe. Instead, they are regarded as a form of CAM. The list of CAM is extensive.<sup>7</sup>

### **Why do we study traditional medicine?**

We study traditional medicine for several reasons. We intend first to identify and describe its contribution to health, health promotion, illness-prevention and treatment strategies of illness and disease used by the various cultural groups in the Sudan. We equally identify its potential hazards, and its merits and demerits over the well-established Western biomedical system.

Western biomedicine is a set of beliefs and practices grounded in one cultural perspective, while traditional medicine is based on cultural diversity. When we study traditional medicine, we study how culture shapes knowledge of anatomical and physiological function, body image, and meanings attached to symptoms. We describe how cultural socialization practices influence the health and illness behaviour of males and females. We recognize the gynaecological and obstetrical beliefs and practices, values, knowledge, and traditions framed by the culture and worldview of a people.

In addition, we describe the processes used by various cultural groups to cope with intractable pain and suffering, disability, and emotional distress. We discuss the social and cultural implications of knowledge of food and nutrients for professional health care delivery. We analyze various health models for their suitability and efficacy in providing culturally sensitive and acceptable health care services to all members of the Sudanese society.

In such study, we attune to the health care needs of the Sudanese from different cultural backgrounds, we respect the integrity of people's cultural beliefs and values, and we endeavour to identify the differences between cultures, understand them, and show how to deal with them.

The traditional medicine system is inherently culture-bound. Its practices often differ even in the same geographical zone. Hence, generalizations about traditional medicine are fraught with danger.

Differences in concepts and methods of managing newborn twins in different communities are illustrative. The birth of twins is surrounded by ambivalent reactions among different societies. They are considered by some as sons of God, by others evil spirits, ominous signs, or a

blessing.<sup>8</sup> The Adok tribe in southeastern Sudan firmly believes that twins are charged with an evil eye and have to be sacrificed.<sup>9</sup> However, neither the Ingassana nor the Nuer, and certainly none of the northern Sudanese tribes share this fear of twins. On the contrary, they consider them a great blessing. The Ingassana have special ceremonies connected with their birth,<sup>10</sup> the Nuer consider the birds that fly high and especially the migratory birds, and twins as *gaat kwoth* (sons of God). E. Hall wrote in 1918 on women customs in Omdurman, saying:

“Twin children are supposed to have one spirit between them, and should one get ill, the people think that the other will fall ill also. Should one twin die, the parents have marks cut in the face of the living child so that the dead twin shall not take away the living one. The Sudanese imagine that the spirit of twins goes out of the body at night into the body of a cat or a dog or a bird, therefore people are often afraid of striking these animals at night for fear of killing the children.”<sup>11</sup>

If compared with biomedicine, traditional medicine instead of trying to control nature, would try to strike a balance and bring harmony; instead of interfering actively, it would rather wait and see; instead of intervening sooner, it would apply cautious deliberation; instead of planning ahead, it takes life as it comes; instead of treating similar disease the same, it would recognize differences.

Studies like this one provide the extra curricular basic socio-cultural health care information that would enable health care providers to explore cultural issues, and strengthen their capabilities to work with various people from diverse backgrounds and varying cultures.

Cultural differences exist among different cultural groups and they affect health care delivery. Experiences of health and illness vary widely, because of different beliefs, behaviours, and experience. This is what we call cultural diversity. Good health care depends on our sensitivity towards these differences. When we study traditional health culture we, hopefully, become more culturally competent. Health care providers must have the capacity to assess themselves to determine their own inherent biases as well as their medical culture’s biases.

Cultural competence is the awareness (appreciating and accepting cultural differences), knowledge (worldviews, explanatory models of disease, and affliction), and skills (learning how to assess patients, explaining an issue from a different perspective, and acknowledging interactive mistakes), that enable health care providers to increase their understanding and appreciation of cultural diversity and biases.

Cultural clashes arise because biomedicine health care providers tend to make their own ethnocentric culture with its own beliefs, practices, customs, and rituals. These include definitions of health and illness; the superiority of technology; compliance; professionalism; courtesy; procedure, and systematic approaches. Biomedicine students are taught rationality and objectivity, and value of numeric measurement and physico-chemical data.

Thus, one important aspect in studying traditional medicine aims at creating awareness about our own cultural assumptions as distinct from the culture of hospitals and biomedicine. It stresses the fact that identifying with one's own culture, should not make one prejudiced about any other cultures and belief systems. Ultimately, such study should provide health care providers with the necessary resources, guidelines, and skills to achieve cultural competence, and by so doing, avoid cultural clashes, misunderstandings, and eliminate prejudices.

Traditional medications and practices have their own inherent hazards. These will be discussed at length throughout this book. Here a few will be highlighted.

The field is rich with unfounded claims of success and high indexes of safety; little is mentioned about failure. These extravagant claims sometimes delay implementation of effective curative measures.

Generally, herbs have been considered safe. This is not always true. Severe toxicity resulting from use of herbs has been documented in many occasions. Hepatotoxicity, teratogenicity, and carcinogenicity should always be of concern to clinicians and researchers investigating this field.

Herbal medicine is plagued by several further problems. Many vocal and influential individuals insist that clinical research is not a priority. In their

view, traditional knowledge and the “test of time” are adequate proof. Yet the “test of time” is a notoriously poor guide for establishing the efficacy or safety of traditional therapies. The area of herbal medicine, it seems, has been hindered by a tradition of regarding clinical trials as being of secondary importance. The present lack of quality control and standardization of herbal medicinal products in the Sudan should be of concern to policy makers and experts.

In addition, the public perceives herbal medicines as devoid of adverse effects. The media often helps to perpetuate this myth. All herbal medicinal products are associated with finite risks. One issue that will gain relevance as research progresses is the interactions between herbal and prescription medicines.

Herbs have been extensively abused as agents of poisoning, homicide, and abortion. Synthetic medicines have been illegally introduced in the plant matrix. Exported herbal remedies have been adulterated with synthetic medicines to improve their activity and most likely their popularity. Undeclared medicines in association with declared herbal remedies have been detected. These include indomethacin, diazepam, and corticosteroids, to mention a few.

Nutritional supplements and health foods when advocated as medicinal carry high potential for adverse health effects. Consumers might be misled by labeling and advertisements. It was also noted that the boundary between foods and medicines was not always clear and that some herbal ingredients, which were deemed unacceptable on safety grounds for use in medicines, could still legally be sold as foods. Unrecognized contamination by other herbs, medicines, and various chemicals (including heavy metals, pesticides, or insecticides) is a possible hazard.

The clinical complications and social, psychological hazards of practices like female genital cutting, other surgical and cosmetic procedures (cupping, scarring, tattooing) have been extensively documented in this book and elsewhere. Tetanus, fatal septicaemia, and HIV/Aids have all been closely associated with these practices.

It is equally true that bone setting, has been accompanied by several complications, some of them serious. This is to be expected because

many healers are ignorant of anatomy and modern techniques of the craft. Their shortcomings are particularly exposed when they try setting compound fractures, spinal cord injuries, and difficult fractures such as supracondylar ones. The most common complications include non-union, mal-union, Volkmann's contractures, and gangrene of the extremities.

Finally, the profession of traditional medicine is subject to invasion by charlatans and quacks who generally conceive the field as their prerogative property, and shroud their practice with secretiveness. Like many human endeavours, practices, products, practitioners, and institutions of traditional medicine and complementary and alternative medicines should be regulated and disciplinary measures established and implemented.

### **Study sources**

In their oral literature, the Sudanese described their health norms and explained ill health. They offered various forms of treatment. However, they did not write down explicitly what causes disease, disability, and harm. Neither did they write their recipes. These we had to reconstruct by analyzing available data, and to do this we had to conduct intensive field surveys and dig into several sources. These include archeological relics, oral tradition, information scattered in historical chronicles, travellers' accounts, and literary sources. All contributed remarkably to our knowledge of many tribes, and documented and preserved valuable data. The *General Bibliography* page 469 illustrates this variety.

Earlier records of Sudanese life existed in Sudanese chronicles and medieval historical records, where scattered observations on health problems, prevalent diseases and their management were reported anecdotally.

In addition to these scattered records, early travellers and historians have played an important part in studying or describing the state of health, hygiene, sanitation and medical practices in the early times (see *Foreign Impressions* page 455). Also during the Anglo-Egyptian Condominium, government officials contributed remarkably. Naom Shuqair, for example, compiled a massive treatise on the history and geography of the

19<sup>th</sup> century Sudan with sizable sections on prevalent health customs and diseases and their treatment in different parts of the Sudan.<sup>12</sup>

Without belittling the efforts of certain institutions in preserving the Sudanese healing practices, especially the Institute of African and Asian Studies of the University of Khartoum, the Aromatic and Medicinal Plants Research Institute and Traditional Medicine Research Institute of the National Council for Research, whose efforts to study the field in an organized fashion will be dealt with more critically later (see 'The Profession of Traditional Medicine, page 403), an appreciative amount of data related to health among different tribes has been collected by individual researchers.

Anthropologists, for example, have contributed immensely to this field by studying the systems of healing in several Sudanese societies. Edwards Evans-Pritchard studied the Azande,<sup>13</sup> the Nuer, the Ingassana,<sup>14</sup> the Bongo, the Mberidi and Mbegumba of Bahr Al-Ghazal; R.G. Lienhardt,<sup>15</sup> the Dinka; Jean Buxton,<sup>16</sup> the Mandari; Charles and Brenda Seligman the pagan tribes of the White Nile and southern Sudan and Harold MacMichael<sup>17</sup> drew a history of Arabs in the Sudan. In J.S. Trimingham's studies on Islam in the Sudan, <sup>18</sup>we find a perceptive analysis of the magico-religious beliefs and practices associated with affliction and misfortune. Ian Cunnison studied the Humur tribes of southern Kordofan<sup>19</sup> and Harold Barclay Burri Al-Lamab, a suburban village in central Sudan.<sup>20</sup>

Several case studies in healing practices were carried out in partial fulfillment of postgraduate degrees in anthropology, folklore, medicine, pharmacy, and veterinary sciences, agriculture or for other academic pursuits. For a more comprehensive coverage of these dissertations, please refer to the *General Bibliography* page 469. However, a representative sample include Holy<sup>21</sup> and Abdullahi Osman Al-Tom, studying the Berti of Darfur,<sup>22, 23</sup> Nadel, the Nuba of southern Kordofan,<sup>24</sup> Sharaf Al-Din Abd Al-Salam the saints' cult in the Sudan,<sup>25</sup> Abdullahi Ali Ibrahim,<sup>26</sup> the impact of Rubatab metaphor on social, political and health life of that tribe and their neighbours, and Sayyid Hamid Hurreiz, birth, marriage, death and initiation customs and beliefs<sup>27</sup> and rites of passage<sup>28</sup> in central Sudan. Idris Salim Al-Hasan

studied Um Dawan Ban Religious institutions,<sup>29</sup>Awad Al-Basha, couching techniques in Kordofan,<sup>30</sup>Amira Hasan female circumcision,<sup>31</sup> Amir Ali Hasan the *maseed* system in the Gezira,<sup>32,33</sup>Pamela Constantinidis<sup>34</sup> and Samia Al-Nagar,<sup>35</sup>women institutions specially the *zar* cult, and Makris, and Ahmad Al-Safi,<sup>36</sup>the *tumbura* cult in Omdurman.

Several other works appeared outside the postgraduate field, namely Ahmad Al-Safi *Native Medicine in the Sudan: Sources, Concepts and Methods*,<sup>37</sup>which was prepared for the Salamabi prize competition launched by the Sudan Research Unit in 1968, and Hamid Rushwan *Female Circumcision: prevalence, complications, attitudes and changes*<sup>38</sup> and Asma Al-Darir *Woman, why do you weep?*<sup>39</sup>Both of which were reports on a WHO-sponsored survey that spanned almost all northern Sudan.

The Sudan shared in the recent worldwide resurgence of interest in studies of culture, in search of identity, self-sufficiency and for fulfilling national pride. In this endeavour, Tigani Al-Mahi unequivocally pioneered this search with much enthusiasm, devotion, and talent.

Tigani was a Sudanese psychiatrist and social scientist of great distinction; he lived with an unequalled love of the culture he was born and brought up in. Over and above his interest, his psychiatric career brought him into contact with invaluable sources and key informants in research fields. Tigani Al-Mahi contributed significantly to the inception and promotion of an African model of psychiatric health delivery that came to be known as the “village-system” as typified by that of the village of Aro in Abeokota in western Nigeria. The system permitted treatment of the mentally ill by utilization of the inherent dynamic resources of the social environment as the principal therapeutic technique.

Earlier, T. Adeoyo Lambo (a Nigerian pioneer psychiatrist) and Tigani Al-Mahi postulated that under stress-emotional or otherwise-newly-acquired and highly differentiated social attitudes and ideologies are more susceptible to ‘damage,’ leaving the basic traditional beliefs and indigenous moral philosophy functionally overactive.<sup>40</sup> This insight led them to recognize the part played by indigenous psychotherapeutic approaches in the total management of patients, without any lowering of standards of medical practice. They also found, through long practice in

Africa, that a multi-disciplinary approach and collaboration with traditional healers is necessary for better scientific understanding of man and his environment.

In addition, Tigani's insights in problems of fieldwork and methodology in the social sciences are shrewd and should be carefully studied by all field workers in the social sciences, especially the uninitiated. Much is to be found in his book *An Introduction to the History of Arabic Medicine*<sup>41</sup> published in Arabic, and in his papers in the two volumes of collected essays edited by Ahmad Al-Safi and Taha Baasher and published by Khartoum University Press in 1981<sup>42</sup> and 1984.<sup>43</sup>

Broun and Massey<sup>44</sup> and Andrews<sup>45</sup> early in the twentieth century compiled two books on Sudanese flora that have become indispensable sources for researchers, and particularly useful for those studying traditional medicine, even though they have not dealt specifically with medicinal plants. During the Anglo-Egyptian Condominium (1899-1956), medical doctors in the Egyptian Medical Corps, scientists, and administrators contributed a lot to our knowledge of the local practices in the various parts of the country. The articles they wrote were pioneering in every sense. Some of these articles were published in the *Wellcome Research Laboratories reports* (1906-1911),<sup>46</sup> edited by Sir Andrew Balfour;<sup>47</sup> others appeared in *Sudan Notes and Records* (1918-).

Bimbashi RG Anderson, while Senior Medical Officer in Kordofan, described the medical practices and superstitions amongst the people of that region.<sup>48</sup> Later, he also described the tribal customs of the Nyam-Nyam<sup>49</sup> and Gour people inhabiting the eastern Bahr Al-Ghazal region, and the relation of these customs to the medicine and morale of these tribes.<sup>50</sup> Bimbashi L. Bousfield, an Egyptian Medical Corps and Senior Medical Officer in Kasala in the eastern Sudan, has described the local methods of treatment of diseases in that region.<sup>51</sup> Bimbashi Hasan Effendi Zeki, of the Sudan Medical Department and Medical Officer at Gordon Memorial College, has described the healing art of the dervishes during the rule of the Mahdi and his *Khalifa* (successor).<sup>52</sup> Zeki had been taken captive to Omdurman by the Mahdi after he had captured the city, and had worked during his captivity as the Mahdi's medical adviser and attended him during his death. Sir Rudolph Baron von Slatin Pasha,

Inspector General, Sudan Government, has contributed brief but interesting notes on the health of the Sudanese. He has furnished the *Wellcome Laboratories Reports* with notes on the local methods of the dervish healing practices and customs.<sup>53</sup>

Abd Al-Hamid Ibrahim reviewed the medicinal plants and minerals that appeared in the publications of the *Wellcome Research Laboratory Reports* for the years 1906, 1908, and 1911, and compiled an inventory of the cited plants and minerals with their catalogue numbers in the Wellcome Museum of Medicine in Khartoum, which also contained artifacts and local articles relevant to health and disease as varied as surgical instruments, splints, amulets, pathology specimens, and material related to public health, sanitation and hygiene. The inventories have been appended to the Annual Reports of the Government Analyst, Wellcome Chemical Laboratories Reports for the years 1958-59 and 1959-60.<sup>54</sup> These appendices would have been of much help to researchers if the museum and its contents had not been lost! For definitive research on medicinal plants, see page 427.

The Arab Organization for Agricultural Development published in 1988 *Al-Nabatat Al-Tibbiyya WAl-Itriyya WAl-Samma Fi Al-Watan Al-Arabi*. The book contains profiles for 256 entries. Many plants have been illustrated in line drawings, and some were reproduced in coloured photographs. Each entry contains the common Arabic names and the English and Latin equivalents. The book also describes each plant, its habitat, active principles, and uses.<sup>55</sup> Many plants listed in this book were drawn from the Sudan.

Several poisonous plants occur naturally in the Sudan. Early researchers, including Sir Andrew Balfour, described some of these plants in the early reports of the Wellcome Research Laboratories in the first decade of this century.<sup>56</sup> Robert Kirk<sup>57</sup> in 1946 and Mansour Ali Haseeb<sup>58</sup> in 1972 updated the knowledge in this field. Some minor accounts have appeared in Arabic describing the chemistry and pharmacology of some of these plants.<sup>59</sup> Professor Salah Adam of the College of Veterinary Sciences researched extensively (and helped researchers) in toxic and poisonous plants that affect animal and man. (For more details, see the *General Bibliography* later in this book).

### **About this work**

Cynthia Mynntti has identified three research approaches in traditional medicine: <sup>60</sup> the folkloric, the medical/scientific, and the anthropological.

The folkloric approach describes beliefs and practices as a curiosity. The practices are presented as if they are universally followed; all the so-and-so (ethnic group, people of a certain locale, women or men) subscribe to these beliefs and practices. The beliefs and practices are presented in a timeless vacuum, with no change described. Much of the Orientalist writing on the Arab world, and medical writing on traditional medicine, fits this approach.

The medical/scientific approach assumes that reason and science are on its side, and that modern scientific medicine is superior to anything believed or practised by illiterate people. It is mostly critical of things traditional. In its most broad-minded form, the medical approach seeks to document and measure the efficacy of certain traditional medical practices. The efficacy of traditional herbal remedies has been much examined through this approach. The medical approach has difficulty describing and measuring more subjective aspects of traditional medicine, such as comfort, perceptions of dis-ease or wellness.

The anthropological approach sees traditional beliefs and practices in their political, social, and economic context. It assumes that different people hold different beliefs, even in a small community (e.g., rich versus poor, educated versus uneducated, orthodox Muslims versus ordinary Muslims, women versus men, young versus old). It also assumes change. No belief or practice is immune from change. Thus, if the here and now is to be described, it must take into consideration a diverse and changing set of beliefs and practices. It is true that the anthropologists of Evans-Pritchard's day assumed more universals and less change than anthropologists do nowadays. However, even Evans-Pritchard was not interested in describing Zande witchcraft practices only, but rather in commenting on what the witchcraft accusations said about the schisms and conflicts in Zande society. So anthropologists usually take one of two tracks—to suggest what traditional medicine says about the society under analysis or to suggest how political, social, and economic change affects medical belief and practice.

From the above brief account, it is evident how difficult it is to survey traditional medical beliefs and practices—the way this book takes—using an anthropological approach, because anthropology so much depends on a specific time and place. It is also very difficult to assess (by measurable standards of efficacy) the medical effect of traditional practices when they are presented in such broad array in this book. This is what research institutions should be doing when they conduct case studies. The Traditional Medicine Research Institute has attempted to do just that (page 433).

This book is a survey describing traditional health beliefs and practices as they are seen in the different regions of the country. It looks at sources that shed light on the health practices in the past. Our main objective is to identify the necessary landmarks that will make future studies easier.

For sure, this book is not a medical evaluation of the efficacy of traditional remedies, or an anthropological analysis of the place of traditional medicine in the Sudan changing society. However, to situate it in the polemics of the day, it is an explicit statement saying that the Sudanese have a rich indigenous spiritual life and traditional healing culture. These derive in great part, although not exclusively, from Sudan's Islamic heritage. However, it is 'folk' Islam, not 'orthodox' Islam. The Mahdi's ban on sacrilege, to use his words, as we would see in page 407, has failed. Modern fundamentalists have consistently tried to stamp out folk Islamic practices, and have failed, as measured by the degree of spread of these practices.

In this book I have deliberately avoided delving into the very interesting aspect of the (literate, orthodox, correct) versus (illiterate, folk, heterodox, syncretic) traditions in Islam and other great religions of the world. The literature on this subject is massive. We allude to this area so that future researchers might look into it more closely.

## References and Notes

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- <sup>2</sup> WHO, *The Promotion and development of traditional medicine*. World Health Organization, Geneva: Technical Report Series, 622: 8. 1978.
- <sup>3</sup> The insertion of fine needles into specific points along the lines of energy flow, or meridians, in the body. Acupuncture originated in China and is a therapy used to promote health, treat and prevent disease, and relieve pain. It is practiced by licensed acupuncturists, physiotherapists, chiropractors, naturopathic doctors, and medical doctors.
- <sup>4</sup> A system of therapeutics introduced in 1796 by the German physician Samuel Hahnemann. It is founded on the stated principle that "like cures like," and which prescribed for patients medicines or other treatments that would produce in healthy persons symptoms of the diseases being treated.
- <sup>5</sup> A system of healing based on the theory that disease in the human body results from lack of normal nerve function, founded in 1895 by an Iowa merchant, D.D. Palmer. Chiropractors employ treatment by manipulation and specific adjustment of body structures, such as the spinal column, and use physical therapy when necessary. Chiropractors thus are concerned with the relationship between the musculoskeletal structures and functions of the body and the nervous system in the restoration and maintenance of health. Chiropractors are trained in and through accredited chiropractic colleges. Procedures include the adjustment and manipulation of the articulations and adjacent tissues of the human body, particularly of the spinal column, and sometimes related therapies such as heat therapy, traction, and nutrition counseling.
- <sup>6</sup> Health care profession that emphasizes the relationship between the musculoskeletal structures and organ function. Osteopathic physicians develop skill in recognizing and correcting structural problems through manipulative therapy and other treatments. Osteopathic medicine was founded in the United States by Andrew Taylor Still (1828-1917) in 1874. Osteopathic medicine still has its main base in the US where osteopathic institutions are accredited by the American Osteopathic Association. Today, most osteopaths have adopted the pharmaceutical and surgical techniques of modern medicine and have largely abandoned the teachings of Still. Osteopaths are licensed to practice medicine in all states of the US and have the same professional rights and responsibilities as do holders of the M.D. degree in most states.
- <sup>7</sup> See Donald Law. *A Guide to Alternative Medicine*, Turnstone Press Limited, 1974, and J. Warren Salmon (Editor). *Alternative Medicines: Popular and Policy Perspectives*. Tavistock Publications. New York. 1985.

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- <sup>8</sup> This notion is shared by many other cultures throughout the world as reported by A.H. Krappe in *Folklore*. (Arabic translation by Rushdi Salih) Dar Al-Katib Al-Arabi, Cairo 1967: 346-347.
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- <sup>24</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947.

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## Chapter 1

### HEALTH AND ILL-HEALTH BELIEFS

Foster and Anderson have noted in their classic *Medical Anthropology* how few cognitive frameworks among non-Western peoples are necessary to “explain” the presence of disease.<sup>1</sup> They found that a dual division is sufficient to distinguish major categories, or systems, and suggested that these be called *personalistic* and *naturalistic*.

A personalistic system is one in which illness is believed to be caused by the active, purposeful intervention of a sensate agent who may be a supernatural being (a deity or god), a nonhuman being (such as a ghost, ancestor, or evil spirit), or a human being (a witch or sorcerer). The sick person is literally a victim, the object of aggression or punishment directed specifically against him, for reasons that concern him alone.

In naturalistic systems, illness is explained in impersonal, systemic terms. Naturalistic systems conform above all to an equilibrium model; health prevails when the insensate elements in the body, the heat, the cold, the humors, etc., are in balance. When this equilibrium is disturbed, illness results.

It is not our intention here to follow any of the models set by anthropologists for studying systems of traditional medicine; neither do we indulge in any detailed discussion of these systems. There is no such pattern, as books would describe in the mind of the layperson-healer or patient. This is why we concentrate instead on describing the different parts of the system of popular health, give as many examples, and refer to as many case studies as possible, and leave the rest of the field to the labour and ingenuity of future researchers.

Lay health beliefs in the Sudan are similar to those in other parts of the world, and especially to those in the Arabian Peninsula. They are part of the cultural matrix of society, arising as they do from the general experience of everyday people. Witchcraft, magic, religion, systems of taboos, customs, traditions and values, all feature to a greater or lesser extent in the different regional practices. They have naturalistic and personalistic causes, to follow Foster’s categories.

People seek and find natural causes for minor daily injuries and trivial disorders. They manage these ailments rationally. One knows that one may sustain an injury if one is not careful in play, in handling sharp objects, and in personal or tribal feuds. The cause is clear, and to avoid any unnecessary harm, one should only stay clear of combat or take care in whatever one does.

They do not attribute all diseases to unforeseen causes. The example of dracunculiasis<sup>2</sup>, guinea worm infestation, illustrates this down-to-earth wisdom well. This is a disease endemic in the southern Kordofan Region, and is caused by a worm that penetrates the exposed skin. The Nuba of western Sudan noted that wading in pond water could result in infestation, and hence they thought they should protect themselves. They invented a special type of patten with very high heels and leather strapping. They wear them in their daily water crossing (see Figure 1: Nuba pattens (protective against guinea worm infestation, page 711).

The natural causes were dominated by the four humors theory, which was propounded by the Greco-Roman Ionian philosophers (8<sup>th</sup>-6<sup>th</sup> century B.C.) to explain the patho-physiology of health and disease. The theory has its roots in the Greek theory of the four elements (earth, air, fire, and water), and the four qualities-hot, cold, dry and moist. The elements and qualities were integrated in one theory to produce the four “humours” with their associated qualities: *blood* (hot and moist), *phlegm* (cold and moist), *black bile* also called “melancholy” (cold and dry), and *yellow bile*, or “cholera” (hot and dry).<sup>3</sup> The theory maintained that human health depends on the equilibrium of these humours or body fluids, and as a corollary, their preponderance determines the personality, temperament, and general health of the individual. For example, an excess of cholera was believed to cause anger and bad temper (the choleric temperament).

To correct the imbalance of these fluids, whether it is excess or a deficiency, physicians should first know the constitution of the normal healthy body in the different seasons according to age. They should then treat the disease by *the principle of opposition* to reestablish the balance. This is achieved by diet, medicines, vomiting, purging, diuresis, bleeding, or cupping.

The four humours theory influenced European and Arabian medicine in the Middle Ages, and formed the basis of a rigid classification of disease, medicines, and diet. There is evidence to suggest that the Sudanese had working knowledge of this theory as early as the 10<sup>th</sup> Century. Ever since, the theory has had strong effect on popular medical remedies and herbal prescriptions.

Ibn Daif Allah, in *Al-Tabaqat*, which contained biographies of notable Sudanese scholars, jurists, poets and holy men who lived during the Funj Kingdom (1505-1820), draws a vivid picture of the Muslim scholars of the 10<sup>th</sup> century discussing the pros and cons of coffee and tobacco as novelties. Finally, after consulting with Egypt's scholars, they reached a consensus; they prohibited tobacco and approved coffee for individuals with a 'phlegmatic temperament' but not for those with a 'choleric' temperament, because they believed that coffee increases cholera.<sup>4</sup>

In addition, the *faki* prescribes amulets only after identifying the *tabi'a* (nature) of the patient. If the *faki*, or other healer, diagnoses joint pain (*rutuba* 'moisture' or *buruda* 'coldness') they prescribe their opposites for a cure. This was not the only inherited misconception.

In the Sudan, sniffing of *samin* (liquid butter) mixed with black cumin, known as *tas'it*, is occasionally practised, as in the treatment of mental illnesses. It was believed, as it was in the ancient theories of pathology, that the nostrils were continuous with the brain. Therefore, nasal secretions come from the base of the brain down the nose in *naxla* (coryza). These are seen as signs of health, and it is often said jokingly that '*al-zukma marad al-'afia*' (literally coryza is a disease of health).

Purging the body of excessive, stagnant, or simply harmful fluids is seen as a health-promoting procedure that should be carried out periodically using various plant recipes. Joints pain is considered either due to *sass* (syphilis) or to *buruda* (coolness). If it is due to *buruda*, efforts are directed to reverse it by fumigation, exposure to direct heat or with a 'sand cure' (see page 236).

People throughout the Sudan believe in the presence of supreme powers, Gods and their cognates, who control all aspects of human life. These powers either punish or reward human activities on earth. When enraged, they inflict disease on human beings and injure their livestock,

crops, and property. When content, they induce happiness and promote wealth and health.

Other occult powers exist; these are the powers of supernatural beings, those of the spirits. They also influence human beings and affect their health, causing disease, infirmity, and death. They possess individuals or influence them from afar. When they are provoked, they do harm through the machination of a *faqir*, a holy man, or a magic-monger, using these spirits as *jinn*s subject to their command.

Muslim Sudanese have identified and named many spirits. Many of them have been labeled evil, malicious, or envious, few harmless or calm. The Azande tribe in southern Sudan finds in witchcraft and magic an explanation for most abnormal incidents. Edwards Evans-Pritchard describes the social system of this group, in *Witchcraft, oracles and Magic among the Azande*, and confirms that the Azande, like other tribes we will describe later, attribute disease to the Supreme Being, to the magic of a sorcerer, a breach of a taboo or to witchcraft<sup>5</sup>.

The Dinka and Nuer tribes believe firmly in the omnipotence of a Supreme Being, and attribute most incidents of misfortune to its will. The Lotuko, reported Somerset, believe in an invisible power called *naijok*, a neuter form. It is conceived chiefly as bringing death and disease. Everything not understood, however, is ascribed to *naijok*.<sup>6</sup> The Mesakin tribes of the Nuba Mountains in western Sudan are literally obsessed by fears of witchcraft (known as *torogo*). Among these tribes, accusations of witchcraft are frequent, entail violent quarrels, assaults, and even blood revenge. The Mesakin believe that witchcraft itself is a mysterious, malignant, and often deadly power, emanating directly from evil wishes, though it is subject to two significant restrictions. Mesakin witchcraft is believed to operate only between maternal kin, especially between a mother's brother and a sister's son, the older relative assailing the younger. In addition, it operates only if there is a reason, some legitimate cause for resentment or anger.<sup>7</sup> Among the Acholi writes Grove, misfortune may come from many causes. Firstly, it may be the ancestors. A person may have neglected too long to sacrifice at the *Kac* and his dead father may be hungry. Secondly, the trouble may be due to the evil influence of some other man. The unfortunate one may have

eaten *Awola*; or a *lajok* may have looked at him; or a *wua auana* may have pointed to him; or a *latal*<sup>s</sup> may have danced in his doorway at night. Lastly, the man's fellow villagers may be envious of him or evil disposed towards him and their ill will has brought him bad luck.<sup>9</sup>

People bring harm upon themselves in several situations; if one does not conform to certain personal or social standards, misbehaves or breaches set taboos, customs and traditions, one exposes oneself to all sorts of diseases. Neglect of a totemic spirit or the duties of blood brotherhood are equally dangerous.

Human beings can harm each other through black magic, witchcraft, or through an envious, jealous, or malicious evil eye. A young infant may harm its nursing mother through its constant gaze. This, women believe, is a common cause of hair loss.

Behavioural lapses, likewise, do harm and cause disease. They not only affect a person's health, but they threaten social relations, disrupt peace and unity, and may even endanger the environment. A disease such as leprosy is closely linked with clan offenses among the Nuba among whom it is endemic. Nadel observed that the disease was regarded as dangerous and infectious only within the clan. He said he once attended a clan feast in Heiban at which the people were drinking beer happily in the company of a leprous woman who, it appeared, had taken a holiday from the local leper colony. His informants explained that they were not afraid of drinking with her (as they usually are of eating or drinking with lepers), since she belonged to a different clan.<sup>10</sup>

In a country like the Sudan with over three hundred and fifty tribes and over a hundred languages and dialects, it would be futile, if not well-nigh impossible, to describe the health systems of all ethnic groups, or to generalize with any degree of safety after studying only a few.

For example, tribes like the Korongo of the Nuba Mountains, who have no witchcraft, possess a full and explicit mythology concerned with explaining all the things in the world: the creation of man and animals, the origin of death and disease, the invention of fire, and so forth.<sup>11</sup> Yet other tribes dream of having magical cures for all ills and a means of transmuting base metal, or even water, into gold. They believe that an *Elixir* Tree exists somewhere, and that they will find it one day. This tree

is peculiar; it has only two branches, and each branch has two leaves. A branch of this Tree would change silver into gold, and provide a panacea for all diseases. Some people believe that the Tree grew upon Jebel Kadugli, or on top of Jebel Kasala, in western and eastern Sudan respectively.

The Hawazma Arabs who camp near Jebel Kadugli believe that if a man can find and reach the Tree, break off one branch, and descend to the plain again without having called on the name of Allah for protection when attacked by the *'afrits* who guard the Tree, then he will be able to turn water into gold by striking it with the branch; but only he could perform this miracle, and then once only.<sup>12</sup> Wherever this Tree grows, and whether it exists at all or not, it remains a symbol of the dreaming human being everywhere.

Northern Sudanese society has accepted death as an inevitable end to life, as do all Muslims. According to Islamic teaching, death is the beginning of a better eternal life for good believers, and have prepared their dead with due respect according to Muslim teaching. The Dinka of Bahr Al-Ghazal, among other tribes of the southern Sudan, who are mainly animist, also accepts natural death and mourns lost members. They are also reported to have practised, in the old days, mercy killing of their dignitaries.

Sudanese health culture abounds in observances and taboos that are well knit in the social system: activities of tribes, clans, kindred, family life, are inseparable from every activity and occasion be it in marriage, adulthood, or adolescence. Many of these can affect health and may cause disease if broken or ignored.<sup>13</sup> Although Muslim *shari'a* law governs social and family life in northern Sudan, indigenous rites, customs, and practices still influence and modify these laws, and dictate some taboos. Those concerning food, pregnancy, personal and social conduct, and sex matters, will be discussed in the relevant chapters.

Taboos that should be strictly obeyed include those concerning mistakes of conduct and behaviour that the society considers as deviant. These deviations harm man and his possessions. Mistakes include nonobservance of auspicious days, breaches of social norms, or of the obligations of blood brotherhood. Some of these taboos might be minor

personal non-observances. Even bathing water is surrounded with taboos that should be observed. If one jumps over or crosses the bath water, one exposes oneself to harm.

For example, spitting on urine causes a sore throat of one kind or another, and trotting inadvertently over a *wali's* (holy man) burial place leads to *ferendeet* (guinea-worm infestation). Other mistakes could be serious. If one ridicules a holy man intentionally, one may become lunatic. Moreover, as Evans-Pritchard has noted, among the Azande:

“A breach of the obligations of blood-brotherhood may sweep away whole groups of kin, and when one after another of brothers and cousins die it is the blood and not witchcraft to which their deaths are attributed by outsiders, though the relatives of the dead will seek to avenge them on witches.”<sup>14</sup>

In the following sections, we identify the roles attributed to supreme and supernatural powers in influencing human health. We also study the part played by witches and sorcerers, as well as ordinary people when moved by envy or jealousy. We highlight the beliefs and practices of some cultural groups, and describe how they are applied to matters of health, disease, death, and related aspects of everyday life.

### **Beliefs in supreme beings and functionaries**

All Sudanese believe in the existence of supreme powers that influence all aspects of human life. Such supreme forces can act alone or through some selected persons on earth. Some individuals, therefore, by virtue of inheritance or personal merit, are God's intermediaries on earth, holy persons. These intermediaries can wield power through the *baraka* (blessing) they acquire from their forebears, and the sacred knowledge they have learned. Sometimes they even subjugate *jinn*s and employ them to achieve results.

The Dilling tribes of the Nuba Mountains believed in one Supreme Being, called *Bail* who manages human life through a number of *uro* spirits residing in the next world. On earth, the *kejurs*<sup>15</sup> are mediums of these spirits and intercessors between *uro* and people. They are also believed to induce the *uro* to bless people with a good crop, happiness,

and fecundity, or punish them with misfortune and sterility. (See also shamans page 382).

The Acholi believe that the world and the people in it were originally created by one god who is still supreme (*lubana*) but who is more or less inaccessible. In addition to creating people, he also created a parallel world of spirits (*Jok*) who are active forces for good and evil (generally the latter) in men's lives. These *Joks* marry and have children like human beings. Every stream has a *Jok*-sometimes in the form of a snake-rarely in the form of a hairy dwarf. The river *Jok*, for example, may be annoyed in various ways and the result is usually death.<sup>16</sup> All cases of epilepsy, however, are attributed to *Joks*, and the only treatment available is to exorcise them out of the body.

Evans-Pritchard, in his search for the concept of God in the life of the Nuer tribe in southern Sudan identified, with much reservation, *Kwoth* as the equivalent of God.<sup>17</sup>

Muslims firmly believe that Allah Almighty is omnipotent and omnipresent. Allah shapes life and dictates people's behaviour. He ordains all action. Christians, of course, share this general monotheistic belief. Animist tribes in the southern and southeastern regions, however, have their own religions, with totems, fetishes, and gods. They worship natural objects, natural phenomena, and animals. The Nile, the Moon, some animals, and celestial constellations still rank very highly in their rituals, which would seem to reflect very ancient practices.

### **Resignation to God**

Muslims firmly believe that God punishes sin both here and in the second life when evildoers are sent to hell. Punishment may come as disease, or the loss of wealth or children. People consider this type of punishment *kaffara* (expiation). They see it as a test of faith. That is why, whenever they are sick or in distress, patients invariably show enviable tolerance and patience. They or their next-of-kin keep saying *Al-hamdu li-Allah* (thanks are due to God). Well-wishers, on the other hand, say to the sick: *kaffara* (may this illness be expiation to your body). Behind this is the constant belief that whatever one does-good or bad-and whatever happens in one's life, God has already pre-ordained.

Cures and affliction in whatever form only happen “by the will of God.” Indeed, God also rewards human efforts and there are several incentives in heaven for the good deeds on earth. On earth, positive thinking and protective measures are seen as wise moves. The proverb: “prevention is better than cure” is universal.

### **The *baraka***

The *baraka*<sup>18</sup> (benediction, or blessing) means holiness in the Muslim sense of something given by God.<sup>19</sup> It is an omnipotent quality and an attribute of holiness. It emanates from the Grace of God. It passes from God to holy persons, *Al-awliya wa Al-salihin* (the elect), and associates itself with them irrespective of whether they are alive or long dead, whether they are physically present or absent.

Such a holy person was Al-Khidr (peace be upon him), a righteous man of great influence on holy men and Sufis throughout the Muslim world. They regarded him as their *naqib* (senior). Though he was not among the prophets identified in the Quran, he has been granted the title. He was also thought of as an eternal figure with exceptional power of disguise. The Sudanese firmly believe that Al-Khidr is a pious and righteous man, even if not a prophet, with a *baraka* that can be invoked in distress. They utter his name to protect themselves against *al-haraq, wa al-gharaq, wa al-sharaq* (burns, drowning, and choking) against *al-sultan wa al-shaytan* (governors and Satans), and against scorpions and snakes.<sup>20</sup>

The Sudan abounds in saintly persons. Several have gained much popularity and attracted many followers. They have attracted even more after their deaths because their *baraka* could still be had through their remains.

Though Sufism has its roots in the first century A. H., corporate self-perpetuating Sufi orders started with the Qadiriyya in the 13<sup>th</sup> century. Sufi orders or *tariqas*, offered doctrines and means for the conquest of the soul through an ascetic (*zuhd*) and quietistic (*rida*) life and devotion to God.

It was Sufi missionaries who spread Islam throughout the Sudan, and it is Sufism that has dominated life in the country, and developed the cult of saint worship as a religion for the masses. It is Sufism that has made

secular as well as religious practices centre round the idealized personalities of holy men.

Sufi orders, Sufi leaders, and their practices and teachings have moulded the corpus of practical Islam; indeed, they have influenced every aspect of Sudanese daily life. Traditional healing practices were among the first to be influenced in theory and technique.

Each *tariqa* is handed down through a continuous spiritual succession starting with the Prophet Muhammad, through his companions Ali or Abu Bakr, down along a line of successors to the existing *shaiikh* of the order. The present *shaiikh* is, therefore, the spiritual heir of the founder, and he derives his authority from his immediate predecessor.

Such Sufis-*shuyukh*, *fugara*, or *awliya*-are God's intermediaries on earth.<sup>21</sup> They are usually ascetic and pious. They have divine blessings. They intercede with God to perform superhuman feats and miracles, known as *karamat*.<sup>22</sup> Many *walis* are believed to cure intractable diseases, help in treating infertility, and even resurrect the dead.<sup>23</sup>

Holy persons bestow the *baraka* on others in person or through delegates. All things pertaining to them-burial places, clay collected from these, or personal belongings-remain sources of *baraka* after their death. For example, the *tinat* (clay) of the holy man Khogali Abu Al-Jazz of Halfaya village, if given to any man in need, is enough to ensure successful intercession with the Funj Sultans. The *tinat* of Ahmad wad Al-Turabi, on the other hand, is a sure treatment of rabies.

It is interesting to note that the power of such blessings extends to the political spheres. The Beja tribesmen in eastern Sudan have always been acknowledged as difficult to rule. Nonetheless, they submitted wholeheartedly to the guidance of *shaiikh* Abd Allah Abu Raiyat. It was enough for this *shaiikh* to send his prayer beads to settle any dispute among them. Among the Majadhib tribe, the *'ukkaz* (staff) of *shaiikh* Abd Allah Al-Naqar acted for him when he was absent or sick. Trimmingham has rightly noted that:

“The people may not always be sure of the efficacy of the *baraka* of living *fekis*, but they have a blind faith in that of their dead saint, normally spoken of as ‘our *shaiikh*’ and always as though he were

living. He is in fact supposed to be slumbering and manifests himself to people in dreams or trances. His powers to bless or blight cover almost every category of human need. His power is testified by the miracles performed on behalf not only of one's dead ancestors, but also of one's living family. It is impossible to manage one's affairs properly without his help, whether it is the curing of a sick child, the winning of a wife, or the blessing of children."<sup>24</sup>

People seek holy persons or sometimes-blessed natural objects for the *baraka* to help them fulfill special needs. It is through the *baraka* that the holy person's reach becomes wider.

Holy persons use this blessing of God to heal through prayer, charms, amulets, and incantations. In more serious diseases, they use more elaborate methods that require the confinement of patients in the *maseed*, possibly starving them, and even whipping them until subdued. *Baraka* can avert disease and trouble, or injure an enemy; there are different means of invoking this blessing.

Invocations usually start with *ya* (oh) followed by the invoked name, be it that of God or a holy person. We therefore have several formulas, such as *ya Allah* or *ya Hamad wa Khogali*, or *ya Abu Hashim boad al-'ashim*, and so on. These invocations precede the specific request.

To heal a believer or give a blessing, the holy man sends his *baraka* directly, through spittle or in writing. As already stated, the *baraka* is firmly believed to permeate everything pertaining to the holy persons: their shrines, personal property, clothes, or even the clay of their burial place. All such items can confer the *baraka* on believers.

Muslims frequently invoke holy persons from within their burial places, *darihs*, to help them in disease or distress. It is also believed that the *sheriefs* (descendants of the Prophet Muhammad)-and many tribes claim this-are untouched by fire. Crowfoot reported that there was a family among the Rubatab called the Baridab, who can pick a needle out of a pot of boiling water, and that some of them can cook upon their hands.<sup>25</sup>

### **The shrine cult**

Shrines of various kinds are prominent features throughout Muslim Sudan. Several hundreds are along the Nile north of Sennar, north of Khartoum and along the Blue Nile. Many others are scattered throughout the country. (See Figure 2, for a typical shrine, page 711). Followers of Sufi orders perform pilgrimages to those shrines where their *shaiikhs* are buried, no matter how far they may have to travel.

The sites of shrines and tombs may impart blessings and perform healing in themselves. One's mere presence within or near them may be enough to effect a cure or answer an invocation.

There are different types of shrines: a *qubba*, a domed building, a *darib*, a simple mud building, and a *bayan*, a place where there has been a manifestation. If a believer should see a holy person in a dream, he or she would immediately announce the incident. A mud wall would be built around the site, and a flag raised to mark the place.

A shrine usually stands on the *turba*, grave, of a holy person. This, however, is not always the case. Shrines mark either the place where the holy person lived, where his after-birth was buried, or where the holy person appeared to a believer in a dream or a trance.

Followers and believers visit (pay *ziyara*) and sleep in these shrines in pursuit of blessings and treatment for various illnesses. Women, in particular, come to the shrine of their patron *shaiikh*, in search of a cure for infertility. A shrine visit is not always in search of help, or *lil tabarruk*, for the sake of a blessing. It may be a simple gesture of veneration for the holy person.

Often, people pay tribute to holy persons and ask them to intercede with God to solve a certain problem or resolve a distressing conflict. They may ask them to grant them children, wealth, or health. Sometimes they pay a visit specifically to fulfil a *nadhr*, conditional vow. A *qatifa* is a newly born ram, goat, or camel given to a holy person in fulfillment of a vow. Some people sleep in shrines, while others touch their walls or palls.

While in the shrine, worshippers tell the holy person their complaints or wishes. In the process, they make a *nadhr*. They state that they will be back with a sacrifice if the saint is gracious. When they leave, they leave

reminders behind. They hang a stick or a rag of cloth on the shrine wall. These items are to remind the holy persons of their followers.

Sacrifices are usually proportionate to the problem solved and are consonant with the holy person's reputation and the follower's social status. Most commonly, people sacrifice an animal. At other times, they recite the whole text of the Quran at the shrine, or wash the tomb and palls.

Some shrines are notable throughout Muslim Sudan. A few examples are *shaiikh* Idris wad Al-Arbab *qubba* at 'Aylafun, sidi Al-Hasan's shrine in Kasala, and those of Al-Mikashfi Abu Umar, in the village of Shikainieba in Gezira, and Al-Ubaid Wad Badr and his sons in Um-Dubban village east of Khartoum.

Mothers invoke *shaiikh* Khogali at the village Halfaya to help children cutting teeth. Mud from the shrine of Ahmad wad Al-Tiraifi, known as *dabi al wa'ar wa khasim al-sa'ar* (viper of wilderness and enemy of rabies) is reliable in treating dog bites. The *qubbas* of Ahmad wad Al-Tiraifi of Talhatain and the eighteen 'Araki *qubbas* at Abu Haraz especially that of *Sharief* Yusuf Abu Shara, are famous for fertility. We read in Trimingham's *Islam in the Sudan* that:

“The women must spend seven Thursday nights inside or outside the *qubba* within its area. They are usually accompanied by their husbands and other relatives and the night is spent in drinking and singing. After the seventh night, the Khalifa gives them a paper inscribed with Quranic verses. If they conceive successfully, they bring the child to the Khalifa when it is four months old. He shaves it and the mother gives him a waqiyya (1.32 oz.) of gold for a boy and half the amount for a girl. These visits are very popular and lorry-loads of women will arrive from Wad Medani and surrounding villages on Thursday nights.”<sup>26</sup>

These shrines are also sanctuaries for runaways seeking refuge from enemies or those escaping justice. In addition, travellers often leave their personal belongings lying on the shrine wall or somewhere within it for safekeeping until they come back. Nobody dares to touch these items as long as they are in the holy man's custody. Many activities that people

think need protection are initiated in shrines. All such activities show allegiance and respect to the holy person.

People take *halifa*, solemn oaths, here, as well as performing various ritual practices, for example, blessing the erupting teeth, or giving a child its first hair-cut (see Figure 20, page 725 for Muzaiyina, hair cutter, in Abbashar Abu-Bashariya shrine) which are usually performed at the patron saint's shrine. Abbashar Abu Bashariya is notable as a shaving *shaiikh*.

On all occasions, worshippers provide the shrine with *ẓwara*, offerings. These consist of gifts (money, food, or jewelry) and sacrifices. Failure to abide by these customs, or to fulfil a vow or an oath after a request is granted, or a condition is fulfilled, can have the direst consequences. These can befall oneself, one's possessions, or one's children. People quote many stories of persons who have developed acute illnesses or sudden paralysis, or who have lost a child or a valued possession because they did not observe some condition. Individuals remain cursed until they fulfil the promised vow or oath.

### **Intercession (*shifaa*)**

People believe that God always responds to the *wali's shifa'a* (appeal), although some persons intercede between people and God more effectively than others do. This is because they are more pious and righteous. Such people's appeals and their *da'wa* (curses) always produce results.

*Al-Tabaqat*, the famous historical chronicle on the Sudan during the Funj Kingdom, abounds in stories of holy persons who could apply highly noxious or even fatal curses on others. A powerful *wali* is frequently described as *idu lahqa* (has a longer reach). *Yilbaq* and *yifza'* are verbs indicating that the specified *wali* never lets down an applicant.

Parents' curses on refractory children are invariably effective. Almost all the young strenuously seek their parents' forgiveness before death. They would feel extremely guilty if they were to miss bidding either of them their last farewell. They insist that they hear such forgiveness in person. If this is not possible, those attending at the deathbed will convey this message speedily to the late-coming son or daughter.

### **Subjugation of *jinns***

The occult power religious healers have is not only due to the *baraka*. They may also possess magical esoteric knowledge that enables them to perform supernatural feats, and sometimes press *jinns* and *shayatin* into their service. The subjugation of *jinns* for inflicting harm on people was the practice of *fakis* rather than *faqirs*.

Sudanese healers had access to several books of occult sciences popular in medieval Islamic countries, and there is evidence that these were studied purposefully. *Faki* Jibril of Al-Fadlab village was said to be so refined a Sufi that he was able to communicate with *jinns* and solve their internal disputes. It was narrated that he held an agreement with them called *al-mudayana* stating that no *jinns* should enter or harm any member of his village, Al-Fadlab. This treaty, it was quoted, held good at the time, and probably still does.<sup>27</sup>

### **Pilgrimage to Makka**

Sudanese people perform the *hajj* to the Grand Mosque in Makka as a religious obligation. While in Makka, they freely invoke Almighty God to bless them with health, wealth and a happy life both here and in the hereafter. They also drink and wash themselves with the water of the Zamzam well because of its healing and holy qualities.

The *hajj*, the canonical pilgrimage to the Grand Mosque in Makka, is one of the five pillars of Islam. Pilgrimage is a series of rites that take a few hours in the case of *'umra* or a few days, with high degree of hardship, in the case of the *hajj*. It is obligatory on all Muslims who can afford to reach the Holy City without compromising their health or means, or those of their families.

The pilgrimage starts with the *tawaf*, the circumambulation of the *Ka'ba*; this consists of seven circuits around the Holy House. Each circuit starts and finishes at *al-hajar al-aswad*, black stone.<sup>28</sup> At the start of each circuit, the pilgrim makes a gesture at its site or kisses it if that is possible. Many pilgrims would fight their way to touch or kiss the sacred stone for the sake of blessing. This is usually difficult because of the thousands of worshippers present at the place at any particular time. When pilgrims complete the *tawaf*, and before embarking on *sa'ai*, they visit the Zamzam

well.<sup>29</sup> They drink freely from the water, and wash themselves. This act is a rite in both *hajj* and *‘umra*.

Zamzam water when brought back home after the pilgrimage makes a great gift for well-wishers. The Prophet Muhammad was quoted as saying that this water ‘is for whatever it is taken for,’ which is to say, the water can be medicinal. Patients suffering from some intractable infirmity drink or rub the affected parts of their bodies with a wet hand hoping for a blessed cure.

### **Sacred objects, places and phenomena**

In earlier times, animist tribes in the Sudan worshipped a variety of animals, objects, and sometimes-natural phenomena, as part of their totemic and religious systems. Many of these revered entities were believed to influence people and their health, and were consequently invoked in distress and disease.

The Nuba tribes, for example, venerated several rocks with phallic shapes as symbols of fertility. To such one among the Tira, young girls whose breasts have been slow to mature and boys who have been late in showing the signs of puberty come for help. The supplicant holds a small stone, and with it strikes the rock, hoping thereby to hasten the coming of maturity. Similar beliefs exist among the Atoro, Korongo, and Mesakin tribes.<sup>30</sup>

Several animist and animistic relics of these old systems may be identified in present-day practices. Several historians and anthropologists have also reviewed these remnants in many social systems in the country. Darfur tribes worshipped trees and stones, while the tribes of Kordofan worshipped snakes. They venerated them, feared them, and offered them sacrifices and offerings. Many places where these sacred objects are found became sites for pilgrimage. Trimingham quotes E. Lampen as saying about the Midob tribes of western Sudan that:

“Their recent and still lingering religion seems to have focused on three points, sacrifice, and worship before sacred stones and trees, a great harvest festival, and resort to wise women as oracles. There is one magnificent tree near Malha with a small enclosure round it, which I have always believed to be a sacred tree, but I could obtain

no definite information of it or of any other. Sacred stones are more common. I have spoken of that in Malha crater. Another I have seen in a gorge of the Wadi Goldonut. It was covered with smaller stones, which passers-by placed on it for good luck. There are several such . . . The sacred women or *todis*, who used to divine by throwing shells on the ground, still exist and no doubt are still consulted. All Meidobis are very shy of speaking of their old faith, and are ashamed of their backwardness in the practice of Muhammadanism. But there is no doubt that the great majority of the tribe is still animists at heart.”<sup>31</sup>

Concerning the Dajo of western Kordofan, S. Hillelson writes:

“Though strongly permeated by Arab influence, and nominally and perfunctorily professing Islam, the Dago maintains rites of a purely animist nature with which the *togonye* (or *kujur*) are particularly associated. In charge of the *togonye* there are shrines dedicated to the High God of the Dago, *Kalge*, whom they identify with Allah.”<sup>32</sup>

Trimingham also described the cult of Soba Stone among the Hamaj of Jebel Guli. We read the following:

“They claim a queen-ancestress called Soba and the stone was her throne. It is still the ‘throne of the kingdom’ (*kursi mamlaka*) and plays its part in the ceremonies when the *manjil* assumes office by the ceremonial washing of his feet upon it. This and other Soba stones play their part in other rites, such as the dance in honour of the first time a newly-delivered mother leaves her house, and offerings are placed on the stone at the first cutting of the grain. Soba is also invoked to cure illness.”<sup>33</sup>

G.W. Murray writes of the Bisharin tribe of eastern Sudan that:

“They have still a few sacred rocks and cliffs, to which ceremonial visits are performed and sheep sacrificed. Such a place is Kanjar Aweib, the runaway stone,’ in Wadi Kajuj, a tributary of Wadi Irib.”<sup>34</sup>

Basil Spence wrote notes on stone worship among the Zaghawa tribe of Darfur, western Sudan. He extracted the notes from his diary of 27 February 1917 when he was working in that region. He described a

sacred place, a collection of rocks in Idugili, 7 miles north of Masabat, northern Darfur.

The word Idugili in the Boeli (Zaghawa) dialect means 'Gods' village. The ceremony of rock worship takes place annually, usually at the end of the dry season. Young men, young women, and young married women proceed to Idugili, taking with them fat, flour, and milk. On arrival at Idugili the party divides, the young men going to the most northerly tunnel and the young women to the other side, which has a vaulted cavern with four openings. Some of the flour and milk is sent to the young men's cave; they eat part of it and offer the rest by smearing it on to a particular part of the roof called *He gweila* (Stone holy).

The young women in their cave first take fat in earthenware jar and smear it on the holy stone in a particular place, repeating some chants. Secondly, milk from a plaited grass vessel is splashed on the roof, and thirdly, flour and milk from a similar grass platter is smeared on the roof, with similar chants.

At one stage in the ceremony, dung is thrown on to the roof, probably by the very small children. When the offerings are over they play games with pebbles kept in the caves.

At other places in the Boeli (Zaghawa) country, there were venerable trees and particular stones at which similar ceremonies took place. Reasons given for the performance of the ceremony before rocks and trees are to procure children, to increase flocks and herds, and to ensure a bountiful harvest. Spearheads are blessed in the same way before proceeding on a raid.<sup>35</sup>

In a preliminary account of the Ingassana, Edwards Evans-Pritchard states that these people worship *tel*, the sun, which made the world and men and all-living things in it. *Tel* seems to be regarded as a beneficent but distant being. The Ingassana appeal to *Tel* when they want rain, they appeal to him when someone is ill, or when a woman is infertile. When a man dies, they say that *Tel* has killed him. Thus, it will be seen that they appeal to *Tel* in the important emotional crises of life, such as in conception, in illness, at death, and when they are threatened with some natural calamity such as the absence of rain.<sup>36</sup>

## The Nile

Of all natural objects and phenomena, the Nile, the Moon and to a lesser extent the Sun, feature frequently in most ritual processes in the Sudan. In many initiation rites, people visit the Nile or face the Moon, and invoke one or the other to protect and bless them. They offer sacrifices and gifts. It is uncertain whether these entities are ancient deities or not, though it seems highly likely that they were.

The Nile is probably revered because of the people living in it: *banat al-bur* or *huriyyat* and *malaykat al-bahr* (Angels of the River). The first are said to be small, white with long flowing hair and to shrivel up when they are taken out of the water. They have families, homes and villages in the bottom of the Nile, and several men who were seized by these *buris* have come back to tell this story. The second are the holy ones, *al-salihin*, or *mariya*<sup>37</sup> in Dongolawi tongue. Men, women, and children make offerings and pray to them for health and strength. In Donqola, it is said that no child can be born unless an angel from the river assists at the birth and when a smile crosses the infant's face it is a sign that the child has caught a glimpse of the angel.<sup>38</sup>

Several *rites de passage* in Riverain Sudan revolve around the Nile. People of the Nile Valley have clearly been moved by the furies of the river in its yearly flooding. They have watched in distress how it disrupts peaceful life. They must have also noted its unpredictable temper. Sometimes it is peaceful and bountiful, and at other times violently destructive. When it overflows, it submerges everything in its path, but when it is quiet, it hardly holds enough water to maintain crops.

In 1959, Tigani Al-Mahi, a notable Sudanese psychiatrist, reported that some cases of mental breakdown have occurred in patients when the Nile inundation is imminent. The patients involved showed previous histories of psychological disturbances, and some of them were suffering from anxiety. All collapsed in the mere expectation of breakdown when the flood was near.

Tigani Al-Mahi did not detect organic abnormalities in these cases. He said that the breakdowns could be due to the vestiges of ancient beliefs. Unfortunately, he neither described nor documented these cases in more detail. People living along the Nile Valley believe that mental cases

relapse just before an inundation. Indeed, the phrase *al-bahar mifar'in* (the river is furious) is a common idiom when talking of someone who has had a mental breakdown.

Sudanese people offer the Nile sacrifices to pacify it. The sacrifices are of several kinds, but do not include the sacrifice of young women, as has been unjustifiably reported. Ancient historians have circulated this myth of the Nile maiden in the Sudan, Egypt and other African countries.

Plutarch, Herodotus, and others say that the ancient Egyptians used to sacrifice a young, beautiful maiden to the river every year. Other historians reported that the Muslim conqueror Umar Ibn Al-'As banned the practice.<sup>39</sup>

Ni'mat Ahmad Fouad, an Egyptian folklorist, discredits the myth in her book *Al-Nil fi Al-Adab Al-Sha'bi*. She quotes the views of many historians and Egyptologists; all agree that the custom never existed. They do not find any evidence for it in Pharaonic times, nor do they consider that Christianity could have condoned such a brutal practice during the Christian eras in Egypt. Dr. Ni'mat believes that the myth of sacrificing a beautiful young woman arose either from early Greek legends or due to some misinterpretation of early Egyptian writings.

She quotes the Harris Papyrus (1198-1167 BC) as a possible source of this myth. This Papyrus states that food was offered to *Habi*, the Nile God, and that, Egyptian priests also made six idols out of wood for the Nile God and an equal number for *Rabit*, the Nile bride. Other idols were also made of silver, gold, and precious stones. These were all thrown into the Nile just before flooding to celebrate *Habi's* festivities. The priests then made another set for the next season.<sup>40</sup>

Nile Valley people, namely those living downstream, revere the river, just as northern Sudanese and Egyptians do. It has been, and still is, their only source of water. It has supported man and livestock, and maintained the yearly crops. Therefore, this life-giving water is blessed. It gives life. Unlike other water, it not only washes out dirt, but also symbolically cleanses ritual pollution. It also heals, by washing away disease.

Burckhardt (1816-1817) reported a similar practice of young woman sacrifice among the Bornu of West Africa during the inundation of the river that crossed their country.<sup>41</sup> Butler reported similar practices among the Sudanese far to the south and among the Nubians.<sup>42</sup> It is said, Somerset reports, that among the Lotuko human victims, chiefly of the 'Kang Lomini', were formerly sacrificed to the River Gos, but that Chief Ngalamitiko abolished the practice.<sup>43</sup>

### **The Moon**

Naom Shuqair<sup>44</sup> recorded in his book *Gugrafiat wa Tarikh Al-Sudan* the following formulas the Sudanese utter when they face the new crescent moon: "O, God, grant us its blessing and ward off its malice"; and they address each other by saying: "Blessed be the new month upon you" and the reply would be: "upon all of us."<sup>45</sup> All these formulas invoke Almighty God to keep a watchful eye on the inferior deity-the Moon-so that it does not harm the weak. Shuqair mentions that when the Region is swept by an epidemic, people boil durra (sorghum) at sunrise and sunset. They reason that the disease will leave with the escaping vapour.<sup>46</sup>

The veneration people give to the Moon is not confined to the northern part of the country. Evans-Pritchard noticed similar practices among the Nuer, a Nilotic tribe in southern Sudan:

"When Nuer see the new moon they rub ashes on their foreheads and they throw ashes, and perhaps also a grain of millet, towards it, saying some short prayer as 'Grandfather, let us be at peace' or 'ah moon, *nyadeang* (daughter of the air-spirit *deng*) we invoke (God) that thou shouldst appear with goodness. May the people see thee every day? Let us be (*akolapko*).'<sup>47</sup> He concludes: "Mgr. Mlakic says that they mark their foreheads with ashes in the form of a cross and that it is called *ngei kwoth*, God's sign.<sup>47</sup> I must add that the language is here figurative, even playful. They may address the moon, but it is God to whom they speak through it, for the moon is not regarded, as such, as Spirit or as a person."<sup>48</sup>

### **Causes of pestilence**

Many pestilences have been recorded in history, and belief in their divine origin persists. Prevention thus takes the form of prayers, incantations,

charms, and sacrifices. All of these are directed to supreme beings and other unforeseen forces. Several other endemic life-threatening or disfiguring diseases have also been treated with awe. Leprosy among the Nuba tribes has been considered as a sanction for kinship offences, and syphilis-probably quite widespread-may be caused by a smell as among the Lamagyan clan of the Tira as we will mention in a while.

When a layperson identifies diseases, he or she also labels some of them as serious, contagious, or epidemic. He or she dreads many of them and avoids coming near the afflicted. Many of these diseases carry a social stigma. Examples include *baras* (leucoderma), *juzam* (leprosy), *judari* (smallpox), *ta'oun* (plague), *sul* (tuberculosis), *sara'a* (epilepsy), *abu-farrar* (cerebro-spinal meningitis), and some venereal diseases, namely *sayalan* (gonorrhoea), and *sass* (syphilis).

It would appear that, quite apart from infestations of rodents and insects, the last two centuries have been plagued by drought and disease, famines and floods. History tells of many fatal epidemics of smallpox, plague, yellow fever, cerebrospinal meningitis, and influenza.

The local people have named several years in their local calendar after these tragic incidents. Hamilton-Grierson, a district judge working in the town of Geteina town in the White Nile Province during the Anglo-Egyptian Condominium, quotes an interesting experience.<sup>49</sup> He said that in 1923 when he was in the course of deciding land cases, he found that it was impossible to get dates according to the number of the year, either Arabic or English. He found it useful to compile a calendar of the years, as they are known by their local names. This calendar, though not very accurate, nevertheless, served the purpose.

The calendar he drew covered the period 1877-1918. It included years named *sanat al-judari* (the year of smallpox), 1883 & 1886, *sanat al-far* (the plague of rats), and other years named after famous floods, famines, and locust visitations, for example.<sup>50</sup>

Ahmad Bayoumi has reviewed the epidemics that have swept the Sudan in the last three centuries. He has described at length the history and traditional treatment of smallpox. In his book, *The History of Sudan Medical Service*, we read the following:

“Of all the serious epidemic diseases which haunted the land, smallpox was unique in lending itself to traditional control efforts and was perhaps the first to be subdued by modern medical techniques. More than one method of traditional variolation was practised by the people of the Sudan, among other local cures for disease, long before the Turks introduced modern-style Jennerian vaccination into the country after 1820.”<sup>51</sup>

*Al-Tabaqat*<sup>52</sup> covers the period (1504-1821), that of the Islamic Funj Kingdom in the Sudan. In this chronicle, Ibn Daif Allah narrates several anecdotes describing several epidemics. He gives accounts of afflictions resembling smallpox, which killed many sufferers, and left scars on all those who survived. Other descriptions one finds in various Sudanese traditional literature.

In his account of the supernatural achievements of *shaiikh* Hamad Wad Um Maryom, Ibn Daif Allah mentions the following potent curses. *Shaiikh* Hamad Wad Um Maryom was so angry with a man called Hamad Ibn Abd Al-Jabbar Al-Haiyazni that he cursed him and afflicted him with *baras* (leucoderma) of the whole body. Not only that, but he also cursed Awlad ‘Agib (‘Agib’s sons) and some people of the Funj, and inflicted them with *judari* (smallpox), of which they all died the same year.<sup>53</sup>

The story of the supernatural achievements of *shaiikh* Sharaf Al-Din Ibn Abd Allah Al-’Araki, who apparently had *halaq* (tertiary syphilis), sums up the lay knowledge of the disease, its stages, and we note two methods of contiguity-topical and coital (see also page 231 for more discussion of syphilis).

The Nasri Island community, where the *shaiikh* lived, most probably voiced suspicion that he had contracted the disease through an obscene act. The *shaiikh* did not like this accusation, and invoked the *baraka* of *shaiikh* Ali Wad Barri, to curse them all. This time, the curse caused *halaq* (circles) and *daradim* (papules) on human beings, animals, and trees; none escaped. Ibn Daif Allah supported the *shaiikh*’s innocence. The *shaiikh*, he said, was anointed with oil brought from a man who had *halaq*.<sup>54</sup>

Syphilis can have magical causes. The Lamagyan clan of the Tira inflicts the disease on any outsider who as much as smells the incense used by

that clan. Anyone suffering from syphilis, on the other hand, can be cured by the Lamagyan clan, by being given some of their tabu-surrounded *daraba* (okra) to eat.<sup>55</sup>

In northern Sudan, *bit-iblis* (nocturnal emission) is believed to be a prodromal sign of venereal disease, *al-boal al-harr*. The alleged causes are many; they include exposure to the hot sun, walking bare-footed on hot ground and riding animals for long distances.

Entering Omdurman city as a child, my parents asked me to bray, and I did. Later, I found out that this was an old Arab custom that should be followed on entering any new community to protect against scourges, epidemics, and even minor diseases. To ward off the evil spirits, people yell and make loud noises. They beat drums and tin vessels loudly, and bray. They think this noise protects them against diseases and epidemics in new communities. The Arabs called this practice *ta'shir*.<sup>56</sup> Clearly, they believed that the noise scares away harmful spirits.

On seeing a rainbow, the Fur people smear their heads with pot soot to avert a calamity. Gourds are rattled in pots when a distant boom-of-remote thunder or of wind echoes in the hills-is heard; the boom is called *rise foye* – (Rise has fallen); it is believed that evil spirits periodically attempt to scale the heights of heaven by clambering up on one another's shoulders until the load proves too great for the lowermost unfortunate and his wriggling to extricate himself causes his fellow to tumble with an audible crash.<sup>57</sup>

### **Beliefs in supernatural beings**

Supernatural beings and spirits influence human beings and affect their wellbeing and health. They may possess individuals or affect them from afar. The northern Sudanese, in particular, have identified many spirit entities. The realm of evil *jinn*s is the one that concerns people most because they usually cause misfortune and disease. The *Jinn* family<sup>58</sup> contains many subdivisions: *shayatin*, *zairan*, *khuddam* (subject *jinn*s), and *'afarit*, all of which are generic names. Some of the *jinn*s have names, e.g., *um al-subiyān*, (literally, mother of the young ones) or *habobat al-sughar* (literally, grandmother of children). The *ba'ati* is spirit of the dead, while the *qarin* is a human-double. The *zar* and *tumbura* spirits are archetypal

entities. The Nyima, one of several tribes in the Nuba Mountains in western Sudan that practise shamanism, call the spirits that possess their *kujurs kuni* which are to some extent conceived of as anthropomorphic beings.

### **The Jinn**

Belief in the *jinn*s with their various subdivisions is common throughout the Sudan, especially among those of Arab stock or other Sudanese Muslims. The *jinn*s are not always harmful, but they become so when they are provoked. People have thus developed a wealth of practices to frustrate them.

The *jinn*s are invisible, though they do take shape in the eyes of some classes of people. W.T. Clark has described the manners and customs of the northern Beja tribes of eastern Sudan. He divided those classes of people who could see *jinn*s into the following categories:

- “1. The ‘masters of the rod,’ those people who know the ancient names for the subjugation of the *jinn*s.
2. Those, other than the preceding category, who dabble in spells, and,
3. Those who are themselves about to be overtaken by the evil influence of the *jinn*s.”<sup>59</sup>

Though the *jinn*s are invisible, yet they could appear as loathsome things and were-animals of all kinds except the lion and the crocodile. Some are Muslim, while others are unbelievers. They are capable of doing good or evil. Not all *jinn*s are harmful. Some, *badi*, are peaceful and calm; others, *basid*, merely envious and mischievous. Some of them must be propitiated, but others should be aggressively driven out of the body.

Circumstances dictate their activity. They are most active at night, at mid-day and at the *hamarain*, (the two reds) sunrise and sunset. This is why people are careful at these times not to perform any ceremonial activities, which are withheld to earlier or later times.<sup>60</sup> Harm, for example, may befall those who whistle at night, bathe at sunset, or trespass upon *jinn*s’ territories. It thus behoves one to be particularly careful; should one stumble unawares on a *jinn*, illness inevitably results.

The *jinns* frequently deposit their infants in deserted and unappealing places. They live in cemeteries, and haunt the fireplaces, dustbins, rubbish heaps, bathrooms, and thresholds of ruined or uninhabited homes. The town of Sawakin, on the Red Sea coast, acquired a nationwide reputation for its proverbial black cats. These, like all black cats in the Muslim world, were believed to be of the *jinn* family. They haunt its ruined palaces and ancient houses.

Evil spirits either influence a person from afar or possess him by inhabiting the body. In all cases, it is the work not the worker that is manifest. One, who has done wrong, breached a taboo, misbehaved or trespassed into *jinns'* territory, leaves himself or herself open to harm. The *zar* spirits, for example, once they possess a woman, stay with her for life. They require special rituals to be performed and various requests to be fulfilled from time to time to pacify them. Twins, pregnant women, and nursing mothers, are particularly at risk and are easily harmed by the *jinns*. Hence, they need special protection. Clark reports:

“Among the Bisharin a fire is kept burning for forty days and nights outside the house in which a birth has taken place .... The object of this is to keep the *jinn* away from the mother, who with the blood of childbirth on her is esteemed unclean and particularly vulnerable to the activities of these spirits ....”<sup>61</sup>

Most *jinns* are under the nominal control of the Prophet Sulaiman (Solomon the son of David), and abide by his rules. Prophet Sulaiman was believed to have subordinated and used *jinns* and *shayatin* in white or sanctioned magic. The *khatim* (seal) (see Figure 3: the Magical Square, page 712) and charms are basic instruments the *faqirs* used to control the occult powers.<sup>62</sup>

The Hadandawa tribe, in eastern Sudan, retains in their folklore legends explaining their origin. They believe that they are the outcome of the union of *jinns* with Ethiopian women. In many parts of the Sudan, people believe that some human beings marry *jinns*. These people may be harmed if they betray their alliance and get married. Clark says:

“Among the Atbai peoples of the northern Bega certain tribes are reputed to have *jinns* in subjugation. The Monassir, the Gerreb and an almost extinct section of the Eraiab, the Mohammedai, are

credited with power over the *jinns* .... But the exercise of these powers is accompanied by certain adverse effects and these people are reputed to be of miserable aspect and impotent to raise large families.”<sup>63</sup>

Possession with *jinns* causes *junun* (madness, lunacy). The *faki* designates this type of mental derangement *jinn kalaki*. He believes that it is incurable. The lay mind holds the same belief and categorizes lunacy accordingly. Some diseases, they believe, are due to possession by the *rih aswad* (the black spirits). These are the *jinns* and *shayatin*, and they are managed by the *faki*. Other types of diseases are believed to be due to the *rih abmar* (the red spirits) also known as the *zar* spirits. These are managed by *shaikhat al-zar* (the *zar* practitioner). A third group of *jinns* causes imbecility. The afflicted is known as *ma'tub* (imbecile or demented). Healers and the laity alike do not consider this type of abnormality for treatment because they regard it as incurable.

*Jinns* also cause epilepsy, and infantile and facial paralysis (the latter occurs when they slap one on the face.) In addition, a *shaytan* may substitute its imbecile or deformed offspring for a healthy human child. People call this baby *mubaddal*<sup>64</sup> (a changeling), and it is usually imbecile or deformed. Mothers, therefore, never leave their children unattended during the first 40 days of life.

### ***Um Al-subiyān***

Some *jinns* have specific names. *Um al-subiyān*, for example, is a *shaytan* that afflicts young children, while *habobat al-sugbar* and *um al-juhāl* harm babies under two years of age, causing epilepsy or general febrile convulsions. *Um al-subiyān* and *habobat al-sugbar* as well as *ghazala* are synonyms that are euphemisms for ‘the enemy of children’. People describe this spirit as a lean and loathsome woman, travelling invisibly and destroying by her mere presence.

Daoud Al-Antaki, the famous blind physician of Antioch (who died early in the 17<sup>th</sup> century) in his book *Tazkirat uli Al-Albab*, describes *um al-subiyān* as a disease of children. He gives the point of view of contemporary physicians and bases his explanation of its cause upon the

four humours theory (see page 44). In addition, he describes the then-prevalent ideas of the lay population. He says:

“For others [i.e., other than physicians] it is due to a glance cast by an evil-eyed man. Or it is due to a fall in places inhabited by *jinn*s like bathrooms, valleys and door steps. They harm the child because of its spiritual instability. The disease is characterized by loss of colour, spastic contraction of the limbs and involuntary movement of the head.”<sup>65</sup>

This *jinn* also attends at childbirth, causing abortion, animate retention or stillbirth. Furthermore, besides her unquestioned enmity to children, she renders men impotent and marriages sterile, and disseminates venereal diseases.

Certain types of charms combat the powers of *um al-subiyān*. These are the seven charms that the Prophet Sulaiman extorted from these jinn in the wilderness. The *faki* knows these charms and uses the appropriate one when required. In the Sudan, *um al-subiyān* is also known as *ghuẓẓail*, *um-ghizqailat*, or *ghazāla* (gazelle). This denotes epilepsy in children. The *ghazāla* or *ghazāl* (gazelle) also stands for lunacy in adults.

The Sudanese historian Ibn Daif Allah gave an account of the supernatural achievements of Hasan Wad Husuna, a notable holy man in the Funj Kingdom. Ibn Daif Allah set on record for the first time the specialization of this *shaiikh* in managing cases of epilepsy. King Badi Abu Rubat had asked *shaiikh* Hasan to visit his brother Nasir who had a *ghazāl* that gave him great trouble. The *shaiikh* obliged and most probably cured the King's brother. After this and other triumphs, Hasan Wad Husuna's village became famous all over the country as a centre specializing in managing epilepsy.

It is interesting to note that people firmly believe that touching an epileptic in a fit is hazardous. The idea is that, in so doing, one will contract the disease and transfer it to one's offspring. People are, therefore, extremely averse to touching someone in a fit. *Shaiikh* Hasan could manage such patients with no fear of possession, because he, his two brothers, and only sister, Fatima, were all sterile!<sup>66</sup>

A similar general belief is that *gazelles*, besides epilepsy, also transmit *junun* (lunacy). People call each other *mighazlin* meaning out of one's mind. This belief, however, could be traced back to ancient Arabian popular legend.<sup>67</sup>

### **The *zar* and *tumbura* spirits**

*Zars* are special spirits known as *al-rib al-abmar* (the red spirits).<sup>68</sup> Nobody knows where these spirits live, where they come from or belong to. In 1937, Tigani Al-Mahi, using psychiatric jargon, described the possessing spirits as *mashaiykh* (singular *shaiikh*) to connote archetypes. Each *shaiikh* has a name. The appellation, however, is rarely used except with few notable *shaiikhs* like *shaiikh* Abd Al-Qadir, a notable Sufi saint. The rest of the archetypes have generic names, for example, *Luliya al-Habashiya*, *Yoasy*, or *awlad Mama*. (See also page 139 for more discussion of the possession cults).

### **The *Ba'ati* (human apparition)**

The *Ba'ati* is the ghost of a dead person. The word MacMichael writes in *History of the Arabs in the Sudan* is probably derived from the Fur word *nabati*. He says:

“Popular belief, however, throughout Darfur<sup>69</sup> still attributes to all the Fur a power of metamorphosis, and the word *nabati* there is a common expression of abuse implying that the person to whom it is addressed is in his second existence, that he had died, that is, and instead of dwelling in Paradise, has come back to lead a second existence upon earth.”<sup>70</sup>

The ghost usually visits relatives immediately after death. It is harmless, but the news of a person's reincarnation has a damaging psychological impact on his family. Members of the bereaved cannot marry into other families. They become more or less social outcasts.

### **The *qarin* and the *qarina***

*Qarin* and its female counterpart *qarina* are the supernatural ghost replicas of oneself. The term is also applied to the familiar wraith. Jokingly, people frequently describe a confirmed bachelor as *mujawiz* (married to a

*qarin*).<sup>71</sup> We read in Trimmingham's *Islam in the Sudan* about the *qarin* (male double) and the *qarina* (female double) that:

“In Omdurman it is a spirit which possesses. The Egyptian conception of it as a double born with every individual is not known. Only certain people are possessed and such people cannot marry or the *qarina* will harm them.”<sup>72</sup>

The word recurred in the Quran about five times denoting either a double or a Satan accompanying a human being. The word, however, has little place among the agents causing disease.

### **Ritual sacrifice**

In 1929, a British author, W.R.G. Bond, wrote to *Sudan Notes and Records* asking why people sacrifice animals so frequently in Sudanese society:

“Whatever the occasion that is being described, the reader feels sure that before the tale is done, some wretched goat or other animal is ‘for it’, usually under circumstances, the mere record of which produces a feeling of nausea. And yet, when one meets individuals of the tribe, they are often cheery, kindly, and human enough. The writer has known a native turn his head away while a wounded gazelle was being put out of its pain, and a native woman burst into tears when an accident to a camel necessitated its being shot. Why then is every milestone of native life splattered with the blood of a publicly butchered animal?”<sup>73</sup>

His was a European attempt to understand this practice, and his approach was by no means very unsympathetic. However, the ritual sacrifice has played an important role in certain Muslim, Vedic, and Hebrew rites. In these systems, it is held that what one consecrates and sacrifices is always oneself.<sup>74</sup>

The *karama*<sup>75</sup> or ritual sacrifice is an established practice in the Sudan and in all Muslim countries. It does indeed, usher in or conclude many social functions and occasions, or is performed to ward off a *waba*, an epidemic. In addition, a sacrifice is offered to initiate and conclude several rites-transitional, health-related, or otherwise. The *karama* is an offering of gratitude for helping in a job well done, making an occasion safe, or for asking the Supreme Powers to bring down rain, cause the

Nile to flood, or curb an epidemic. It is an offering to God, to other deities and other unidentified spirits, and to holy men.

We read in Trimingham's *Islam in the Sudan* that:

“Whilst the *jinn*s are really feared there are certain superstitions connected with them which are regarded as mere *keburafat* (legends). For example, the ‘dust-devil’ is popularly regarded as a *jinn*s riding a horse. Shooting stars are thrown at *jinn*s by angels. A well is never dug nor a house built without a *kearama* to propitiate the *jinn*s ‘lord of the place’ (*sahib al-mahal*) who may have been disturbed.”<sup>76</sup>

So far, this description accurately fits a northern Sudanese community. However, the sacrifice in the ethnic groups in the southern region of the country is no different. In every village of the Lotuko country, Somerset reports, the hereditary headman sacrifices a bull or a goat at the beginning of each cultivating season and at the rebuilding of the village, in the event of an epidemic, etc. It is believed that angry words used on the sacrifice for good crops will adversely affect the crops. When a sacrifice is made to drive away disease, the victim's skin is cut into strips, which are worn by all the villagers. In November is held the *nalam* or ceremonial hunt, the nature of the ensuing year being prognosticated from the characteristics of the first animal killed.<sup>77</sup>

Edwards Evans-Pritchard described the Nuer sacrifice in the following words:

“Nuer sacrifice on a great many occasions: when a man is sick, when sin has been committed, when a wife is infertile, sometimes on the birth of a first child, at the birth of twins, at initiation of sons, at marriages, at funerals and mortuary ceremonies, after homicides and at settlements of feuds, at periodic ceremonies in honour of one or other of their many spirits or of a dead father, before war, when persons or property are struck by lightning, when threatened or overcome by plague or famine, sometimes before large-scale fishing enterprises, when a ghost is troublesome, &c.”<sup>78</sup>

Food, people's most cherished possession, is usually sacrificed. Animal slaughter is the most common sacrifice. Both the taking of the animal's life and the shedding of its blood during slaughter, are important.

Therefore, incantations like *ya abl al-damm karamat kum, wa dabiehat al-damm salamat kum* are common. This incantation addresses the hidden forces, and dedicates both the animal and its blood as offerings to them.

It is also believed that the fumes escaping out of the cooking pot will carry the epidemic or evil away with them. Rich people expectedly show their gratitude or allegiance differently. They spend lavishly, and may sacrifice several animals instead of the usual one. They may also sacrifice animals other than common ones, such as camels or cows. The poor, on the other hand, may sacrifice *balila* (boiled durra) and dates.

There are two types of communal *karamas*: a major one in which all the people join in the ritual, and a minor one that is conducted by young girls only, or sometimes all young children, in the evenings. *Karamas*, however, can also be performed by individuals or individual households.

The major *karama*<sup>79</sup> is resorted to to ensure a good harvest, bring down rain, to ward off pests, epidemics, and all similar major events affecting the whole community. The animal is cooked in an open pot, and later the meat is distributed in proportionate shares to the people, each according to his contribution to the cost of the sacrificed animal. Holy working among the Berti of northern Darfur described the following ritual concerning animal slaying:

“The sacrificer says *bisimillahi Allahu akbaru* three times and kills the bull by cutting its neck arteries. Next he washes the muzzle, penis, and rump with water from a clay vessel (*ibriq*), also pouring some into the wound. This is called *tahara* (same name as the ritual wash before prayer) and the bull is then *tahir* (cleansed). *Tahara* is performed only with the sacrificial killing of animals.”<sup>80</sup>

Al-Tom elaborated further on the *karama* practice among the same tribes. He said:

“The offering in individual health sacrifices normally consists of either gruel with relish or of boiled millet. The decision to offer sacrifice is made by the female members of the household who do the cooking, but it may be promoted by a suggestion from the household head. One or two dishes are prepared for the purpose. They are consumed communally by a group of people, which must

include other than only members of the household in which the offering was prepared. There is no formal invitation before preparation of the *karama*, but once food is taken out of the house in which it was prepared and declared to be *karama*, neighbours who happen to be in the village at that time are sent for to partake in the meal. Before one starts eating any food, including that offered as *karama*, one says *bisimi-llahi* (in the name of God). When eating *karama* one adds *karama alla Yagbal* (may God accept the offer). The last sentence is repeated after finishing the food.”<sup>81</sup>

Cereal sacrifice is less important, and, though cheap, is less common than bloody animal slaughter. We alluded earlier to other uses of *balila* (see page 74). This may sometimes be sufficient for a *karama*. When an epidemic sweeps an area, people boil durra (sorghum) at sunrise and sunset. They also reason that the disease will leave with the escaping vapour. People say *yakfu al-bala bi al-balila* (boiled durra protects against pestilence). All these rituals are accompanied with various incantations and songs, and practices reminiscent of animism.<sup>82</sup>

The minor *karama* or *karamat ‘afia* as the Berti call it, is performed by children. All children involved in the *karama* contribute a few handfuls. The cereal used is usually the staple food in the locality—durra in central Sudan, and millet in western Sudan. The children preparing the *karama* usually shelter themselves under a big tree where they make the fire on which they cook. Younger children are kept away from cooking, but they still help in collecting firewood and they take the *balila* to their parents after it has been cooked. Several dishes are prepared and taken to any gathering of people in the village. Some *balila*, enough to feed all the children who participate in the *karama*, is left to be eaten by them under the tree. Other children, including boys who did not participate in the preparation of the food, and those who are too small to do so, are also invited to share the meal. Separate dishes are prepared for the very young children, boys, and girls sharing the same dish.

The children who are more than about six years old do not share the same dish; boys and girls eat separately from two different dishes in the same way as adults. Children may also prepare millet gruel (*asida*), relished with *mulab*, a gravy made of onion, oil, tomatoes, dried meat,

okra, salt and pepper. This is a more expensive meal than *balila* and it requires greater skill in cooking. It is practised by the children only in the eastern part of the Berti area.<sup>83</sup>

Whatever the *karama* was for, people take the cereal they have cooked and some of its water, and go from door to door looking for the sick, the invalid, parturient women, and the elderly. They rub them with this supposedly blessed fluid hoping for health and quick recovery. *Karama* food, on the other hand, is for everybody to eat.

The sacrificial meat of *dahiyya* of *'id al-adha* (Muslim feast of sacrifice) is partly given to the poor, and partly eaten by family members. On the other hand, the *sadaqa*, the dead man's commemoration feast, is reserved for the poor. Like other Arabs in the Sudan, writes Crowfoot, the Rubatab make offerings to the dead on the last Thursday in Ramadan, offerings, that is, of meat and food and soaked dates given by the living to the souls of the dead: these offerings are eaten partly on the Thursday afternoon by children who go from house to house to collect them, and partly in the evening by men when they break their fast.

The people imagine that this food reaches the dead who are supposed to collect round it and eat it in joy and happiness, and that consequently a dead man whose living heirs have offered no food remains sorrowful among the dead that night and reproaches his living relations for their meanness. They call this the feast of the dead (*'asha' al-maiyitin*).<sup>84</sup>

Crowfoot adds, if a man visits a graveyard where several *walis* are buried and wishes to make a general offering to them all, he puts it in a pot which is specially set there for this purpose, called a *lamma*. Childless men and women and unmarried women make vows to *walis* to obtain the fulfillment of their desires, and virgins take tassels off their *rabats* and tie them round the flags on a *wali's* grave. Whoever gets hold of the flag of a *wali* will see his desire fulfilled and such a flag will protect any object from theft.

On the morning after the birth, Crowfoot reported in Customs of the Rubatab,<sup>85</sup> a lamb, called the *hurrara*, is sacrificed in order that the mother's belly may be filled with meat and fat: the midwife receives the hide, the head and foot of the lamb and scented grease only, not as in

some parts clothes and money, and the feast made from the lamb is confined to women, it being disgraceful for a man to join in it.

### **The *kujur* spirits**

S. F. Nadel has studied shamanism in the Nuba Mountains in western Sudan and described the system at length in several publications.<sup>86, 87, 88</sup> He found that six of the tribes he visited in the region practise shamanism. These are the people of Nyima, Dilling, Koalib, Tabak, Tima, and Miri. The Koalib call both the spirit and its human vessel *bayel*, the Nyima, *kuni*, in Dilling *uro* and its medium as *kujur*.<sup>89</sup>

The *kuni* spirits are to some extent conceived of as anthropomorphous beings. Sex and offspring are ascribed to them, and their kinship relationships are often traceable; they are also said to have human interests, emotions and moods, as well as individual names. However, no more tangible physical characteristics are associated with these quasi-human aspects: the spirits are invisible and cannot be described—they are ‘like the air.’ These beliefs are more definite only where they are concerned with the varying gifts and faculties of spirits.

Some spirits are more powerful than others, and the nature of their powers equally varies. The human vessel shares in these spirit faculties and in turn becomes a ‘specialist’ in one or the other sphere of life—in war or farming, in the treatment of infertility or disease, in helping lovers, or assisting people to recover lost or stolen property. Certain of the spirit faculties are firmly bound up with the institutional life of the group: age-grades, circumcision, a number of communal rites, all require the intervention of spirits and so the ministrations of particular shamans. In Chapter 2, page 116 a description of a *kujur*'s séance is given, and the *kujur* role as a healer is described in page 382.

### **Injurious magic**

In all societies there is good and bad magic, the first being always considered as constructive, protective and productive, the latter destructive and against all set norms. Magic is practised by special people who are endowed with the powers, the training, and the material. Such people can be clearly identified in every society in the Sudan. The same group that practises good magic, practises bad magic.

The *fakis* and *faqirs*, for example, in northern Sudan, can use esoteric knowledge to write protective charms, pray for healing or for rain, or use the same armamentarium to do harm through magic, or reverse harm done by others. They cast spells that are uttered as either incantations, or written-as astrological formulas, magical numbers,<sup>90</sup> seals, occult words, or verses from the Holy Quran. These papers are called *waraqas* (see Amulets page 128). There are other types of spells cast in the form of potions, erasures, or carried through items thought to be closely connected with the soul of the victim. Sometimes, *fakis* use *khuddam*, servant *jinn*s, as instruments to bring harm on others.

It is important to mention that both the Quran<sup>91</sup> and the Sunna have admitted the presence of magic yet opposed it, as it is associated with heathenism and involves appeals to beings other than God. In addition, as early as the Prophet's time, the *da'wa* (invocation), the *ruqiya* (protective charm) and *ta'zim* (healing incantation) are permitted provided only God is invoked.

Islam has admitted the presence of two worlds-of man, and of angels, *jinn*s, and *shayatin*. It has also admitted the presence of *sibr*.<sup>92</sup> Later, Muslim jurists, exegesists, and scholars have endorsed this thesis, supported the belief that magic and Satans are one, and attributed white magic to the Prophet Sulaiman who was believed to have exercised influence over Satans.

Medieval and early Muslim scholars have written lengthy tracts condoning the *sibr*, and have developed several arts and techniques to wield the powers of the occult. The writings of Al-Boni, Al-Dairabi, Ibn Arabi, Al-Ghazali, Al-Tilmisani, Ibn Khuldun, and Ibn Sirin, had great impact over all Muslim world. These scholars did not only sanction magic, but also made magical procedures attainable to every literate practitioner. Furthermore, as in many other cultures, dreams were believed to portend future incidents. *Tafsir Al-Ahlam*<sup>93</sup> by Ibn Sirin<sup>94</sup> has been the classic book in the Sudan as well as in other countries of the Muslim world.

Several writers contributed substantially to our understanding of the social incidence of magic among the main southern Sudanese tribes. A systematic study of magic has been made by Evans-Pritchard on the

Azande tribe in the Bahr Al-Ghazal province of the then Anglo-Egyptian Sudan. Evans-Pritchard's work was a continuation of the work done by Professor and Mrs. Seligman in the years 1909-10, 1911-12, and 1921-22, which they could not finish because of ill health and appeared in 1932.<sup>95</sup>

In northern Sudan, present-day Islam has incorporated and assimilated many pre-Islamic and indigenous magical and animistic elements, including fetishes, animist remnants of worshipped deities, and magical practices. In-depth studies are scattered and few; such studies as there are, provide basic material for the synthesis of this chapter.

Evans-Pritchard has noted and attempted to demonstrate that the principles deduced, for example, from Melanesian data and formulated as general laws for all societies must be reformulated and possibly modified in the light of what is now known of African peoples.<sup>96</sup> Indeed, one can see that differences in the institution of magic appear clearly within the same country, when the practices of the southern and northern tribes are compared. The southern tribes are mostly shielded from foreign influence, while the northern are mostly Muslim of Arab ancestries who have drawn extensively from Middle and Far Eastern cultures. However, if we accept the thesis that magic, like other institutions, is cast in the mould of the society in which it has its place and function, then we have to accept such differences and take them as guidelines upon which we can base a general picture of magic as related to human health.

Magic is believed to fill a gap left by lack of knowledge in man's pragmatic pursuits. For example, the Zande uses magic to protect himself, his children, and his agricultural and hunting activities from the malign power of witchcraft. He uses productive magic to multiply his crops, to ensure success in netting game, in encouraging the termites to embark on their nuptial swarmings, in smelting and forging iron, in increasing the number of his subjects. He uses magic to give him confidence in singing or lovemaking, to protect his property from theft and his wife from illicit intercourse. He consults the magic of the oracles to give him confidence before circumcision, before marriage, before building a new homestead. Magic plays its part in all the main biological

and social occasions of the Zande's life.<sup>97</sup> Indeed, the same is generally true of other Sudanese tribes.

While studying the Nuba tribes of south west Kordofan, Nadel observed that out of 70 clans of the Heiban and Otoro tribes only three had healing magic. In Otoro, he said, we discover rather surprisingly, two clans, which are, *qua* clans, invested with certain healing magic. Thus every member of the Lokogyama clan (the chief's clan) possesses-potentially-the gift of *nadyama*, of curing intestinal pains by laying his (or her) hands on the ailing body; and every member of the Lomgyan clan can similarly cure a certain wasting disease known as *qramy*.<sup>98</sup> Different individuals may possess this gift in different degrees. However, the main fact is that the acquisition of the magic faculty depends on clan membership.

One Heiban clan, Lgoko, possesses a clan magic of a different order: whoever steals anything belonging to a member of this clan will die.<sup>99</sup> Among the Tira, the Ltrngum control the wind and storms, cause and cure lunacy, and help to recover animals, which have strayed.

Lunacy treatment is interesting, as it supplies a logical link with the other magic of this clan, the control of wind and storms, Nadel reports. The Ltrngum 'doctor' blows into the nostrils of his patient-'he blows like the wind', say the informants. The Iltaro are responsible for magic against infertility of women. The Itambel clan can heal any wounds caused by iron (as in turn, it causes death by iron of perjurers). A man who has received such a wound will be taken to the house of an Itambel man; he would stay there for seven days, being sprinkled with water from a new gourd by his doctor-host, after which time the wound would close.<sup>100</sup>

Also among the Nuba, certain magic protects clans or tribes by inflicting illness on perpetrators. This type of magic is called *kamradha*, and differs widely in range and severity with clan. For example, the people of Gilu clan of the Tira tribe of the Nuba, during the *amadi* ceremony, smear their faces and chests with milk; now, if any member of another clan used Gilu milk in this way, or merely drank of Gilu milk, he would become deaf. In turn, the Gilu clan can cure deafness in other people, whatever its cause, by smearing their taboo milk into the ears of the patient.

The Lamagyan clan inflicts syphilis on any outsider who as much as smells the incense used by that clan. In some clans (e.g., Ekela, Bowru, Ayen) any stranger who entered their houses with evil intentions (to commit adultery or burglary or simply to quarrel with the people of the house) would be struck with dizziness and headache. In the Gilu clan, this protective magic is slightly stronger: the intruder would be rooted to the spot and would be incapable of moving until the owner of the house released him by sprinkling water over him.

The rain clan Udeleng possesses the severest magic of this kind; lunacy would afflict anyone who entered an Udeleng house with black thoughts; thieves who stole and ate animals belonging to this clan would be struck by lightning; even the grain and *simsim* (sesame) of the clan is dangerous to strangers and might cause madness if they ate of it without the special authority of the man who planted the crops. When people buy grain or accept animals (e.g., in bride-price payments) they always make certain first that the grain or animals did not come from the Udeleng clan.<sup>101</sup> Though any member of these clans may be appealed to to perform the magic rites or the magic treatments, which are the property of his group, yet in practice, one would always turn to the old and experienced men and family heads in the clan.

Magical practices in Muslim Sudan vary from place to place, but, irrespective of the locality, they are always looked down upon. In addition, just as a *sabhar* is feared, avoided, and always seen as a social outcast, a *faki* or *faqir* who practices magic mongering is thought of as sinister. A similar view is also taken by tribes among which magic is more systematized. Among the Azande, for example, who have an elaborate system of witchcraft, 'black' or 'bad' magic (sorcery) is considered illicit, even immoral, and accordingly stigmatized. Evans-Pritchard says that among the Azande:

“Good magic may be destructive, even lethal, but it strikes only at persons who have committed a crime, whereas bad magic is used out of spite against men who have not broken any law or moral convention.”<sup>102</sup>

Not all types of magic are looked down upon. Some types are sought and are considered as benevolent. Gamal Abd Al-Malik (Ibn Khuldun)

reports in *The Fourth Dimension* on the magical powers of the *dambbari* and the rituals he performs to drive locusts away from landing on people's crops. He said:

“The Zaghawa and Masalit tribes of western Sudan have a magical way to protect their trees and vegetables from the ravages of locusts. They have a certain man who sits alone on top of a hill to drive away locusts. He will not mix with women or wash his body for many days. Roots of certain plants are finely threshed, mixed with earth, put in the horn of a dead animal, which the man (whom they call the *dambbari*) carries to the top of the hill. The *dambbari* will spread some of the material which he carries in the horn over his body and he will recite special incantations calling on the locusts to disperse.”<sup>103</sup>

The born locust scarer (togony), as the Fur call him, is said to have a locust shape imprinted on the palms of his hands, and although their eventual powers are less efficacious, would-be scarers may learn the art from a born expert after drinking a root concoction; the services of such operators are paid for with grain.<sup>104</sup>

Tigani Al-Mahi was a pioneer researcher into the social history of disease in the Sudan. His psychiatric training, encyclopaedic knowledge, and vast interest in local cultures gave him the right background. His pioneering writings, albeit few, should be studied carefully. Tigani believed that cultural patterns are developed in response to psychobiological needs. They are modes of adaptation and adjustment to the physical and social environment, and in turn become powerful determinants of human behaviour. Therefore, cultural institutions and formulations are correlated with fundamental needs in the light of which their meanings, motives, and significance become obvious.

Magical beliefs and practices, he wrote, are such mechanisms of adjustment and orientation to environment. They are tools in the struggle for existence. They regulate and integrate adaptive patterns and provide spiritual, social, and material solutions to everyday problems. Both in normal and pathological adaptations, magic plays a significant role in the life of the masses analogous to the role of science, religion, ethics, and other institutions in the life of advanced societies. Magic, he

said, works by means of stereotypes, which exclude novel experience from the field of intellect. It imposes a phobic mental set that precludes originality, individuality, adventure, and creation. It even, sometimes, taboos and penalizes deviations from traditional norms. Thought and action therefore become stylized, ritualized, emotionalized, and highly personalized; this is what outsiders see as the innate conservatism of primitive people.

Magic arouses crude ambivalent affective states in its participants—awe and reverence. In totemism, alternation of fear and love or “phobia and identification” is typical. By a process of conditioning, fear and its intellectual derivatives such as mistrust and suspicion become traditional modes of emotional expression of a variety of thoughts and events that would not otherwise be appropriate for them.<sup>105</sup>

All societies have the same set of components of magic: the spell, the ritual and their associated observances such as restricting the activity of menstruating women (page 181) and food taboos (page 214). Tribal magic such as that of the Rubatab and the people of Abu Jarid, and clan magic as identified among the Nuba tribes have the same components.

The spell is a saying, a formula, or a set of rhyming words. The ritual is the backbone, the activity, and the material chosen to cast the spell. The practitioner moulds the spell and the ritual in one well-knit procedure that is difficult, if not impossible, to separate into parts. The results are equally difficult to diagnose or trace to their source though procedures to do so do exist. In most cases, the onset of illness or incapacity is the first indication to the victim that he or she has been charmed. Otherwise, the magical spell would have to be divined.

### **The spell**

Spells in the form of *da'wa* (invocation), *talab min Allah*, request from God (supplication) and *ta'ziem* (incantations) are the major types of sanctioned magic among the Muslims in the Sudan, and according to the situation, may cause good or bad effects. *Amal* and *huvata*, on the other hand, are parts of *tibb* (black magic) which can bring about calamities ranging from sudden death and paralysis to general weakness and unemployment.

The words, written or spoken, have an intrinsic force-magical, religious, or both-which is not related to their meanings or connotations. Some words even have no apparent meaning, and their import and impact is through their rhyme and rhythm.

*Da'wa* becomes part of injurious magic when the holy man curses someone. This is described as *da'a 'ala*, to curse, rather than *da'a li*, to pray for. Those who are unfortunate in life are called *mad'i*, cursed.

Other types of magic, mainly injurious, include the written spells, *waraqas*, knots or *'uqdas*, and *kitab*s (charms). Somerset reported the following about the spells of the Lotuko tribe of the southern Sudan.

“A good deal in the way of spells can be accomplished without the aid of a magician. A spell for causing death is called *nakitu*. The commonest are to dig up a parson's footprint from his doorway and keep it in an earthen pot, and to sprinkle ashes in his drinking water. There are various spells for causing death to persons who interfere with crops, flocks, and articles left in the open. In the latter case, charred twigs of a particular tree are laid by the article. If a woman's apron be stolen, she will be infertile till it is restored. To undo the effect of these spells recourse must be had to a magician. The evil-eye is believed in, and it is firmly believed, even by the people concerned, that certain persons are able to turn themselves into leopards and hyenas.”<sup>106</sup>

### **The ritual**

The magical spell has always been accompanied by acts that provide its backbone, and give it material support. Such acts are rituals.<sup>107</sup> They may be as simple as a gesture, a nod, a laying-on of hands, a raising up of the palms of the hands, or as elaborate as a drama spanning several days of festivities and celebrations. In magical acts, thus, there are ritual numbers, ritual foods, ritual directions, ritual colours, and ritual operations such as shaving, etc. Rituals that celebrate transition of individuals or groups from one stage of the life cycle to the other or from one status to the next are considered important. They include passage to life in pregnancy, from childhood to adolescence, and in funeral rites to the beyond.<sup>108</sup>

We have mentioned elsewhere in this book that healers are very particular in accurately identifying the persons to be charmed, or those for whom they are conducting a divination procedure, for example, for an auspicious day for a wedding. They make sure that the person for whom the magical act is performed is the one and only one. The name, the mother's name, and a piece of clothing of the person in question should be provided. There exists a firm belief that these items carry the fingerprints of their bearer. These items will be discussed in more details shortly.

Paul Ghalioungui in *Magic and Medical Science in Ancient Egypt*, has described ritual processes in Egypt, and noted the strict adherence of the performers to details. He says that they are built on the same laws of analogy that bestowed on magical words their virtue, and they must be performed with the same fastidious faithfulness. They imply, furthermore, that the sorcerer can transform resemblance into reality.<sup>109</sup>

Various substances are used in rituals for their symbolic significance such as incense, milk, water, blood, plants of special shape, or things of a particular colour. The virtues of these items are mainly derived by analogy from their material characteristics, special activity, or ancestral significance. For example, among the Yangal clan of Heiban tribe of the Nuba, the ritual direction is west, the ritual number is 15, the ritual fat is that of a ram, and hair shaving after birth takes place at the 8<sup>th</sup> day. Different permutations of these rituals identify the different clans of the Nuba tribes, and may or may not be accompanied by food taboos and avoidances.<sup>110</sup>

The magic-monger sometimes wraps the paper charm around a bone or shell as its vehicle, and throws it into the river, burns, or buries it. Then, in an incantation, he states how the person is to be injured or destroyed. Discovery of this material breaks the enchantment. Among the Azande, knowledge of these material elements, which are usually strange wood and rare roots,<sup>111</sup> is the prerogative of the practitioner.

In northern Sudan, magical spells find their best mediums in shorn hair (especially birth-hair), umbilical cord of the infant, nail-parings (specially the first parings cut at the fortieth '40<sup>th</sup>' day after birth), a male baby's prepuce cut in circumcision, confinement rags and wrappings, garments

on which a person has perspired (items assumed to contain soul-substances), and teeth. The way these items are disposed of may influence its owner's physical being or personality, or they may be vehicles of inflicting harm if they fall in the hands of evildoers-human or superhuman. Items that were part of one's body or were in contact with it, are believed to be extensions of the self, and whatever is inflicted on them affects the original self. People, thus, take great care to get rid of these items or hide them away. They are buried in the ground either immediately after they are shed, or better still, thrown or buried in a near-by holy man's shrine, if that is at all possible.<sup>112</sup>

A baby's items are sometimes preserved by the maternal grandmother in special containers called *buqs* (polychrome Meccan woodenware), one container for each grandson, and hidden safely inside the house. Alternatively, together with the rags and wrappings of confinement, they are thrown in the river, i.e. entrusted to the beneficial and powerful *Malaiykat al-Bahr* (Angels of the River).

Evans-Pritchard argues that it is the material component in the ritual and not the spell to which the Azande attach the main importance, and he gives examples from his fieldwork experience.<sup>113</sup> It is interesting to contrast this finding with that anecdote narrated in beautiful colloquial Arabic by Ibn Daif Allah in *Al-Tabaqat* about the special amulet, known as *waragat qubul*, written by *shaiikh* Hasan Wad Husuna for Mahioba,<sup>114</sup> a concubine in the Funj Kingdom.

Mahioba asked *shaiikh* Hasan Wad Husuna to prescribe for her a *waragat qubul*, an amulet that would increase her chances among men. The holy man obliged, and the amulet worked to her satisfaction until it was unwrapped and the contents disclosed. The amulet bore no holy verses or magical letters or numbers; it contained only mockingly abusive words.<sup>115</sup>

Privacy is a characteristic of northern Sudanese as well as Azande magic. Indeed, it is a strict rule that the nature of the material used, and anything written on it, should be known only to the prescriber. In injurious charms, the place where the material is thrown or hidden should not be known to the victim and even the leather-maker who usually wraps amulets, should not read them. If he or anyone else does

so, the efficacy of the charm will be lost. The consultation (if one should be required), or the act of preparing the charm itself, should also be a discreet activity. To affect a magical spell, a dummy of the victim, is tossed on the rooftop of the victim's house. Sometimes a bird with its wings sewn is thrown there, and left to die in isolation.

Trimingham mentioned a Funj story of Al-Hijazi ibn Abu Zaid putting a spell on King 'Adlan II by taking some soft clay, moulding it to the form of the King, and then baking it until it cracked.<sup>116</sup> The victim, they believe, would have the same fate.

Different types of 'knots' or '*uqdas* are popular in the Sudan. There are two types of '*uqdas*: one is the preventive '*uqda* and the other belongs to black magic. The latter is known as *rubat* (binding).

The person to whom the *rubat* is directed is called *marbut* or bound. One type is used to bind a man with the intention of making him sexually impotent, blind him of other women, or prevent a man or a woman from flirting. Shuqair in 1906 writes of the Qarab, a sub-tribe of the Atbara Bisharin that:

“If they want to bind a person to a place they make incantations against him, then he cannot leave the spot until they undo the knot. If they put food before him he is unable to stretch out his hand for the food.”<sup>117</sup>

The Quran mentioned '*uqdas* in chapter CXIII. This chapter together with chapter CXLV (both chapters, called *mu'awazatain*, refer to magicians as 'blowers on knots'). The magician actually does this by reciting incantations to do harm on others while they tie 'knots' in a string. The two chapters are always recited when looking for protection against magic and the evil eye. Sometimes the recitation of *bism Allah Al-Rahman Al-Rahim*, the opening verse in Quran, or the utterance of *azzan*, the prayer call, should have the same powers as protective amulets.

When one is continually facing problems and misfortunes, especially in one's social achievements, one is said to have '*arid*, opposing magical force. One is treated like a *mas-boor*, a bewitched, a *ma'rooq*, one affected by magical roots, or a *marboot*, bound, through counter-magic.

Performing magic by the weaving, of spells in knots dates back to antiquity. In ancient Egypt, the hieroglyphic ideogram for magic, *haka* is represented partly by knots. ‘H’, the first letter of the ideogram, is represented as a rope with three knots, indicating their binding powers. On the principles of homeopathic or imitative magic, the physical obstacle or impediment of a knot on a cord would create a corresponding obstacle or impediment in the body of the victim. Some ‘*uqdas* are preventive. On these, Trimmingham writes:

“The preventive ‘*uqda* are seven ‘knots’ tied and blown upon by the *faki* with incantations over each which are obtained especially for pregnant women and for the prevention and cure of fevers in children.”<sup>118</sup>

Sidi Al-Hasan, a notable holy man in Tokar in eastern Sudan, is noted for the efficacy of his knots. Generally ‘*uqdas* should be concealed when worn on the body, thrown into a well or river, burnt, or buried. To treat disease or any harm that is suspected to be due to ‘*uqdas*, the *faki* writes a special *hijab* to be worn on the right side of the body. The *faki* also writes some letters on a vessel, which is filled with honey or olive oil. The vessel is then washed, and the erasure is given to the victim to drink.

Al-Tunisi reported on several magical practices in Darfur in the last century in his book *Tash-bizh Al-Azhan*. He said that the Darfurians used to put their victims to sleep before robbing them of their belongings. They waved ‘the magic root’ in front of the victim who immediately falls asleep. They used other type of ‘roots’ to paralyze a part of the body or to kill an enemy. *Nara* roots were particularly useful for men who seek to possess women. The roots increased a man’s sex appeal and attraction.<sup>119</sup>

### **Sympathetic magic**

Several healing techniques are derived from concepts of analogy rather than cause and effect. People in the Sudan generally know that snakes and scorpions are deadly creatures and that, when they bite or sting, they emit a poisonous fluid that does the damage. Hence, they apply tourniquettes to prevent the spread of the poison and used scarring to get rid of any unabsorbed material. However, a scorpion sting is also treated by tying the dead scorpion to the stung site. For snakebites,

however, the snake is killed and buried because, if it is left to be scorched with the sun, the patient will be similarly affected in sympathy. Equally, vegetables resembling female breasts are tied to real breast in an attempt to cure tumours there.

Names of diseases, especially those such as *sul* (tuberculosis), which are deemed fatal, are tabooed. People speak of consumption as *al-marad al-barid* (the cold disease). Consequently, whenever the name of such a disease is uttered, a protective formula invariably follows. The association between the name and the named is considered so substantial and real a bond that the mere mention of the name may call for the presence of the named. For similar reasons also, the Azande tie the bones of a tortoise round the ankles with the idea of strengthening the legs.

### **Witchcraft**

In witchcraft, a person has an intrinsic power to harm others unintentionally and unconsciously. It is difficult to differentiate between a *sabbar* (witch), and a non-*sabbar*, except by looking for special signs and by applying certain tests. For example, all members of the Rubatab tribe are under suspicion of witchcraft unless proved otherwise. They are famous for their use of eloquent metaphoric phrases that are so descriptive that the target object, man or property, is invariably harmed. This, what Abdullahi Ali Ibrahim called assaulting with words, we will discuss shortly.

### **Azande witchcraft**

In 1918, Brock reported on witchcraft and witchdoctors among the Azande. He said that no matter what a person dies of, he or she is supposed to have been bewitched. Certain people are supposed to be afflicted with *mangu*, which is described as being like a mouth with large sharp teeth. People thus afflicted-they are called Borromangu-are said to be the cause of everyone's death, not maliciously but involuntarily. He also reported that when a person dies, a portion of one fingernail and one toenail and some hair are always removed before burial. These are used to find out who has bewitched the deceased.<sup>120</sup>

Edward Evans-Pritchard dealt elaborately with the system of witchcraft among the Azande tribes of southern Sudan. His findings were published in his classic *Witchcraft, Oracles, and Magic Among the Azande*<sup>121</sup> and in various other articles.<sup>122, 123, 124</sup> Evans-Pritchard says:

“Azande believe that some people are witches and can injure them in virtue of an inherent quality. A witch performs no rite, utters no spell, and possesses no medicines. An act of witchcraft is a psychic act. They believe also that sorcerers may do them ill by performing magic rites with bad medicines. Azande distinguish clearly between witches and sorcerers.”<sup>125</sup>

He adds:

“Witches have witchcraft substances in their bodies which are inherited according to them by uni-linear descent from parent to child. The substance is said to be the shape of a bent elbow and is located in the belly just below the xiphoid cartilage and it grows as the person grows. It can be identified by autopsy or by oracular consultation in the living. However, the witchcraft substance may remain dormant throughout the witch’s lifetime and he is thus not classified as a witch. The witch sends his soul, *mbisimo mangu*, the soul of witchcraft, on errands to remove the psychical part of his victim’s organs, his *mbisimo pasio*, the soul of his flesh, which he and his fellow witches will devour. Witchcraft does not strike a man at a great distance, but only injures people in the vicinity. Witchcraft leads to a slow wasting disease and causes death by slow stages. Witches also shoot objects, called *abu mangu*, things of witchcraft, into the bodies of those whom they wish to injure. This leads to pain in the place where the missile is lodged, and a witch-doctor, in his role of leech, will be summoned to extract the offending objects, which may be material objects or worms or grubs.”<sup>126</sup>

### **The Evil Eye**

In the Sudan, the average Muslim is believed to possess only a slightly harmful eye. On the other hand, the glance of the one-eyed, the cross-eyed, Nigerians, unbelievers, and repulsive-looking old males and

females are thought to be extremely potent. The possessor of such an eye is called *sabbar* (witch or evil one) for a male and *sabhara* for a female in northern Sudan, and *massas* in Darfur in western Sudan. The Evil Eye is also known as the 'jealous' or 'envious eye' and the 'hot eye'. The last name gave rise to the common formula, 'this is the coolness of my eye,' which indicates that one's desires, are satisfied and feelings gratified. The eye is believed to emanate radiance that hits like a curse and causes harm to the unprotected. Not only human beings, but also any animals, crops and property that may be looked at, are harmed to a greater or a lesser degree. This concept may be analogous to the early theories of vision, when light rays were thought to be emitted by the eye, to travel to the object and to be reflected back again as a visible image.

When people are in front of other people's properties or possessions which are supposed to arouse envy, or when they are visiting a *nafasa* (a woman who has recently given birth) certain formulas should be uttered so that their 'eye' is rendered harmless. A variety of formulas such as *salat al-nabi* (the blessing of the Prophet) *ma sha Allah* (blessed be the will of God) are uttered, whilst a person in danger of being bewitched should add '*ain al-hasud fiba 'ud* (let a poker be driven in the eye of the jealous one). Sometimes the evildoer is distracted by words like *harshak* or by some camouflaging procedures.

It is difficult to differentiate between a *sabbar* and a non-*sabbar*. The former, however, is said to be evil looking and reclusive, keeping his eyes cast down and deliberately neglecting to look one in the face. Whilst in conversation he omits to make pious reference to the name of God. To identify a *sabbar*, a piece of *shebb* (alum) salt, some acacia pods, and cumin are placed together in an incense burner and the suspect is fumigated with it. Then water is sprinkled on the incense and it clots into a mass, the shape of which decides the issue. Once identified, he or she will be offered milk to drink. If this is rejected, the suspicion is confirmed and he or she will be chased to abolish the harm done. Many methods are employed to undo the damage. They may wash the eyes of the *sabbar* whilst asleep. This is employed if the harm is done unintentionally.

In other malevolent cases, the 'scapegoat' method of evil transference is used. Hair from the suspect or a few pinches of earth from his track, or

anything that can be retrieved of his substance or belongings is obtained. These are then burnt with alum, herbs, and incense and the afflicted is fumigated with it. Afterwards the mass in the incense burner, which has now absorbed the harm, is destroyed. They may go to the street or to the river and throw it behind their backs, taking care not to see where it goes. The harm is then considered undone.

The Otoro of the Nuba Mountains adopted a similar method for detecting and penalizing a culprit. One scratches sand from his footprints and throws it into the fire; if he is guilty (but not otherwise) his feet will swell and he will die a painful death, often years later.<sup>127</sup>

*Irq al-'alali* both treats the damage the evil eye causes and protects against its assault. This is a surface root resembling ginger in appearance and having a fragrant smell. When it is worn upon the arm, it keeps off the evil eye. When it is dug, a person should scatter durra in its place and put back the soil. Otherwise, the ground would drag back the power of the root because it has nothing given to it in exchange. Slatin Pasha in his book *Fire and Sword* described Khalifa 'Abd Allah's<sup>128</sup> dread of the 'eye'. A one-eyed Syrian who unintentionally cast his blind eye in his direction was instructed never to come near him again. He remarked to Slatin, 'nothing can resist the human eye. Illness and misfortune are generally caused by the evil eye.'<sup>129</sup> Rev. D.S. Oylar reports on the Shilluk that when the evil eye has been cast on a man and 'his spirit has left limo', the medicine man undertakes to restore his spirit. One way to do that is to take a certain kind of grass, and rub it on the chest of the patient. He then spits on his hands, and rolls the grass in his hands. The grass is then dipped in water, and the water is sprinkled on the patient. The ashes from the dung of a medicine man's cow may also be rubbed on his chest.<sup>130</sup>

### **Were-animals**

Human beings are believed to transform into were-animals as a witchcraft deed, and cause damage or destruction to people and their possessions. Belief in the existence of were-animals is prevalent in the Sudan, especially among the tribes of Darfur. The Masalit were said to appear as hyenas, cats, dogs, and the Tamourka as lions. The Tamourka, in addition, are believed to metamorphose after death. In their were-

animal form or in metamorphosis, they bewitch and cause injury of varying types. Trimingham reported on this subject in *Islam in the Sudan*. He says:

“Certain *sabirs* (in this case called *sabharin*) are credited with the ability to transform themselves at night into crocodiles and hippopotami in Riverain districts, or hyenas in Dar Funj and among the Masalit, or lions in Darfur. These metamorphosed human-beasts roam about seeking to destroy, and are reputed to hold cannibal feasts.”<sup>131</sup>

Whether were-animals have, any deleterious psychosocial or physical effects on health remain to be found out by further research.

## References and Notes

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- <sup>1</sup> Foster, George M, Anderson, Barbara Callatin. *Medical Anthropology*. New York: John Wiley & Sons: 1978. 51-79.
  - <sup>2</sup> Dracunculiasis is a parasitic infestation caused by the guinea worm *Dracunculus medinensis*, (*al-'irq al-madini*), or Medina worm (after Medina in Saudi Arabia). Avicenna wrongly thought that the worm was a protruding nerve (*Al-Qanun*, volume 4, page 138), but Razes was the first to identify the disease accurately. He described it as a disease that occurs in hot climates, and is caused by drinking dirty water. He advised that the site should be sponged with sandal and camphor until the head of the worm protrudes. Then, the protruding part should be tied and the worm pulled out gently in a process that may take days. Luke warm water, he said, may expedite expulsion. After it is out, a cold poultice like that of *isfidaj* [white lead] should be applied to the site. If the worm could not be fully retrieved, the remaining part may cause swelling and infection, and may need to be removed surgically (Razes).
  - <sup>3</sup> Foster, George, M, et al. Op. Cit. Pages 56-60.
  - <sup>4</sup> Muhammad Al-Nur Ibn Daif Allah (-1809). *Kitab Al-tabaqat fi khusus Al-awliya wa l-salihin wa l-ulama wa l-shu'ara* (1805!) ed. Yusuf Fadl Hasan, Khartoum: Khartoum University Press, 1985.
  - <sup>5</sup> Evans-Pritchard, E. E. *Witchcraft, Oracles and Magic among the Azande* (1937): Abridged with an introduction by Eva Gilies. Clarendon Press. Oxford 1976, 29.
  - <sup>6</sup> Somerset, R. R., Major the Hon. Fitz. The Lotuko. *Sudan Notes and Records*. 1918; 1: 153-159.

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- <sup>7</sup> Nadel, S.F. Witchcraft in Four African Societies: An Essay in Comparison. *American Anthropologist*, 1952; 54: 18-29.
- <sup>8</sup> The *Latal*, *Lajok*, *Wun Anana*, *Wun awola* are persons with certain supernatural powers that bring harm.
- <sup>9</sup> Grove, Captain E. T. N. Customs of the Acholi. *Sudan Notes and Records*. 2(2): 157-182.
- <sup>10</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1.94-1: 95.
- <sup>11</sup> Nadel, S.F. Op. Cit. pages 18-29.
- <sup>12</sup> Dunn, S.C. Some Instances of Nuba Magic [Note]. *Sudan Notes and Records*; 1918; 1: 202.
- <sup>13</sup> *Longman Dictionary of Contemporary English* defines 'taboo' as 'one of the religious, social, or magical rules forbidding the naming, use, or touching of a person or object considered too holy or evil.' *Longman Dictionary of Contemporary English*. Beirut: Longman Group Limited: 1978.
- <sup>14</sup> Evans-Pritchard, E.E. Op. Cit.
- <sup>15</sup> *Kujur* and *Kujuriya* for the female (plural *kujara* and *kujuriyat* respectively) are the terms used by the Arabs who came in contact with the Nuba, to become a universal designation for mediums among other tribes.
- <sup>16</sup> Grove, Captain E. T. N. Op. Cit.
- <sup>17</sup> Evans-Pritchard, E.E. Op. Cit. Pages 2-3.
- <sup>18</sup> *Baraka* is a 'blessing' from God. Saints possess it in its highest degrees. God bestows *baraka* arbitrarily on persons regardless of merit. The *baraka* of a saint can be transferred to posterity; it can even be inherited by those of vile conduct. Natural objects and harmless idiots can also possess *baraka*. Some acts are believed to be rewarded by the gift of *baraka*. An example of such an act is *fatiba*, the symbolic act of raising the hands, palms up, while reciting the *fatiba*, the opening chapter of the Holy Quran. Then, the palms are drawn down the face. This act is believed to merit the bestowal of *baraka*. See Trimmingham, J. S., *Islam in the Sudan* for further discussion.
- <sup>19</sup> Trimmingham, J.S. *Islam in the Sudan*. London: Oxford University Press; 1949: 128.
- <sup>20</sup> See Yusuf Fadl Hasan, editor. Muhammad Al-Nur Ibn Daif Allah (-1809). *Kitab Al-tabaqat fi khusus Al-awliya wa l-salihin wa l-ulama wa l-shu'ara* (1805!), Khartoum; Khartoum University Press, 1985, editorial note page 37 for more details and sources of more information.

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<sup>21</sup> In the course of this book a variety of holy persons' designations will recur. These are briefly defined below:

- The *faqir* (literally poor), plur. *Fuqara*, is a sufi missionary; it also means a sufi follower, a member of a fraternity or a student of the Quran.
- The *faki*, plur. *Fukaya* or *fuqara* (jurist); sometimes written *faqi* or *faqih* in Sudanese chronicles; *faqih*, plur. *Fuqaha*, in classical Arabic is a teacher of fiqh (jurisprudence) or simply a schoolmaster; a teacher of the Quran. He could also be a sufi. *Faki* is used interchangeably with *faqir* and the two are used without discrimination to denote a Sufi missionary. *Faki* may simply denote a wise person, or a dubious dealer in charms and amulets. For lack of an exact English equivalent, scholars have described *fuqara* as jurisconsults, clergymen, sufi mendicants, religious officers, etc.
- *Shaikh*, plur. *shuyukh* is the head of a religious fraternity or a clan; many of the *shaikhs* are sufi missionaries.
- A *wali*, plur. *Awliya*, also described as *salih*, (literally righteous) plur. *Salihin* is a dead holy person. *Awliya* are people who live in the presence of God. The word is derived from *wala*, to be near. Wali in the Quran is applied to God as 'patron' or 'guardian'; it is used for 'guardian' in a general sense; and as a 'friend' or 'ally' of God. See J.S. Trimingham, *Islam in the Sudan*, for further discussion.
- A *khalifa* is the successor of a holy person, usually a family member who automatically inherits the *baraka* along with the office.

<sup>22</sup> *Karama*, plur. *karamat*, miracles, is an honour God bestows upon a holy person. *mu'jiza* and *ayah* (sign) are acts of God performed through a prophet to prove his mission (*da'wa*).

<sup>23</sup> For more examples of miracles wrought by *walis*, the reader is referred to *Al-Tabaqat*.

<sup>24</sup> Trimingham, J.S. Op. Cit. Pages 141, 142.

<sup>25</sup> Crowfoot, J.W. Customs of the Rubatab. *Sudan Notes and Records*; 1918; 1: 119-134.

<sup>26</sup> Trimingham, J.S. Op. Cit. Pages 145-46.

<sup>27</sup> Al-Tayib Muhammad Al-Tayib. Al-fuqara as-habb al-maratib. *Jaridat Al-Ayyam* 1987.

<sup>28</sup> This is a stone set in the wall of the *Ka'ba* in its southeast corner. A Hadith, saying of the Prophet Muhammad, says that it came down

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from heaven. Tradition says that Adam placed it in the original *Ka'ba*. Later it was hidden in the Meccan mountain of Abu Qubays. When Abraham rebuilt the *Ka'ba*, the Angel Gabriel brought the stone out and gave it to him. See Cyril Glasse: *The Concise Encyclopaedia of Islam*, for further information.

<sup>29</sup> *Zamzam* is a well near the *Ka'ba* and within the Grand Mosque of Makka. We read in Cyril Glasse *The concise Encyclopaedia of Islam*, 1989, that:

“The spring of Zamzam appeared when Hagar and her son Ishmael, abandoned in the desert, had exhausted the water in the goatskin given them by Abraham. Then Hagar cast herself to and fro in desperation, but God heard Ishmael (Ismail; the name in Hebrew means ‘God hears’) and the water gushed forth, making the sound zam, zam.”

<sup>30</sup> Bell, G. Nuba Fertility Stones [Note]. *Sudan Notes and Records*; 1936; 19: 313-316. With plates.

<sup>31</sup> E. Lampen. *Sudan Notes and Records*. 11, 60-1.

<sup>32</sup> S. Hillelson: viii. 63-4 (quoted by J. S. Trimingham: Op. Cit., p. 178)

<sup>33</sup> S.J. Trimingham. Op. Cit., page 178.

<sup>34</sup> G.W. Murray. *Stones of Ishmael*, p. 157.

<sup>35</sup> Spence, Basil. Stone worship among the Zaghawa [Note]. *Sudan Notes and Records*; 1919; 1: 197-199.

<sup>36</sup> Evans-Pritchard, Edward E. A preliminary account of the Ingassana tribe in Fung province. *Sudan Notes and Records*; 1927; 10: 69-83.

<sup>37</sup> These are invisible, wingless like sky angels, have no names, but have a passion for *kohl* (antimony eyeliner).

<sup>38</sup> Crowfoot, J.W. Angels of the Nile. *Sudan Notes and Records*; 1919; 2: 183-197.

<sup>39</sup> MacMichael, Harold A. *A History of Arabs in the Sudan: and some account of the people who preceded them and of the tribes inhabiting Darfur*. Cambridge: 1922: 1, 117.

<sup>40</sup> Ni'mat Ahmad Fouad. *Al-Nil fi Al-Adab il-Sha'bi*. [Arabic] Al-Haya Al-Misriya Al-'Ammal lil Kitab, 1973: 180 pages.

<sup>41</sup> Abd Al-Majid Abdin. *Tarikh Al-Thaqafa Al-Arabiyya fi Al-Sudan* [Arabic]. Beirut: Dar Al-Thaqafa; 1967: page 110.

<sup>42</sup> Quoted by Ni'mat Ahmad Fouad. Op. Cit. 149.

<sup>43</sup> Somerset, Major the Hon Fitz. R. R. The Lotuko. *Sudan Notes and Records*. 1918; 1: 153-159.

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- <sup>44</sup> Naom Shuqair (1819-1922), a Syrian who immigrated to Egypt, and was first in the Sudan in 1884 as part of the Nile expedition. He was then in the army service on the frontier of the Sudan, and later in the Intelligence Department of the Egyptian army (1890-1900). When the department was transferred to the Sudan Government, he was appointed Director of its Historical Section, a post he occupied until his death.
- <sup>45</sup> Naom Shuqair. *Gughrafiyat wa Tarikh Al-Sudan The Geography and History of Sudan*. (1903) [Arabic]. Beirut: Dar Al-Thaqafa; Many editions, 1972: 280-1.
- <sup>46</sup> Naom Shuqair. Op. Cit.
- <sup>47</sup> The Messenger 1943-4 (quoted with no page numbers).
- <sup>48</sup> Evans-Pritchard, E.E. *Nuer Religion*. New York and Oxford: Oxford University Press, 1974, page 2.
- <sup>49</sup> Hamilton-Grierson, P.F.A. Local Calendar. *Sudan Notes and Records*, 1923: 6, 118-121.
- <sup>50</sup> Other years are *sanat al-ba'ouda* (plague of mosquitoes) 1877; *sanat al-diğ* (famine year) 1888; *sanat abu-baid* (a high Nile, the people were attacked with boils under the armpits) 1889; *sanat um-sikaikoun* (plague of small grasshopper) 1900; *sanat al-saila* (high flood) 1901; *sanat abu-farrar* (year of stiff neck) 1901, and so on. See P.F. Hamilton-Grierson. A local calendar (reference).
- <sup>51</sup> Ahmad Bayoumi. *The History of Sudan Medical Service*. Nairobi: Kenya Literature Bureau, 1979: 44-65.
- <sup>52</sup> Muhammad Al-Nur Ibn Daif Allah. Op. Cit.
- <sup>53</sup> Muhammad Al-Nur Ibn Daif Allah. Op. Cit. Page 180.
- <sup>54</sup> Muhammad Al-Nur Ibn Daif Allah. Op. Cit. Page 230.
- <sup>55</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: 199-201.
- <sup>56</sup> Tigani Al-Mahi. *An Introduction to the History of Arabian Medicine*. Khartoum: Misr Printing Press, 1959: 185 pp (in Arabic).
- <sup>57</sup> Beaton, A.C. The Fur. *Sudan Notes and Records*; 1948; 29(1): 1-39.
- <sup>58</sup> Muslim writers often differentiate between angels, *shayatin*, and *jinns*. Angels are all good, *shayatin* are all-bad, while some *jinn* are good and others are bad. Indeed, some *jinns* are devout Muslims and others are unbelievers. However, the native Sudanese vocabulary regarding *jinns* and *shayatin* is not that precise and entities are interchangeable.
- <sup>59</sup> Clark, W.T. Manners, Customs, and Beliefs of the Northern Bega. *Sudan Notes and Records*; 1938; 21: 1-30.

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- <sup>60</sup> At the *hamarain*, people beat iron implements to drive away the *jinn*s.
- <sup>61</sup> Clark. Op. Cit.
- <sup>62</sup> Solomon's sealing-ring was believed to have been received direct from heaven and on which was engraved the 'great name' of God (الاسم الا عظم). By virtue of this ring, Solomon was able to compel the *jinn*s to assist in building the temple of Jerusalem. Davies, T. Witton: *Magic*. de Laurence, Scott & Co. 1910: 125.
- <sup>63</sup> Clark. Op. Cit.
- <sup>64</sup> Hence *mabdul*, a name used to describe figuratively a mischievous child.
- <sup>65</sup> Daoud Al-Darir (the blind) Al-Antaki (of Antioch). *Tazkirat ulil albab wa al-jami' lil 'ajab al-'l'jab*, Cairo: 1836. Many editions in Arabic.
- <sup>66</sup> Muhammad Al-Nur Ibn Daif Allah. Op. Cit. Page 145.
- <sup>67</sup> The Acholi regard epilepsy as a spirit (*jok*) which has got into the head of a man. It is driven out by a dance in which the *Ajia* (gourd filled with small stones) is shaken over the sick man's head. If prompt measures are not taken, the *Jok* [spirit] will take to himself a wife and his offspring will go off and take possession of the heads of the neighbours. Grove, Captain E. T. N. Customs of the Acholi. *Sudan Notes and Records*. 2(2): 157-182.
- <sup>68</sup> *Zar* spirits (plural *zairan*) are known interchangeably as *riayh*, *rih*, *assiyad*, *rih abmar*, *jama'a*, *dastur*, and *dasatir*.
- <sup>69</sup> The belief is that various sections of the Fur are believed to be able to transmute themselves into lions, hyenas, jackals, hares, cats, and dogs.
- <sup>70</sup> MacMichael, Harold A. *A History of Arabs in the Sudan: and some account of the people who preceded them and of the tribes inhabiting Darfur*. 2nd 1967 ed. London: Frak Cass; 1st edition 1922: Vol. 1, 4, xxi.
- <sup>71</sup> For the Egyptian conception of *qarin*, see Zwemer, *Studies in Popular Islam*, ch. v. The Sudanese usage as spirit-husband or spirit-wife seems to be similar to its usage in the Quran:
- “One of them saying, ‘I truly had a close companion, (51) who used to say, “Are you one of the believers (52) that when we are indeed dead and become dust and bones, we shall be rewarded?” (53)” *The Bounteous Koran*: chapter 37 Surat al-Saffat (The Rangers). Also:
- “And whoever feigns blindness to the remembrance of the Most Benignant, We assign to him a devil so that he becomes a companion for him” (36) *The Bounteous Koran*: chapter 43 Surat al-Zukhruf (Ornamentation).

The word *qarin* also appeared in sura 50: 23 & 27 and sura 4: 38.

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- <sup>72</sup> Trimingham, J.S. *Islam in the Sudan*. London: Oxford University Press; 1949, page 172.
- <sup>73</sup> Bond, W.R.G. Karama. *Sudan Notes and Records*; 1919; 2: 76.
- <sup>74</sup> Evans-Pritchard, E.E (1974). Op. Cit. Page 279.
- <sup>75</sup> *Karama*, ritual sacrifice, should be differentiated from other *karama* (discussed in page 70). A sacrifice is a *qurban* (from Arabic *qarraba*, ‘to bring near’): any practice that brings man near to God. It is usually made of a man’s valued possessions. Food and slaughtered rams are most popular in the Sudan. A *karama* is also an offering e.g., to a holy person. Common forms of offerings include coins, coffee beans, sugar etc. It should also be differentiated from *sadaqa*. This is a sheep slaughtered and offered to the poor on the seventh day of the mourning period. *Sadaqa*, they say, removes earth from the mouth of the dead. It should also be differentiated from *rahmatat*, offerings for the dead. This is given in the last Friday of Ramadan, the Muslim fasting month. Children collect and eat *rahmatat*. This is called ‘*asha al-mayyitin*, supper of the dead.
- <sup>76</sup> Trimingham, Op. Cit. p 172.
- <sup>77</sup> Somerset, Major the Hon Fitz R. R. The Lotuko. *Sudan Notes and Records*. 1918; 1: 153-159.
- <sup>78</sup> Evans-Pritchard, E.E (1974). Op. Cit. Pages 197-8.
- <sup>79</sup> The communal *karamas* are always *karamat ‘afia* (health sacrifices) unless other reasons for holding them are specified. (Holy 1974: 154).
- <sup>80</sup> Holy (1974). 155.
- <sup>81</sup> Abdullahi Osman Al-Tom. *Conceptualization, etiology, and treatment of illness among the Berti people of Northern Darfur, Sudan* [M.A. Thesis]. Unpublished: Queen’s University of Belfast; 1979-80. Page 17.
- <sup>82</sup> Al-Tayib Muhammad Al-Tayib. Al-Qurban wa Al-Karama [Arabic]. *Jaridat Al-Sudan Al-Jadid*. Date unknown.
- <sup>83</sup> Abdullahi Osman Al-Tom. *Conceptualization, etiology and treatment of illness among the Berti people of Northern Darfur, Sudan* [M.A. Thesis]. Unpublished: Queen’s University of Belfast; 1979-80, page 20.
- <sup>84</sup> Crowfoot, J.W. Customs of the Rubatab. *Sudan Notes and Records*; 1918; 1: 119-134.
- <sup>85</sup> Crowfoot, J.W. Op. Cit.
- <sup>86</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947.
- <sup>87</sup> Nadel, S.F. A Shaman Cult in the Nuba Mountains. *Sudan Notes and Records*; 1941; 24(1): 85-112.

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- <sup>88</sup> Nadel, S.F. A Study of Shamanism in the Nuba Mountains. *J. R. Anthropol. Inst.*; 1946; 76: 25-37.
- <sup>89</sup> Nadel, S.F. (1947). Op. Cit. Page 441.
- <sup>90</sup> See numerology page 110.
- <sup>91</sup> The word *sibr* as a root appeared over 60 times in the Quran in different contexts. For those interested to pursue the matter further, please see the following suras: 2: 102, 3: 17, 5: 110, 6: 7, 7: 109-112-113-116-120-132, 10i 2-76-77-79-80-81, 11: 7, 15: 15, 17: 47-101, 20: 57-58-63-66-69-70-71-73, 21: 3, 23: 89, 25: 6, 26: 34-3537-38-40-41-46-49-153-185, 27: 13, 28: 36-48, 34: 43, 37: 15, 38: 4, 40: 24, 43: 30491--46: -7, 51: 18-39-52, 52: 15, 54: 2-34, 61: 6, 74: 24.
- <sup>92</sup> "And when there came to them a messenger from God, confirming that which they already have, a party of those who were given the Book cast off the Book of God behind their backs as though they knew not. (101) And they followed what the devils recited over the kingdom of Solomon. Not that Solomon disbelieved, but the devils disbelieved, teaching people sorcery and what was sent down to the two angels in Babylon, Harut and Marut. Yet they taught not anyone till they had said, 'We are but a temptation. Renounce not your faith,' From both, they learned that which might set a man and his wife apart, though they could hurt no one thereby save by God's leave. They surely learn what hurts them and profits them not. And they know that he who buys it shall have no share in the hereafter. And wretched is the price for which they sold themselves. Had they but known."(102) *The Bounteous Koran*, chapter 2, *surat al Baqarah*.
- <sup>93</sup> Ibn Sirin, Muhammad. *Muntakhab Al-Kalam fi Tafsir Al-Ahlam* (Tafsir Al-Ahlam Al-Kabir) [Arabic]. Cairo: Matba'at Al-Istiqama; 1959; many editions.
- <sup>94</sup> Muhammad Ibn Sirin, one of the narrators of the hadith, and an authority in *ta'bir al-ruya* or dream interpretation.
- <sup>95</sup> Seligman, C.C.; Seligman, Brenda Z. *Pagan Tribes of the Nilotic Sudan*, London: Routledge; 1932.
- <sup>96</sup> Evans-Pritchard, Edward E. The Morphology and Function of Magic: A comparative study of Torbriand and Zande ritual and spells. In: John Middleton, editor. *Magic, Witchcraft, and Curing*. Austin and London: University of Texas Press; 1921: i-22.
- <sup>97</sup> Evans-Pritchard. Op. Cit. Pages 3-4.
- <sup>98</sup> Among the Tira of the Nuba Mountains, for example, wives are adopted fully into their husbands' clans and follow all their clan observances, yet they are not believed to share their husbands' magic faculties also.

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- <sup>99</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: 95.
- <sup>100</sup> Nadel. Op. Cit. Page 192.
- <sup>101</sup> Nadel. Op. Cit. Page 201.
- <sup>102</sup> Evans-Pritchard, E.E (1937). Op. Cit. Page 187.
- <sup>103</sup> Gamal A. Malik. *The Fourth Dimension*. Merlin Books Ltd. Braunton, Devon, 1983: 170.
- <sup>104</sup> Beaton, A. C. The Fur. *Sudan Notes and Records*; 1948; 29 (1): 1-39.
- <sup>105</sup> Ahmad Al-Safi; Taha Baasher, Editors. *Tigani Al-Mahi: Selected Essays*. 1st ed. Khartoum: Khartoum University Press; 1981; University of Khartoum, Silver Jubilee-1956-1981. 187 pages, pages. 22-23.
- <sup>106</sup> Somerset, R. R. Major the Hon Fitz. The Lotuko. *Sudan Notes and Records*. 1918; 1: 153-159.
- <sup>107</sup> Rituals are collective, public, social practices that are symbolic, formal, and frequently ceremonial in nature. 'A key characteristic of all rituals is that they are a form of repetitive behaviour that does not have a direct, overt technological effect.' (Cecil Helman. *Culture, Health and Illness*. 1984: 123). As Lewis puts it, [rituals] give solemn and collective expression to the social sentiments on which the constitution of a society depends. (John Lewis. *Anthropology, Made Simple*. 1969: 160).
- <sup>108</sup> These celebrations are popularly known in anthropology as *rites de passage*.
- <sup>109</sup> Ghalioungui, Paul. *Magic and Medical Science in Ancient Egypt*. London: Hodder and Stoughton; 1963. Pages 25-26.
- <sup>110</sup> For full description of these permutations, see Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: 97.
- <sup>111</sup> The Azande word for magic is *ngwa*, which generally means wood and only in special contexts refers to magic. Evans-Pritchard. Op. Cit., page 7.
- <sup>112</sup> Other items used for bewitching include human effigies, and the skins of various animals and birds. Chameleon skin is particularly sought for this purpose.
- <sup>113</sup> Evans-Pritchard. Op. Cit. Pages 7-8.
- <sup>114</sup> Muhammad Al-Nur Ibn Daif Allah. Op. Cit. 146.
- <sup>115</sup> The amulet contained the following: "*hammousat Mahioba hamra maqlouba, tal'abbah al-houba, fi gazayir al-Nuba*."
- <sup>116</sup> Quoted by Trimmingham, p. 168.

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- <sup>117</sup> Naom Shuqair. Op. Cit.
- <sup>118</sup> Trimingham. P. 170.
- <sup>119</sup> Muhammad Ibn Umar Al-Tunisi. *Tasbhidh Al-Adbban Bi-Sirat Bilad Al-'Arab Wa-'l-Sudan* (Arabic), (Eds) Khalil M. 'Asaker and Mustafa M. Mus'ad, Cairo: Al Dar Al Masriya Lil-Ta'lif wal-Tarjama, 1965: 322-330.
- <sup>120</sup> Brock, Major R. G. C. Some Notes on the Azande Tribe as Found in the Meridi District (Bahr El Ghazal Province). *Sudan Notes and Records*. 1918; 1: 249-262.
- <sup>121</sup> Evans-Pritchard, E.E (1937). Op. Cit.
- <sup>122</sup> Evans-Pritchard, Edward E. The Zande Corporation of Witch-Doctors. *Journal of the Royal Anthropological Institute*; 1932; 62: 291-336.
- <sup>123</sup> Evans-Pritchard, Edward E. *Witchcraft. Africa*, 1935; 8: 411--22.
- <sup>124</sup> Evans-Pritchard, Edward E. Witchcraft (Mangu) Among the Azande. *Sudan Notes and Records*; 1929; 12(2): 163-?.
- <sup>125</sup> Evans-Pritchard, E.E (1937). Op. Cit. Page 1.
- <sup>126</sup> Evans-Pritchard, E.E. Op. Cit. Page 14.
- <sup>127</sup> Nadel, S.F (1947). Op. Cit. Page 156.
- <sup>128</sup> The first successor of the Mahdi
- <sup>129</sup> Quoted by Trimingham, p. 170.
- <sup>130</sup> Oyler, Rev. D.S. The Shilluk's Beliefs in the Good Medicine Men. *Sudan Notes and Records*; 1920; 3: 110-116.
- <sup>131</sup> Trimingham, J.S (1949). Op. Cit. Page 177.

## Chapter 2

### DIAGNOSIS OF ILL-HEALTH

The layperson distinguishes between minor and common ailments that can be diagnosed and handled without seeking help from others, and serious sickness that needs the consultation of a modern health care provider, diviner, a traditional healer, or a holy man who could intercede with the unseen powers. Sometimes, the signs and symptoms of a disease are clear, and easily recognizable by the patient, next of kin, or a neighbour.

In some cases, the cause of the disease may not be easy to guess, and divination is resorted to, to determine the cause and course of the misfortune.<sup>1</sup> In general, divination is employed to settle such a problem. Divination is also employed to settle individual and interpersonal conflicts, to sanction various important undertakings, and to comfort those facing all sorts of anxiety-provoking events.

Divination procedures are concerned with practical problems; they provide information that limits uncertainty or suspicion, after which practical decisions can be made. They employ various magical, religious, and psychological methods, as well as inspired guesswork. The diviner either trusts his own capabilities (natural or supernatural) or acts through the medium of a human or animal agent. For example, the instrument of divination in the Azande can be a human being who is inspired by medicines, *ngua*, ghosts, *atoro*, or both. Alternatively, his inspiration may have been acquired through oracles known collectively as *soroka*.

Both men and women can be diviners. They may be *kujurs*, *faqirs*, *fakis*, *zar* practitioners, peddlers of medicine, or specially endowed lay people. All have acquired credibility through dramatizing their roles, using special equipment and rituals, and, ultimately, of course, by the pragmatic judgment of their clients.

Divination procedures in the Sudan include oracular consultations and testing by ordeals, *kujur* séances, conscious revelations, dream interpretations, *al-wad'* (cowry shell) divination, *al-raml* (sand divination), *fath al-'ilba* (tin divination), *al-mandal* (water gazing), *al-kebaira* (book

divination), *al-istikhara* (invocation of God), *al-tanjim* (astrology), *'ilm al-huruf*, *al-anfaq*, and *al-zayirga* (science of magical letters and numbers), *ghazal al-shamm*, a gazelle drawing among the Kababish Arabs for divination purposes, and rattle divination in Mandari. It also includes good and bad omens that can be interpreted by observing the behaviour of certain animals and birds, or reading the weather signs. Among the Acholi, for example, writes Grove, an owl crying, or hyenas copulating in the vicinity of a village foretell death, or war.<sup>2</sup>

Finally, there are certain specific harbingers of ill, which could be regarded as taboos. For example, it is a bad omen to face an ugly or a one-eyed man or animal. A *lalobe*, Acacia tree, is not grown in a house compound because it outlives family members; whistling is feared at sunset; a shoe is never left turned upside down for fear of causing harm to anybody around; and shaking the legs while sitting down may kill a parent. In the following pages, we cover these divination and oracular methods in some detail.

### **Divination and oracular methods**

Oracles are methods of divination that are practised by several ethnic groups in southern Sudan, namely the Azande, Dinka, and Acholi. The methods reported in detail were those of the Azande; they included the poison oracle or *benge*, the rubbing-board oracle or *euwa*, the termite oracle, or *dakpa*, and the three sticks' oracle, or *mapingo*. The Azande also speak of dreams as oracles, *soroka*, because they reveal hidden things; some of their men eat *ngua musumo*, dream medicines, to enable them to dream prophetic dreams.

Some Arab tribes have practised trial by fire ordeal. Crowfoot reported on one incident among the Rubatab. A woman accused of adultery is tried by the ordeal of fire, as follows: an axe, heated red hot in the fire, is put in the hands of the accused, who must move it about from hand to hand and carry it round the whole gathering of people, until everyone has seen it, then if there is no mark on her hands she is acquitted, but if there is a mark she is pronounced guilty, and secretly killed by her guardian though the guardian may be a woman herself: history records the case of a woman having been killed in these circumstances by her own sister.<sup>3</sup> The Acholi also resorted to the trial by ordeal, called *kwir*,

using fire and water. Examples of these ordeals were reported on by Grove<sup>4</sup> in 1919.

### **Poison oracle (*benge*)**

The poison oracle, *benge*, is by far the most important Azande oracle. It is used to divine the unknown by administering poison to fowls (or, rarely, to people). The Azande, says Evans-Pritchard, are the only people in the Anglo-Egyptian Sudan who employ this type of divination.<sup>5</sup> The poison used is a strychnine-like alkaloid powder prepared locally from a forest creeper. The Azande rely completely on its decisions, which have the force of law when obtained on the orders of a prince. The oracle is under the control of men, and women are excluded completely from anything that pertains to it, including mentioning its name. Though the Azande know that *benge* is poisonous to humans (and fowl), its use outside the oracular context is almost unknown.

### **The rubbing board oracle (*euwa*)**

This is the most-used of all Azande oracles, though considered an inferior judge if compared with the poison oracle. It is a quick, cheap, and handy method. The *euwa* oracle consists of two wooden parts, the 'female', or the flat surface of the table supported by two legs and its tail, and the 'male', or the piece which fits the surface of the table like a lid (see Figure 5, page 712). It is operated by jerking the lid sideways over the juices of plants, while the operator questions the oracle, which answers by either sliding smoothly or sticking firmly.

Errors in an oracle's judgment are usually attributed to the non-observance of taboos by its owner. The oracle is operated by older men who observe certain taboos and who have absorbed certain medicines. Its potency is due to the medicines, which it absorbs when the board is being made. A rubbing board is operated by its owner only, who alone consults it for his own affairs and for others' in return for payment.<sup>6</sup>

### **The termite oracle (*dakpa*)**

The termite oracle is well known and widely used among the Azande. It is set up by inserting two branches of two different trees into a termite run. The question is asked while this is being done; the oracle is then left

overnight. An answer is given the next morning, by observing which of the two sticks the termite has eaten. The decision of *dakpa* has to be corroborated by the poison oracle.

### **The three sticks oracle (*mapingo*)**

The three sticks oracle is not a very reliable oracle and is sometimes used before the termite or poison oracle. It is the oracle of women and children. Two pieces of stick are placed side-by-side on the ground and a third piece is placed on top of and parallel to them. They are left overnight; the answer is given by whether the three sticks remain in position or not.

### ***Kidam* ordeals**

The Otoro of the Nuba Mountains buy magic charms called *kidam* from itinerant Arabs or West African charm-sellers, which are reputed to kill evil doers.<sup>7</sup> Nadel reports:

“You can borrow such a charm, and wander round the village, passing every house, flourishing the charm. Then you sit down and wait: after a month or so, the thief will either repent or die. Considering its publicity, this magic may well prove sufficiently persuasive, even after the sudden death of a suspected thief his relatives will offer to return the stolen animals, for the magic would continue to work until it is stopped by a complicated rite of purification. The Otoro, too, use these charms, though in a different fashion. The owner of the stolen animal collects the droppings of the animal or sand from its tracks; he knocks his charm against them and says: ‘No one shall eat my goats (or sheep, or cows); if he eats them he shall die. ‘The thief will fall ill, his nose will bleed and he will pass blood; he will die unless he confesses and asks that the magic be lifted. This is done by washing the charm in water and sprinkling the water over the victim.’”<sup>8</sup>

### **The gourd of God and the two spears methods**

Rev. D.S. Oyler described the Shilluk’s methods of divination for the various unknowns in every day life.<sup>9</sup> For example, when a village is going

into a fight it is very convenient to know before, who will be killed. They have at least two ways of learning this.

In one method, two spears are stuck in the earth. They are connected at the top by a string, and another string passes between them at the bottom. All the fighting men bearing their weapons must pass between the spears, and if a man or his weapons touch either the spears or the string, he will be killed in the fight.

The second method is by the gourd of God. It is a gourd with a handle upon which is an iron band. The gourd is greased, and in it is put some grain. When the gourd is shaken the grain rattles, and that is God talking. The gourd is kept in the medicine man's house, and an outsider is not permitted to approach it. A small space is mudded in front of the gourd, thus a little court is formed in front of it, and a mat is frequently placed in front of the gourd to give it greater privacy.

When a fight is imminent the gourd of God is brought out, and each of the warriors casts his spoon on the gourd. For spoons, they use mussel shells. When a spoon breaks, it is a sign that the owner will be killed in the fight. When a bit is chipped from the spoon, it is a sign that the owner will be wounded in the fight. When all the people have been tested, the men who are indicated as liable to death are called, they are told to bring a heavy fee, and the witch doctor goes through a form to avert the evil that is impending.

The gourd is used for other purposes as well. In sickness, the outcome may be foretold by the gourd. Spoons representing different people are thrown on the gourd. If the spoon for the patient rebounds, and falls on the spoon for God it is a good omen as he will recover. The same test is made to determine the outcome of a fight. If the spoon of the suppliant falls on the spoon of the enemy, it is a sign that the adversary will be overcome.<sup>10</sup>

### **Sortilege (*khatt al-wad'*)**

Sortilege, or divination by the casting of lots, is performed using seven pieces of *mad'a* (cowry shells), or coffee beans. The seven pieces are drawn by the *wada'iyya* (cowry shells diviner), and scattered over ground which has been leveled; the unknown is revealed by interpreting the

patterns the lots take. It is mostly consulted to foretell things such as whether someone is going to get married and to whom, who is going to get what and from whom, or who is going to arrive, and when.

This type of divination has a long history in the Sudan. It can be traced in popular proverbs, and appears in figurative speech.<sup>11</sup> Shuqair reported in 1903 on the popular methods of divination in the Sudan at the end of the last century, and mentioned *al-wad'*, *al-mandal*, *al-raml*, *al-tanjim*, and *al-khaira*, as well as dream interpretation.<sup>12</sup>

Casting *wad'* is an exclusively female activity. Many women claim knowledge of the interpretation of the patterns the shells take. However, the most competent (*sadiqa*) are those who have learned its secrets in a dream, especially if that dream occurred during confinement. That is why seven shells are sometimes put under the pillow of a woman who just delivered; at this time genuine knowledge about *al-wad'* is believed to be revealed during dreams.<sup>13</sup>

Two pre-conditions must be fulfilled before a session of *wad'* divination can take place. Firstly, the client should state the object of the quest silently. Secondly, a *bayad*, or nominal advance payment, should be paid as a sign of trust in the diviner's abilities. The diviner then shakes the seven shells within the palm of her hand and throws them on the leveled ground between herself and her client. She then studies the pattern and interprets it. *Al-wad'* is not consulted to diagnose disease, but rather to follow the prognosis.

### **Sand divination, geomancy (*raml*)**

*Raml* (sand) divination is practised throughout Muslim Sudan. Al-Tunisi, an Egyptian traveller, described the system of *al-raml* in Darfur early last century, and mentioned sixteen common patterns.<sup>14</sup> It is not clear, however, whether the actual practices he describes were purely Sudanese, or Egyptian ones used as examples. When Ahmad Amin referred to *al-raml* in Egypt in his *Qamous Al-'Adat wa Al-Taqalid wa Al-Ta'abir Al-Masriyya*, he mentioned that the practitioners were mainly *Takarna* (Nigerians) and Sudanese.<sup>15</sup>

The process of divination is called *khatt al-raml* or *darbb al-raml*, and the diviner is called *khattat* or *rammal*.<sup>16</sup> A haphazard number of four rows of

dots are drawn on sand; the dots in each row are then checked in turn to form 'odds' or 'evens' at the end of each run. Interpretation of these patterns gives the answer to the query. In the absence of sand, the usual medium, the diviner takes a handful of beans, and drops them in pairs; the last beans left in the hand are counted, found to be odd or even, and interpreted in the same way.

In 1920, R. Davies described in *Sudan Notes and Records*, a system of divination prevalent among Sudanese Arabs.<sup>17</sup> Members of the Mahamid and Ta'aiysha of western Sudan were noted to be skilful *raml* diviners, but the practice is also common in northern and central Kordofan as well as all over the northern Sudan. Non-Arab tribes like the Zaghawa, Nuba, and Kara also practice some form of *raml*.

To divine using sand the *khattat* first prepares a smooth patch of sand. Then, at the propitious hour, (noon, or one-third of the day before or after noon), his client places the tip of the middle finger of his right hand on the ground and states to himself, not aloud, the '*niya*', or object of his quest. Next, the *khattat*, also with the tip of the middle finger of his right hand, makes in the sand four lines of fingerprints of random length and then counts off the prints of each line in pairs, to see if it contains an odd or an even number.

*Al-raml* differs from other divination procedures, in that it is performed to solve one single problem at a time. For example, it would be asked to diagnose a disease, identify the place of a lost animal or property, or check whether a debtor is likely to pay up or not.

Too few documents are available to enable us to trace *al-raml* back in history. Ibn Khuldun has described *al-raml* in *Al-Muqadima* as an established Arab practice.<sup>18</sup> Hasan Sala, a Sudanese scholar in the last century, gave an interesting description of the art, and traced its origin back to the Holy Quran.<sup>19</sup> Hasan Sala (1842-1903) was born in Kordofan in western Sudan; later he moved with his family to the Hidjaz where he settled in Medina for 30 years, and where he became curator of its main library. During his lifetime, Sala gained wide reputation as an expert on *al-raml*, *al-amfaq*, *al-tanjim*, and *al-zayirga*. He was indeed said of the few to have mastered *al-wafaq*. When the Ottoman Sultan Abd Al-Hamid Ibn Abd Al-Magid sent to the Hidjaz looking for someone proficient in *al-*

*wafaq*, Hasan Sala was selected for the job, and was the one who ordered the placing of *alwafaq al-maini al-'adadi* on the war banners of the Sultan.

Hasan Sala wrote three books on the subject, the manuscripts of which are now kept in the Sudan Central Archives Office in Khartoum.<sup>20</sup> One manuscript is on *tanjim* (astrology) and is called *Mabariḥ Al-Nafabat wa Dalayil Al-Anqat fi 'Ilm Al-Falak*,<sup>21</sup> the second, on numerology, is called *Al-Jawhar Al-Takwini fi Al-Wafaq Al-Maini*,<sup>22</sup> in the third, *Manba' Al-Ishara bi 'Ilm Al-Ithara*,<sup>23</sup> the author describes the art of *al-raml* at length, enumerates the sources he studied, and acknowledges the scholars in whose footsteps he followed.

### **Tin divination (*fath al-'ilba*)**

Tin divination is the main diagnostic procedure in *zar*. It is known as *fath al-'ilba* (tin opening), and is carried out by opening a tin containing a special type of incense kept by the *zar* practitioner. The first step towards identifying the cause of the client's troubles is opening 'the tin'. The novice is fumigated with some of the incense contained in the tin, and some selected *zar kbiyut* (tunes) are played in a serial order. This is believed to stimulate the possessing spirit to reveal itself through the patient's voice. The spirit will spell out its complaints and grievances, and on this basis, the *zar* practitioner diagnoses the type of the dis-ease and suggests the treatment regimen. She then orders certain demands to be met and ceremonies to be held to appease the possessing spirits. All requests must be obeyed if recovery is to take place. *Tumbura*, the other variant of *zar*, involves sleep divination instead (see page 139).

### **Water gazing (*al-mandal*)**

*Al-mandal* is divination through the medium of a young child gazing into a water bowl. In Burri Al-Lamab, a suburb of Khartoum, a child under the age of puberty is asked to gaze into a bowl containing water, oil, or even ink. Sometimes the child is asked to look into certain figures drawn in chalk on a white paper together with some unidentified words and shapes. While gazing, the child is believed to see *khadimat al-mandal* (the *mandal* servant) known as *khadra*. After greeting her, she is asked to summon the *shayib* (the old man) who is asked to answer whatever query they have.

### **Astrology (*al-tanjim*)**

The constellations of stars in their rising and setting are known and used, together with the position and inclination of the new moon, in drawing omens of good or ill fortune for the ensuing month and for deciding on appropriate times to perform several tasks. Throughout the Arab Sudan, especially among nomads and rural communities, the divisions of the moon's monthly paths are known as 'houses' or '*inas* (mansions of the moon), or by their Arabic names *manazil* and *anwaa*, and, hence, '*ilm al-anwaa*. The '*inas* are the familiar divisions of the year into 28 periods, each 13 days long with the exception of one period (*tarfa* or *jabha*) which is 14 days.

Besides its practical value in precisely marking the start and end of the seasons, when the rain comes and when to sow and reap, knowledge of these mansions has been helpful in divination procedures and in foretelling the auspicious days for performing various social tasks. For example, marriage is not contracted, business conducted, travel started or medicinal plants gathered unless the moon is in a lucky mansion. Information is also drawn from these constellations as to whether a child is born in this or that mansion is going to be lucky, happy and prosperous or not, moral or immoral.

They also extended the knowledge of the seasons to include all days and hours of the month, which they earmarked as good or bad for writing charms, treating patients, mixing chemicals and poisons and for calling *jinn*. The days of the month, which are unlucky, are the third, the fifth, the thirteenth, the sixteenth, the twenty-first, the twenty-fourth, the twenty-fifth, and the last Wednesday in every month.<sup>24</sup> For example, *ziyana* or hair cutting<sup>25</sup> is not done on a Wednesday or Sunday, and *mushat* (hair plaiting) is usually practised on a Friday and occasionally on a Wednesday. A house should not be cleaned, nor clothes sewn at night. Circumcision should not be performed on a Sunday.

Some major social undertakings such as weddings should only be entered into after thorough consultation with the *faki* to divine for the occasion. The *faki* divines using the *kbaira* (book divination), and he asks to be provided with certain items: the name of the bride-to-be, her '*alaq* (piece of cloth), and the name of her mother. He puts all these items under his

pillow when he goes to bed. In the morning, he will tell if the occasion would be successful or not, and, if a wedding for example is to take place, he will identify the auspicious dates. Failure to act upon such advice causes all types of misfortune.

### **Numerology ('ilm al-'adad)**

Since early times, numbers have been believed to possess intrinsic and mystic values, extended later to the letters of the alphabet (see Figure 6, page 714); each letter was assigned a numerical equivalent.<sup>26</sup> Certain combinations of these numbers (or letters) are believed to have magical attributes that affect human life. Others were thought to coin *Al-ism Al-a'zam* (the Great Name).<sup>27</sup> This pseudo-science of numerology is known as *'ilm al-buruf* or *'ilm al-'adad*, etc., and has frequently been associated with *al-tanjim* (astrology). It also gave rise to several other branches of numerology called *al-anfaq*, *al-zayirga*, and *al-jafar al-asghar*, *al-jafar al-akbar*, and *al-simaa*.<sup>28</sup> These modalities are discussed at length in several of the relevant medieval Arab books listed in the relevant section of the *General Bibliography* page 469.

*Al-zayirga* is a set of magical astrological tables used in divination. The system was once popular in Morocco in North Africa, and was described by Ibn Khuldun in the *Muqadima*.<sup>29</sup> The full name of this art is *zayirgat al-'Alim* and it is believed to have been invented by the Sufi Abu Al-'Abbas Al-Sabti who lived at the end of the 12<sup>th</sup> century A.D. Divination in *zayirga* uses a large circle enclosing several concentric ones filled with names of the planets, elements, magical numbers, etc.; the answer is found out using a specific verse of poetry.

In the Sudan, these arts were introduced by Arab missionaries who brought with them various medieval Arabic popular science books. The practice of numerology has been, and still is, confined to the literate *fakis* and *faqirs*. At the level of the layperson, the system is known only through the auspicious numbers, which play important roles in Sudanese rituals. Various books abound with these squares, numbers, and seals.

*Al-zayirga*, though rarely practised now, was known in the Sudan a few centuries back. In the biography of Higazi Ibn Zaid Ibn Al-shaikh Abd Al-Qadir, Ibn Daif Allah enumerated the many talents of the

*shaikeb*,<sup>30</sup>whom he said was as skilful in medicine as Avicenna, as good a poet as Ka'b Ibn Zuhair, and as exquisite a calligrapher as Ibn Muqla. The names he mentioned are notable figures in their fields in medieval Arab history. He added that the *shaikeb* mastered many languages, and that he used *al-zayirga* to foretell the future as if he were Ja'far Al-Saddiq.<sup>31</sup>

*Al-zayirga* has been mentioned in most Muslim medical books. Al-Boni in particular has dealt with the subject and described it as an honourable science when mastered. He also described what he called the techniques of Ja'far Al-Saddiq in divination.<sup>32</sup>

Certain combinations of numbers (or letters) produce magical squares (See Figure 3, page 712). The order-3 square is unique; it has the magic constant of 15 for its added rows, columns and diagonals (see Figure 7, page 712). This square can be traced back at least 2000 years to ancient China. It is popularly known in the Sudan by the misnomer *muthballath al-Ghazali* (Al-Ghazali's triangle) or *khatim al-Ghazali* (Al-Ghazali's seal), after the famous Muslim jurist and exegetist Abu Hamid Al-Ghazali who popularized it and advocated the view that it possesses definite applications.<sup>33</sup> This square (or triangle when the three rows of the sum-of-15 are considered) is also known as *badoub* (the Arabic word coined by replacing the four numbers in the corners of the square with their alphabetic equivalents), and it forms the core of most magical charms, divination procedures, and amulets.

### **God invocation (*al-istikhara* and *al-khaira*)**

*Al-istikhara* and *al-khaira* are two methods of divination that are meant to guarantee the success of certain social arrangements and occasions. For example, it is mandatory to consult the *faki* to divine whether a man and a woman are suited to each other in marriage, and then to decide the most auspicious date for the occasion. The Prophet Muhammad sanctioned *al-istikhara* in more than one authentic *hadith* (saying). In this procedure, the inquirer prays two *rak'as* to God before petitioning Him for help.<sup>34</sup>

On the other hand, in *al-khaira*, the *faki* intercedes with God to diagnose a disease, or to endorse a certain undertaking. The *faki*, as always, makes

sure that his client is accurately identified. He is provided with the client's name and his or her mother's, as well as a piece of his or her clothing. He then repeats *bism-Allah* (in the name of God) seven times, and opens any page of the Holy Book; on this page, he counts the letters that start with 'sh' and 'kh', the initial letters of the two Arabic words 'good' and 'bad', respectively. Whichever word predominates in the count decides the outcome of the investigation. Alternatively, other books are used; these are special family compilations of medicinal recipes. These books will also be opened at random, and the recipe found will be followed.

A few points should be noted. *Al-kebair* and *al-istikbara* are applied to social arrangements, and give them at the same time a religious sanction. The matters at stake mostly involve clan and family relations; they demand observance of social norms and values, and entail serious thought in decision-making. These two methods, whenever invoked, work as strategies for buying time to probe for more information that would probably help in providing a spontaneous resolution of whatever problem is at hand.

The two methods are thus not meant to help resolve simple personal problems such as finding stolen property or identifying the thief; for these, *raml* divination is well suited. Neither are they used to divine for the auspicious time for harvesting activities or to decide when the Nile flood will be due; these are natural phenomena that are explained through *'ilm al-anwaa*, which depends upon knowledge of natural phenomena and experience of interpreting them.

### **Revelations (*al-ruya al-sadiqa*)**

The ancient theory of the creation adopted by the Arabs states that it resulted from the intermarriage of the seven planets and the four elements (air, water, fire, and earth), producing the three kingdoms of minerals, plants, and animals, which are closely interrelated (see also the four humors theory page 44). Furthermore, all creation is believed to have a common soul that is capable of volition and perception. This soul derives its power to conceive and move, from the realm of angels. If this is so, then, as most medieval Arab scholars believed, the soul is potentially capable of raising humanity to angeldom at any time, and in

such situations it acquires the power of prophesy. However, the question of who might achieve this state remains unanswered.

Many early Arab thinkers were struck by the persistent appearance of certain numbers in the natural world. The influence of their observations pervaded Arab sciences and arts. For example, they noted that the number of knuckles, the permanent teeth, days of the lunar month, and letters of the Arabic alphabet, are all 28; the elements or substances that constitute the universe (earth, air, fire, and water), the parallel concepts of the qualities (hot, cold, dry, and moist), the humours (phlegm, blood, choler, and black bile), are each four; the planets,<sup>35</sup> the spheres, the days of the week, and the seas are each seven in number, and there are 12 months, and 12 constellations. These numbers therefore acquired mystical and magical importance among Arab scientists.

If we regard these notions as the main premises that underlay Arab science, and if we bear in mind that the corpus of total knowledge in medieval times was not so enormous as to defy the comprehension of one man, and that almost all scholars contributed to many sciences with the conviction that all branches of sciences are interrelated, we understand the basic principles underlying Arabian medicine, and all other systems that were derived from it through succeeding ages.

Some verses of the Quran encouraged Muslims with Sufi proclivities to search for hidden relations between the different bodies in the universe, and to establish links between the natural and the supernatural worlds as well.<sup>36</sup> If the soul is not pure in its own right, like the prophets', it has to be released from the burden of the physical body and the distractions of its sensual demands. Ascetics (*ṣābiḥs*) and Sufis who starve themselves, abandon worldly pleasures, and consume themselves in strenuous and prolonged meditation and prayer, are more capable than others in reaching this state of purity and liberated vision or *mukashafa*.<sup>37</sup> Indeed, this is the state all Sufis seek, a state in which God bestows upon them powers beyond those of mortal beings. However much effort this might involve on the part of a sane and healthy individual, it is perhaps interesting to note that lunatics, imbeciles, epileptics, the sick, and the dying were all thought of as having this power of prophesy.

Ibn Khuldun included an interesting chapter on this subject in the *Muqadima*, and described extant medieval beliefs.<sup>38</sup> Ibn Daif Allah in *Al-Tabaqat*<sup>39</sup> narrated several stories of holy men to whom God granted superhuman powers. He told how, during the Funj era, some holy men, such as Hamad Al-Nahlan (Hamad the Emaciate), Muhammad Al-Qaddal, Abu ‘Aqla Al-Kishshif and several others, attained this state of revelation or *mukashafa*. Further, he cited several of their prophecies that were proven true. Hamad Al-Nahlan, for example, went into seclusion for 32 months taking with him only three *qaradat* (*sunt* pods), and seven dates. His *khalwa* (retreat) was sealed but for a small window through which he received his daily ration of water, and a piece of bread not larger than a camel’s eye. At the end of his seclusion, he left behind in the *khalwa* the dates, the *sunt* pods, the water, and all the bread untouched. He was, in fact, almost a skeleton when he came out and was henceforth called Al-Nahlan or ‘the Emaciate’.

### ***Ghazal al-sham and shajarat al-khalas***

Abdullahi Ali Ibrahim has described a divination procedure called *ghazal al-sham* (the Syrian gazelle) among the Kababish Arabs of northwestern Sudan, believed to help women in difficult labour to ease their delivery.<sup>40</sup> A pattern is drawn on leveled ground that simulates a gazelle fleeing captivity; they believe that the woman will likewise be relieved of her distress (as it were, sympathetically).

The same principle applies to another method utilizing a plant called *kaff maryam* (Mary’s palm) or *shajarat al-khalas* (literally salvation tree).<sup>41</sup> This plant looks like the afterbirth, and a dried one is always kept at the bedside of a woman about to deliver. If it is soaked in water for a few hours, its convoluted branches imbibe water and unfold, and the belief is that the womb will similarly do so and expel the baby.<sup>42,43</sup> They describe the state the woman is in by the word *ithallat* (relieved).

### **The *kujur* seances**

In trance, the *shaman* divines auspicious times and conditions for various tasks such as war, framework, or rituals; he warns the people of impending events and prescribes the procedure, ritual or otherwise, to avoid or ensure particular happenings (rain, a famine, the discovery and

punishment of offenders). Always, the *shaman's* orders express the likes and dislikes of the spirits, and the conditions under which they will help or hinder.

The healing powers of the *shaman* correspond to the same conceptions. Consulted by the patient or his family, the *shaman* goes into a trance and discovers the cause and cure of the disease. Typical causes are the anger of ancestors, a sin committed by the patient, the power of the evil eye, or the hostility (perhaps employed by a human enemy) of other spirits. Typical remedies are expiatory sacrifices, gifts to the *shaman's* spirit, or redress of the wrong, which provoked the hostility in the first place. In simple ailments, the *shaman* may merely announce their harmlessness and predict their eventual disappearance. In no case does the *shaman* perform anything in the nature of a therapeutic manipulation: this is the field of other healing experts, medicine men proper, and the *shaman* sometimes instructs his clients to seek treatment of this sort.

Spirit possession is a means of discovering the right treatment, and not a part of it. The therapeutic effects that the *shaman's* practices may be entirely psychological and rest on the suggestibility of the subjects. Clearly, where psycho-neurotic disorders are at the root of the illness, the *shaman* may indeed effect a cure. However, this does not mean that he wisely refrains from treating ailments not responsive to such treatment by suggestion. He sometimes attempts to do so because this criterion, though not ignored, is only crudely applied.

The cure of all mental disease falls to the *shaman*, and no *shaman* would undertake the treatment of a broken leg, an ulcer or a septic wound; but the main conception underlying this division of labour seems to be that diseases of obscure origin which attack the whole being of man concern the *shaman* while diseases whose origin is empirically understood and whose effect is localized are outside his sphere. Thus, *shamans* do not hesitate to 'treat' sterility, leprosy and what seems to be tuberculosis or infantile paralysis. Occasionally, they are reported to be completely successful.

## References and Notes

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- <sup>1</sup> Divination is justifiably seen as magic applied to the future or to the unknown, to reconstruct the events according to the diviner's prophesies.
- <sup>2</sup> Grove, Captain E. T. N. Customs of the Acholi. *Sudan Notes and Records*. 2(2): 157-182.
- <sup>3</sup> Crowfoot, J.W. Customs of the Rubatab. *Sudan Notes and Records*; 1918; 1: 119-134.
- <sup>4</sup> Grove, Captain E. T. N. Op. Cit.
- <sup>5</sup> Evans-Pritchard, Edwards E. *Witchcraft, Oracles and Magic among the Azande* (1937): Abridged with an introduction by Eva Gilles. Clarendon Press: Oxford: 1976: page 121.
- <sup>6</sup> Evans-Pritchard, Edwards E. Op. Cit., page 167.
- <sup>7</sup> The charms are known by the Arabic name, *kitab*, or, in vernacular, as *kedam*, which also means 'oath' and 'ordeal' in general. One distinguishes two kinds of charms: *kedam kidel buny*, 'aimless', i.e. harmless charms, and *kedam kre*, 'bitter' charms, possessed of deadly magic. Nadel. Op. Cit. 156.
- <sup>8</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 194-1: 156.
- <sup>9</sup> Oyler, Rev. D.S. The Shilluk's Beliefs in the Good Medicine Men. *Sudan Notes and Records*; 1920; 3: 110-116.
- <sup>10</sup> Oyler, Rev. D.S. 1920. Op. Cit.
- <sup>11</sup> Abd Allah Abd Al-Rahman: *Al-Arabiya fi Al-Sudan*, page 159.
- <sup>12</sup> Naom Shuqair. *Gughrafiyat wa Tariekh Al-Sudan (1903)* [Arabic]. Beirut: Dar Al-Thaqafa; Many editions, 1972: page 284.
- <sup>13</sup> Ahmad Al-Safi. *An Introduction to the Study of Divination Methods in the Sudan* [Arabic]; Typescript. Under publication.
- <sup>14</sup> Muhammad Ibn Umar Al-Tunisi. *Tasbbidh Al-Adbhan Bi-Sirat Bilad Al-'Arab Wa-'I-Sudan* (Arabic), (Eds.) Khalil M. 'Asaker and Mustafa M. Mus'ad, Cairo: Al Dar Al Masriya Lil-Ta'lif wal-Tarjama, 1965: pages 333-9.
- <sup>15</sup> Ahmad Amin. *Qamous Al-'Adat wa Al-Taqalid wa Al-Ta'abir Al-Masriyya* [Arabic]. Cairo: Matba'at Lajnat Al-Taalif wa Al-Tarjama wa Al-Nashr; 1953: page 268.
- <sup>16</sup> Unmarried sand diviners sometimes profess that they are married to *banat al-bur* (angels of the Nile).
- <sup>17</sup> Davies, R. A System of Sand Divination. *Sudan Notes and Records*; 19.90; 3: 155.

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- <sup>18</sup> Ibn Khuldun, Abd Al-Rahman. *Al-Muqaddima* [Arabic]. Beirut, Lebanon: Dar Al-Fikr; Undated.
- <sup>19</sup> “Say: ‘Have you thought of what you invoke apart from God? Show me what they have created of the earth. Or do they have a share in the heavens? Bring me a Book before this or a trace of knowledge, if you are truthful.’” (4) The Bounteous Koran: chapter 46, surat *Al Abqaf*.
- <sup>20</sup> These manuscripts were reviewed by Yahiya Muhammad Ibrahim in *Jaridat Al-Sahafa*, 26 October 1978.
- <sup>21</sup> Hasan Sala (1842-1904). *Mabariz Al-Nafabat wa Dalayil Al-Awqat fi ‘Ilm Al-Falak* [Arabic manuscript]: Central Records Office, Khartoum.
- <sup>22</sup> Hasan Sala (1842-1904). *Al-Jawhar Al-Takwini fi Al-Wafaq Al-Maini* [Arabic manuscript]: Central Records Office, Khartoum.
- <sup>23</sup> Hasan Sala (184-190 4). *Manba’ Al-Isbara bi ‘Ilm Al-Itbara* [Arabic manuscript]: central Records Office, Khartoum.
- <sup>24</sup> For further reading, see Crowfoot, J.W. Customs of the Rubatab. *Sudan Notes and Records*; 1913; 1: 119-134; Al-Amin Muhammad Muhammad Ahmad Ki’wirra. *Mabadi Al-Kawniyat* [Arabic]. Khartoum: Khartoum University Press; 1972. 200 pages, and *Sullum Al-wujud* [Arabic]. Khartoum: Tamaddun Printing Press; 1977. 128 pages.
- <sup>25</sup> For rituals associated with the first haircut, see Baby Care, page 196.
- <sup>26</sup> There are two lists of equivalence of numbers and letters the one provided by the oriental Muslims is called *abjad*, the other by the Occidental Muslims is called *aiqash*; the two lists differ in the sequence of letters (see Figure 10, page 711).
- <sup>27</sup> Allah, the ‘supreme Name’ (*Al-ism Al-azam*), is the name of the Absolute. In Islam, God is known also by ninety-nine other names, one of these names (nobody knows which) is believed to be irrevocable if used for petitioning, and the key to divine knowledge. Al-Boni developed a system of divination and invocation called *al-simiaa* using *asma Allah al-husna* (God’s Most Beautiful Names). *Al-simiaa* is said to have several branches *‘ilm al-‘adad*, (science of numbers), *ilm al-huruf* (science of letters), *‘ilm al-tabayi al-arba’a* (science of the four humours), *tanjim* (astrology), *‘ilm al-asmaa* (science of the names), incantations, and charms.
- <sup>28</sup> These are the Arabic counterpart of the Hebrew Cabala.
- <sup>29</sup> Ibn Khuldun. Op. Cit. Page 398-99.
- <sup>30</sup> Ibn Daif Allah. Op. Cit. Pages 108-9.
- <sup>31</sup> Ja’far Ibn Muhammad Al-Saddiq (80-148 A.H. /699-765 A.D.), the sixth Imam according to the Twelve-Imams of the Shiites (the Shi’a

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Al-Imamiya). He was known as a pious scholar who gained encyclopaedic knowledge of theology and arcane sciences. His disciples revered him to the point of worship. He provided esoteric doctrines of such importance that they were thought to be second only to those of Imam Ali Ibn Abi Talib. The Shi'ites claim that he possessed a book of secret knowledge *kitab al-jafar* (the Book of Vellum), the knowledge in which is only in the heir line of the family of the Prophet Muhammad. Among Sunni Muslims, this book is known as *kitab Al-Mughayabat* (Book of Hidden Things). During the passage of time, these books became sources for divination techniques.

- <sup>32</sup> Al-Boni, Ahmed Ibn Ali. *Shams Al-Ma'arif Al-Kubra* [Arabic]. Cairo: Abbas Shaqrun; 1291; many editions, pages 342-345.
- <sup>33</sup> Abu Hamid Muhammad Al-Ghazali, Algazel, (450-505 A.H./1058-1111 A.D.), philosopher, theologian, jurist, and mystic; he was born and died in Tus, Persia. His important writings include *Ihya' Ulum Al-Din* (the Revival of the Religious Sciences), *Al-Munqidh min Al-Dalal* (the Saviour from Error), and *Tabafut Al-Falasifa* (the Destruction of the Philosophers).
- <sup>34</sup> In Muslim prayer, a *rak'a* is a cycle including the recitation of Quranic verses, some formal speech, and movements including bowing, kneeling and touching the ground with the forehead. Canonical prayer is one of the five pillars of Islam, and is obligatory for all Muslims who have reached the age of reason, in this case 7 years. Prayers are prescribed to be performed five times a day, each prayer consisting of a series of *rak'as*. However, the prayer alluded to in the context of divination and in other similar undertakings, is performed before embarking on many important ventures as an act of piety, and is a prerequisite for successful petitioning.
- <sup>35</sup> In ancient astronomy, the planets are seven: Mercury, Venus, the Moon, the Sun, Mars, Jupiter, and Saturn. The ancient scientists categorized all heavenly bodies that were visible to the naked eye as planets, and, hence, erroneously included the Sun and the Moon. All planets were thought to revolve in heaven about a fixed Earth.
- <sup>36</sup> "We shall show them our signs in the horizons and in themselves until it is manifest to them that it is the truth. Is it not sufficient to your Lord that He is witness over everything?" (53) Chapter 41, *Surat Fussilat: The Bounteous Koran*.
- <sup>37</sup> The names *kishshif* and *mikashfi* are common designations in the Sudan, and denote holy men with strong prophetic powers.
- <sup>38</sup> Ibn Khuldun. Op. Cit., page 76.
- <sup>39</sup> Wad Daif Allah. Op. Cit. Page 163 and several others.

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- <sup>40</sup> Abd Allah Ali Ibrahim. Irth budai fi fann Al-Kababish Al-sha'bi. *Bulletin of Sudanese Studies*: 1(2): June 1969, page 89.
- <sup>41</sup> *Shajarat al-khalas, kaff maryam, shajarat maryam* (*Anastatica hierobuntica* L.) is the English chastity tree or rose of Jericho, and is imported from Egypt, but it also grows in the Khartoum area. It is a woody herb with convoluted dry branches that look very much like the after-birth. In the Sudan, the plant is put in a glass of water beside the woman in labour. In time, the branches imbibe water and stretch. Through the principles of sympathetic magic, the uterus and the after-birth are expected to unfold likewise and deliver the baby. Water in which it is soaked is not drunk, but occasionally some of it is rubbed over the woman's belly. Daoud Al-Antaki in *Al-Tazkira* mentioned that if the solution of this plant were taken by a woman in labour, it would hasten delivery of the baby and the after-birth. The after-birth is also called *khalas*; hence, the name of the plant may also be 'the after-birth tree'.
- <sup>42</sup> Ahmad Abd Al-Halim. Native medicine and ways of treatment in northern Sudan. *Sudan Notes and Records*; 1939; 22: 27-48.
- <sup>43</sup> Ahmad Al-Safi. The Magico-religious rituals associated with pregnancy in the Sudan. *Al-Hakeem Medical Students Journal*; 1969; 7(3): 256-60.



## Chapter 3

### MANAGEMENT OF ILL-HEALTH

The Sudanese have developed several culture-bound methods and techniques to manage ill-health. Apart from the pragmatic, curative and protective measures alluded to later in Management of Common Ailments page 221, they used different types of amulets, talismans, and mascots, all believed to heal and protect against harm, as well as to bring luck, or ensure success in this or that sphere of life.

In the Muslim Sudan,<sup>1</sup> the Quran has also influenced the type and content of most techniques, because, for the Muslim, the divine words of the Holy Book are a sure means of help whenever invoked. Thus, it has always been believed that to commit some or all the text of the Quran to memory, is a deed of piety and righteousness, and a way to assure permanent protection. Failing that, the book or at least part of it must be kept handy in one's house or vehicle for protection. Selected verses are written on a slate and washed off with liquid, which is then drunk, or written on paper, which is lit and used to incense the body. In most Muslim countries, selected verses of the Quran, beautifully written or reproduced, are sold as works of art that are believed to bless the place they are kept in, besides being decorative. Parts of the Holy Book are recited by individuals or groups on different occasions in pursuit of a holy blessing.

In the previous chapter, we described how people divine to find out the causes of disease and misfortune; in this chapter, we highlight the major curative and protective procedures.

#### Religious healing techniques

The Prophet Muhammad has sanctioned certain types of treatment that later spread with the spread of Islam. The following is a brief description of the treatment of a mental case in a northern Sudanese *faki's* clinic.<sup>2</sup> However, this description should be taken critically, for it is neither universal nor typical. However, since it illustrates many methods of treatment, it forms a useful starting point for this discussion.

The mentally ill patient is confined to a separate compartment within the *faki's* compound, and put in chains if aggressive (see Figure 7, page 715). His diet is a very light one mostly *keisra* (durra bread) with water and oil. It is also salt-free. The *faki* starts treatment by thrashing the patient with a date palm frond on which are inscribed some Quranic verses, and, possibly, mystical words and letters too. When the patient is apparently subdued, the *faki* applies a nasal douche called *tas'it*. These regimens, erasure, and '*azima* to be mentioned presently, are mainly directed towards exorcising the evil spirits. During treatment, the *faki* gives *mihaya*, holy erasure, to the patient to drink, and performs '*azima* from time to time. When the patient is said to be cured, he or she is given a *hijab* to wear for continuous protection.

In 1933, Hussey gave the following analysis of the *faki's* method of treatment:

“We find that the first stage is the subordination of the sufferer's will to that of the master, and this is effected by theological magic and the *orgumentum ad baculum*. His mind begins to function normally in the presence of the *Feki* and he generally yields to the influence of suggestion. The patient knows that he is being treated by a celebrated curer and the whole process is for him full of unspoken suggestion. The nasal douche, the daily draughts and sprays of liquid gospel all suggest to him that the evil thing is being driven out. He believes he is possessed by a *ginn* and the knowledge that the *Feki*, reinforced with applications of Koran, is mightier than the *ginn*, all help to strengthen the suggestion of eventual cure; and when the *Feki* begins to ask him questions and he finds he can reply to the obvious pleasure of his doctor, he feels that the evil spirit is being overcome. He is in fact able to recognize his mind and readjust the balance.”<sup>3</sup>

### **The spitting cure (al-'azima)**

The spitting cure or *al-'azima* is a popular procedure practised by Muslim healers in the Sudan, but by no means confined to them alone; non-Muslim healers practise a similar form. The non-Muslim Dinka tribe of the southern Sudan has a similar version of the spitting cure. *Doll*, a healer who is generally recognized by a big bundle of finger rings (the

gifts of grateful mothers), spits on infants to cure sickness. Grove reporting on the customs of the Acholi contended that among these people, spitting is regarded as a form of blessing and most ceremonies freeing people from curses, evil spirits, etc., include a spit in the face at some point or other.<sup>4</sup>

*Al-‘azima* is the mumbling of selected Quranic verses, incantations, or some *anrad* (litanies) by the *faki*. While doing so, he lays his hand on the patient’s head and spits at the patient after each verse to transfer *baraka*. If the *faki* is unable to visit his patient, his spittle is mixed with water and taken to the patient. As a modification of this method, the *faki* chews a certain type of root until he converts it into a pulp, adds spittle to it, and applies the mixture to the patient’s nostrils. The patient usually sneezes violently, and is therefore considered relieved or even cured. Sneezing in many cultures, the Sudanese included, is believed to be the expulsion of harm from the body. One should, thus, be grateful when one sneezes; hence, the different formulas for blessing the sneezer. *Tas’it* alluded to underneath, takes advantage of this belief.

*Tas’it*, a similar procedure to induce sneezing, is used in treating the mentally ill. In this procedure, the *faki* chews cumin seeds, adds some of his spittle to it, and then forces the mixture up the patient’s nose. Alternatively, a mixture of herbs including *rab’a* and cumin is mixed with liquid butter and then poured up the patient’s nostrils. Later, the *faki* assesses his patient before continuing with other types of treatment.

### **The incantations (*al-ruqia*)**

Incantations and rituals that accompany medicinal prescriptions have been constant elements in treatment regimens of most healers. Neither the nature of the recipe, nor the wording of the incantations, nor the different rites performed, is advocated as a cure per se. All make up the total treatment regime, and the omission of any element may abort the whole procedure and render it useless. The Azande tribe of the southern Sudan provides an excellent example of this concept in a non-Muslim community.

The Azande is the only tribe we know of who practice divination by the poison ordeal. We noted earlier (page 105) that though the Azande know

that the *benge* is poisonous to humans (and fowl); their practitioners never use the herbal poison for evil. To them, this substance works only if it completes a ritual process involving theft or sin.

### **The erasure (*al-mibaya*)**

The *mibaya* is a drink the Muslim healers prepare by writing certain Quranic verses in 'amar' ink using a durra-cane pen on a *lobe* (wooden tablet). The writing is then washed, and the erased 'holy' fluid is given to the client to drink. Sometimes, the writing is made in honey on a clean china plate. Alternatively, the writing is made on a medicinal root that is then boiled. Its decoction is either taken as a drink, or burnt as incense.

The erasure is prescribed to treat or protect against all types of diseases, or to increase the chances of success in some venture. Alternatively, it is dispensed as a general tonic whenever a healer is available to prepare it. Unlike the *hijabs*, the *mibaya* is thought to have limited potency, and its effects to be short-lived.<sup>6</sup>

Al-Tom has described the practice of drinking the Quran among the Berti tribes of the northern Darfur region,<sup>7</sup> and has reported on the communal consumption of erasure, performed during epidemics to eradicate the disease from the whole community. The erasure is believed to save not only those who have caught the disease in question, but also the healthy members.

This type of communal erasure was organized in the Broosh village in 1976. It was called *wazn al-kitab* (the Book's weight). It involved copying the whole text of the Quran on one day, to be erased and drunk by the whole village. All those who are capable of writing-*fakis*, students, merchants, and schoolteachers, participated. Some more *fakis* were invited from the neighbourhood villages. More than fifty 'writers' were soon in action. A large quantity of water was collected in huge pots. The writing took several hours, starting from the early morning until sunset; then the slates were washed and the task declared accomplished. During this time, several goats were killed and food was served several times to feed the task force. Finally, after washing all the writings from the slates into the pots, the erasure was distributed to all the families in the villagers.<sup>8</sup>

The erasure as described above is a definite prescription for a definite ailment. However, any erasure of Quranic verse written on the usual tablets is blessed. Equally, the erasure collected in *hajar al mihayaw* (erasure stone) is also blessed. See a typical erasure stone page 719.

### **The ritual incensing (*al-takhriga* and *al-bakhra*)**

Incensing with *bakhra* is performed for the treatment of a variety of ailments and for protection against the evil eye. There are two popular methods of incensing in the Muslim Sudan—the *bakhra* and the *takhriga*.

The *bakhra* is a sheet of white paper on which the *faki* writes some astrological formulas, magical seals, and numerical squares, with holy verses from the Quran. The paper is then folded; a few such papers are made and given to the patient. One *bakhra* at a time is burnt in a *mubkhar* (incense burner), alone or with frankincense and ambergris. The patient bends over the incense burner, enveloped in a *tobe* (cloth). He then inhales the fumes. The process is usually accompanied by incantations, a spitting cure, or other forms of treatment. The *takhriga*, on the other hand, is an assortment of herbs called *bakbur al-taiman* (the twin's incense), and is burnt mainly to expel the evil eye and subsequently protect against its influence. The assortment includes various minerals and aromatic herbs such as *shebb*, *'irq al-'alali*, *qarad* (sunt pods) *'ain al-'arus* (*Abrus precatorius*), *kasbara* (coriander), cumin, *luban* (*Commiphora pedunculata*), *ghasoul* (*Salicornia* sp.), and *fakook*. For more information, see *A Sudanese Materia Medica* page 295. A well-known incantation is loudly recited while dusting the ingredients over the fire.<sup>10</sup>

Other special incense mixtures are burnt to undo magical spells; one such is the combination of *fakouk*, *ghasoul* alluded to above, and *harmal* (wild rue, *Peganum harmala*). This assortment is said to reverse magic over an area of seven neighbouring houses. The bewitched, however, has to wash his or her feet in *rigla* (purslane) water before undergoing the incense therapy.

*Bakbur al-haza* (*haza* incense) is yet another assortment claimed to be as effective as *bakbur al-taiman*. The ingredients of this incense are *haza* (*Haplophyllum tuberculatum*), *shebb* (alum), *harjal* (*Solenostema argel*), *um ghilaila*

or *um ghelegbla* (*Astrochlaena lachnosperma*), *ganzabil* (ginger), *mahareb* (*Cymbopogon nercitus*), and sugar.

### **Amulets and charms**

Michael Howes, in his book *Amulets*, defines an amulet as an “article made of wood, stone, metal, or other substance upon which magical characters or figures have been inscribed or engraved.”<sup>11</sup> Objects with magical properties that bring luck are sometimes referred to as talismans; animated ones may be called mascots. It appears, however, that there is no clear distinction between amulets and talismans, whatever brings luck protects, and whatever protects is lucky. They are all charms, and as such may be termed amulets. A fetish, on the other hand, is an object that is the seat of magic power. It may be the abode of a spirit or may have been charged by the medicine man with the mystic power, *mana*, or *manitou*, or whatever it may have been called. It may be an object of worship, and may be used for good or evil.<sup>12</sup>

Amulets, categorically known as *buruḥ*, are known and used all over the Sudan, especially among the Muslims (see Figure 23: Amulets in Kordofan, page 728, charms in Kordofan and Nyam Nyam, pages 730, 732, & 734 respectively). They are mainly protective in nature and as such are worn by those members undergoing initiation rites in the northern Sudan. They are also prescribed following the successful treatment of any disease to prevent it from recurring and to protect against others afflictions.

Some amulets acquire their special attributes from the special inscriptions they contain, from the nature of their material, their colour, or their shape. Others, such as the *'ushar* fruit (*Calotropis procera*) are used for their symbolic value. Its seeds are noted for dispersing widely and growing apparently without need for water; it is not difficult to see why they are used as an amulet to promote fertility.

An amulet can be a substance chosen for its intrinsic properties, a written one like a phylactery, or a verbal one making use of the power of words. There are general amulets that anyone can use, and ones that are more special prescribed only for women, men, grooms, bridegrooms, infants, children, the circumcised boys or girls, livestock, and property.

Amulets are prescribed mainly to avert the evil eye, evil spirits, and other malicious powers. They also confer protection against the jealousy and anger of others, or unforeseen setbacks in general. They may be used to attain success in the different fields of life, to get a job, to attract the affection of a desired man or woman, to retain someone's love, and to obtain children (see Figure 8 for a love charm, page 716).

Although it is the substance of the amulet that frequently endows it with special properties, written words, numbers, or figures may also be credited with mystical power. Amulets usually contain a variety of special inscriptions, magical numbers, symbols, seals and names, verses from the Quran, prayers, and invocations.

The late Professor Tigani Al-Mahi carried out investigation on samples of amulets and charms in use in the Sudan. He published his conclusions in 1958 in *An Introduction to the History of Arabian Medicine*. He found:

“That after subtracting the local factors, the origin of the amulets, charms and incantations investigated, can be traced back to Babylon. The symbols used resemble those of the Mesmeric language, while the efficacious names invoked or averted are mere corruptions of the names of the Babylonian gods. The numerical squares, especially the ones whose numbers added transversely, vertically or diagonally to 15, are Syrian in origin. Also, the frequently used number ‘60’ and its derivatives (the sexagesimal system of numbers), is Babylonian in origin.”<sup>13</sup>

He also found that two books of early Arab writings are particularly popular in the Sudan; these are *Shumus Al-Anwar* by Al-Tilmisani and *Shams Al-Ma'arif Al-Kubra* by Al-Boni (See citation of these books in the *General Bibliography* page 469). Magic seals drawn from the first book are thought responsible for sporadic cases of psychological disturbance among the population.

### **The written amulets**

#### **The huruz**

The *huruz* (singular *hirz*)<sup>14</sup> are a variety of items believed to charm, or protect against harm and disease. The items that are regarded as *huruz*

include printed *awrad* (litanies), bones of animals or fish, dried chameleon or crocodile heads or skin, rhinoceros tusks, a pig's or a dog's canine teeth, a wolf's teeth or skin, the skin of a *waral* (iguana lizard), a giraffe hair, *wad'* (cowry shells), pieces of a holy man's clothing, his hair-clipping, nail-pairing or a *zvara*, a pinch of earth taken from his burial-place. The clays from Abu Haraz' shrine and that of Al-Mikashfi are proverbially effective in curing some diseases and protecting against many others.

#### **The *hafidha* (the protector)**

The *hafida* is a protective amulet specially made for children, and is usually worn on a pendant around the neck. It is a silver disk on which is inscribed the invocation "Protector, Protect our little Ahmad" or whatever the name of the child is.

#### **The *tamima***

The *tamima*<sup>15</sup> is a string of beads with a tassel tied to the hair of the *nafasa* (a woman who has recently given birth) to protect her against her own baby, whose constant gaze is believed to be a cause of maternal hair loss. Later, when the child is older, the *tamima* is tied to his or her hair to avert the evil eye.

#### **The *hijabs* (phylacteries)**

The *hijab* (plural *hijbat*) is a sheet of white paper on which selected Quranic verses are written, supplemented with one or more of the 99 names of God, names of Archangels, Angels, *jinn*s, some astrological formulas, magical numbers, and seals. All items in the *hijab* are purported to work through mystical, magical, or religious attributes. The content of each *hijab* differs with the function it is intended to perform.

In Kordofan, the *barrasa* (the guard), is a type of *hijab* specially prescribed for children. Al-Tom, however, reported on a different function for the *barrasa* among the Berti, where it is hung, unfolded and uncovered, over the entrance to a hut, presumably to protect it and its occupants.<sup>16</sup>

The paper of the *hijab* is folded in a special way, wrapped or cased in metal and hung by a pendant around the neck, worn across the trunk, or around the arm or waist. The wrapping material is usually cloth or

leather, while the casing is usually forged out of silver or tin, and always elaborately decorated. They are usually worn under the garments of their owners, although young men and women frequently wear *hijbat* for everybody to see. They then play an obvious role in their adornment (see figure 9, Kau Athlete with amulets, page 717).

*Hijbat* are prescribed on request<sup>17</sup> to grant safe passage through all the changes and chances of life. They are sought to protect against health-threatening situations involving the evil eye, evil spirits, sorcery, and other mishaps. They are procured to shield the wearer against injury from weapons, to frighten or stupefy enemies, or generally to ensure success in this or that sphere of activity. They are also obtained to achieve more sinister objectives, to facilitate acts of robbery or adultery, for instance.

The efficacy of a *hijab* depends on many factors. Its price should be consonant with the prescriber's reputation;<sup>18</sup> it should be worn by the person, for whom it is prescribed if its purpose is protective, and hidden or destroyed, if it is required to bewitch someone. These are important precautions, because a *hijab* is personal, and for a specified function. Indeed, while making the *hijab*, the *faki* notes the *tabi'a* (humour)<sup>19</sup> of his client or that of the person to be charmed.

Amulets that are made to protect their wearer against injury by sharp weapons are usually wrapped in a chameleon or a *barada* (electric fish) skin. If so, this wrapping must remain in place. Amulets that are intended to protect property, are attached to the items themselves, and will lose their efficacy if they come adrift.

It is difficult to assess the effectiveness of all the types of *hijabs*. Amulets that are made to protect against injury by a weapon are the easiest to test. Many people claim to have seen men whose skin had become almost impenetrable to the sharpest of daggers, and others who had deflected bullets as if they were cereal grains. However, a *hijab* may fail and wearing it then becomes useless or even dangerous. This has happened in several situations with fatal results.

Belief in the prescriber of an amulet, especially a written one like a *hijab*, is a prerequisite for its efficacy. In addition, a person for whom a *hijab* is prescribed must not look into its contents. Indeed, clients are instructed

and warned to take this precaution seriously; neither they nor the saddler who binds the *hijabs* should do so. If for any reason this requirement is breached, the amulet is rendered ineffective. This is what happened to the special amulet that was written for Mahioba, a concubine in the Funj era, which we alluded to in page 86.<sup>20</sup>

### Material amulets

#### The knot (*al-'uqda*)

The *'uqda* is an amulet made of seven knots tied on a cloth ribbon and blown upon by the *faki*, who utters incantations while tying each knot. The *'uqda* is obtained for the protection of pregnant women, and for the prevention and cure of fever. The notable *sidi* Al-Hasan of Tokar town has an effective *'uqda* that is sought by women from all over the Sudan. However, the *'uqda* is not always protective or curative; some of them are obtained to do harm.

#### The tying cure

'Tying cures' especially *al-'aqqad*, *habl al-'azima*, *al-haqu*, are popular in the Sudan. In this type of treatment, a 'tie' is applied to any diseased part to affect a cure through magical religious attributes. *Al-'aqqad*, for example, is a cord obtained from a *wali's* shrine, and *habl al-'azima* is a cord or a robe to which the *faki* has transferred some of his spittle and has read some incantations.

The 'ties' are often associated with other forms of treatment, including the wearing of charms, the scarring of the affected part or the ingestion of medicines. The most popular sites for applying a 'tie' are around the head for headache, around the chest for all types of chest pain and cough, and around the belly to ensure safe pregnancy, and to alleviate a variety of abdominal diseases and disturbances (see Figure 10: The Tying Cure, page 718).

A bead called *al-basara* is sometimes added to a 'tie', and is applied to a sick child's waist. When more than one bead is added to a 'tie', they usually alternate with silver balls, and the amulet is then called *al-haqu*.

### **The rare stones**

Certain rare stones are believed to possess curative and protective properties when mounted on rings, bracelets, or worn on necklaces or a 'tie'. A rare stone called *al-hajar al-akhdar*, a hard green stone resembling spar, is believed to have styptic properties (see Figure 24 page 730).

#### ***Hajar al-hirra* or '*ain al-hirra***

*Hajar al-hirra* (the cat's stone) or '*ain al-hirra* (the cat's eye) is a polished pure white stone worn by men on the finger or around the wrist to safeguard the owner against having children by women other than his legitimate wife. A careful husband, Anderson reported in 1908 in Kordofan, before leaving an untrustworthy wife for any period, soaks this stone in sour milk, which he then gives the woman to drink; should she commit adultery, and then she would not have illegitimate offspring.

#### ***Al-barad***

This, an opalescent whitish stone, which literally means the hail, is said to be worn by the man to protect his horse against disease. Conversely, the charm may be hung on the horse to protect its master.

#### ***Fass al-damm, hajar al-damm* (the blood stone)**

*Fass al-damm* or *hajar al-damm*<sup>21</sup> is an amber-coloured stone, usually attached to a red silk band and worn on a cord around the neck or in a ring. It is believed to have styptic properties. It is used, thus, to stop various types of bleeding including postpartum haemorrhage and epistaxis. In addition, it is used as a cure for sunstroke and headache. The water in which it is boiled is applied to the skin or drunk as a general medicine for various ailments.

#### ***Sibhat al-yasur* (the rosary of comfort, the jet rosary)**

*Sibhat al-yasur* is a jet string of beads that contains a *ferous* (turquoise) bead<sup>22</sup> and is an indispensable part of the *jartiq* (ritual decoration) of a child prepared for circumcision, brides, and bridegrooms. This string of beads is worn around the patient's loins to prevent urinary retention. Sometimes, the water in which it is soaked is taken as internal medicine. The stone also brings luck for the day if looked at by the wearer first thing in the morning. It is also recognized as a mascot.

### ***Al-sibha* (the prayer rosary)**

*Al-sibha* or *al-subba*, prayer rosary, is a popular item used in reciting certain phrases of worship, especially after the Muslim prayers. The Wahhabis consider this use of the prayer beads as a *bid'a* (an innovation), that should be discouraged. The common prayer rosary is made of 99 beads, believed to be equivalent in number to the names of God; every 33 beads are separated by a rectangular one called *shahid* (witness). The piece in which the two ends of the prayer beads are joined is *alif* (alpha in the Arabic alphabet) representing the name of Allah.

Some Sufi *shaikhs* in the Sudan use prayer strings of 1000 beads<sup>23</sup> of *lalobe* (fruits of *hijlij* tree) called *al-alfiyya*. These prayer beads are used as *amulets* to confer protection on the wearer, and because of the divine purpose they are used for, they are thought to have a blessed nature of their own. A set of prayer beads is frequently seen hung in cars around the rear-mirror, its function apparently decorative, but possibly also amuletic-to ensure safe travel and perhaps to protect the car from robbery. Some Sufi *shaikhs* and elderly women used to wear the *sibha* around their necks, probably as a show of piety and rejection of worldly pursuits.

### **The scarab beetle (the *ju'rana*)**

In northern Sudan, the scarab beetle is an amulet that protects against witchcraft, and a talisman that brings luck. It is cut in stone and worn in a ring or in a red silk band as a bracelet.

The *ju'rana*, Scarab beetle (*Scarabaeus sacer*)<sup>24</sup> is a famous relic of ancient Egypt; its use as an amulet in Riverain Sudan is thus not unexpected. In the exhibits of the National Museum in Khartoum, several specimens of scarab beetles cut in various types of stones can be seen; they were collected in archaeological surveys of ancient Sudan. In 1920, Mac Diarmid wrote to *Sudan Notes and Records* commenting on the frequent use of the scarab beetle among the Nuba of western Sudan:

“What importance, if any, can be attached to the fact that one often sees Nuba people, men, and women, wearing beetles very similar to scarabs, hung round their necks or from their belts? There seems to be only one kind of beetle thus worn and it is not by any means the most highly coloured one they could find in this region, so it does not seem to be worn merely for ornamental

reasons. Has this any connection with the wearing of scarabs among the ancient Egyptians and the Hamitic elements in the origin of many of the Sudanese people?"<sup>25</sup>

### **Metal implements**

#### **The double spiral amulet and the *kohl* pins**

Some metal implements and weapons have amuletic functions because of the type of metal they are made of and possibly because of their shape. *Kohl* pins and long needles feature prominently in the *mushabara* cult (see page 197), both their shape and the type of metal being credited with protective properties. Sharp weapons such as spears, swords, axes, or knives are constant companions of the pregnant woman and the newly wed. Almost all metals-brass, copper, bronze, silver, and iron-appear to have amuletic attributes.

A double spiral amulet was discovered in the rain-eroded graves near the ruined town of Uri, in northern Darfur (probably founded circa 13<sup>th</sup> C.). Arkel reports on this amulet saying:

“In Darfur it is not worn to-day by any of the indigenous peoples. It is, however, worn occasionally by women of the Aulad Suliman, Magharba, Urfilla, Bedur and other “Arab Kanem” who form part of the “Fezzan” community at El Fasher and who all came from Tripoli via Kanem a generation or two ago. By these people, it is called indiscriminately *fusa*, *kbusa*, or *kusa*, which (?) means “metal charm.” It is worn by the women of these tribes on the threads which form a long artificial lock, which hangs over the shoulder in front and inside the outer garment ....”<sup>26</sup>

This amulet is also found in Egypt, Kenya, Tanganyika, Nigeria, Sumatra and other sites in Asia, and is made of either copper, iron, brass, or bronze. It is usually worn in most of these places in relation to prenatal or postnatal periods and, therefore by women and young children rather than men.

The “Arab Kanem”, says Arkel:

“Look on this charm as connected with fertility or birth, or more generally as a protection against the evil eye. It may be put on small

male infants so that the evil eye may not harm them. It is worn by both married and unmarried women; the married women say that it will make them fruitful or preserve the children they already have, and unmarried women say that it will preserve their beauty from the evil eye. Women are also said to drink as a medicine the water in which it has been standing, and also to hang it on a cord over their children's stomachs as a cure for internal pains."<sup>27</sup>

The amulet as such, reports Arkel, has disappeared from the western regions of the Sudan where this relic was found, but *kobl* pins with double spiral heads are still known. In Al-Fashir in Darfur, for seven days after a woman has given birth, it is usual for her to wear a *murwad* (*kobl* pin), with a double spiral head in her hair whenever she leaves her house. The protection conferred is sometimes attributed to the iron out of which it is carved, and which is thought to drive the *jinn*s away. The *kobl* pin features regularly in the *mushabara* in all of the Muslim Sudan, as a protective device.

The design, however, seems to tell a different story. There is no doubt that the double spiral is a very old magic symbol; the idea behind the pin with a double spiral head and the amulet is the same. In prehistoric times, the simple spiral must have been regarded as possessing magic virtues, owing to its appearance as a line without an end; by association of ideas, since like produces like, it must have been hoped that the endless line would confer long life, if not immortality. Arkel believed that the spiral, through developments of its basic shape, later acquired its explicit association with birth and the organs of sex. The charm may now, be looked upon as a representative of the organs of either sex.<sup>28</sup>

### **The sign of the cross**

Throughout the Sudan, and mainly in Riverain and eastern regions, some relics of Christianity can be traced in the health practices of the Muslim and animist population of the country. One such relic is the sign of the cross, a sign of power among Christians.

People use the sign of the cross as an amulet for protective and curative purposes, and sometimes as a ritual element of no obvious significance. The sign is drawn in soot or in black antimony on the forehead of a

newborn child, or a child running a fever, to avert the evil eye or to cure the fever, respectively.

Among the Nuba of Heiban of the western Sudan, an identical sign is made with dung on the body of a very sick person, and before the Heiban Nuba girls begin to dance they put some dust on their chests in a manner that, if seen in an eastern Church, would be called “making the sign of the Cross.” In addition, a little Nuba boy accused of stealing makes this cross on his chest when he denies the charge.<sup>29</sup>

The practice of this custom in the central Sudan can be attributed to the belief that unbelievers or Christians are immune to the evil eye. Alternatively, it may be a modified form of the ancient Arabian practice of keeping some antimony on the face of the newborn child until it is past the first 40 days of life. When the antimony is applied to the dimple in its chin, it is called *tadsim*.<sup>30</sup>

In the Red Sea region, a Dongonab child is marked with a cross on the forehead with antimony as a guard against the evil eye. In the *zar* ceremonies, the cross is sometimes made in blood on the forehead of adults if the possessing spirit should so direct.

In the Wadi Halfa region, the sign is drawn on the palm of the hand, and the doorways are adorned with plates arranged in the sign of the cross. This is thought to drive the evil eye away. In the same region,<sup>31</sup> the Muslimized Nubians rejoice in their own way celebrating the occasion of *'ashura*.<sup>32</sup> They light fires and spread decorations on both banks of the Nile. They fill their fishing nets with date palm fronds, and all, men, women and children, go into the river to swim. They bring back silt from which each family makes three crosses that they fix to the threshold of their houses; they believe that this averts the evil eye.

Among the Sakkoat, as part of ritual celebration of a newborn, crosses are painted outside the house where the child has been born and also on the bins in which grain and dates are stored: these crosses are made with the blood of any animals which are killed for the various feasts in connection with the birth, naming and so forth.<sup>33</sup>

In Donqola Province, Crowfoot adds, crosses are also made with the infant's meconium and again afterwards at feasts with the blood of

animals. Similar practices are reported from Al-Fashir where blood of the *'aqiqa* (naming ceremony), is used to paint crosses on the doors of the house, the foreheads of the child and its mother, and of any women present who care to mark themselves so.<sup>34</sup>

### **The colour amulets**

Colours play an important role as amulets as well as providing cures in their own right. The colours most popularly used in the Sudan are red, white, green, and black. The colour red holds an especial place in social rituals, as well as in healing ceremonies and procedures, where it recurs frequently.

The *firka*, a well-known female sari dress in the Sudan, which is worn by the bride, the circumcised child and the *nafasa* (the woman who has recently given birth), is made of red silk. The *birishs*<sup>35</sup> (straw mats) that cover their beds, are made of date palm fronds and dyed red. It is also firmly believed that red covers and curtains are necessary to enhance the treatment of patients suffering from *damm al-tayyir* or urticaria. Black things are thought to repel evil spirits; for this reason, eggplant, black cumin seeds, and pieces of charcoal are kept constantly under the pregnant woman's bed.

### **The verbal amulets**

The name of the Prophet Noah is invoked to achieve a rescue from all situations of stress or need. In Sudanese folklore, the story of this Prophet and his ark has degenerated into a common verbal amulet that women use in petitioning. The most common formula is *ya al-nabi Noah, min gal Noah najahu Allah* (Oh! Prophet Noah, he who invokes Noah, Allah saves him).

*Jawharat al-kamal*, a litany of the Kamaliyya Sufi order, is recited three times to protect travellers while they are away and ensures their safe return. The word 'bondage' is believed to bind just as tightly as a physical bond does. When, for example, two people are bidding each other farewell, one utters half of the Muslim *shibada*: <sup>36</sup> *la ilaha illa Allah*; the other completes the statement: *Muhammad rasoulul Allah*. This act symbolizes that the two persons will undoubtedly join again since the *shibada*, in both its wording and meaning, is an indivisible unit.

### **Talismans, mascots and fetishes**

W.T. Clark described the manners, customs, and beliefs of the northern Bega tribe of eastern Sudan. He said that, when a member of the Bisharin tribe gets married for the first time, the crowning ornament of the marriage house is the *sank-wahakur*:

“This is made of the young leaves from the heart of the *dom* palm tied with black, white and brown wool, somewhat after the fashion of a fly-whisk. To it are attached miniature tethering ropes for camels and boy’s sandals. This is prepared by the women and placed over the entrance of the house where it remains for 2 years or more, until it has completely disintegrated. The *sankwab* is a valuable charm-it brings luck, and the small ropes and sandals are to ensure that the camels increase and that men-children bless the union . . . etc.”<sup>37</sup>

In these tribes also, Clark adds, an elderly man wears a *z’a’af* (*dom* palm frond) bracelet around his wrist at *‘id al-adhiya* (the Muslim Feast of the Sacrifice), and renews it at each subsequent occasion.<sup>38</sup> This the Bisharin tribesmen regard as a talisman that prolongs life. In eastern as well as in Riverain Sudan, the green date palm leaves are used to splash milk or river water over brides and bridegrooms. Other popular lucky charms include the lion’s claw, and bracelets made of ostrich feathers and elephant hair.

Oyler, studying the medical practices of the Shilluk, reported that the fetish plays a very large part in the work of a witch doctor. He issues the little charms for many different purposes. They are supposed to give protection on a journey, to ensure success in courtship, to protect from wild animals, to ensure a favourable judgment, and to protect cattle in crossing a river. Many other powers are ascribed to them. However, a fetish is only effective for the one purpose for which it was obtained.<sup>39</sup>

### **The possession cults**

#### **The *zar* and the *tumbura* cults**

Tigani Al-Mahi (1911-1970) studied the *zar* cult in the Sudan, and produced deep and illuminating pioneer work. Unfortunately, he did not

publish all the details of his studies. Nonetheless, he left behind an important manuscript on the *zar*, called *The Zar Archetypes (Mashaiykeh Al-Zar) in the Sudan*.<sup>40</sup> Much of Tigani's views on the *zar* are contained in this document and in scattered observations in various other articles, he wrote on ethno-psychiatry.

Tigani believed that the *zar* could furnish psychiatrists in the Sudan with invaluable tools to diagnose and treat psychiatric illnesses through the analysis of the *zar* archetypes. This, he contended, would be a more reliable alternative than dream interpretation in the psychiatric management of some cases. He concluded that the *zar* archetypes stand for specific types of personality traits whose moods, temperaments and predispositions are manifest.

The *zar* and the *tumbura* are well-known therapeutic practices throughout the northern Sudan; both are still of debatable origin, while their precise function and role are matters of controversy. Researchers have described the *zar* as propitiatory ceremonies held in essence to appease the possessing evil spirits by means of lavish feasting, hot rhythmic music, gifts, and sacrifices.<sup>41</sup>

Researchers have so far categorized the *zar bori* and the *zar tumbura* as two variants of the same cult, the cruder *tumbura* variant being the more ancient.<sup>42</sup> The two practices may be different in origin and function, but both remain related in the lay mind. When analyzing the two systems clear differences appear; indeed, we are led to believe that the two systems are only related in the minds of researchers. Unlike the *bori*, the *tumbura zar* is a well-organized and differentiated institution. Its offices and ranks are well defined, and bylaws are set and adhered to rigidly. The day and time the ceremonies are held, are always between Thursday evening and Friday noon, cannot be changed to suit a patient. In the *bori*, a patient freely chooses the time, the place, and the duration of the ceremony.

In both types of *zar*, there are some vestiges of past animist origins. For example, in the Islamic tradition, a slaughterer faces the Muslim Holy Mosque and utters *bismillah*, *Allahu akbar* thrice before cutting the animal's throat, whilst in the *tumbura*, the slayer intentionally omits the naming of God in this ritual sacrifice. Alcohol was a common drink in

both types of the *zar*, and in both, the sacrificial animal's blood was collected to be later drunk or used in the rituals. The *shaiikha* draws the sign of the cross on the forehead of the *zar* bride.

In the *bori*, the *shaiikha* diagnoses the type and identity of the possessing spirits through *fath-al-'ilba* (tin divination). In the *tumbura*, the *shaiikh* diagnoses through sleep divination using the client's clothing. While in the *tumbura* ceremonies are held to celebrate the patient's cure, in the *bori* the festivities are themselves healing in nature; the patient is never considered cured but remains possessed throughout life.

Both types of practices show features borrowed from the Islamic faith, although available records are too few to trace these features back in history. Today, only a few Sufi *shaiikhs* feature as the main *zar* archetypes with unique costumes, chants, and tunes. These few are, however, very influential. Their banners are the same as those of the Sufi sects, and the possessed may dress herself in dervish costumes if possessed by one of the holy men.

### **The zar fellowship**

The *zar* and the *tumbura* devotees are predominantly females. In the *tumbura*, men are the exclusive players of the percussion instruments—the drums, the rattle belts, and the *tumbura* (lyre). Effeminate men or overt homosexuals, who appear frequently in the *bori*, are almost unknown in the *tumbura* ensemble. Fewer men join the *bori* parties for the sake of treatment; in the *tumbura*, they appear more often.

The *zar* is a closed female community, though a few men appear occasionally. The women who attend the *zar* parties fall into one of the following groups: *zar* patrons and their entourage, *zar* devotees and adherents, and others who are firm believers in the therapeutic efficacy of the *zar* ceremonies. The *zar* patrons are women who have been afflicted by the *zar* spirits early in life, have subsequently been treated through the healing ceremonies, and have remained closely associated with the cult ever since. Another group is composed of those possessed by one or more of the *zar* spirits and for whom the *zar* parties are held regularly. However, one group makes up the bulk of the audience. These

are the passers-by, all looking for fun and a good time away from household chores-relatives, acquaintances and neighbours.

### **The zar ceremonies**

The *zar bori* parties, also known as *midans* or *dastur* (plural *dasatir*), are exclusively adult women's congregations. Few men appear in these *midans*, ceremonies. Those who do are invariably effeminate. One also finds children around as curious bystanders, but never as patients.

*Zar* parties involve lengthy preparations setting the scene for the musical extravaganza and dancing séances.<sup>43</sup> The *zar* house is characteristically crowded, and filled with strongly scented fumes and perfumes. The novice, the participants, and the audience are all dressed in their best clothes. The *zar* novice and devotees join in the dancing. Women have frequently reported later that they have been completely oblivious of their surroundings, and have felt no pain whatsoever from any bruises they might have suffered during the dancing.

A forthcoming work with which the present author is associated appends a specially commissioned study of *zar* music.<sup>44</sup> Musicologist Abd Allah Muhammad Abd Allah carried out the study and analyzed the music of the *zar bori* songs of the greater Khartoum Area. *Zar* music has been found to be highly rhythmic, loud, and repetitive to the point of monotony.<sup>45</sup>

Even the shortest song in the *zar* ceremony is self-sufficient and musically complete. It has a definite start, a clear progression, and a finale. The music sentence is brief in form, and is repeated over and over again. The majority of songs are composed of eight bars, each about ten seconds long, and the longest song lasts for approximately one minute.

The melodies of the *zar* songs are strikingly similar and are all based on the pentatonic scale. Many are variations on a theme, differing only in their words. Short intervals, for example, the first, the second, the third, and (very rarely) the fourth, are characteristic.

Loud and rich rhythm is a hallmark of *zar* music. The drummers produce and manipulate the rhythm with great mastery, using various percussion instruments including large drums, small hand drums, tambourines, jingles, and copper utensils. They are beaten with bare hands or with

various wooden rods. Though the tom-tom rhythm is the one the ear catches first, other types of rhythm may be identified. The tempo is usually rapid, the drumming escalates in intensity through masterly repetition of beats and accents, by increasing the volume, and by the free improvisations, and the drummers produce as they work themselves up to a pitch of excitement. The emotional tension of the dancers builds up, until one or more falls down in a trance; the music is then stopped abruptly. Alternatively, the singing stops and the tempo is slowed down.

No doubt, the high-volume rhythm causes an appreciable degree of auditory stimulation, and this, together with the visual and olfactory stimulation, and psychic and physical exhaustion, are contributory factors in these collapses and possibly in the trances too.

### **The *zar bori* patients**

The *zar bori* clientele-actors and audience-are exclusively women. They usually resort to the *zar* for several social, psychological, and psychosomatic diseases. These women have been found to be mostly illiterate, underprivileged, dispirited urban dwellers. Recently, however, women from the higher social classes, have indulged excessively in the *zar*, and organized their own parties with a proportionate increase in cost and luxury.

Psychiatrists were investigating *zar bori* patients as early as the mid-thirties. Tigani Al-Mahi in 1943 or earlier labelled them as hysterics.<sup>46</sup> It is generally true that such patients suffer from many psychosocial and psychophysical ailments including social stresses and strains, and a host of bodily and psychic dis-eases.<sup>47</sup> The complaints themselves may camouflage inner troubles. The *zar* practitioner deciphers these complaints to reach a diagnosis. During her fieldwork in the Sudan, Pamela Constantinidis interviewed some sixty *zar* cult followers. She found that almost half of the interviewed women related their spirit possession to crises of marriage, fertility, and childbirth, and the death of kinfolk.<sup>48</sup>

Indeed, we may borrow now Professor Lewis's deprivation cult hypothesis,<sup>49</sup> wherein the *zar* provides a forum that accommodates women and other deprived groups. In such a forum, these groups have

an opportunity to fantasize their afflictions, act out their difficulties, and exploit possession to gain desired ends or make a protest, which cannot be expressed overtly otherwise.

In the International Symposium on the Spiritual Dimension of Traditional African Medicine, held in Khartoum early 1988, Professor Sheikh Idris Abd Al-Rahim expounded on his experience and reported his results.<sup>50</sup>

He studied the clinical data sheets of 819 valid cases of middle-aged women, 40-55 years-old, who reported to the Clinic for Nervous Disorders at Khartoum North during the ten-year period 1973-83. His results corroborated the assumption that the studied group was a high-risk one.

The research established that there was a high rate of practice of the *zar* reaching 35% among the studied group. This was significant and important to planners. Resort to the *zar* was statistically significant, and was much more common in rural than urban settings, in the less educated, among economically inactive women, and families with less-educated heads of households. This draws a depressing picture, especially in a country like the Sudan, where 80% of the population lives in rural areas, where illiteracy is around 70-80% among the adult population, where the majority of females are outside the labour force, and where the cultural and educational levels of the heads of the households are far from satisfactory.

The results also revealed that patients with psychogenic reactions resorted more frequently to the *zar* than those with functional psychoses and other conditions. The highest rate of recourse to the *zar* was recorded in those with hysterical reactions; the second highest rate was among patients with phobic and organic neuroses.

A good response was found most characteristic of patients with hysterical reactions, and much less so in patients with anxiety states. All other diagnostic categories had a lower rate of good response than the total average of all patients.

On the other hand, the highest rates of no response to the *zar* were established in patients with organic brain syndromes, epilepsy,

schizophrenia, affective disorders, puerperal psychosis, and obsessive-compulsive neurosis. In toxic and traumatic psychosis, the *zar* therapy was not at all tried.<sup>51</sup>

### **Social functions of the *zar* parties**

The *zar* parties, in addition to being therapeutic in nature, are believed to serve social functions as well. The *zar* parties provide women with music, dancing, food and a relaxed atmosphere in which they can let off steam. Indeed, the relaxation women attain in these ceremonies sometimes amounts to moral slackness. Access to this type of life is a real privilege in the conservative male-dominated society of the Sudan.

Pamela Constantinidis has studied the *zar* cult as practised in the Greater Khartoum area. She drew on that experience to describe how she sees the proper province of the *zar* cult in an article entitled *Women heal women: spirit possession and sexual segregation in a Muslim society*, she says:

“But while men have formal control over women’s sexuality and fertility-disposing of daughters in marriage, increasing the lineage through the fertility of wives, or repudiating their services through divorce, it is women who maintain ritual control over their kinswomen’s, their own and their daughters’ bodies. Men accept totally the necessity of their wives and daughters’ proper ritual passage through the life cycle. Here lie the ‘inarticulate powers’ of women, and here, I would claim, lies the proper province of the *zar* cult.”<sup>52</sup>

### **The *kujurs* trance**

As the *faki* is an instrument for mediation with the Supreme Power and heals through the *baraka* bestowed upon him, the *kujur* of the Nuba tribes and the *jok* of the Mandari tribes are the instruments for their spirits with which they communicate by inducing a possession fit. To perform any of his functions, e.g. to discover the right treatment for a disease, a *kujur* self-induces a fit or goes into a trance either spontaneously and involuntarily, on request of a client or in prearranged séances.<sup>53</sup> These fits may sometimes be simulated, indeed, many are put on, and their perpetrators sometimes betray themselves by involuntary glimpses at the audience. However, Nadel in his Nuba study reported on

undoubtedly genuine attacks when they were over, the shaman was covered with perspiration and completely exhausted; his pulse was shallow and irregular; he was seized by violent hiccups, or broke into uncontrollable sobbing. To communicate with the spirits, a *kujur* self-induces a fit or a trance, which may materialize spontaneously or in prearranged séances.

### **The molja**

The Mandari uses possession trances for divination and treatment purposes. The possession episodes take the form of convulsions known as *molja* that are deliberately induced by the *jok* doctor who completely controls the whole procedure. The Mandari clearly differentiated a diviner's convulsions from those caused by fever, epilepsy, or the spontaneous ones that young adolescent females go through in the mortuary rites.<sup>54</sup> The Mandari trances are related to the intense auditory stimulation that the *jok* doctor and his ensemble produce by the vigorous shaking of the divining rattles, and by the clapping and singing of the audience.

The doctor and patient take a special position in divination. They sit face to face, cross-legged, eyes fixed on each other, against the background of rhythmic sound, continuing for perhaps an hour or more, with breaks for questions. This, Jean Buxton says, may lead to a relaxed semi-hypnotic state and helps to promote the free expression of worries and problems by the patient, perhaps even in some cases helping to establish telepathic communication.<sup>55</sup>

### **Surgery**

Traditional surgery using traditional instruments is performed for curative, cosmetic, ritual, and judiciary or for some other social reasons. (See Figure 28: surgical instruments of Kordofan, page 738, and surgical instruments and charms of the Dinka, Shulluk, and Burun: Figure 29, page 740). The need for alleviating pain for these surgical procedures has long been recognized, and painkillers and hypnotics have been used. Curative surgery is mainly wound surgery and includes suturing and dressing of wounds, incision of abscesses and boils, couching, bone-setting, amputation of limbs, extraction, pointing, paring, and separation

of teeth, uvulectomy, trepanation, and *tatwish* (castration). In addition, surgical problems such as inguinal herniae and hydrocoeles<sup>56</sup> are managed conservatively with the application of locally made trusses. Haemorrhoids and fistulae are cauterized. Ritual surgery includes male and female circumcision. Cosmetic operations include *washm* (tattooing),<sup>57</sup> *shulukh* (facial scarring) and perforation of the nose, lips and lobes of the ear. Judicial surgery includes amputation of limbs and sometimes extraction of teeth.

Because Sudanese men are very sensitive to anything that may touch on their manhood, when a painkiller is deemed necessary, a dancing ceremony is performed. The presence of beautiful girls and music distracts the patient's attention from the anticipated operation, and pain is apparently bravely endured. Cowardice is considered an attribute of females, while males should always show courage and all other attributes that identify them as a hardy stock.<sup>58</sup>

### **Management of inflammatory conditions**

Wounds, abscesses, and swellings are frequent ailments for which a host of remedies is known. Several cleansing agents and dressings have been used for treatment; topical ointments, powders, and poultices of plant or animal origin have been applied. During the *Mabdiyya*, coffee powder was used as styptic for wounds caused by modern weapons and bullets. After bleeding was arrested, the wound was rubbed with a mixture of beeswax, sesame oil, and wrapped in clean cloth; this was changed every twelve hours. The entry-point of the bullet was filled with honey to keep it airtight, and when the bullet was lying close to a blood vessel and difficult to extract, another bullet was tied beside it to induce its disintegration (according to the principle of 'likes cure likes').

A *karo* is a tropical ulcer of the leg that is known to be difficult to treat. Honey and the mashed bulb of *lalobe*, the fruit of *hijlij* are tried. Similarly, chronic ulcers of camels (*dabar*) are treated by applying powdered *sarih* plant to it.

A burst abdomen, sustained in personal or feudal clashes, is covered with *qara*' (pumpkin) before suturing. The outer hard shell of the plant is first peeled off and the fruit cut into two halves. One-half is inverted over the

exposed viscera to keep them in and the torn wall sutured. The pumpkin itself is left in the body indefinitely. Witnesses report excellent results.

Effective general-purpose poultices with soothing, anti-inflammatory, or ripening action on *hibins* or *kburajs* (abscess) are known. When an abscess is diagnosed, a poultice made either of *hilba* (fenugreek) or *tabniya* (sesame sweat cake), is applied. Poultices of *shebb* (alum), garlic, and salt are applied externally for the treatment of *kbidairat* (tonsillitis). After applying the poultice for some time, the abscess becomes turgid and its overlying skin thinner. It eventually bursts and *midda*, *wi 'a*, or *qaiha* (pus) leaks out. *Um shwaika* and *al-rara* are two other poultices for general use. These two herbs are still not identified scientifically. Poultices made of *'irq al-bittikh*, *al-kurmut*, or *waika* are considered analgesic and anti-inflammatory. A poultice made of *al-mardud* plant is anti-inflammatory; the plant is also used as an aphrodisiac in the Zariaba area. The powder of *tartus* is used to treat *nabit* (madura foot).

*Shajarat al-nar* (*Euphorbia* spp.) is used to dry up syphilitic sores, leprotic ulcers, and purulent wounds. Bites of rabid dogs are rubbed with clay obtained from the shrine of *Shaikh* Wad Al-Turabi, or alternatively, the bitten site is cauterized. The meat of *Abu al-dalaq* is thought to cure rabies. *Mahlab* powder is introduced in cotton wool in the ear to treat purulent infections, while trapped insects are killed by drops of oil to which common salt is added.

Diffuse body swellings are known as *dabas*,<sup>59</sup> and wet fresh castor oil leaves are applied and left there until they dry up. If the gums are swollen, the mouth is rinsed with *Qa'ab* salt. Alternatively, and particularly in gingivitis, a twig of *neem* tree (*Azadiractata indica*) is used as a toothbrush, the gums being rubbed with *qurunful* (cloves) powder, or with *'ud qarba* (*Cucurbita pepo*).

The layperson differentiates clearly between skin swellings and eruptions such as *tolal* (keloid) and *talool* (molluscum contagiosum). *Khanaẓir* (massive neck lymph glands), which are usually associated with pulmonary tuberculosis, are incised and dusted with *ẓarnikh* (arsenic).

Other swellings are also identified: *kbidairat* are huge tonsils, *um-'idailat* is quinsy or diphtheria, while *abu diqnan dayira* is mumps for which *neem* or *hijlij* (*Balanites aegyptiaca*), poultices are used. *Ashqaddi* is swelling of the

lymph glands in the armpit and femoral clefts, and *nashra* is paronychia. *Shaikh* Musa Al-‘Azab was a holy man noted for treating *nabit* (madura foot) if invoked for help by saying: *ya rajl al-subut kharraj al-nubut*. Otherwise, the bitten site is cauterized.

## Cosmetic procedures

### ***Shulukh***

Several cosmetic procedures such as *shulukh* (facial scars), *washm* (tattoos), and *fisada* (superficial scars), are performed surgically. *Shulukh* are common among tribes of Arab stock, though also known among indigenous tribes prior to Arab migration to the Sudan. Yusuf Fadl Hasan traced the shulukh back in the ancient world, especially in Tropical Africa and early Arabia, and discussed the various reasons given for inflicting them in his book *Al-Shulukh*.<sup>60</sup>

The tribes who inflict *shulukh* do so, especially on males, as characteristic tribal or clan brands. The scars may also characterize a Sufi fraternity or may be purely cosmetic such as in women. They may be protective in function. An unusual pattern of scars is inflicted on a precious child’s face to protect it from premature death. This is especially done when the family has repeated deaths, or when a child is born just after its father’s death. Here, for example, a single vertical scar is inflicted on the cheek so that the hovering father’s spirit would not recognize it.<sup>61</sup> In intense grief in the death of a close relative or a beloved one, a ‘T’ pattern is added to the usual set of scars. Similarly, a different pattern is inflicted to protect one from dying of grief. In all these cases, the different pattern is believed to camouflage the bearer from the onslaught of the Angel of Death or hide a precious child from the Evil Eye.<sup>62</sup>

The scars are made by experts who understand fully the social requirements and comply with the prevalent norms of beauty. To prepare the face for the surgical procedure, they first outline the site with a marker. They, then, cut on the markings with a razor blade and remove the skin away. The resulting wound is immediately filled with oil as styptic and to aid healing.

Among the Dinka, the initiation of youths is ushered in by removal of the lower teeth, infliction of *gornum* (tribal markings around the head),

and, finally cicatrization.<sup>63</sup> The Hadandawa of the eastern Sudan and the Nuba of the west are the indigenous tribes that are known to inflict *shulukh* as tribal markings. Some members of the Azande tribe of the Sudan occasionally produce facial scars such as those of the Arabs by painting the face with the caustic juice of a local plant known as *leshi*, thus producing spurious scars.

### **Cicatrizations**

Tribes of Negroid stock have made use of their skin's ability to form keloid in order to make characteristic facial and body marks (see Figure 16, page 722). The Nuba and several tribes of southern Sudan have made use of this phenomenon in order to make scars on different parts of the body, in particular around the navel, nipples and over the abdomen. Whatever the reason for inflicting these scars, the practice among all ethnic groups, throughout the country, is dying out if it has not already vanished.

In both Tira and Moro, one of the symbols of married status is the cicatrization of the bride. The Tira perform this operation after the bride has joined her husband, the Moro during the last five days, which she spends in her parental home.<sup>64</sup> Later in life-thirty-six to forty years or later as in Otoro-men, undergo a prestige-enhancing cicatrization after which he is called a *romaco* (*dermaco*). The operation is a test of endurance, which is achieved in two sittings. At the first one, the arms, shoulder, and thigh are treated, at the second, which is 2 weeks later, the rest of the body.<sup>65</sup> The cicatrized man is then given the emblem of horsehair fly-switch and a necklace of cowry shells. As far as girls are concerned, before marriage is consummated, they undergo the first light cicatrization on arms, shoulders, and thighs. A later major cicatrization on back, chest, and belly follow when they are moved into their husband's house.

Among the Nyima, stages in adolescence and manhood are defined with age grades. Each grade is four years long. Small boys when 12 to 16 years are called boys. During this period, they have their face-markings cut and body and neck cicatrized. The operation is done by a woman expert who is paid one piastre (formerly seven cowry shells) without any accompanying ceremonial. Girls and women also have their back, belly

and buttocks cicatrized, which operation entails no ceremonial and no relation as to time or occasion.<sup>66</sup>

### **Mutilating procedures**

Several surgical operations are performed for reasons other than curative. These include, in addition to *shulukb* alluded to above, tattooing, perforation of the ear lobe, nose and lips. Other procedures are mutilating and disfiguring, and have been performed with this goal in mind. These include castrating males to make them fit for certain jobs, or amputating fingers or limbs as judicial punishment. Female circumcision (page 158) is widely believed to be necessary to protect or promote the cherished values of chastity and modesty in women.

### **Lip perforation**

Lip perforation is practised by some tribes of the southern and western Sudan like the Gour, Nuba, and Koma. It was a custom universal among women and occasional among men. The operation is performed in early childhood. One or both lips are perforated with the point of a spear and pegs of gradually increasing size inserted until sizable cylinders of wood, stone or metal can be introduced. The cylinders lie flush with the outer surface of the lip, the upper and lower incisors being removed for their better reception within.

### **Nose and ear perforation**

Nose and ear perforation are universal procedures throughout the country. One ala or both alae of the nose and lobes of both ears are pierced to hold a variety of ornaments of different sizes and weights. The nasal septum is sometimes pierced by the Azande women to receive a long moustache-like straw or thin stick.

Ear piercing among the Nyimang of the Nuba Mountains is more than cosmetic; it initiates the girl into womanhood, just as circumcision initiates young men into manhood (see Figure 14, page 720). This takes place towards the end of the dry season and starts with a short parade round the village, as for men. After her ears have been pierced and ringed in several places, each girl puts on sandals and retires to a prearranged locality on a nearby hill. The period of seclusion is short,

varying from seven to fifteen days. On coming down from the hill, the girls go at once to work in the cultivation.<sup>67</sup>

### **Castration (*tatwish*)**

Emasculation of males in Darfur of western Sudan was a known practice during the Fur Sultanate, where the procedure was carried out there and in neighbouring districts. The procedure was summarized by Al-Tunisi in *Tashhidh Al-Azhan*. The penis, he was told, is severed with a sharp razor, and a thin tin tube is inserted in the urethra to keep it patent. Boiling oil-butter is applied to the wound site as styptic; this is later followed by regular dressings until healing is achieved. Sometimes castration is obtained by crushing the testicles.

The *tammashiyya* (eunuchs)<sup>68</sup> usually hold posts of responsibility for which they are particularly suited in the ménage of Sultans and important chiefs where they are entrusted with keeping a close watch over the harem. During the Fur Sultanate, the eunuchs held the posts of *al-Shaikh al-abb*, which is equivalent to the prime minister and commander-in-chief of the armed forces, among other important functions. *Al-bab*, Al-Tunisi records, is also a post reserved for eunuchs in Tunisia and Constantinople.<sup>69</sup>

In addition to the Al-Tunisi narrative, Abd Al-Mageed Abdin in *Tarikh Al-Thaqafa Al-Arabiyya fil Sudan* traced the debates and queries concerning servitude and castration during the Turkish rule of the Sudan (1821-1887). Both practices were apparently rife during that period. The discussions among the Muslim *Imams* of the time reflected this and tried to find religious sanctions.<sup>70</sup>

### **Trepanation**

A few skulls with burr-holes have been unearthed in the Sudan in the Sarurab cemeteries north of Omdurman.<sup>71</sup> Carbon-14 dating suggested that the skulls and the rest of the skeletal remains belong to the era 450 BC. to 450 AD. The findings suggest that the burr-holes were made to evacuate extra-dural haematomata resulting from skull fractures or blunt head injuries. The burr holes were made expertly using fine trephine instruments for evacuating trapped blood. They were made in the parietal region or in the fronto-temporo-parietal areas of the calvaria.

Each hole is rosette-shaped, smooth in outline and about one inch in diameter. The hole is over the posterior and anterior grooves formed by the respective branches of the middle meningeal artery. The margins of the burr-holes do not demonstrate any feature suggestive of vital reactions that might have occurred, indicating that the patients did not survive for long after the operation.

### **Amputation of limbs**

Amputation of limbs has been anecdotal in Sudanese folk literature. In this operation a gangrenous limb, for example, is put through a hole in a wall and the diseased part is chopped off with a sword. Bleeding is arrested by dipping the stump into boiling oil, which acts as styptic.

### **Bone-setting (*tajbir al-kusur*)**

Traditional bone setting depends on the manipulative reduction of broken bones, external fixation with splints or with a functional brace, which provides limited immobilization of a fracture site and mobilization of other joints. This way, the patient, through the movements that are possible, exercises the limb.

Broken bones are set with *tabb* or *jabiras* (splints) (see Figure 13, page 719). These are varying lengths and sizes of wood in sets of four, firmly tied around the site of the fracture with strings or date palm fronds after padding it with cloth. This method has changed very little over the years. Identical splints have been found in an Egyptian mummy of the fifth dynasty (circa 5000 years ago) at Nga Ed-Der 100 miles from Luxor.

It is equally true that bone setting, has been accompanied by several complications, some of them serious. This is to be expected because many healers are ignorant of anatomy and modern techniques of the craft. Their shortcomings are particularly exposed when they try setting compound fractures, spinal cord injuries, and difficult fractures such as supracondylar ones. The most common complications include non-union, mal-union, Volkmann's contractures, and gangrene of the extremities.

Closed soft tissue injuries can result from falls, blows, collisions, and compressions. They give rise to crushed parts, sprains, contusions or injuries that are more serious. All are managed with massage and

manipulation using a variety of oils, ointments, poultices and bandaging, as well as rest.

In countries where the skills of traditional bone-setting are integrated with systems of biomedical diagnosis and management, the average period of the clinical union of broken bones has been significantly shorter and the complications of fracture treatment (joint stiffness, muscular atrophy, osteoporosis, delayed union or non-union) largely eliminated. It has been suggested that traditional and biomedical skills be integrated in the management of various fractures of limbs, the spinal column and most intra-articular fractures, fresh or cold, closed, open or infected.<sup>72</sup>

### **Dental procedures**

In addition to dental extraction and dental and oral care, several procedures are performed on teeth as tribal customs, most of which are mutilating. Teeth are extracted for curative or hygienic purposes (and during shedding of milk dentition). When this is done, teeth sockets are sometimes cauterized to stop bleeding. *Al-hayfat* (milk teeth) may be troublesome, causing various illnesses, including diarrhoea. They have, thus, been managed carefully and frequently extracted. Crowfoot reported on how the Rubatab manage teething saying:

“Various teething troubles are diagnosed as the result of growths, called the *haiyat*, in the places where the eye-teeth should appear. In such cases among the Rubatab the local “doctor” is usually called in to dig out the *haiyat* with a hooked awl, a very painful operation, which often results in the child having no eyeteeth at all. Others cauterize the bottom of the spine, and others, especially round about Omdurman vow four piastres, one for each tooth, to Sheikh Khogali of Khartoum North to save their child from this trouble.”<sup>73</sup>

A *sibhat al-yasur* (jet string of beads or ‘rosary of comfort’) is cut, and the beads allowed to tumble over a child’s head, in order to attain a cure. *Waqar al-wattaya* (literally heel’s sweat) is an interesting topical ointment used to manage erupting milk teeth. The mother’s heel is scraped off immediately after coming out of a *talb* smoke bath. The stuff obtained, is

a precipitate of *talh* fumes and aromatic oils. When this material is applied to the gum, it is believed to soothe the itchy gum. Failing this, the gum is massaged with cloves or *sheeh* (wormwood, *Artemisia absinthium*).<sup>74</sup>

Swelling of the cheek due to alveolar abscess or severe gingivitis is sometimes managed with a paste of fermented millet flour, to which some common salt is added and applied to the affected area. The cavity of a tooth that is affected by *sus* (tooth decay), is filled with a bit of sheep's fat, then a needle is heated and inserted in it until it melts away. This, reported Ahmad Abd Al-Halim, is believed to give relief and kill the *sus*.<sup>75</sup>

When tooth extraction for the front teeth or bicuspid is necessary, either a forceps (*kallaba*) is used, or a piece of a one-metre-long strong thread is tied round the root of the tooth and pulled suddenly.

Several dental procedures, including extracting, separating, pointing, and paring teeth are performed as tribal customs. Indeed, the custom of extracting front teeth is so universal among central African tribes that a person who has his teeth intact is considered ugly. The teeth involved are the upper incisors, lower incisors, and sometimes the canines. The operation is performed at puberty, usually at the age of 14-16 years. Males are always subjected to this custom, females only in special situations. This procedure is that of extraction and not a breaking-off of teeth. A specially constructed gauge, a spearhead or knife blade is inserted between the middle incisors and levered from time to time until these two teeth are loose enough to be prized out. They are then readily freed in like manner and removed between the finger and thumb.

Teeth are also pared to definite shapes or pointed sharp. This procedure is carried out by a local expert who chops the teeth into the required shape with a small chisel and a stone acting as a mallet. The teeth are then filled down and smoothed by rubbing the surface with a hard stone. Separating teeth, however, is an uncommon practice. It is accomplished by inserting pegs of wood of gradually increasing size between them until the required parting has been achieved.

The reasons given for these patterns of teeth are many and different from tribe to tribe. Anderson studied these patterns among the Nyam

Nyam and other southern tribes and reported on them in 1908) (see Figure 31, page 742). He listed the reasons people give to justify the custom. The shapes of teeth, he reported, in addition to being a sign of manhood and womanhood, may serve to distinguish tribes, make distinction between men and animals, or make a person bite and tear meat more effectively, or make them look more ferocious. The new configuration of teeth may be necessary for the pronunciation of, for example, the Dinka, or Shulluk languages. It may also ease feeding in lockjaw (a common disease among the Nuba), may be merely ornamental, or a custom of no apparent function.<sup>76</sup>

Among Heiban and Otoro of the Nuba Mountains with the onset of puberty-the filling out of the girls' breasts and the growing of the pubic hairs of the boys-their ways diverge. First, they undergo the same mutilation, the breaking out of the lower front teeth-four in Heiban, two (of boys) or four (of girls) in Otoro.

The people can produce no explanation for this custom except such obvious rationalizations as these: 'If the child fell ill, it would now be possible to force food through the clenched teeth.' Alternatively, 'The children will eat in measure once they lose their father poor. Finally, 'Without their front teeth, they will grow faster.'<sup>77</sup> However, explanation of mystical nature is also offered by the Nuba. They believe that all individuals have their partners in the other world. So if an individual is to live with his or her earthly spouse without trouble, he or she should elude the other world partner. This is done by breaking the lower two teeth.<sup>78</sup>

### **Eye procedures**

Al-Tunisi in his description of life in Darfur during the Fur Sultanate, recorded that the *Shallanqin* (sing. *Shallanq*) were the eye surgeons in those times, and that they were extremely competent in lens extraction in those times, and that they were extremely competent in lens extraction in *al-katarata* (cataract).<sup>79</sup> *Tashliq* (couching) is surgical displacement of an opaque eye lens in *moya bayda* (cataract) using a thorn of *Acacia arabica* or a sharp needle. In this operation, an immediate regain of some vision is achieved, but invariably followed by complications, and deterioration of vision due to the effect of the lens left behind. The operation<sup>80</sup> is mainly performed by Nigerians.<sup>81</sup>

*Ras al-qoam* is used to treat eye infections in the Ngurtati area of Jebel Merra. When the eye is inflamed or swollen, it is washed with a strong decoction of tea. Eye drops of either *bajar amar*, *shebb* (Alum), mixed in human milk, honey or onion juice, or alternatively, the juice of *dogra* leaves (peculiar to Darfur), or honey with black antimony, are applied to the eye, or *rashad* seeds dropped in.

*Tashash* (blurred vision) and *akula* (itching) of the eye are treated, in central Muslim Sudan, with the recipe of *Shaikh* Al-Tayib Wad Al-Marhi called *saqam fakka* (instant cure). The recipe is a powder of a mixture of *sinbil* (spikenard, *Andropogon nardus*), *qurunful* (cloves), *mablal* (*Hypoestes verticillaris*), *filfil* (*Capsicum annuum*), and *kobl* (antimony). See also page 156 for further procedures used in managing eye ailments.

### **Surgical instruments**

Figures 28 page 738 and Figure 29 page 740 show examples of the arsenal of instruments the traditional healers in the Sudan possess. These include knives, (see Figure 11, for the knife as a surgical kit, page 718), saws, lancets, hooks, probes fashioned of iron, ivory or wood, scalpels, forceps, snares, prongs, clamps, cupping instruments, curettes, splints, etc. The variety and sophistication of these instruments cannot be taken separately from the current level of technology. Systematic study of these instruments is necessary.

### **Cupping**

As its name implies, cupping is pressing a glass cup or similar instrument, e.g., hollowed horn, tightly against the skin in order to draw blood to the surface. The procedure either ends at this stage, or is then called dry cupping, or it becomes wet cupping when the drawn blood is incised and let out. (For examples see pages 230, 224, 229, and Figure 17: Cupping the napes using a cupping horn page 723).

### **Cautery**

Cautery is the act of burning a wound, snakebite, scorpion sting with a hot iron or caustic substance to destroy the harmful poison or infection (see pages 239, 240, 390, 62, 459, 448, and 724 for examples of cautery, and Figures 18, page 724).

## **Circumcision**

Circumcision<sup>82</sup> of boys and girls is widely practised in the Sudan; both are mandatory among Muslims, but that of the female is rarely practised among non-Muslims. Wherever male circumcision is found-among Muslims or animists-it is performed with ritual celebration, clearly initiating boys either into manhood or as a vague tradition, as among Muslims.<sup>83</sup> The Nuba tribes of western Sudan practise male circumcision at an older age as a rite of initiation to manhood and its physical fulfilment in marriage.<sup>84</sup> See also page 167 for more discussion of this practice as an initiation rite.

Juvenile circumcision, both of the male and the female-among other cultural items-are adopted by the Nuba tribes who contacted the Arabs. Male circumcision, Nadel writes, does not appear at random and as an entirely new custom in the Nuba tribes. It appeared only in tribes in which the practice as such was known, though it had previously been limited to specific social groups or grades in the society, i.e. in Tira and Tullishi. The new incentive merely led to the extension of the custom beyond the old limits. Again, then, the more radical cultural assimilation sets in only where a certain preparedness for the new trait exists. He added that clitoridectomy is indigenous in some Nuba groups. It is also practised by Arab tribes in the west and southwest of Kordofan (Messirya and Humr), and has spread to their Nuba neighbours-the peoples of Kamdang, the Miri, and the Daju of western Kordofan.

## **Female circumcision**

### **History**

Female genital cutting (FGC) is an ancient and deeply rooted custom in the Sudan. Herodotus (c. 480-425 B.C.)<sup>85</sup> and Strabo (64 B.C.-21 B.C.)<sup>86</sup> mentioned FGC in the Sudan in their historical chronicles. Ibn Salim (969)<sup>87</sup> described the practice in the Bega tribes of eastern Sudan and stated that it had been popular among their women but it had later declined. According to Seligman,<sup>88</sup> infibulation apparently represents a local elaboration of clitoridectomy in Neolithic times in an undifferentiated Hamito-Semitic culture. Mention to FGC is also found in the writings of Browne,<sup>89</sup> Burton,<sup>90</sup> and Bruce.<sup>91</sup> The anonymous

writers (probably French and Italian) whose manuscript *On the Frontiers of Islam* was edited, translated into English and published by Richard Hill, gave a clear report of this practice in the Muslim Sudan around 1823. They reported that the bridegroom has to give the bride and her family presents of gold and money before they agree to perform this operation.<sup>92</sup> Incidentally, the manuscript provided as well evidence of the earliest official attempt to ban female circumcision in its infibulation form.<sup>93</sup>

Some historians believe that FGC is Arabian in origin, while others consider it indigenous. Abdulla Al-Tayib writes that early Islamic verse suggests that at least, as far as the Sudan is concerned, the custom could have been derived from Arabia. Al-Farazdak, an early Arab poet, in one of his lampoons accuses the tribe of the Azd that their women have never experienced the pains of genital cutting, implying thereby that the Azd are of an inferior stock.<sup>94</sup>

### **Demography**

Genital cutting<sup>95</sup> of boys and girls is widely practised in the Sudan among Muslims, but that of the female is rarely practised among non-Muslims. The Sudan is one of 28 countries in Africa and the Middle East that practise FGC. With very few exceptions, all tribes in northern Sudan perform one form or the other. The tribes that do not circumcise girls are the Fallata Fota, Fur, Kinin and most tribes of the Nuba Mountains. For example, the Arabized Tira Mandi and a few families in Kalkadda, have been reported to have started to circumcise their girls as early as 1938, to have practised the severest forms of FGC, the *Pharaonic*, and to have discriminated positively in marriage in favour of circumcised brides, just as is the case in a typical Arab community. The Moro, it is noteworthy, perform clitoridectomy on girls with large protruding clitoris for cosmetic reasons. As a rule, the tribes of southern Sudan do not cut, although early researchers have reported FGC among some of the southern tribes and the Ingassana of the southeastern Sudan.

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In 1917 Yusbashi Negib Eff. Yunis, an army medical officer in the Anglo-Egyptian army, visited the Baggara and Nuba of western Kordofan, and had the following observation to record about female circumcision among those tribes:

“The Baggara whose original home is in the West formerly practised the ‘*sunna*’ form of circumcision, but the ‘*Pharaonic*’ method gradually came into use through the influence of traders and other inhabitants of the northern Sudan with whom they came into contact. The Messeria, being the most easterly of the tribes in question, were the first to adopt this practice, and after it had become universal amongst them, they passed it on to their neighbours, the Fellaita section of the Homr, whence it made its way to the Agaira section of the same tribe. At the time of my first visit to Muglad in 1917 I found that the Agaira were still practising the ‘*sunna*’ method, and made every effort to convince the Nazir Nimr Ali Gulla of the atrociousness of the ‘*Pharaonic*’ custom and the damage and suffering which it inflicts on the women. I earnestly advised him to use all his influence to prevent it from spreading amongst his section. He appeared to be convinced by my arguments and promised to do his best; I regret to say however that during my next visit in 1918 I found that the ‘*Pharaonic*’ custom had made its appearance there and was given a hearty welcome. The reasons given for the adoption of this form of circumcision are: (1) that it is supposed to be a protection against untimely pregnancy (2) that it is regarded as rendering the victim more attractive to the men.”<sup>96</sup>

The Hawazma Arabs in the eastern Nuba Mountains practise the *Pharaonic* circumcision, which thus reached the Nuba tribe in that part—or one Nuba tribe as far as my material goes, the Tira. In this operation virginity and the consummation of marriage thus receive a new, strong emphasis, which is indeed expressed in the sex-morality of this Nuba tribe. He concludes that he believed that in the Nuba adoption of female circumcision this aspect is only incidental.

Another aspect, applying to both types of female circumcision, is paramount: and in it the ‘preparedness’ of the Nuba culture for the new usage is again manifest. Female circumcision never appears by itself in the Nuba Mountains: it accompanies or succeeds the adoption of juvenile male circumcision. It thus comes to express the conception of a balance of the sexes, much that female life should parallel male life and a rite of passage of the women duplicate that of the men. Indeed, where female circumcision appears, this conception of balance is deeply rooted in the social structure. We can even venture this prognosis: in the Nuba cultures, which elaborate this conception of a ‘balance’, and where male circumcision already exists (Nyima, Tullishi), female circumcision will follow.<sup>97</sup>

### **Terminology**

The traditionally known term “female circumcision” equates male and female practices, and hence creates confusion in the area of campaign. “Female genital mutilation” (FGM) was introduced to denigrate the practice and bring out its heinous nature. However, the word “mutilation” is judgmental when cultures are addressed. “Cutting” is preferred to obviate dangers of demonizing certain cultures or alienating some communities.<sup>98</sup>

### **Labels**

Female circumcision is known in the Sudan as *al-tabura al-far’auniyya* (Pharaonic circumcision) or more commonly *far’auniyya*, (Pharaonic). The term ‘Pharaonic’ suggests that the practice is of Egyptian origin, yet this is not corroborated by any evidence. In the Sudan, local derivatives of the word *far’auni* (Pharaonic) are used to denote ferociousness to describe, for example, the temper of the flooding Nile, or to signify a start of a relapse of an aggressive episode of a mental illness or, for that

matter, the onset of any hot temper. We may understand this phenomenon as a way of ascribing potency to anything alien or imported; Egyptian women, for example, know *zar* as *al-zar al-sudani*. Researchers and abolition campaigners have labelled FGC as genital mutilation, castration, sexual oppression, social injustice, part of a complex socio-cultural arrangement of female subjugation in a strongly patrilineal, patriarchal society, a means for controlling female sexuality and conserving the monogamic status of women, a political problem the solution of which requires a new international order, a form of child abuse in the name of tradition, and violation of human rights.

### **Indicators**

In November 2003 a UNICEF Global Consultation on Indicators, reached an international agreement on five standard indicators appropriate for situation analysis and monitoring progress of FGC.<sup>99</sup> It has been reported that data measuring these indicators can be derived from smaller community studies and programme monitoring and evaluation.

### **Prevalence**

FGC is not dying out in the Sudan. Recent reports confirm this. The first is a report of a survey conducted by Shaikh Idris Abd Al-Rahim and Marian Cederblad in Haj Yusuf, Maigoma and Magharba villages at the outskirts of Khartoum in 1980. The project was part of a longitudinal study that was started in 1965. It indicated that the incidence of FGC is still 100 %. The following results were reported:

“Both boys and girls are still circumcised in 100 % of cases. The operation is most often performed between 5 and 8 years of age. *Pharaonic* circumcision is still the most common form. Very little change has taken place in the past 15 years although there has been information about the health hazards connected with *Pharaonic* circumcision on the radio, in the newspapers and delivered by doctors and midwives ...”<sup>100</sup>

The second is the Sudan Demographic and Health Survey 1989/1990 (SDHS). The SDHS collected data on the prevalence of female circumcision and the attitudes of women and men towards the practice

(the southern regions of the Sudan were not surveyed due to the civil unrest). Eighty-nine percent of ever-married women in the Sudan have been circumcised, representing a slight drop from 96 percent reported by the Sudan Fertility Survey. The majority of women received *Pharaonic* circumcision (82 percent); 15 percent received *Sunna*, and the rest had an intermediate type of circumcision. In this report also, more than three-quarters of ever-married women support continuation of the practice of female circumcision. Support for circumcising their own daughters is even stronger than for circumcisions in general. Among those wanting to retain the practice, *Sunna* circumcision (the least severe type) is preferred by 48 percent of the ever-married women; 46 percent prefer *Pharaonic* circumcision and 5 percent prefer the intermediate type. Those who oppose continuation of female circumcision said they believe the best way to abolish the practice is through education campaigns and the enforcement of laws against female circumcision.<sup>101</sup>

Recently, UNICEF released two reports in 2005<sup>102</sup> and 2006.<sup>103</sup> The first reported that the prevalence of FGC in the Sudan is still anywhere around 90% for women aged 15-49 years using Multiple Indicator Cluster Surveys (MICS) carried out in 2000. The MICS2 survey carried out in the same year indicated that as many as 74% of women who had been cut had undergone infibulation. The second gives a more recent analysis of all aspects related to children health.

In the Sudan, a cohort study in 2004 found that at least 75 per cent of girls had undergone FGC by the age of 9 to 10 in South Darfur, a state which has a predominantly Fur and Arab population, while in Kasala, which has a predominantly Beja population, 75 per cent of girls had already been cut by the age of 4 to 5.<sup>104</sup>

### **Practice**

Girls are circumcised at the age of 6-8 years in Muslim Sudan, and as late as twelve to fifteen among the Tira Mande of the Nuba, who adopted the custom because of their contact with Arabs. The type of circumcision varies in severity and extent and ranges from the excision of the glans of the clitoris alone, to the drastic and more common *Pharaonic* type. In the *Pharaonic* variety, the clitoris, the labia minora, and most of the labia majora are excised. The two sides of the vulva are then

sewn together with any available material, including thorn and thread. Thorns transfix the raw bleeding surfaces, and the thread is wound around its protruding edges in a figure of eight fashion. They leave but a small posterior hole to allow urine and menstrual blood to escape. A definite limited orifice is created by inserting a hollow straw; the girl's thighs are then strapped together for forty days.

### **Classification**

WHO classification of FGC released in 1997 remains to be an intellectual exercise. The operator, the family and, certainly the girl, know very little about the anatomy of the genitalia for any classification to be useful. The operation itself is carried out in the most unfavourable conditions under insufficient light, and with no analgesia or anaesthesia.

### **Operators**

Commonly, FGC is carried out by certified midwives and uncertified village *habl* midwives (*dayat al-habl*) and sometimes by nurses and doctors in cities. It is estimated that 36% of FGC is carried out by medical personnel. A *daya* attends birth at home, and assumes all the functions necessary for the well-being and health of a woman in labour and her newly born baby. She is also a consultant for women's diseases, advises on fertility problems, and suggests contraceptive methods.

*Habl* midwives also circumcise girls, perform *tas-hiem* (plastic de-circumcision) of the newly-wedded, '*adal* (correction) for women going out of confinement, and re-infibulate divorced women, or any other women who desire it, to bring them back to 'virginity' or tightening the introitus, as the case may be, by stitching the vaginal opening.

The midwife attends women in the days following delivery, making dressings and giving advice on relevant matters. When the wound is clean, the woman ambulant and the baby has been named, the midwife is paid for her services in money and kind. She is given the best of everything available in the house and sizable chunks of the meat of the sacrificed animal.

*Habl* midwives have failed repeatedly to deliver babies safely, or retrieve the placenta, with often-fatal results. Ignorance or neglect of basic rules of hygiene, have frequently resulted in mother and newborn tetanus.

Unequipped as they have been, midwives have met all the complications a qualified medical practitioner is ever likely to meet. Many girls have lost their lives during circumcision, due to bleeding when the midwife either failed to catch a bleeding blood vessel. The rule still holds; the bereaved family of the unlucky child never discloses the identity of the midwife who performed the operation no matter how persistently the police pursue their inquiry.

### **Operation**

FGC is usually performed at home under unhygienic conditions by untrained women who are, understandably, ignorant of anatomy and asepsis. The instruments used include sharp objects including knives, razor blades, scissors or sharpened stones, etc. These operators could be midwives. A variety of substances is applied locally to aid quicker healing of the wound. These include sugar, eggs, ash, oil, and tar. Because women are invariably circumcised, delivery is always preceded by surgical widening of the introitus. The midwife first undoes the circumcision by slitting the scar open, <sup>105</sup>delivers the baby and placenta, re-circumcises, and usually re-infibulates. The instruments a *habl* midwife uses may be dirty if not actually rusty, and the dressings, if any, are not prepared to any medical standards.

Trained midwives, though neither taught nor encouraged to circumcise, are increasingly involved in the practice to supplement their income to face the escalating cost of living. Nurses and a few doctors also circumcise girls though on a limited scale; they all claim that they perform the mild *Sunna* type, and that if they do not do it, women would seek the help of untrained midwives.

### **Hazards**

FGC is a hazardous operation with several physical, social, and psychological effects. It may interfere with all aspects of the woman's life, impose socio-economic losses on the family, and put undue strain on the individual, the health institution, and the state at large. Immediate physical complications of FGC include bleeding and sometimes shock, resulting in immediate death, or infections (tetanus and septicaemia), urine retention and injury to pelvic tissues. Late complications include formation of keloid, dermoid or inclusion cysts and vulval abscesses.

They also include menstrual problems (especially dysmenorrhoea), hematocolpos, difficult micturition, urinary tract infection, formation of calculi and fistulae, incontinence, chronic pelvic infection, endometriosis, infertility, decircumcision and recircumcision problems at pregnancy and delivery. Sexual problems include difficult penetration, injury to the sex organs, urethral and anal coitus, formation of false vaginae and dyspareunia.

The psychological complications reported include anxiety, depression neuroses, psychoses, and interference with normal social life due to physical incapacity or incontinent urine. Difficult penetration and infertility may lead to divorce. It is also maintained that the traumatic experience of FGC, which associates sexuality with such intense pain at an early age, results in a rejection or repression of the normal sexual impulses of women. Some researchers believe that frigidity, which is often a consequence of FGC, leads to other forms of libidinous satisfaction that are important in the life of Muslim women. It is suggested, for example, that this is why many women eat so copiously. In addition, prolonged breast-feeding gives sexual satisfaction to women.

### **Arbiters**

Control of FGC and its rituals lies in the hands of women. They decide whether to cut or not, what type and when. It is a disgrace for a man to indulge in deliberation of any nature concerning this subject. Pamela Constantinidis has noted that it is the older women who insist on infibulation for young girls and who constantly police their moral behaviour. It is also older women who keep firmly within their hands all the ritual surrounding the vital stages of a woman's life cycle. Her conclusions are in general agreement with those of other researchers maintaining that the Sudanese Muslim women, by so doing, emphasize that the whole basis of society rests upon their reproductive role. In FGC rituals and practices, they are symbolizing this, their 'inarticulate power', deliberately counterbalancing it against the actual political and economic power of men.<sup>106</sup>

### **Justifications**

People give the following reasons to justify FGC: that it is a religious demand, a good tradition and hygienic; that it promotes cleanliness and

purity (hence the name *tabara* 'purity'), increases the sexual pleasure of husbands, improves fertility, protects virginity, prevents immorality, gives better marriage prospects, is cosmetic, hygienic, and that it is performed in conformity with the social norms. Most women say that circumcision is a good tradition, while men erroneously invoke religious sanction.

A recent UNICEF report concludes, "The procedure imparts a sense of pride, of coming of age and a feeling of community membership. Moreover, not conforming to the practice stigmatizes and isolates girls and their families, resulting in the loss of their social status. This deeply entrenched social convention is so powerful that parents are willing to have their daughters cut because they want the best for their children and because of social pressure within their community. The social expectations surrounding FGM/C represent a major obstacle to families who might otherwise wish to abandon the practice.<sup>107</sup> We need to understand these justifications carefully. One strategy to adopt is to explore all possible ways and means of reinforcing the community values without resort to FGC.

### **Religious stand**

The Sudanese Islamic leaders have assumed an almost unequivocal position since 1939 through the successive declarations of Muftis and Muslim scholars. They agreed that there is no injunction to perform FGC anywhere in the Quran, and there is no indisputable command in the *hadith* (the Prophet Muhammad's sayings) either. This position has been confirmed by world Islamic religious leaders and leaders of Islamic Sufi sects.<sup>108</sup>

### **Rite de passage**

FGC has been described as a custom, a ritual, a tradition and a social convention, and a social taboo. However described, it remains as an important *rite de passage* in the Sudanese society. It exhibits all the elements of initiation rites, though the negative aspects, in this particular case, outweigh any positive elements.

There is a Nuba custom that when a woman is pregnant for the first time, at about the fifth month, she is scarred in a rough pattern all over

the arms, body, and thighs. This they call *tabur*, circumcision. If a woman remains infertile, no 'circumcision' is performed until she reaches the menopause.

Some tribes in the southern Sudan practise some types of circumcision. Researchers early this century have found that the Banda tribes of western Equatoria practise a minor form, and that their neighbouring tribes, the Woro, Gbaya and Azande, are starting to copy their variety of FGC,<sup>109</sup> but that prolific tribes such as the Mangayat, Bviri and Shatt do not practise it.<sup>110</sup>

That this rite is deeply rooted in religious concepts (ancestral spirits, fertility) among the Nyimang, of the Nuba Mountains, has been discussed by Kronenberg.<sup>111</sup> In 1918, Brock reported on circumcision among the Azande of the Bahr Al-Ghazal Province. He noted that girls are not circumcised, but all boys are at about the age of 13 or upwards, and that this has been the custom from the earliest times and is not Islamic in its origin. The boys are circumcised in groups by men who make a profession of it. The boys remain in the temporary house, which has been built for the occasion for six months each with an attendant whose business it is to dress their wound and instruct them in the special circumcision dance. When all the boys are considered proficient in the dance, they return to their respective villages.<sup>112</sup>

### **Ceremonies**

Like many initiation rites, FGC used to be accompanied by rich festivities, rituals, and, in the *Pharaonic* type, by tin drumming and incantations. The girl is prepared with rituals that mark transition into womanhood and protect against excessive bleeding. Incantations were chanted during the procedure for encouragement and support. These festivities are no longer as lavish and public as they used to be. This might indicate a degree of discontent with the practice rather than the existence of legislation prohibiting it, which is incidentally unknown to the vast majority of women.

### **International instruments**

Currently, there is international consensus that FGC violates girls and women's basic human rights, denying them of their physical and mental

integrity, their right to freedom from violence and discrimination, and in the extreme case, of their life. This is summed up in the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)<sup>113</sup> and the Convention on the Rights of the Child (CRC),<sup>114</sup> to which the Sudan is participatory. Other human rights instruments include Universal Declaration of Human Rights,<sup>115</sup> International Covenant on Economic, Social, and Cultural Rights,<sup>116</sup> and the UN Committee on Economic, Social, and Cultural Rights.<sup>117</sup> It has been stressed that 'international human rights instruments promote the right of an individual to participate in cultural life, but they do not uphold traditional practices that violate individual rights. Therefore, social and cultural claims cannot be evoked to justify FGM/C.'<sup>118</sup>

### **Early ban**

The colonial British Government faced several reports from organizations such as the British Medical Association, concerned figures,<sup>119</sup> and the Church,<sup>120</sup> describing the brutal nature of female circumcision as practised in the Sudan, and asking for its abolition; their accounts were discussed in the House of Commons in Britain. The Government discussed the matter in its highest legislative assembly,<sup>121</sup> set up a high-powered committee of inquiry,<sup>122</sup> and finally after some vacillation, passed the 1946 laws making female circumcision unlawful.<sup>123</sup> However, enforcement of the law was sporadic, because at that time, the national movement for liberation of the country was very active and the Sudanese were skeptical of any legislation passed by the colonial Government and its Advisory Council. The late Mahmoud Muhammad Taha spearheaded protest against this law in the city of Rufa'a, and was consequently imprisoned.<sup>124</sup> Nevertheless, his movement aroused so much sensitivity over the issue that the law was suspended, (and has been ever since). Paradoxically, Mahmoud Muhammad Taha wrote on the subject one of the most enlightening and progressive treatises to date.<sup>125</sup>

### **Research**

*A Bibliography of Female Genital Cutting in the Sudan*<sup>126</sup> contains almost all active institutions, societies, and personalities involved in the anti-FGC campaign. Among these institutions, the Traditional Medicine Research

Institute has among its objects "to evaluate traditional medicine in the light of modern science, in order to maximize useful and effective practices and discourage harmful ones".<sup>127</sup> Two relevant on-going projects are now 20 years old:

1. Female Circumcision in the Sudan project (1985-): This project established an information and resource centre on FGC. Its overall objective is to collect, collate and store the Sudanese literature on the subject in the form of citations, and texts, keeping a mailing list of scholars and activists concerned, whether individuals, groups or institutions. Data is made available to researchers in a computer database and in hard copy monographs.
2. Traditional practices affecting the health of women and children project (1986-): The immediate objective of this project is to survey, document and study the traditional practices associated with women namely during pregnancy, childbirth, and those related to children. The results will be useful in formulating appropriate strategies for health education, and correcting misconceptions and ignorance affecting the life of the whole family, midwives, health visitors, and community health workers.

### **Elements for change**

Building on academic theory and practical experience, UNICEF Innocenti Research Centre offered six key elements for change.<sup>128</sup> In addition, so far authenticated religious evidence proved that there is no rightful *Sharia* evidence on which to base the legitimacy of any form of FGC. The medical profession throughout the world is unanimous that all types of FGC have associated harm, and that it is medically groundless. The community values of chastity, modesty, and fidelity are precious values that we need to maintain and reinforce. In deciding to abandon FGC, a community is not rejecting its cultural values, but rather a practice that causes harm to girls and women. We need to empower women to ask for and protect their rights and the rights of their daughters. Communities should be encouraged to effect change. We need to increase community awareness. Government should take appropriate and effective measures with a view to eradicating FGC

through enacting laws and enforcing them to prohibit FGC. Government should also include in the national health policies appropriate strategies aimed at eradicating FGC in public health care.

### **Male circumcision**

Male circumcision occurs independently in a great number of widely separated cultures-it is practised by approximately one-seventh of the earth's population.<sup>129</sup> Different reasons are given in different cultures to justify the practice. These include religious, social (handing-on of procreative power by the elder generation), psychological (need for separation from the mother), sacrificial (painful shedding of the foreskin), utilitarian (sex promoting, hygienic, health protective), purification (ritual cleanliness, hence the name *tabara, tabur*), etc. It is practised at puberty, pre-puberty, at juvenile or old age.

Abraham, according to scriptural accounts, was commanded to circumcise his folk, with a great possibility that Abraham himself was not the first to be circumcised.<sup>130</sup> Indeed, male circumcision was practised by the pre-Islamic Arabs. Of this, Abdulla Al-Tayib writes:

“Boys’ circumcision is definitely of Semitic origin. It is closely associated with Islamic practice, as it is regarded as *Sunna* that is a tradition that can be traced back to the Prophet. However, male circumcision was believed by the pre-Islamic Arabs to have something to do with the moon. They believed that the moon would partly circumcise an uncircumcised male by causing the foreskin to contract-hence the abusive remarks: ‘He is uncircumcised but for the portion taken by the moon.’” According to the evidence of the Quran, the moon was one of the pre-Islamic Gods.”<sup>131</sup>

According to Herodotus, the Egyptians were the first people to practise circumcision, well before Syrians or Phoenicians, and the Hebrews acquired the custom from them.<sup>132</sup> Circumcision was practised in Egypt. Earlier still, in *Pharaonic* Egypt, rather, by so doing, a new shift of emphasis of an old practice has been forged. A link is now established with God rather than with the ancestral lineage. According to the Old Testament (Gen. xvii), God commanded Abraham that every male be

circumcised on the eighth day after his birth as token of the covenant which God has made with him and his descendants.<sup>133</sup>

Though male circumcision is a universal rite whose significance is controversial, its importance as an initiation rite can hardly be questioned. The unveiling of the penis at a time when it is becoming of sexual importance may suggest a phallic significance. Different examples can be drawn from northern Muslim Sudan and from animist tribes throughout the country. In some southern tribes, for example, Nyam and Gour, only male circumcision is known, and the male is attended thereafter with all the privileges and prestige of manhood. Muslim groups throughout the country share the same concepts and perform the excision the same way more or less. Immediately after the operation, Al Tayib writes:

“The *jirtiq* or ritual decoration took place. The boy was dressed to appear like a girl. His eyes were edged with kohl. Gold and silver ornaments were placed round his neck and wrists. He was also made to wear the long coral wedding necklace and other necklaces containing beads of bloodstone, which was believed to stop the bleeding and to speed up the healing process. A band of red silk was tied round his right wrist-this contained beads of magical value and a fish bone. The scarab might be attached to the band or to the gold necklace. The boy's palms were decorated with henna and so were his feet. His hair which had been shaved clean with a razor or knife was covered with grease and then with the powder of sandalwood. A silk band was then tied round his head. Beads might sometimes be attached to his hand. Then to mark the boy's manliness, having decorated him thus like a girl, he was symbolically presented with a whip and a sword.”<sup>134</sup>

Nadel described male circumcision among the different tribes of the Nuba, while Stevenson and Andreas Kronenberg described that among the Nyimang. In this tribe, entry into manhood is by circumcision and seclusion in the hills for a period of over a month. Circumcision is performed annually during the four-year period of the fourth grade of the age-grade system. The age for the circumcised, *kwai kanyer* (new man), can vary between twenty and twenty-seven years and this wide

range is due to the rule that brothers must belong to different age-grade classes. Circumcision is usually performed one year before marriage. The customs that people circumcised together should never wrestle together, that they must help each other, and greet each other by embracing the knees, and that they use, after circumcision, new names, are expressions of a special social relation or identity among them.

However, among the Rubatab, boys were circumcised between the ages of fourteen and sixteen, and among some nomad tribes in infancy, in most other parts of northern Sudan individually at about 5-6 years of age, amid family rejoicing and festivities.<sup>135</sup> The operator is a *ballaq* (barber), *basir* (handyman) or a village nurse.

The operation consists of exposing the glans permanently by cutting off the *ghalafa* (prepuce). To do this, the glans is first pushed away using a blunt probe of wood, a *murwad* (kohl pin) or *fuss* (*durra* stalk). The foreskin is stretched free through a perforated disc of gourd, ivory or metal, and a clamp of wood (Figure 5: Male circumcision using al-lazim). A specially made instrument called *al-lazim* or alternatively a string is applied around the *fuss* to clamp it. In all cases, the *durra* stalk is used to push the glans away. The stretched skin is then severed with a razor blade or a knife. When suturing of the raw ends is needed, a giraffe's hair or thorns are used. Bleeding is usually minimal and the wound dressed with warm fat or dusted with *qarad*, ground charcoal, wood ash, ground *durra*, a bark of *nabud* tree (among the Nyimang), powder of burnt palm-leaves, charred cow or sheep dung. When it is healed, Crowfoot reports, the Rubatab make a very black compound out of grease and soot and smear it over the healed scar for fear lest any part should heal and not turn black, in which case he would be mocked as one who had gone white, of which they are exceedingly ashamed.<sup>136</sup> The severed skin is usually given to the grandmother to wear as a ring.

Among the Nyimang of the Nuba Mountains, on the day before circumcision (*shelakero*), the circumcised-to-be is shaved. Then he is given *marisa* to drink, and a *defang* (axe-shaped stick) to carry throughout the ritual. The operation is performed by an expert bringing down the blade (*kadang*) of an axe (*temedi*) on the outstretched foreskin, on the *difang*.<sup>137</sup>

Among the Tira tribe of the Nuba Mountains, juvenile circumcision is unknown. Only those who came in contact with the Arabs acquired the custom. However, among this group a unique type of circumcision is practised—the circumcision of old men (*auridhin*). This is performed to attain the highest tribal rank called *tirdhini*. Nadel noted that the man who has become an *urdbini* is regarded as nearing his second childhood. The religious ceremonies of clan and tribe, the various consultations on the affairs of the community, are tasks entrusted to the *romaco* of the group, never to the *urdbini*. The attainment of this highest status is at once the termination of social usefulness. Here we discover, I believe, the meaning of this practice of circumcising old men.

It is perhaps inevitable in a society, which lays so much stress on virility, that the loss of physical vigour in old age should be identified with the loss of social usefulness. The circumcision itself marks this transition by the most striking symbolism possible. The mutilation of the sex organs seems nothing else but a demonstration of the loss (or impending loss) of virility.<sup>138</sup>

### **Hygiene, sanitation and burial rites**

Over the centuries, whatever their hardships, the Sudanese have cared for their bodies and have done their best to keep their environment habitable. The weather in most parts of the country is taxing. It is either extremely hot and dry, or wet and humid. To survive these extremes, people have devised appropriate methods of hygiene, constructed dwellings, made clothes, and designed them to accommodate climatic changes. Water, which is scarce in many parts of the country, is used efficiently, and detergents are extracted out of some plants.

Bodily cleanliness is a religious requirement among Muslims and ritual purity (involving actual cleaning), is a part of sound religious practice.<sup>139</sup> Other hygienic habits are dictated by social norms. For example, it is mandatory to pare nails, remove armpit and pubic hair, and trim the moustache. Children are shaved, and not only for cosmetic reasons; the practice is believed to help keep their heads clean and to prevent infestation with *qaml* (lice). Teeth are brushed with twigs that make fine bristles when chewed and which have a nice smell. The most commonly

used are *arak* (*Salvadora persica*), *neem* (*Azadirachta indica*) and *tundub* (*Capparis decidua*).

Women indulge in *dilka* (scented massage) and *dukhan* (scented smoke bath) using *karkar* (scented oil) for skin care. Men favour being anointed with oil and massaged by their spouses. The British traveller James Bruce, who visited the Sudan early in the 18<sup>th</sup> century, implicated this custom in spreading disease among the locals. He reported that there were several ‘scirrhus livers and epilepsies’ in Sennar that were due to the native habit of using oils and greases on their bodies.<sup>140</sup>

Housing construction,<sup>141</sup> living arrangements, and methods of sanitation differ according to the ethnic group, the locality, the degree of wealth and mode of life—whether nomadic, pastoral, or sedentary. Different communities have developed communal leisure-time activities that have contributed to making a healthier individual. The activities have included dancing, racing, wrestling, and religious performances such as *ziker* (Prophet Muhammad’s and Sufi remembrance dances). Many of these activities have diminished in rural societies and have already almost vanished from urban settlements.

### **Scented smoke bath (*dukhan*)**

Taking scented smoke<sup>142</sup> baths is a universal custom in the Sudan, especially amongst Arab women, who indulge in it for pleasure, cleanliness, health, and for restoration after childbirth. Men try *dukhan* occasionally to alleviate rheumatic pain. The wood used in restorative fumigation is usually *shaff* and *talh*. *Kilait* is believed to darken the body and therefore used in scenting the house as *bakbur* (aromatic incense).

When *dukhan* is performed for therapy, heavy scenting is omitted and various medicinal plants and other items are used instead. These include *tundub*, natron, and, occasionally, cow dung and hair. Therapeutic *dukhan* is used in treating syphilis, gonorrhoea, and joint pain.

Body incensing is a simple procedure. A hole is dug in the ground and filled with burning wood. A *nata*’ (rounded mat) with a central opening the size of the hole, covers it. A woman anointed with *karkar* (scented oil) sits naked on top of the smoking pit, covered with *shamla* (a thick

local woolen blanket), until the heat becomes unbearable. *Dukhan* is usually followed by *dilka* (scented massage).

The Sudanese have evidently noticed that the aromatic oils that come out when certain plants are burnt have beneficial properties other than being restorative and emollient to the skin and body. They give a nice aroma in the atmosphere they are burnt in and have preservative and therapeutic values. For example, it has been observed that *dukhan* preserves food, straw mats, and woolen covers; milk pots are sometimes fumigated with *tundub* wood until they become black, and when milk is stored in them it lasts longer before it gets sour. Food items that are usually 'smoked' for preservation include fish in southern Sudan and *sharmut* (dried sliced meat) in the north.

When a young child gets diarrhoea and vomiting during teething, the lactating mother indulges in *dukhan* before she gives her baby the breast to feed on; her milk, then, is believed to be 'cooked'. Alternatively, a small smooth stone is exposed to the fumes of medicinal wood. The precipitate on its surface is washed and given to the baby to drink.

Anti-microbial creams are prepared by the condensation of the aromatic oils of a variety of burnt plants. The volatile oils of *lalobe* (*Balanites aegyptiaca*), for example, are adsorbed onto the inner side of a wooden pot previously painted with oil. The condensed cream is then scraped and used topically for the treatment of some skin ailments. A similar practice uses *luban dhakar*, which is burnt underneath a small inverted pot; the resulting black fumes condense on the inside, and are scraped into a *muk-hala* (eye cosmetic pot) to be used in beautifying eyes and to protect them against various illnesses. Such eye treatment is particularly popular among brides and elderly women. Fenugreek is similarly used; its ointment is believed to treat various scalp ailments.

### **Scented massage (*dilka*)**

*Dilka* (scented massage) is a universal custom practised in health and disease by women of Arab stock.<sup>143</sup> It is noted that women who use *dilka* frequently, have a supple, clean, fragrant, and healthy skin. The anti-microbial effects of *dilka* are also utilized when it is given orally to a child suffering from diarrhoea. John Petherick, a traveller who visited the

Sudan in the eighteenth century, submitted unwillingly to this procedure. He described its effects, saying:

“The following morning I woke quite revived; the feverishness had entirely subsided and with a calm and refreshing sensation through my limbs and body.”<sup>144</sup>

The *dilka* substance is prepared in 3-5 days. Its main ingredients are sorghum (*durra*) flour. Alternatively, millet flour or even orange peel is used. To either of these, different amounts of *talh*, *shaff*, *mahlab*, *qurunful*, sandalwood, *kelait*, musk, sugar, and liquid perfumes are added. The mixture is then made as a medium to adsorb the fumes of *kabarait* (a blend of traditional scents). First *durra* is made as porridge and painted inside several wooden pots. These are then inverted (*kafi*) over dug pits containing burning aromatic wood (*shaff*, *sandal*, *talh*). The material is covered with a *shamla* (woolen blanket). At regular intervals, a handful of a local potpourri is added to the pots until the material is cooked. This is then scraped and spread on top of a mesh and scented with *bakbur*, then collected as small balls and preserved in *buqs* (airtight wooden pots) until needed. Mature *dilka* stays soft longer than other types of similar paste.

### **Burial rites**

The northern Sudanese have accepted death as an inevitable end to life. The dead are prepared with due respect according to Islamic teaching. Large gatherings of mourners accompany the body to its burial place. The corpse is buried in a dug pit, bricks and earth heaped on top and a tombstone erected. Men mourn their dead for an average of three days; women do so for a week. A bereaved family is given much communal support through the crisis, consoled by the community for the length of the mourning period, and never left alone throughout. In the *firash*, mourning reception, condolences are given, food is brought in, and the financial cost incurred during the mourning period is shared by neighbours. At different times after burial, offerings are made ‘to remove earth from the mouth of the deceased’ the day after burial or calm the soul of the dead later (Ritual sacrifice page 72).

The Dinkas of Bahr Al-Ghazal, among other animist tribes of the southern Sudan, also accept natural death and mourn their dead. In the

old days, they were also reported to have practised mercy killing of their dignitaries. This was usually done on demand by the person in question. The request may have been prompted by a fear of senility, or a sense of shame in being incapacitated. G.H. Titherington sent to the *Sudan Notes and Records* the following note describing an incident of mercy killing among the Dinka in 1918:

“When a man, who has this right, is very old and his senses fail, he feels death is near, but is ashamed to die like a sick cow. So he calls his sons round him and explains his wishes and makes them promise to carry them out. The news is sent round and parties come from all the clans to say farewell, bringing bulls and goats, etc., to slaughter at the funeral feast.

A vast grave is dug in the man’s big cattle-house (*mak*) and at the bottom is tethered his favourite ox; at the other end of the grave the man is laid out on a sleeping skin (*biok*) with a ‘pillow’ under his head and another under his feet, and a second skin is placed over him to prevent earth falling into his eyes or ears. He is given a gourd of milk and a spear, and then a stage is built right across the grave and covered with grass. Once he enters the grave, he usually does not come out, though I have heard of one successful change of mind. Someone watches the grave, while dancing, singing, and drumming go on night and day around the *mak*. If the man pushes up the spear the earth is immediately filled in, but if he does not, the earth is filled in on the tenth day, by which time he is dead; the ox generally dies in eight days.”<sup>145</sup>

Jean Buxton described death and burial rites among the Mandari tribes of the southern Sudan.<sup>146</sup> A death, she wrote, is announced by the wailing of the bereaved women, who lament again at each sundown and dawn until after the burial. Interment takes place as soon as possible, but conforms to the rule that it must take place at physically and conceptually cool times of day, the early morning, or late afternoon. The arrangement must also allow important kin to assemble. Burial concerns the immediate family, which includes grandparents, parents’ siblings, and brothers and sisters of the deceased; it is not the affair of remoter lineage kin, or maternal relatives; these come later. Parents and siblings of a dead

married woman do mourn at her grave immediately after burial if they live at a distance; her husband and his kin are responsible for the burial itself. The grave is sited in the homestead yard, opposite the doorway of the dwelling hut. Young, unmarried persons are sometimes buried in the family's domestic goat-kraal, which is then abandoned. Burial is never done in cattle-camps unless it is impossible to transport the body back home.

Senior married women of the extended family wash the corpse and anoint it with butter oil, 'black' oil described as ritually 'hot', which must therefore not be used for the ritual cleansing of the living. The black colour of the oil makes it suitable for use on the dead by colour analogy. A newborn baby may also be anointed with oil, which is believed to benefit the skin; it may also be that the obscuring qualities of 'blackness' (which can have protective significance) make it positively beneficial.

The head of a corpse is shaved and beads and ornaments are removed, 'so that the dead may enter the grave black and nude as they came into life'. A married woman must be buried in her goatskin loin covering the symbol of her full maturity—but like a man; she is stripped of decorations and shaved. Before it is placed in grave, a corpse is wrapped in a mat, or, if the deceased is a chief, sewn up in the hide of an ox killed for this purpose. Washed and anointed, the body is laid out under a raised veranda. The family sits round it taking care to leave a space; at this stage, adult mourners are restrained, and only children give vent to their sorrow.

Closely related males dig the grave, but a father's sister who is past her menopause may help if necessary. Unmarried girls or young married women must never dig graves or they may damage their fertility, and the widow herself is forbidden to do so. The square grave-hole, about the length of the corpse and reaching to the chest of a standing adult in depth, is lined with wood slats similar to those used in hut flooring and the body, rolled in the mat, rests on these. Another mat covers it, then more wooden slats, sloped to form a roof and prevent earth touching it.

The body is laid on its right side (a woman is laid on her left side) with the head pointing towards the east—'the place from which *Logobong* came and the feet pointing to the west—'the direction to which *Logobong*

travelled'. If the corpse is wrongly placed illness in the family may follow. The east-west orientation symbolizes the passage of human life, from youth, through maturity to age and death, 'as the sun arises in the east, crosses the sky, and sets in the west'; it also calls to mind the journey of *Logobong* as the dead faces the good, his feet pointing towards evil and sin which are behind him.

'Ritual direction' in laying the dead is also observed by the Nuba. In the burials of Heiban and Otoro, the direction in which the head of the body is placed varies in accordance with the clan to which the dead belonged. The same orientation is also observed in many rituals of the living; it determines which way one faces during a sacrifice, in which direction one thrusts a sacred spear or lifts an offering to God or the spirits. The 'ritual direction' is not an absolute one; it is orientated, not on the points of the compass, but on a concrete landmark-the flank or peak of a mountain.<sup>147</sup>

Professor and Mrs. Seligman have reported on the burial customs of the Lotuko describing them as unusual and particularly interesting. Among these tribes, the body is buried outside the house of the deceased as soon as possible after death. It lies on its side with the knees slightly flexed, and the hands under the face, the vertex eastwards if the deceased be of Lomia or Lowundo, westwards if of Igago or Lomini.<sup>148</sup> A fire should be kept burning by the grave for thirty days. The mourners rub themselves with dust and succeed in looking most dishevelled. Later the bones are dug up, a sacrifice is made, but no drumming takes place. The exhumation is never done by the members of the clan to which the deceased belonged, but always by the members of the clan into which the deceased had married. The bones themselves are deposited in pots, which are placed in rock shelters under rocks or big trees, often only a short distance from the village. When the Lotuko were asked why the bones were exhumed, the answer in almost every instance was that it was done to prevent or cure the illness of a near relative of the deceased, often a child or brother, and so firmly is the belief held that, whenever a Lotuko applies to a medicine man for a cure for illness, the first question that the latter is likely to ask is "have you dug up the bones of your father?" and if the answer be in the negative, then the matter will assuredly be put in hand at once. Other explanations offered included

that to leave the bones in the ground would be likely to render the women of the house sterile.<sup>149</sup>

### Women's health

In human life, pregnancy and childbirth are major events that are surrounded with care and concern. We explore here the beliefs and practices of fertility, conception, gestation, and childbirth. We also explore the working knowledge that the Sudanese call on to help them manage female fecundity and male virility, what their conceptions of sex life are, and what they think goes wrong when one is infertile, when a woman begets stillbirths, or suffers abortions or when congenital anomalies occur.

#### Conception, fertility & infertility

Marriage ceremonies and rituals emphasize the sexual behaviour that is needed to ensure the fertility of women and enhance the virility of men. Certain rites are meant to protect the couple, others to promote fertility. Relation of ovulation, hence the fertile period, to the menstrual cycle is vague at best. In Darfur, a woman would say *shal nadhafi* (we had sex just after I got clean of menses), emphasizing a widely held belief that the time immediately following the menstrual period is the best for conception. At this time the woman is regarded as *nadhifa* (ritually clean), and conception is expected if a couple mate at the onset of this period.<sup>150</sup> A premarital seclusion period called *sibr al-sumaiba* (granary rite) is enforced by some Nuba mountains' tribes on girls who are at a marrying age. Each group of girls is confined in a room (not a granary) for a period of three to six months. In this period the girls are forbidden to go out of their room except at night and then only for chatting in the yard. They are fed in plenty so that at the end of seclusion they are well prepared for married life.<sup>151</sup>

Menstruation is seen as no more than a regular emission *shabriyya* (monthly), *'ada* (routine), a *dawra* (cycle), *wagib*, (duty) or *sunna* (ordained nature)<sup>152</sup> that cleanses the womb of dirty blood and ushers in the *bulugh* (menarche) or *sin al-taklif* (age of responsibility). As long as menstrual blood is on, the woman is labelled *nigsa* (ritually unclean), and is, therefore, exempted from religious duties requiring ritual cleanliness in a

Muslim society, and her activity restricted in various ways in several non-Muslim societies (see Pregnancy and confinement taboos page 197). Though the cycle causes *motaib* (dysmenorrhoea) and discomfort, these are considered normal functions rather than diseases. The timing of consummation or *dukbla* is a female concern, and it is usually the mother or grandmother of the bride who decides when this should take place, taking into consideration the time of the bride's menstrual cycle (see page 183).

That both partners should be fertile for conception to occur, and that the man's role in the process is to ejaculate his fluid within the woman's genitals, is common knowledge. What actually goes on within the woman's belly remains a mystery. When conception is unduly delayed, people seek help from different sources. The woman first pays a visit to the family's holy man begging him to invoke Almighty God to come to her help. Then, she tries the local *materia medica*. Several medicinal plants and recipes have been offered to promote fertility. A mixture of *shieba* (*Usnia molluscula*) a species of lichen indigenous in the Red Sea Hills, is taken with other plants to promote fertility. With *sheiba* also as the main ingredient, one or more of the following items is added: *shamar* (fennel, *Foeniculum capillaceum*), *qirfa* (cinnamon, *Cinnamomum zeylanicum*), *Irq sus* (liquorice, *Glycyrrhiza glabra*), *qurunful* (cloves, *Eugenia caryophyllus*), *na'na'* (peppermint, *Mentha piperita*), *harjal* (argel, *Solenostema argel*), *mahareb* (*Cymbopogon nercitus*). The plants are usually boiled and taken as a drink. The *makhmoura*, a recipe of *hilba* (fenugreek), *harial*, *mahareb*, and dates, is claimed to be most efficacious in bringing about pregnancy.<sup>153</sup>

Some items, such as fish bones, pieces of coin or even *qarad* are worn to promote fertility symbolically. Fish bone is an important element in *jirtiq* (ritual decoration) of the pregnant woman; the bones express a wish that the woman be as fertile and prolific as fish. Other items are kept under the bed of the woman for similar reasons. These items include aubergine fruits, *durra* stalks, cumin seeds and dates, which all have one thing in common, that is, plenty of seeds. A *faki's* help is frequently sought, and drinks of various plants including *mahareb*, *harjal*, *hilba*, and dates are tried.

Society in the northern Sudan does not admit that men can contribute to infertility in any circumstances. No one should question a man's competence. Women are always there to blame and therefore the ones required to seek treatment. Men rarely admit any deficiency on their part, and when a situation is becoming a cause of repeated nagging and gossip, women have to incur the liability. They are either divorced or forced to accept sharing the husband with another wife or more. Clark described the manners and customs of the Bega tribes of eastern Sudan and reported the following:

“Among the Bisharin at forty a woman is no longer fit to take to a man's bed. She becomes ‘*um el'aiyal*,’ the mother of the family. A superstition is widely prevalent that if a man has intercourse with a woman after the menopause he does himself great harm, and seventy of his veins are dried up. Among the Arteiga this superstition is not held. The Bisharin believe, and they are not alone in this theory, that a young wife is able to transmit some of her own youth to an elderly husband but that in the process her own youth quickly fades.”<sup>154</sup>

For the management of infertility, women resort to magico-religious prescriptions first. A *faki* may prescribe *mihaya*, *bakbra*, or perform ‘*azima*’ or give a *bijab*. As internal medicine, a decoction of *habbat al-muluk* (croton oil seeds, *Jatropha curcas*) is believed to help. When the woman is desperate, she may agree to take bizarre recipes. She may drink willingly, for example, a decoction of year-old cow dung soaked in water. Alternatively, she may wear a *riyal* (20-piastres-silver coin), and visit fallow land, which is being prepared for cultivation (possibly for the symbolic rich harvest expected).<sup>155</sup> Among the Nuba, certain clans possess special magic faculties. The Amrus clan boasts a strong magic against infertility, and possesses a special, most powerful ceremony, called *edowa* and performed in six years' intervals, which secures the fecundity of women of the whole Moro tribe.<sup>156</sup> In addition, each Tira Hill community has its own *lobo* [harvest fertility ceremony], performed by the old men of the local clan section. The same ceremony may also be performed, independently of any time schedule, to cure infertility of women-of any clan. The *lobo* of the Um Dordo Iltaro has gained special

fame, and has become almost a place of pilgrimage for infertile women from many other districts, from Tira Mande and even Otoro.<sup>157</sup>

### **Virility, femininity & sexuality**

Modifying the sexual experience has been a subject of concern to most Sudanese societies. In spite of this, no systematic study of the subject has been carried out. Al-Sayigh, the Goldsmith of Omdurman, has copied verbatim in his *Mukhtarat* from different medieval sources including Daoud Al-Antaki, *The Tazkira*. He identified several recipes that were thought to be tonic.<sup>158</sup>

To improve performance in sex, the Arab societies of the Sudan, developed several practices. Female circumcision with its consequent plastic operations, *tas-him* and *'adal*, definitively forged a narrow vaginal opening. Women, on their part, tried other methods whenever the vagina became roomy, after repeated deliveries, for example. They occasionally applied *shabb* (alum) or *afsa* as dehydrant for the vagina to dry it up, makes it narrower, and probably causes atrophy of the mucosal linings with prolonged use, shrinkage, and loss of secretions. They also exposed themselves to frequent *dukhehan* sittings in the belief that the aromatic fumes in addition to their stimulant fragrance would narrow the vagina.<sup>159</sup>

Men see virility as the hallmark of manhood, and spare no effort to protect or enhance sexual vigour and vitality. For example, virility and manly valour are highly esteemed by the Nuba. Their tribal sports: wrestling, sticks fighting and, even, dancing promote these attributes, and lack of these may disqualify a man for marriage. Nadel noted that among these tribes the cult of manliness is not a cult of aggressiveness and pugnacity. It fosters the ideals of strength, fitness, valour, untinged with the exuberance of willed destruction.<sup>160</sup>

The *materia medica* throughout the country abounds in aphrodisiac and tonic agents that are believed to increase *ba'a* (man's sexual vigour), improve the sex act by prolonging the period of copulation or by increasing the erectile abilities of the man's organs. Orally, several organic, mineral, and herbal agents were ingested as aphrodisiac, frequently for their tonic effect. These included *'aradeb* (tamarind),

*karkade* (red sorrel), *jarjir* (eruca), *dalaib* (fan palm, *Borassus aethiopum*) wine, *damsisa* (*Artemisia absinthium*), *hilba* (fenugreek), *ghleighla* (*Astrochlaena lachnosperma*) rowand (rhubarb, *Rheum officinalis*), *toum* (garlic), *'ishba* (*Smilax* Species), and organic items such as honey, rhino's tusk, and the crocodile's sex organ! See *A Sudanese Materia Medica* page 295 for more items and for the binomial names and other details of these herbs.

The Hadandawa of eastern Sudan use the *sheiba* plant as an aphrodisiac, and in various places in northern Sudan, *saikaran* (*datura*) is added to *marisa* (the local alcoholic beverage), other alcoholic beverages are ingested, *hashish* and *afyoun* are used, all to prolong the sex act.

Medieval Arab writers addressed the subject of sexual sufficiency of men and its management with great concern. Little attention was paid to the woman's role. Their medical texts included lengthy tracts describing ways and means of increasing sexual abilities in men, suitable times of day, the correct positions to be taken during sexual intercourse, religious sanctions on appropriate sex.<sup>161,162</sup> Traditional healers in the Sudan acquired many of these books, which became indispensable references on every traditional healer's bookshelf. Examples of these books are *Al-Tazkirat* by Daoud Al-Antaki, *Shams Al-Ma'arif Al-Kubra*, by Al-Bony, *Al-Rahma fi Al-Tibbb wa Al-Hikma* by Al-Siyouti and *Shumus Al-Anwwar* by Al-Tilmisani, not to mention Avicenna's classic *The Qanoun*.

In the Sudan, all aspects of sex are surrounded by restrictions, which govern the discussion of the subject as well as its performance. The concept that it is part of the relationship between a couple that might benefit from an exchange of views once in a while, have no place in the system. This section describes briefly and in general terms the state of affairs in this area. It alludes to the lay sex perceptions, conceptions and misconceptions and taboos in the hope that future research lends this area more attention. The area abounds in misconceptions and health-threatening practices, and hence there is more need for information to evaluate more rationally apparently controversial or misunderstood practices.

Men may talk among themselves, but with extreme reluctance. Women do talk about it, but discreetly. The area of sexual abilities, on the other hand, is taboo even between husband and wife. Procreation and

lovmaking are mysteries for the whole family. Couples discuss this subject, if ever, in the most discreet fashion. Silence on subjects related to sex, the sex organs, sexual relations, and even words related to sex are considered both modest and decent.

As far as women are concerned, they are surrounded by a cult of virginity that defines all their activities before marriage. Northern Sudanese society does not only prohibit premarital sex, but equates girls' virginity with the honour and pride of the whole family and clan. A girl is singly entrusted to preserve her hymen intact until marriage. For its part, the family excises the genitalia and suture the vaginal orifice except for a pinhole opening, to protect the girl against male assaults (see Circumcision page 158).

Traditionally, the *dukbla* or consummation of marriage is used to confirm the virginity of the bride and therefore reinforce the honour of the family. In northern Sudan, *dukbla* is timed to coincide with the period immediately following menstruation. The wedding bed is covered with a white sheet in order to catch the blood resulting from the first penetration. In an earlier practice, women used to display the nuptial sheet bearing the blood spots outside the house for everybody to see. If the *dukbla* is to coincide with the period, the whole test will be, of course, useless.

There are other tests to confirm virginity and 'honour' of the bride, A perfect example is the rituals of *hal al-biẓẓama*,<sup>163</sup> 'undoing the belt' of the wrap-around skirt of the bride at consummation.<sup>164</sup> Indeed, in the earlier times *tas-him* (plastic de-circumcision (see female circumcision page 158) was performed prior to the wedding night, a practice, I was told, still maintained in some rural communities.

The consummation of marriage depends largely on the severity with which the woman has been circumcised: if this operation has been very severe, as the case is in the Pharaonic variety, consummation does not take place at all during the forty days of the marriage ceremony, and then only after the interference of a midwife.

Few works have tried to unravel sexual behaviour in the Sudan. Enquiries into the matter of female circumcision surveys have yielded little information. Researchers have concluded that female circumcision,

namely the Pharaonic type, leads to insufficient sexual satisfaction and frigidity in women, and that it is a possible cause of diminished potency in men. Many researchers, on the other hand, have seen in female circumcision a cause of pleasure to the husband; all these conclusions are largely conjectural.

Sexual intercourse during the menstrual period is considered sinful, a view, which has its origin in the Quran:

“They ask thee  
Concerning women’s courses.  
Say: They are  
A hurt and a pollution:  
So keep away from women  
In their courses, and do not  
Approach them until  
They are clean.  
But when they have  
Purified themselves,  
Ye may approach them  
In any manner, time, or place  
Ordained for you by God.  
For God loves those  
Who turn to Him constantly  
And He loves those  
Who keep themselves pure and clean.<sup>165</sup>

Many non-Muslim societies share the view that sexual intercourse during the menstrual period is a potential cause of various ills; the least it may cause is venereal disease and sterility. In a study, which covered ten Muslim and non-Muslim countries, the United Kingdom sample was the only one, which did not share this belief.<sup>166</sup> Nadel noted that among the Heiban and Otoro tribes of the Nuba illicit sexual intercourse within the clan is a possible offence, and here the sanction is clearly formulated: it is punished, by God, with leprosy, which would not invariably visit the culprits themselves, but might appear among any of their relations.<sup>167</sup>

### **The course of gestation**

Women know many facts about the onset of pregnancy, duration of gestation and the hazards they are liable to face during the period. They also know that missing a period and *waham* (morning sickness, food aversions and fads) are signs of pregnancy, and that human gestation is nine months long and that of a camel is twice as long.

It is widely believed in northern Sudan that a baby will survive if born two months premature (at the seventh month of pregnancy), but will surely die if born one month premature. Research has shed some light on this paradox. The level of a certain liquid surfactant that coats the inner surface of the alveoli in the foetus's lungs determines the survival of such babies. This liquid increases during gestation to a level that makes survival at the seventh month possible, it then drops below the level necessary for survival at the eighth month. Eventually, it starts rising again to reach normal level at term. It is important to note here that such a belief, no doubt the outcome of a long experience, conditions the expectations of the family. They spare no effort to protect the two-month premature baby, but are psychologically prepared to accept the death of the eight-months old.

Many factors affect the mother and her baby during pregnancy. The mother is expected to select her food carefully and avoid tabooed items. She, her next of kin, and the whole community around her should take extra care in their daily behaviour and activities. Women crave for certain items of food that vary from woman to woman and region to region. However, irrespective of whether the craved item is available or not, the craving has to be satisfied. Failure to do so affects the mother and her foetus badly.

The pregnant woman is particularly vulnerable to evil, natural or supernatural, during the late months of pregnancy. Owls, especially she-owls, are seen as signs of bad omen if a woman happens to see one during pregnancy. Owls, it is believed, are in the habit of going out between sunset and nightfall and visiting pregnant women to transfer evil. They cause abortions, stillbirths and all sorts of inexplicable illnesses. Owls are so feared that their mere cry is considered harmful.

A wide range of causes precipitates ante-partum bleeding and abortion. Exhaustion, stumbling, falling down, breach of taboos or getting anti-malarial injections are all possible causes. Parents sometimes produce congenitally deformed or mentally retarded babies. The blame falls on the mother and the next of kin. The relatives might have broken a taboo, or the mother might have left the baby unattended in the cradle. The evil spirits might have exchanged it with a deformed one (changeling). To test whether this is true or not, they take the deformed baby to the nearest cemetery and lay it unattended for some time. If it is not human, it will disappear!

### **Contraception and abortion**

Though certain incidents are believed to induce abortion, such as a cry of an owl (possibly the spirit incarnated in the bird), the jealousy of a *qarina* (companion spirit) or the malice of um *al-Subiyan* (the evil spirit of children), other techniques to induce abortion or prevent conception are known. The Sudan Demographic Health Survey 1989/1990 interviewed a total of 5860 ever-married women aged 15-49 in six regions in northern Sudan (the southern regions were excluded due to the civil unrest), and reported that breastfeeding and postpartum abstinence provided substantial protection from pregnancy after the birth of a child.<sup>168</sup> In addition to the health benefits of the child, breast-feeding prolonged the length of postpartum amenorrhoea. In the Sudan, almost all women breastfeed their children; 93 percent of children are still being breastfed 10-11 months after birth, and 41 percent continue breastfeeding for 20-21 months. Postpartum abstinence is traditional in the Sudan and in the first two months following the birth of a child 90 percent of women were abstaining; this decreases to 32 percent after two months, and to 5 percent after one year. The survey results indicate that the combined effects of breastfeeding and postpartum abstinence protect women from pregnancy for an average of 15 months after the birth of a child. The same survey found that 39 percent of women knew a traditional method of family planning though the report did not identify which methods were particularly used.

Mothers in Kordofan prevent their adolescent daughters from sucking *lalobe*, the fruit of *hijlij* tree (*Balanites aegyptiaca*). They believe that this

helps to preserve their fertility later. A connection must have been made in that region, where the tree grows in abundance, between the consumption of the fruit and the low fertility of women who were noted to have consumed a lot of it during their adolescence.

Recent research has established that *lalobe* has a possible contraceptive effect in experimental animals. Oral administration of the edible part of the fruit produced a post-coital anti-fertility effect in female rats. This could be either due to inhibition of implantation or interruption of the normal process of pregnancy.<sup>169</sup> To use *lalobe* as a contraceptive, women suck a few unripe fruits. Sometimes, prolific women take large doses of cumin or *habat al-'arus* seeds (*Abrus precatorius*) to bring about sterility.

In his study of a village community in central Sudan, Al-Tom noted the rather poor knowledge people generally hold about sterility. They often show a fatalistic attitude and ascribe the causes of all misfortune, including infertility, to God. They may, in addition, identify infections, complicated previous pregnancies and deliveries, and even vague hereditary notions, as contributing causes.<sup>170, 171</sup>

Bimbashi R.R. Anderson, a senior medical officer working for the Anglo-Egyptian army and posted to Kordofan, noted in 1908 that in that region abortion and death *in utero* were ascribed to evil influences, such as the evil eye, *um al-subiyān*, or the jealousy of another woman. The family would then make sure that all necessary charms to protect against this misfortune were secured. He also noted that if a woman should menstruate during a suspected pregnancy, the expected child was considered dead or in a state of suspended animation. In this condition, the foetus might remain for years in the womb without being delivered. Through an evil influence, too, a full-term child may remain alive *in utero*, being felt to move but showing no anxiety for delivery. One case is recorded in which this condition lasted for 17 years, during which time the ever-expectant mother spent most of her savings on worthless charms and remedies.<sup>172</sup>

Little is known about managing, abortion when it occurs. Amulets are prepared by a religious healer for her to wear, and drinks of *sheeh* (wormwood, *Artemisia absinthium*) or *hazā* (*Haplophyllum tuberculatum*) are given to check bleeding. Abortion was also induced for criminal or social

reasons: a handful *molokhiya* (Jews mallow) seeds are swallowed with water and *usber* (*Calotropis procera*) latex is applied as a tampon. On the other hand, to induce longer periods of sterility, a woman would ingest *cammoun aswad* (black cumin) seeds: a seed for every year of sterility.

### Midwifery

The following brief description of lay midwifery practice is based on fieldwork we did in Nyala in Darfur in 1972-73, and in Um Dubban, central Sudan, in 1979, and on various descriptions collected from midwives in the Maternity Hospital, Omdurman, in 1969.<sup>173</sup> Several ethnographic records of the practices in different tribes and various other studies are referred to.

The last two months of pregnancy are surrounded with a set of complex rituals (see Pregnancy and confinement taboos page 197). The woman is protected by the *mushahara* rites; her bed is surrounded by amulets and various protective magical items. A design of the Prophet Muhammad's sandal may be hung on the wall for her to look at for assistance. *Shajarat al-khbalas* is soaked in a glass of water to monitor the progress of labour (see page 116 for more discussion).

When labour contractions set in, the nearest midwife is called in (see Figure 15, A Village Midwife, page 721). She is usually one who has delivered many members of the family. When delivery is imminent, she will place the woman in a semi-standing position, supported by a *habl* (rope) suspended from the ceiling. She then squats between her legs to receive the baby.<sup>174</sup> When the *talq* (labour contraction) starts, the midwife or an assistant applies firm pressure over the uterus and the back. If delivery becomes protracted or inertia ensues, manipulation is replaced by massaging or slapping the abdomen or shaking the woman vigorously by the shoulder at intervals to activate contractions. Miss Kendall, in 1951, described the armamentarium of the *habl* midwives and the way they worked. She said:

“Their stock-in-trade consisted of a razor (“cut-throat” variety) with all but the tip of the blade wrapped round, in most cases, with a very dirty piece of rag, and this was placed on a *tabbag* (woven straw platter) filled with *aisb* (millet) and dates for the *Karama*,

together with an onion for treating the baby's eyes—"to keep its eyes bright" they said.

A special round *birsh* (mat) with a hole in the centre (used for deliveries, circumcisions and smoke baths) was placed over a hole dug in the ground, the midwife sat on a folded *shamla* (rug) with her bared legs extended over the hole, while the woman in labour either standing or kneeling across the midwife's legs, clung to a rope suspended from the rafters-if labour was protracted and the woman became too tired and exhausted to support herself, various relatives, including the men folk, would take turns in helping to support her."<sup>175</sup>

Among the Sakkoat, reports Crowfoot, before the child is born a grass platter called the *Tirkir* is put in the room where the confinement is to take place, and is filled with dates and *durra*: the midwife lays the razor, which she uses in delivering the child on this platter. Then when the child is born and before the cord is cut, the midwife takes seven dates from the *Tirkir*, bites them, and touches the cord with them at the spot where she means to cut: the dates are given to anyone present who feels hungry and the cord is cut. The midwife next takes a *kohl* pencil, sticks it into an onion, touches the child's eyes with it, and lays the child on an *angaraib* (native bed). After this, they attend to the mother; she is fumigated, stretched, bandaged, and given refreshing drinks and the others present also refresh themselves with whatever good things the house can provide.<sup>176</sup>

Delivery is accompanied by supportive and encouraging chanting from the women-folk, invoking Almighty God to deliver the woman safely, and cheers from the midwife (or a pinch on the inner thigh if the woman is not cooperative). After delivery, they wait in great suspense for the expulsion of the afterbirth (*al-tabi'a*). Midwives are well aware that failure to retrieve all the after-birth may prove fatal. Gentle massage over the uterus is applied to speed contraction, and unsweetened coffee is the only drink allowed at this time. It is well known that a retained placenta causes severe bleeding and endangers the woman's life if it is retained for a long period. They will say *al-lahama* (the piece of flesh) *shalat al-mara* (claimed the woman's life). People use several practices, including

medicines, to speed up removal of the after-birth. Al-Tom described some of them:

“These include chanting of religious songs (also used in difficult labour) and giving the mother unsweetened coffee. The religious chanting constitutes calling the interference of God to help ease the problem. It is also reported that a rosary from a pious *faki*, if inserted into the throat of the woman to induce vomiting, will help expel the after-birth. The practice obviously involves a contraction of the muscles in the belly of the woman and it thus may help in forcing the placenta out. The power of God is again called in by using a rosary, an item charged with divine power, to assist the induced physiological mechanism.”<sup>177</sup>

Consequently, the delivered after-birth is handled with a lot of care and disposed of ceremonially; since the organ is so intimately connected with the baby, it would be a perfect vehicle for sympathetic magic. Evildoers might use it to inflict harm on the newborn just as they would use a person’s nail-parings, hair, or cloth. The way the after-birth is disposed of is also believed to affect the baby’s immediate health and its personality in future life.

“After the child has been born, the women attendants at the birth, in the case of a man-child, take the after-birth and the oddments of cloth used and make their way with rhythmical chants to some neighbouring tree, in the branches of which they deposit their burden. When a girl is born the same procedure is followed, except that the women go about their business silently.”<sup>178</sup>

In places near the Nile, the after-birth of the first baby is thrown in the river, but in all subsequent deliveries, it is buried in the family’s compound. For three days after the birth of a girl (four in the case of a boy), the mother in the Acholi tribe has to abstain from certain acts. These vary from village to village. In some cases, she may not eat salt, in others she may not look in the inside of a hat, in others she may not eat porridge flavoured with *aradeb* fruit, and during this period, the baby is not allowed out of the house.<sup>179</sup>

After delivery, the genital wound is sutured and the woman recircumcised, this time, to her preference. The cord is tied four-fingers-

breadth from the umbilicus and cut one-finger-breadth further down. It is said to fall off in three days if the mother is giving much milk, otherwise in seven days.

Anderson, reporting on midwifery practices in Kordofan, believed that Caesarean sections were probably performed to save the baby if the mother died for one reason or the other before delivery, or if she had a contracted pelvis. More often, however, the child is crudely dismembered and removed piecemeal. “This procedure caused not only the decease of the child but also that of the mother during a labour a few months ago at Kadugli. The woman being so severely mutilated that death from haemorrhage occurred.”<sup>180</sup>

Beaton quoting Felkin writing in 1885 in the *Proceedings of the Royal Society of Edinburgh* about the Fur in western Sudan as saying that “the normal position for a woman in labour to adopt is that of standing and leaning against the hut wall ... in isolated cases a rope is suspended from the roof for the woman to support herself.” He continues saying that the rope is now more common. The woman kneels with her legs wide apart and the child is delivered into a food dish (*fangga*) placed between her knees. The midwife cuts the navel-cord, and when the afterbirth (*diiil*) has been ejected, puts it into a small pot (*dule*), covers it with ashes and throws it into the bush.<sup>181</sup>

Midwives know that it is easy to deliver a baby if the head presents first. During delivery, the head is received, and the circumcision scar slit open to enlarge the genital opening. When a foot or hand presents first, it is restored back in the hope that the head will take its place, or else the other foot, for example, is caught and brought down, while other lady-attendants apply pressure on the back and the upper abdomen. Midwives are also known to manipulate the abdomen to correct what they think is an abnormal lie. After attending at birth, a *daya* takes care of the newborn and the mother afterwards.

Apart from Anderson’s remarks alluded to earlier, there is little evidence to indicate that the Sudanese practised Caesarean operations, or gynaecological procedures of any sort. Earlier notes, however, suggest that the Bari tribes in southern Sudan practised a type of womb surgery in certain criminal cases. R.C. Cooke, District Commissioner, Juba, sent

the following brief comment to the Editor of *Sudan Notes and Records* in 1945:

“The following was brought to my notice during a murder trial two or three years ago, and I think that it may be of interest. The woman, who was killed, was supposed to have been pregnant, so about midnight (she had died during the day) the local Bari practitioner had opened the womb to ascertain whether the pregnancy was a fact. On enquiry, I discovered that it is a very ancient Bari custom that this should be done to a pregnant woman, who meets a sudden end. In some areas, an aperture only is made and the foetus is examined, while in others the foetus is removed and buried alongside the deceased. I was informed that the reasons for these practices were (a) that the surviving children, if any, should not be affected by their mother’s sudden death, or, (b) that the surviving husband should not become impotent. I should add that this actual operation was performed some seven miles from Juba. From further inquiries I believe it is a practice amongst the Bari-speaking group, i.e. Bari, Kuku, Kakwa, Fajelu, and Nyanwara.”<sup>182</sup>

### **Birth anomalies and monstrosities**

Birthmarks and injuries of the newborn and those of the mother are attributed to a variety of causes. For example, not satisfying a craving when the woman is pregnant causes her belly to swell up and may possibly cause a miscarriage, or the birth of a deformed child. It may also result in the mother suffering general weakness and depression.

Monstrosities, anomalies, ugly, twin, and more seriously, triplet and quadruplet babies, are seen as ominous divinations, punishment for breaching a personal or a social norm, a behavioural lapse, or committing an outright sin. In Muslim Sudan, believers see such manifestations as glorifications of Almighty God. A major cause of deformities, birthmarks, and birth injuries is disregard by the father and the next of kin of the set taboos of social behaviour during pregnancy. The baby’s father and all close relatives should not hunt, or, for that matter, hurt any living creature. Any harm the father or next of kin inflicts on any living creature, will manifest itself on the newborn.

Though some food aversions are usual among pregnant women, they are dictated in each society by health beliefs and cultural norms. It is also believed that too great a food intake during pregnancy leads to the birth of twins or overgrowth of the baby *in utero*, giving rise to a difficult delivery. The birth of twins is surrounded by ambivalent reactions among different societies; they are considered sons of God, evil spirits, ominous signs, or a blessing. The Adok tribe in southeastern Sudan firmly believes that twins are charged with an evil eye and have to be sacrificed.<sup>183184</sup> However, neither the Ingassana nor the Nuer, and certainly none of the northern Sudanese tribes share this fear of twins. On the contrary, they consider them a great blessing; the Ingassana have special ceremonies connected with their birth.<sup>185</sup> The Nuer consider the birds that fly high and especially the migratory birds, and twins as *gaat kwoth* (sons of God).

E. Hall wrote in 1918 on women customs in Omdurman, saying:

“Twin children are supposed to have one spirit between them, and should one get ill, the people think that the other will fall ill also. Should one twin die, the parents have marks cut in the face of the living child so that the dead twin shall not take away the living one. The Sudanese imagine that the spirit of twins goes out of the body at night into the body of a cat or a dog or a bird, therefore people are often afraid of striking, these animals at night for fear of killing the children.”<sup>186</sup>

The Latuka tribe in southern Sudan, buried alive a baby with one testicle. His life, they thought, would cause the death of all male relatives.<sup>187</sup> The Acholi were equally fearful of a baby with one testicle. A woman producing such a child is driven out of the house, as the child is supposed to be *jok*. If the mother craved to see an ugly person or an animal for any reason while pregnant she might cause harm to her forthcoming baby. They would say, for example, that she craved a monkey if she gave birth to an ugly baby.

Other causes of congenital abnormalities include incestuous relationships and puerperal diseases of mother or father. Being cruel to each other ranks high among those misbehaviours punished by God. Nonetheless, it should be stated that when people are questioned about the occurrence

of these misfortunes, they would often say “We don’t know,” or, more commonly, “It is God’s will.”

### **Pregnancy and confinement taboos**

The Sudanese treat most major occasions and all periods of transition from one stage of life to another as periods of crises. They mark them by various rites and observances. Notable among these are the *asbar*<sup>188</sup> (sing. *sibr*) or taboos that are associated with pregnancy, childbirth and confinement. These taboos are categorically known as *mushabara* in northern Sudan.

The period of the *mushabara* begins in the 7<sup>th</sup> month of pregnancy (the foetus in utero is assumed to be alive by this time). It continues up to the end of *ayyam al-arba’in*, the forty-days-period<sup>189</sup> after delivery. Some researchers have identified the *mushabara* in all initiation rites; it is indeed common to them all, but it is integral to all female rites.<sup>190</sup>

Similar birth ritual is seen among non-Muslim tribes in the Nuba Mountains. Two days after birth, the Moro perform a certain ritual, after which the mother may start nursing the infant, and which marks the beginning of a five days’ period of rigid avoidances on the part of the mother and the whole family. The ritual and the period of avoidances are called *dru*. The avoidances associated with *dru* vary with the clan, and vary from being forbidden, to keep a fire in the house during this period to sealing granaries with clay for the duration of the *dru*. In yet other clans, the mother observes certain food taboos, or a couvade of the father of the newborn with the *dru*. Before birth, the Ingassana make sure that neither the expectant mother nor her husband should exert himself or herself or carry fire. If they do, the child may die as a result.

The *mushabara*<sup>191</sup> apparently gives the woman and her foetus total support during this critical period in their lives. This ritual ranks high in the Sudan and is associated with a period in which people firmly believe that a woman deserves the maximum attention, more rest, more nutritious food, and relief from exhausting household chores. It gives the woman and her family full psychological serenity when they are assured that all unforeseen forces-evil or otherwise-are under control.

The *mushabara* cult has a marked influence on dietary practices during pregnancy, childbirth, and confinement in the Sudan. To abide by the set rules of the cult, both the husband and kinsfolk are recruited to provide the necessary food at this critical period. The pregnant woman's family mobilizes the whole community to provide appropriate support. The attention given to her is remarkable; it springs from a genuine belief in the inherent weakness of women and young children, together with a long and bitter experience that has made them realize that pregnancy and childbirth are critical periods.

While this is healthy enough, as we have already seen, the cult is also responsible for some beliefs, which deprive the woman and the newborn child of several nutritious foodstuffs. Therefore, when food supply and variety are limited, the taboos and customs restricting the intake of fish, eggs, and vegetables could be dangerous.

*Kabsa* (breach of *mushabara*) is a serious and life endangering, state that exposes the pregnant woman and her foetus to all the hazards of nature, and the evil of malicious forces. If the woman or any of the nearby community breach or break any of the set taboos, she goes into a state of *kabsa*.<sup>192</sup> The woman is not ill, but she is illness-prone and vulnerable.

People have therefore devised several measures that combat the incipient danger. An elderly woman, usually the pregnant woman's mother, initiates the cult using the right ornaments and following the specified rituals. Failing to do this, all sorts of harm may befall the woman.

The pregnant woman is isolated and *jirtiqed*, decorated with special *mushabara* items. From this time onwards, she should observe certain protective procedures. Her husband, in particular, should abide by certain rules. He should not kill, for example, any game animals at this period because they are considered tribes of *jimns*.

Among the Rubatab, Crowfoot reported early this century, that the husband was required to provide whatever she desired of food and scents, because it was believed that these desires spring from the child, and that any delay or failure to satisfy them will be marked by a mole on the child after birth and the woman also might suffer in health and even miscarry, whence the phrase 'she miscarried because of such and such a

thing', an event which was considered very disgraceful among the Rubatab, the women taunting one another about it.<sup>193</sup>

The *jirtiq* is the ritual investiture of brides, bridegrooms, circumcised boys, and girls with cloths and ornaments and decorating them with unguents and perfumes in initiation of several rites in northern Sudan. The *mushabara* and some other periods of danger are treated similarly.<sup>194</sup>

With the exception of few tribes, the *jirtiq* seems to be known by the majority of northern Sudanese and Arabs of Kordofan. Crowfoot,<sup>195</sup> writing in 1918 and Trimingham<sup>196</sup> in 1949 seem to agree that *jirtiq* is common over most of the northern Sudan-amongst the Riverain tribes (Mahas, Danaqla, Ja'aliyyin, and Shaiqiyya), in northern and central Kordofan, the Blue and White Niles, and the Beni Amir. It has been adopted by most of the camel-nomads, but not the Shukriyya, the Baqqara, the Bedawie-speaking Bega, nor the Nubian Kenuz and Sukkot in Egyptian Nubia.

To perform the *jirtiq* to initiate *mushabara* at the seventh month of pregnancy, a woman who is known to be lucky is chosen to attend at the decoration when all items are ready.<sup>197</sup> She starts by fixing a long needle with a long red thread on to the pregnant woman's newly plaited hair. This needle remains fixed until delivery and then the different beads and necklaces are worn.<sup>198</sup> They provide the woman with a special bed sheet known as *firka*. She uses this sheet throughout pregnancy and to the end of confinement. The sheet should be red and new (not borrowed), and its make should be *abu safibtain* (the best make in the market two decades back). They provide the woman with a special *kabsa* ring containing a golden coin, *khatim jinaih*.

A variety of evil spirits is there to harm the woman or her child. The spirits include those of the dead, the sick, and even those of precious metals, e.g., gold. Visitors who have recently been to a funeral, or who have visited a patient or somebody wearing gold ornaments, can transmit these spirits. Visitors should drive, thus, these spirits out of themselves by visiting some other place or by looking into a well before seeing the pregnant woman. The woman herself should not leave home to share in the celebrations of a wedding, a circumcision, a delivery, a naming party, or any occasion where she might see blood. She should not visit

cemeteries, see the sick, or console someone who has been bereaved, however close. The *mushabra*, the woman under *mushabara*, should not receive anyone wearing a mourning *tobe* (a black Sudanese sari).

However careful the woman or her next of kin are, one or more taboos might be breached unintentionally; they therefore provide some means that serve to protect the woman against immediate danger in such situations. These means are to ensure that the woman is always in the best of health, and socially, psychologically, and physically fit. They place a piece of aubergine under the woman's bed, or make her wear the black mourning sari. Neither she nor her relatives should bring any black objects into the house. She should not eat any food from wedding or circumcision parties, or that brought from a house in mourning. Food she dislikes should not be brought into the house. She should not cross the Nile or look at the new moon, and any guests, especially visitors from another village or town, should clean their feet of dust before they see her.

If the woman, her next of kin, or any neighbour or acquaintance breaches any of these taboos, she enters a state of imminent danger, called *mushabara* or *kabsa*. She is then vulnerable to (among other things) bleeding,<sup>199</sup> miscarriage, difficult delivery, infection of decircumcision wounds, engorgement of the breasts, lack of milk, fainting attacks, and various types of fever and diarrhoea affecting her or her baby.

Special procedures are followed to prevent *kabsa*, or undo the damage if it strikes. Firstly, certain practices are followed to protect against harm should a lapse from the set directives occur. The woman wears special prayer beads known as *sibhat al-yaqur* (literally rosary of comfort). She fumigates her bedroom with *bakbur al-taiman* (the twin's incense) as frequently as possible, and especially if she expects visitors. She should have a piece of black aubergine, a dead black beetle, or a lump of clay or sand from a graveyard, under her bed all the time. She should also keep a copy of the Quran nearby. She and her newly born child should wear specially made amulets containing verses of the Holy Book.

*Kabsa* may cause overt diseases that need to be treated as quickly as possible through special rituals. A procession of women lead by a mature righteous woman takes the woman to visit the Nile. There she washes

her hands, feet, and face three times. The women sprinkle Nile water on her, and spare no effort to frighten her. This, they believe, is essential for the efficacy of the ritual. If she is not easily scared, one woman pinches her painfully until she is. Alternatively, the woman is taken out of doors after sunset to the outskirts of the town to face the crescent moon at its onset. As she gazes at the sky, one of her companions shouts loudly, taking her by surprise.

Should an out-of-doors ritual be impossible to perform, they resort to indoor procedures. They fill a special bowl called *tasbt al-kabsa* (*kabsa* bowl) with Nile water.<sup>200</sup> While the woman is outside, the bowl is brought into her room. This should be done just after sunset. When the stars appear in the sky, she is asked to step over this barely-seen bowl, while she is sprinkled with water to make her stumble and feel frightened. This is done amid laughter and ululation. The woman then washes her face, hands, feet, any affected parts of her body, and her baby. The procedure is repeated three times on three different days.

She returns home and stoops over a bowl of water and *balila* (cooked durra), and at the bottom of which is a *farajalla* (a silver metal-coin), mimicking a miniature sky. She is provided with more *kabsa* items of sympathetic magic including the plant *shagarat al-khalas* at this time, which is used to monitor and speed up prolonged labour (see page 116).

As a last resort, they cauterize the woman on the leg, to achieve a cure. If she has a single son, they cauterize his forehead at the beginning of the lunar month. This concludes the *kabsa* treatment. To announce the success of the procedure, they bring into the house a long bone of a donkey that has died at least a year before, shroud it, and mourn over it earnestly before burying it. The evil spirit is believed to have been transferred to the bone and is thus expelled.

At the end of the *mushabara* period, another set of rituals begins to reinstate the woman back into normal life: *arba'in al-nilada*. They are necessary because a woman is deemed ritually unclean following delivery, and needs to be purified lest she pollutes and, thus, endangers everyone around. The mother, as also the bride and bridegroom, remove the *jirtiq* ornaments and wash the cloths that have hitherto been untouched over the blood of a sacrificed animal. About sunset, the woman, carrying her

baby, is marched to the Nile in a procession of righteous women (carrying green palm leaves, if available). Into the river, she throws all her soiled linen used in the confinement and house sweepings, together with some dates, wheat, durra, and sometimes, *kobl* (antimony), and alum, and seven white pebbles, as offerings to the Nile and its Angels.

The woman ablutes with forty handfuls of river water (washing her face, hands, and feet). Next, the baby is washed similarly and lifted up in the air, while the women chant the incantation: “*ya banat al-bur wa al-bubur wa al-du’a al-maqbul jatkom ...*”. (And they mention her name.) On their way back home, they cut as many green palm leaves as possible and take with them. Those who live away from the river, march the woman to the nearest water pond or, failing that, the nearest well.

Those living in place where there is no water source, visit *Salam* trees if they happen to grow in the area. The women chorus chants the following incantation: “*naqarna al-salam in shalla taslam, ya rab al’alamin ...*”. Alternatively, as the case in Al-Fashir, the mother leaves the confinement room together with friends, carrying some flour and butter and the sweepings of her room. They all head to a green tree east of the house in which the mother lives. This tree is regarded as a substitute for the river: it is duly smeared with butter and sprinkled with flour, and the sweepings are left at the foot of it.<sup>201</sup>

A Sakkoat version of this Nile reverence, called the *Mariya*, is reported on by Crowfoot in 1919 saying that this ritual takes place around the third day after the birth and before the mother has begun to suckle the child. Various preparations have to be made: the house is swept and the sweepings, the afterbirth and the midwife’s razor are all put together: a little raft or float is constructed of wheat stalks and an oil lamp is placed on it, and a big cake of wheat flour is made.

The midwife herself takes the baby and goes down to the river with a number of attendant women and children, carrying with them besides the objects mentioned above, a brass basin containing the *kobl* pencil and the *kobl*-pot already used, as well as some of the *durra* and dates from the *Tirkir*. On the way to the river, the midwife throws the grain about right and left crying: “This is the portion of the *Mariya*, Oh Angels!” and the women accompanying her drum on the *kobl*-pot and basin and pray ‘By

the Mariya, by the Angels and by this new face, grant us, Oh God, our desires'. At the riverside the infant's face, hands, and feet are washed and they put the raft with the lighted oil lamp and the cake on it into the water, but snatch the cake back before they finally push the raft out into the stream.

According to one account, the afterbirth is also put on the raft, but it is generally thrown, I believe, straight into the river with the sweepings. The midwife then fills the basin with river water and cuts four palm branches to put in the four corners of the room. On her return to the house, she washes the breasts of the mother with the river water and gives her the baby to nurse. At the same time the baby's eyes are painted with *kohl* and a cross painted with *kohl* on its forehead, another cross onto the wall above the mother's *angaraib* (bed) being painted with the baby's meconium which is regarded as peculiarly pure because it comes from the child before it has received any 'worldly' nourishment. According to the sex of the child, a boy or girl of known good character is then brought to the baby and given seven dates, which he is expected to chew and spit out at the child, telling it to grow up like himself and its parents.<sup>202</sup>

The woman of the Bega tribe of eastern Sudan jumps over fire for purification. Edwards Evans-Pritchard reports in a preliminary account of the Ingassana tribe of south eastern Sudan, that previous to birth no exertion may be made either by the expectant mother nor by her husband, lest the child die in consequence, nor may either of them carry fire.<sup>203</sup>

## Baby Care

### Preferential baby care

Because of the genuine fear of the malice of supernatural beings, the Evil Eye, and witchcraft, children, especially the newborn, are overprotected. Both sexes are considered weak and are accorded the same measures of protection in early life. However, as babies grow, male preference starts to be clear. A boy brings more joy to his parents and kin. They say a boy *farbatu kabira* (a boy brings more joy to the family). This attracts in turn more jealousy, envy and the evil eye. Female babies are also offered

special protection because they are believed to be inherently weak; they have a weaker rib, *dil'ata qasira* or made out of a man's rib, indicating their fragility. Boy preference, however, is not universal. Among the Koma, childbirth is treated as a purely normal function. There is no particular preference for male or female children. The more natural desire for a son as the firstborn is compensated for by the increased marrying capacity of the family if a daughter is born. After the birth of a child, a goat (if one is available, and if not, a chicken), will be sacrificed and eaten. The birth of twins is not considered a misfortune, but there is a danger that they may grow up weakly unless a more extended sacrifice takes place. Twins must be married on the same day.<sup>204</sup>

In northern Sudan, where female infibulation is rife in its severest forms, delivery is fraught with danger, and a woman's life is seriously threatened, especially in localities where only *habl* midwives attend at birth. Nothing so much expresses the worry about the imminent danger as the greeting terms used at and after delivery. These include *kebalas* (saving); reflecting safe delivery in what might have been a fatal process. This view is further confirmed by the term *hallel* (release), which indicates that a woman is released from death or the grave. Indeed, delivery is the most critical part of her life. The local exegesis takes 'the grave to be open' throughout confinement, only to be closed on its final day, i.e. on the fortieth day of confinement.<sup>205</sup>

Repeated deaths in infancy are occasions of extreme grief and disturbance. To obviate this danger, the parents resort to a number of practices to camouflage the baby from the evil eye and harmful spirits. Other methods are also known. The mother, first 'sells' the child to one of her friends for 50 or 100 piastres, and the purchaser is called the child's mother or mistress. She buys clothes for the child from the day of birth until he or she gets married. Then, she gives the couple a generous present and the connection is severed.

For the same reasons, the mother of a surviving child may go round to her friends 40 days after the birth and beg for pieces of cloth, sugar, and bread for the child. The pieces of cloth are made into a garment for the child, the patches being considered as protection against the evil eye, to

deceive the spirit into thinking that the child is poor and unimportant, and that it does not belong to its mother.

To avert evil, especially when the child falls very ill and yet recovers, they change the baby's name, giving it a strange one, or inflict *shulukb* (facial scarring) different from that usual in the tribe.

### **Ritual shaving**

The ritual shaving of a baby's birth hair is usually performed at the age of seven months by the father, grandfather or, occasionally the mother. If the hair is left longer, it might hamper the baby's growth or may cause scalp boils, eczema, and other infections. The scalp is then covered with ointment made of *durra*, water, and perfume so that the child does not get headaches when exposed to draughts. Though most shaving is done at home, some babies are taken to the *maseed* to be shaved there by the *faki*. It is believed that whoever does the shaving transmits some of his or her qualities to the baby. The *faki*, in this case, should make the baby pious and righteous. Disposal of the shaved hair is also considered to have some influence on the future attributes and health of the baby. It is believed that the baby associates with the place in which the hair is buried. Thus, burying shorn hair in a mosque is believed to associate the child in the future with the *maseed*, which is not simply a place of worship, but also a social institution where senior men of the village meet and entertain their guests. Thus, the qualities, which may be gained from associating with the mosque, include piety, generosity, and seniority in the village. Girls' hair is buried inside the house. This practice symbolizes other qualities, which are thought to be more appropriate for girls, such as stable marriage, fidelity, etc.

Later in life, however, a definitive shave is given on yet another special occasion, particularly as far as the disposing of shorn locks is concerned. (These are firmly believed to be used by evildoers to perform sympathetic magic). Until recently, it was usual to see young children running about with cleanly-shaven heads with some locks left behind. *Qarin*, *quttiya*, and *qambour* are designations for solitary rounded locks at the crown of the boy's head. It is usually a token of a *nadiba* or a *nadbr* (a vow) made during pregnancy by the parents, that, should a boy be granted them, they will not shave the lock until they have offered a

sacrifice; or, if their baby is ill, a similar vow made should he get well. The lock is shaved, thus, at the saint's shrine. Abbashar Abu Bashariya is the notable *shaikeb* at whose shrine people come from all over the country to have the heads of their young shaved. If a girl gets married before her head is shaved at Abbashar's shrine, she might get ill repeatedly or loose babies; the cure is obvious—a shave at the shrine even at this late age (see Figure page 725).

It is thought that the hair of a child originally belongs to the patron saint and should be given back to him. That is the case in babyhood and early childhood. In the older age groups, the *qambour* may be ornamental, a token of a vow, a badge of office of a *faki*, or preserved as a convenient handle for angels to lift the young one out of harm's way should need arise. *Al-Qussa* (a square lock on the front of the head), for example, is a badge of Hasan Wad Husuna and *dodar* (a rectangular lock across the top of the head from back to front) is the badge of Hamid Abu 'Asa. If the locks are still present at puberty, a rare occurrence, then the vow is not fulfilled yet.<sup>206, 207</sup>

### **Baby feeding and weaning**

Babies are breast fed immediately after delivery or after the mother and baby is cleaned of delivery blood and other secretions. Crowfoot, reporting on the customs of the Rubatab, says that if the mother is ill, a relation or neighbour will suckle it with her own without payment, and if the illness lasts or the mother dies or becomes pregnant before the child is weaned, the child is fed with boiled goats milk only or else suckled directly from the teat of a goat after it has been washed and fumigated with *talh* smoke. A woman will not suckle a child before men, nor will she suckle it when she is coming out of the heat until she has washed her breasts and got cool, however much the infant may cry. Later, when the baby is about to be given food, it is taken to a *shaikeb* or a pious, righteous, or otherwise successful man for *tabnik* or *tariyyq*.<sup>208</sup> The man licks the baby's gum or rubs it with his forefinger after putting it in his mouth. Alternatively, he chews a piece of date and rubs it on the baby's gum or just puts it into its mouth. Sometimes, the baby is given sweetened water on which the *shaikeb* has read some incantations. As was

the case in the shaving rituals, here also the baby is thought to inherit all the *shaikh's* goodness.<sup>209</sup>

*Liba* or *sarsonb* (colostrum) is not seen as harmful, and therefore not squeezed out before the breast is given to the baby. Indeed, in many northern Sudanese societies, animal colostrum is cooked, sweetened, and offered to grown-up children as a delicacy. However, some women see colostrum as potentially harmful, and hold that the least it could cause to the nursling is diarrhoea.

According to the dictates of Islam, babies should be nursed for two lunar years. Al-Tom noted that in central Sudan, though people do internalize the Islamic views, this practice is not adhered to rigidly. A male baby is believed to require a shorter period of nursing; prolonged breast-feeding is thought to diminish intelligence—a quality regarded, even by women, as more necessary for boys than for girls. Shorter periods of nursing are also given in cases where the mother has insufficient milk or her milk is *kbafif* (thin).

Weaning is considered when a woman falls ill or when a baby starts teething, walking, or gets bouts of gastrointestinal upsets, namely, diarrhoea and vomiting. In Muslim Sudan, getting pregnant is considered by women an absolute contra-indication for breast-feeding; the woman's milk, then, is believed to be harmful to the nursling. Getting pregnant, having cracked nipples or inflamed breasts, are sufficient reasons for weaning. The method of weaning, frequently abrupt, is left to the woman's discretion. Several methods are used to achieve abrupt weaning, all of which are directed towards making the baby dislike, or fear, the breast. Frightening objects such as beetles or woolen tufts, are attached to the breast, alternatively, the breast is camouflaged by painting it in white flour paste. To give the baby the worst shock, the nipples are rubbed with chili powder, salt, or even bitter anti-malarial medicines. The psychological trauma consequent upon these practices needs further investigation.

Among the Koma, a child is kept at breast for about two years, i.e. until it can speak. During this period, the husband must have no sexual intercourse with his wife.<sup>210</sup> A similar practice is seen among the Azande as reported by Brock. Children, he reports, are suckled for quite two

years and during this time, the mother will not eat the same foods as were forbidden her during pregnancy. Until the child is weaned, the husband will have no intercourse with his wife. He added also that the Makaraka had a peculiar custom that a man will have intercourse with a wife who is pregnant only at the time of a new moon.<sup>211</sup>

### **Teething**

Teething, *tatwir*, is believed to cause a variety of maladies, namely diarrhoea, restlessness, and loss of weight. On these occasions, therefore, treatment is first directed towards the management of teething.

Children shed their deciduous teeth gradually. Parents instruct their children to dispose of the shed teeth; these should be thrown towards the Sun with a few grains of sorghum and a piece of charcoal with an incantation asking the Sun to replace the older teeth with whiter and more beautiful ones; to replace a donkey's teeth with those of a gazelle, as they say.

Various teething troubles are diagnosed as the result of growths, called the *hai'fat*, in the places where the eyeteeth should appear. The technique the local doctor uses to manage these cases is described in page 154. Others cauterize the bottom of the spine, and others, especially round about Omdurman vow four piastres, one for each tooth to *Shaikeb* Khogali of Khartoum North to save their child from this trouble.<sup>212</sup>

### **Mental stimulation**

Children are reared with a barrage of protective rituals, and stimulated with various nursery songs, rhymes, and quizzes. They are involved in different activities, and exposed to various games; the child is gradually initiated into the social and moral codes of his group, and gradually assumes the expected standard of behaviour.

Through various nursery rhymes, quizzes, stories and *abaji*, children are mentally stimulated. They identify with the group through learning of the supernatural powers and achievements of their national heroes. They repeatedly hear the names of the different spirits, such as *jinn*, *'afrits* that haunt the environment and influence life. When old enough to join their peers, they start playing games on moonlit nights. Children in Muslim

Sudan, join the *kehalwa* at five. Here, they start learning the Arabic alphabet, basic arithmetic, and, most importantly, learning by heart the short chapters of the Holy Quran, and basic religious rules.

### **Nutrition**

Food is more than just sustenance; it plays several other important roles as well. These include creating and sustaining social relationships, maintaining cherished values, signaling social status, occupation and gender roles, marking important life changes, anniversaries, festivals, and reasserting religious, ethnic, and regional identities. Because of these many social roles, dietary beliefs and practices are anchored in the social fabric and are difficult to discard even when they are health threatening.<sup>213</sup> Special foods are prepared for pregnant women, infants, children and the sick, and many taboos and observances recognized.

The late Professor Tigani Al-Mahi has discussed the role of food in social institutions. He has said that the significance of food in the life of man is not altogether confined to its nutritional and biological effects. Since the dawn of history, indeed from prehistory, food has had extremely important functions of a festal, communal, and spiritual nature. These were factors of great historical importance in the material, social and spiritual evolution of man.<sup>214</sup> People select their diet through experimentation and develop their food habits through a long process of conditioning determined by ecological and cultural factors. Nutrition may also have an appreciable effect on the existing sociological patterns of family institutions and groupings. Infant and child mortality due to preferential feeding, for example of male children, underfeeding or wrong feeding may increase or sustain polygamy, increase the morbidity and mortality of young children, and affect marriage and sex life.

Food, thus, has cultural and nutritional functions. Some foods (page 280) and special waters (page 288) also have established roles in therapy, while several items have been tabooed.

### **Food**

The traditional Sudanese diet contains staple foods, the meats of different animals, namely, cattle, sheep, camel, and goats, in addition to fish, poultry, seasonal fruits, and vegetables.<sup>215</sup> It varies according to

locality, ethnic group, mode of life, degree of contact with foreign cultures, and whether the item is affordable or not. Turkish and Egyptian influences on culinary habits are clearly seen in northern and central Sudan, and among Muslim groups throughout the country. Common dishes and cuisines are identified in each locality and within each ethnic group.<sup>216</sup>

The four humours theory which we discussed earlier (page 44) gave nutrition a prominent place in the management of health and disease, and the use of rigid systems and regimens of nutrition for the sick became formalized as the most crucial part of the healing art.<sup>217</sup>

Throughout the Sudan, women are the caretakers of food culture, and cooking is their exclusive specialization. In several regions, they procure food, and almost all over the country, they procure and cook it too. They thus decide the amount and type of food to be eaten by the family. It is frequently shameful for a man to be seen in the kitchen. Grinding of grain in the *murhaka* (grinder), an essential step in bread making, is done exclusively by women, daughters, wives or servants. When a *funduq* (mortar) is used instead, Nigerian women are employed.

During Ramadan,<sup>218</sup> all Muslims should abstain from water and food and forgo all pleasures of the senses from daybreak to sunset.<sup>219</sup> Islam also prohibited the intake of certain food items altogether and sanctioned others. Meat that is religiously sanctioned is that of cloven animals that chew the cud, and which are ritually slaughtered according to Islam.<sup>220</sup> Shot animals, if they are not ritually slaughtered immediately, are not eaten, and animal blood is not drunk. Fish that have fins and scales are eaten, but other seafoods are not. Muslims are strictly forbidden to eat pork. Pigs are reared, however, in the Nuba Mountains and pork is eaten there. However, some clans such as Tira, under the influence of Muslim Arabs, gave up rearing and eating pigs. Some ethnic groups in the southern and western parts of the country eat termites and locusts. Generally, with the exception of offal (tripe, liver,<sup>221</sup> and lung), and fish when salted and fermented, nothing else is eaten raw. During famines, people have had to eat items that their culture has tabooed, their religion has forbidden, or which have simply not been to their taste or liking in normal circumstances. These items have included poisonous plants.

Bloss reported that grain stores used to be buried underground in the desert to prevent theft. It sometimes happened that the owner of a store would die, and that no one would know where the store was. However, the location of these underground stores was not very difficult as large trails of ants could be seen going to and from there. These ant trails were always explored with the hope of finding such a store. Of course, not all ant trails lead to grain stores, but in a famine, all ant trails were fully explored in high hopes.

Regular traditional dishes can be identified throughout the Sudan, and have changed little in the last century. In the central regions, *keisra* (bread) made of sorghum, guinea corn, or wheat, and dressed with *mulah* (gravy), is by far the commonest dish.<sup>222</sup> Bafra and cassava, on the other hand, are popular sources of bread making only in the southern Sudan. *Dukhun* (bull-rush millet) is popular for making *'asida* (porridge) and *balila*. *Luqma*, *qurrasa*, and *rudhaf* are different types of bread made of any available cereal.<sup>223</sup> *Balila* is a dish made of one or more type of cereals—*durra*, *lubia 'afin* (red beans), *lubia tayyib*, *lubia 'adasi*, maize grains or chick-peas-boiled and eaten sweet. It is usually taken mixed with *samin* (local butter) and dates.

The most popular types of *mulah* (gravy) are *mulah taqaliya*, *um daqoqa*, and *mulah sharmut*. Cooked dishes use one of the following vegetables: *bamiya* (okra), *rigla* (purslane), *molokhiya* (Jew's mallow), *qara'* (pumpkins) *bambai* (sweet potatoes), *shamar* (fennel), *kasbara* (coriander), *fasonlia khadra*, and *baidha* (haricot beans) and *basal* (onions). Spices include *shatta* (red chili), *filfil aswad* (black pepper), *cammoun* (black and green cumin), *qirfa* (cinnamon), *zangabiel* (ginger), *ghourongal* (galangal), and *joze al-tib* (nutmeg). James Bruce, writing two centuries ago, advised travellers to that part of the world [the Sudan] to take plenty of spices and seasoning, even in quantities enough to blister the palate. The natives, he said, do so and it strengthens the stomach.<sup>224</sup> The most popular vegetables are generally components of salads. They include tomatoes, cucumber, *girjir* (eruca) (believed to be aphrodisiac) and recently introduced items such as lettuce, carrot (believed to be aphrodisiac) and beetroot. Fruits include mangoes, oranges, bananas, grapefruits, sweet melon, watermelon, and lemon. *Babai* and coconuts are mainly consumed in the southern parts of

the country where they grow. Sugar cane and '*ankolib*<sup>225</sup> (sweet cane) are chewed and sucked by the young.<sup>226</sup>

The Sudanese have fermented several types of food of both animal and plant origin.<sup>227</sup> People have also found that sprouting grains (a stage in fermentation) are cooked in a significantly shorter time. Their texture and flavour are found agreeable, and they are sometimes particularly relished for their mild acidity and alcoholic flavour. The food made from this type of grain is found useful in treating diarrhoea and other illnesses. A variety of fruits, vegetables, cereal beans, fish, meat, and milk of most known animals, have been fermented for preservation or for immediate consumption. Some foods are salted, dried, and spiced.<sup>228</sup> Others are preserved as powdered gravy.<sup>229</sup> Vegetables such as *waike* (okra), *molokhiya* (Jew's mallow) and onions have also been dried. When meat is sliced and dried, it is called *sharmut*. In Darfur, this is pounded into powder with fried onions and dried okra, to make food for travellers to take on long journeys. *Kawal*, fermented *Cassia tora* is consumed by more than 3 million people in the Sudan. It has high protein content, is reputed to have a highly appetite-stimulating effect and aphrodisiac properties.<sup>230</sup> In many localities of southern Sudan, people consume milk only after it becomes sour or robe, the acidity of which, it is noticed, may prevent contamination with bacteria and decreases possible danger from milk when it stands for long periods before consumption. *Laban rayib* (curdled milk) and *fursa* (milk butter) are among the best-known milk products. Meat is sometimes preserved in animal fat.

Generally, people eat in groups out of the same dish on the ground-covered or uncovered. *Qadah wad-Zayyid* (the wooden bowl of Wad-Zayyid) became proverbial for a dish that is said to be so big that the whole tribe used to eat out of it at one meal. People use their bare fingers in eating, and it is quite usual that they lick them and the bowl clean of gravy as a show of satisfaction.

Beside its nutritional value, food is held in esteem as a cherished item offered in sacrifice (*karama*) to God and holy men, offered (*sadaqa*) to spirits of the dead, or given as a token of a vow (*nadr*). In addition, animal slaughter, *zabieha*, has been the main method of showing hospitality and friendliness, the amount of food presented, and items

cooked, reflecting the hospitality of the family. No initiation rite is ever performed without the slaughter of an animal. The nutritional values of foods and the concept of a balanced diet are not known and do not determine the amount of food to be served daily. People, especially in a feast, are fed and encouraged to eat more until they are sated. In some rural areas, loud belching is a sign of satisfaction, and it is bad manners not to do so.

A confinement and dietary regime called *khashaba* is prescribed for *rutuba* (joints pains), *sass* (syphilis), and various mental disturbances. In this regime, all animal products are withheld, and only *'ishba* is added to food.<sup>231</sup> The regime is maintained for forty days during which the patient is kept in an undisturbed confinement. At the end of this period, the patient is allowed to fumigate before ending the seclusion. Slatin Pasha, the famous Mahdi prisoner, was alleged to have escaped captivity during a pretended *khashaba*.<sup>232</sup> His guards were lead to believe that he was ill and needed *khashaba*, and, therefore, should not be disturbed. During the confinement, he managed to flee the country to Egypt.

*Al-Tabaqat*,<sup>233</sup> a chronicle of biographies of Sudanese scholars prior to 1800, abounds in feats of holy men undergoing prolonged fasts. Sufi saints still fast on water, *qarad* (sunt pods) and a bare minimum of sorghum bread to help them in meditation and prayer.

Some food items deserve special mention because of their alleged therapeutic or high nutritional value. Honey is popular as food and a drink in the Sudan and throughout the Nile valley. It is also the only item that the Holy Quran specified as 'having a medicine for mankind,'<sup>234</sup> and was consequently recommended for different ailments in the various versions of *Al-Tibbb Al-Nabawi* (the Prophet Muhammad's Medicine).

Food habits in urban centres are changing rapidly, and people are becoming estranged from their local foods. Nomads, who used to travel on beasts through deserts and barren land for weeks and months, have developed appropriate food preservation technologies. When means of transport improved and nomads settled, food technologies changed accordingly. Time-honoured dishes are no longer prepared in urban and semi-urban centres; they are no longer needed. For example, *sharmut*

meat, which was a common travellers' companion on long journeys, has become a rarity.

Milk, besides its nutritional and therapeutic values, has always been an item of symbolic significance in Sudanese life. It is the food of the newborn, and as such is used in several rituals signifying virginity, healthy growth, and prosperity. This fundamental importance makes it feature strongly in the initiation of all social activities where success is essential. This is probably why *jirtiq* beads are dipped in milk and *durra* before they are invested on the bride and bridegroom among other decorations, (See more discussion of *jirtiq* page 199). For Muslims, milk is the food of the elect in heaven. Milk (along with dates and honey) is a food that possesses sacred attributes according to the Quran.<sup>235</sup> It is commensurate with this belief, Al-Tom writes, that the Arabized Sudanese treat milk with great respect. As an example, if a guest is offered milk to drink, and if he or she, for one reason or another, does not feel like taking it, he or she should dip his or her ring finger of the right hand in the milk and then lick it before the milk is taken away. This is an expression honouring the Prophet Muhammad by not rejecting his food. Furthermore, because of this sacred attribute, milk is used to identify a *sabbar* (a witch). Whenever one is suspected, a battery of tests is performed (see Witchcraft page 89). As a final confirmatory step, the suspect is offered milk; if it is rejected the suspicion is confirmed.

A widely known practice is also associated with dates. Immediately after delivery, the midwife chews a piece of dates, spits it out and then feeds it to the baby as his or her first food in life.<sup>236</sup> A similar procedure called *tahnik* is performed by the patron *shaikh* of the clan or, if he is not easy to reach, by the nearest pious man. In this procedure, the man chews a piece of date, reads some selected verses of the Quran on it, and then rubs the paste on the child's gum.

### **Food taboos**

We discussed earlier that in almost all societies we find the same set of components of magic: the spell, the ritual, and their associated observances such as food taboos. These taboos, in addition to those that are religiously sanctioned (see page 209), and the prevalent social customs and personal idiosyncrasies, affect health when they deprive

people of much-needed food in times of scarcity. Of course, during famines people have had to eat things, which are culturally tabooed, forbidden by religion, or simply not to their taste or liking. These have included poisonous plants, among other items.<sup>257</sup>

Many Sudanese believe that egg-yolk delays speech in young children, and so they withhold it completely from them. They also believe that meat makes a child with measles worse. If a lactating woman gets pregnant, her milk is regarded as no longer suitable for her baby.

Special foods are prepared for pregnant women to provide them with needed nutrients to make up for deficiencies caused by food fads, idiosyncrasies, and taboos. Food cravings are satisfied immediately for fear of harming the mother or her child, for example by causing birth marks. In addition, the birth of a deformed, monstrous or an albino child is believed to be due to a heavenly curse, the breach of a taboo by either parent, or the mother's food fads or idiosyncrasies.

In certain taboos, several foods are omitted from a child's diet during feeding in general and weaning in particular. By so doing, a child is inevitably deprived of some high-quality foods. Breast milk is believed to be harmful once the next pregnancy is suspected.

Camel meat is withheld from pregnant women because it is thought to prolong the gestation period beyond nine months to that of a camel. This taboo can be deleterious to the health of women, especially when camel meat is the only source of protein available. In some localities, meat in general is thought to infest children with a variety of intestinal worms; in others, goats' milk is held to make them more prone to become thieves; both are avoided. In addition, meat is avoided as much as possible during pregnancy, for fear of producing a large baby, which, they believe, causes difficult labour.

The late Tigani Al-Mahi wrote on the food customs and cultural taboos of the Sudanese, and commented on one of the most widely held beliefs in the Sudan and north Africa, that, if milk and fish are taken together the combination causes *baras* (leucoderma) and other diseases. He says:

“Food taboos arise mainly on the basis of religious or cultural scruples. Some evolve from other forms of collective experience

.... Among desert folk there has always been the belief that when fish and milk are taken together, sickness invariably arises. The indisposition is allergic. It is believed that there exists an incompatibility between milk and fish. However, surely, milk is the staple diet of these communities, which does not vary the year round, and the fish meal is occasional and exceptional. Since fish is more likely to precipitate allergic reactions by itself especially if fish is not one of the regular items of food of the community, the order of causality is confused. The blame is thrown on the combination rather than on the human constitution.”<sup>238</sup>

In two Otoro clans of the Nuba-Lomgyan and Lokogyama-the Lomgyan people may neither eat nor kill jackals, lest they fall ill and die; the Lokogyama are forbidden to eat lizards, the penalty taking the form of a wasting disease for which there is no cure. There is no rule against killing lizards or, for example, using their skins for making sheaths for the arm-knives, which the Nuba carry; but a Lokogyama man must not touch the dead animal, and must wait for the member of some other clan to skin it for him.<sup>239</sup>

Disaster may befall the whole tribe if certain animals considered of importance to the group are killed or their flesh eaten. One is a domestic animal-the goat: the Ldonyo people must not eat or kill young she-goats, which have not yet given birth, nor may they drink goats' milk, else all domestic animals of the tribe, which are in milk, will die. Three others are predatory animals: the Larallo clan must never kill leopards, or else some of their own clansmen would die; the Iltiri clan must never kill or eat snakes (including the python), lest the specific magic of this clan, which keeps poisonous snakes in check and cures snake bite, lose power; and one section of Iltobo is forbidden to kill lions.

In the case of the predatory animals, the connection between clan and animal goes even deeper and gains totemic significance. The leopard is described as the 'brother' of the Larallo clan; he would never attack a Larallo man, but would visit his house as a friend, without doing damage; so would snakes, the 'brothers' of Iltiri: it is said that if there were a nursing mother in the house of an Iltiri man, and if her milk dripped on the floor, snakes would come and lap it up.<sup>240</sup>

To these 'formal' clan observances, Nadel added, we must add another different category of clan rights and obligations, which express the unity and identity of the clan, not through the sameness of action, but through concerted action and co-operation. They define the identity of the clan negatively, by forbidding members of different clans to eat meat or drink milk together (other food being regarded as harmless), threatening them with the penalty of leprosy. They assert its identity positively, through a special institution, the 'clan meal' (under which name this usage is known).

No Heiban or Otoro man may eat meat by himself or in the small family circle; whenever he slaughters an animal, he must invite a few clansmen to share his meal (game falls in a different category), etc.<sup>241</sup>

Of incest, the Nuba spoke with anger and disgust. No one would eat meat or drink milk with the offenders, who would be virtually ostracized by their clans. However, often enough these clandestine incestuous relationships might never be discovered-until some day leprosy would appear in the kinship group and thus reveal that incest had been committed. In Heiban, the sanction of leprosy is assumed to follow any incestuous relationship. The fear of leprosy extends even to actions merely symbolic of sexual intimacy: thus, when a man eats and drinks for the first time with his *konyara* (who belongs to his maternal clan), he puts a certain root believed to prevent leprosy into the beer of which the two will drink.<sup>242</sup>

The Shulluk tribe in southern Sudan does not eat the flesh of lions, leopards, hyenas, a species of monitor lizard (*varanus*) and a special type of fish called shuru. None of them dares to breach these taboos and eat the meat of any of these animals, even in periods of famine and food scarcity.

All Tira clans are forbidden to eat the flesh of certain animals (e.g., squirrel and wildcat), lest they be punished with grave illness-blindness, or a crippling disease which 'breaks the limbs'. In case of inadvertent breach of this taboo, purification rites are in order.

Most Nuba tribes also observe certain food rules, which have no ritual or magic significance, but are merely food idiosyncrasies.<sup>243</sup> Thus, the Tira (and similarly Heiban, Otoro, Moro, and other groups) do not eat the

flesh of horses, mules, dogs, hyenas, frogs; nor do they eat ants or snakes (save the python, which is considered a great delicacy).

Trimingham reports on a dairy-ritual retained by the Bega tribes of eastern Sudan, along with certain other Hamitic tribes, such as the Galla of Ethiopia. He says:

“Milk possesses a certain virtue which is not only lost if any of the ritual is omitted, but may cause harm to the person partaking of it. The chief rules are that: men only must milk; no man may drink of the milk he has drawn until someone else has drunk of it; milk must only be drawn into gourds or basketry vessels; it must never be boiled and may only be cooked in certain ways; it may not be sold. A *shaikeb* is also splashed with milk at his installation. This milk ritual seems to be the making of something sacred or taboo permissible for human consumption.”<sup>244</sup>

Similar dairy-rituals are reported among the Nuba. For example, women of Heiban tribe may never milk goats or cows. In most tribes, this sexual division of labour appears as a customary rule, an old-established arrangement, for which the people can only produce the typical vague explanations of habitual practices-‘it isn’t done’ or ‘it would be shameful’. In three groups, however-Korongó, Mesakin and Tullishi-it takes the form of a severe avoidance, backed by superstitious fears and by a feeling of disgust and repulsion at the very thought of letting women milk the animals.

If you were to drink milk milked by women (say the Korongó and Mesakin), your teeth would break and fall out. In all three groups this avoidance is based on the conception of the ‘uncleanness’ of women, whose menstruation blood (even if they are not at the moment menstruating) would spoil the milk. Small girls, before the age of puberty, are accordingly exempted from this avoidance.<sup>245</sup>

Indeed, Nuba men would never eat or drink anything that has been handled by a menstruating woman; they believe that, if they did, their teeth and bones would break.<sup>246</sup> Muhammad Haroun Kafi adds that in the southern parts of the Nuba mountains a woman who is menstruating walks a shadow-length away from others, never puts her hand out for greeting others, and, when fetching water, has her pot filled by

somebody else, and when she carries the vessel she uses a special spiral stick so that she does not touch the pot.<sup>247</sup>

### **Beverages<sup>248</sup>**

Water is indispensable to every human society. It is needed for the survival of man, animal and plant life; in addition, it has an important role in maintaining acceptable sanitary and hygienic conditions. The Sudanese tried to provide safe water for daily use, and devised several methods for procuring, preserving, purifying, disinfecting, and flavouring water. They also knew several vegetables and fruits that are rich in water, such as coconuts, watermelon, sweet melon, sugarcane, '*ankolieb* (sweet cane, *Holcus saccharatus*), etc.

Water is obtained from rivers, streams, irrigation canals, hand-dug wells, *hafîr(s)* (man-made ponds) or *fula(s)* (rain water lakes), and bore wells (surface and artesian) that are getting more common in villages. Some *hafîr(s)* are dug by notable *shaiikh(s)* and bear their names, for example, *hafîr* Hasan Wad Husuna in Wad Husuna village. Clay obtained from some *hafîr(s)* has attained therapeutic value. Clay from the *hafîr* of Ahmad Wad Al-Turabi known as *tinat wad Al-Turabi* is a reputable treatment for rabies among the natives of that locality.

To make water wholesome, several traditional methods have been known. At home, water is stored in *zeers*<sup>249</sup> (earthenware pots), *qar'as* (calabashes), or *si'ins* (water skins).<sup>250</sup> For long-term storage, several clay pots are filled with the muddy water, sealed with fresh clay, and stored until spontaneous sedimentation occurs. Water is also stored in cisterns dug in huge *tabaldi* (baobab tree, *Adansonia digitata*). In these natural reservoirs and in other man-made ones, water is usually muddy, and soiled with a variety of pollutants that give it a foul stench. To make it potable, it is, therefore, essential to purify, disinfect, cool, and, occasionally flavour water, particularly during flood seasons.

It has been observed that water in places where certain plants grow is clear. These plants are therefore grown to clarify water. Such plants include *dees* or *si'da* (*Cyperus* species: *Typha angustata* in central Sudan and *Typha angustifolia* in Butana region). In riverbanks, clear water is obtained by scooping holes in the sand to obtain percolated water.

Simpler methods of purification include pouring water into *zeer(s)* through cloth and leaving it for some time for sediments to settle down before use. Filtered water that dribbles down a porous clay jar (*naqqa'* water), is collected for drinking and for brewing tea. A cup of tea so obtained is highly priced as being golden-clear in colour and superior in taste. To clarify running water, date *dalaib* fronds are used to trap particulate matter. Alternatively, the fronds are put in the bottom of troughs to achieve the same effect.

Different methods of coagulating particulate matter in turbid water are known throughout the country.<sup>251</sup> A common method involves the leaves or twigs of *shajarat al-mikbkhait* (*Boscia senegalensis*); they are thrown on the surface of the turbid water. In central and northern Sudan, a thin film of dough made of *kisra* (*durra* bread), or a thin layer of *robe* (sour milk curds), is spread over turbid water. Sometimes, the water is dusted with the ash of plants or earth from termite hills, as in southern Darfur.

If rapid clarification is required, water is twirled with branches of *Boscia senegalensis* and *Maerua crassifolia* (western Sudan) or with the roots of *korda* (*Maerua pseudopetalosa*) in Blue Nile region. These methods do not produce high quality drinking water, because it acquires a typical smell, taste and a brownish discolouration.

The commonest method of water purification in central and northern Sudan uses *ranwaaq* (clarifying clay) obtained from riverbanks. The coagulant is added to a small amount of water and stirred for 10-20 minutes; the resulting suspension is then poured into turbid water. Satisfactory results are obtained in an hour's time.

In northern Sudan, several pulses are also used to purify water. These include peas (lentil), *ful masri* (horse beans), and *ful sudani* (groundnuts), crushed and added through a strainer to protect against the smell of putrefying material. *Jeer al-ranwaaq* (clarifying lime) is similar to the clarifying clay in composition and is similarly used, but second in efficiency. This lime is obtainable from Jebel Kassinger north of Karima and Al-Karafab close to Korti. Powdered seeds of *shajar al-ranwaaq* (clarifying tree, *Moringa oleifera*) are put in a small cloth bag to which a thread is attached, hung in turbid water, and stirred until water is clear. This tree is said to have been introduced by the Fallata (Nigerians) and

the British. The Fallata used it as a medicinal plant and a vegetable; the British in the Sudan planted it as an ornamental tree in public and private gardens. In Donqola in northern Sudan, a piece of *shebb* (alum) or a tablespoonful of *mablub* seeds (*Hypoestes verticillaris*) is found enough to coagulate 20 litres of turbid Nile water.

A special coagulant mixture is made of pounded broad beans and *qarad* (sunt pods). This mixture, in addition to its coagulant properties, is alleged to treat diarrhoea and dysentery. *Tarfa* (*Tamarix nilotica*) and scented lime leaves are also used to purify turbid water. The coagulant is usually discarded at the end.

The concept of disinfection is only vaguely recognised. Water is boiled in many parts of the country, especially when it is plentiful. In Darfur, it is boiled with a piece of bark from *basham al-abyad* (*Grewia bicolor*). Water is also flavoured using *nal* (*Cymbopogon nervatus*), and *mahareb* (*Cymbopogon proximus*). The stalks and leaves of both plants are thrown into water containers. *Mahareb*, in addition, is taken to soothe abdominal cramps, and as such is a usual additive to *nasha* (*durra* porridge).

The Sudanese prepare and consume many soft beverages. Some of these are unique, such as *abray*, a sweet beverage for the fasting month. Also common are tea and coffee, both of which are imported—coffee from Ethiopia and Kenya, and tea from India. They are prepared in the same way as other parts of the world.

Beverages widely consumed in the northern Sudan include *karkade* (red sorrel), *aradeb* (tamarind), *hilba* (fenugreek), *harjal* (argel), *qirfa* (cinnamon), *ganʿabil* (ginger), *guddaim* (*Grewia tenax*), *gongolaise* (*Adansonia digitata*), *karawiya* (caraway), *yansoun* (anise), in addition to the seasonal *hilu murr* and *abray*, and the ever-present tea and coffee. All, besides modifying the mood, have some medicinal uses as well. Beverages are usually drunk sweetened with sugar, but the elderly still prefer to take coffee with dates, especially soft dates (*ʿajwa*).

## Medicine

The Sudan is vast; it encompasses different terrain and climatic zones, ranging from arid deserts to tropical forests and equatorial jungles, with a host of disease vectors found in a precarious environment.

Consequently, a variety of diseases-epidemic and endemic-are known, and to face them, people have tapped the resources of this environment-plants, minerals and animal products-in the management of their health. In this way, the Sudanese, like many others, have amassed a great corpus of curative methods, techniques, and recipes.

Relevant data has been gathered from the accounts of travellers and missionaries who have visited the country in the last three centuries. In scope, the data ranges from that contained in the famous Sudanese chronicle *Al-Tabaqat*, which covered the Funj era, to the miscellaneous records here and there in more recent works.

From these sources and others, it is possible to conclude that the Sudanese were generally healthy. However, their country was swept by several epidemics, many of which were imported from neighbouring countries, and which were frequently connected with famine and drought. These included cerebro-spinal meningitis, cholera, and smallpox. Fatalities due to these epidemics were massive.

Baker, for example reported that he witnessed an epidemic of smallpox so bad that 'the natives were dying like flies'.<sup>252</sup> Others reported that the disease sometimes decimated whole villages. Indeed, each wave of an epidemic, reporters agreed, left the population weaker and vulnerable.

Endemic diseases such as malaria, quinea worm infestation, venereal diseases (syphilis, gonorrhoea and yaws), leprosy, and child diseases (measles, chickenpox and diphtheria), were all very familiar to most people.<sup>253</sup>

Andrew Balfour solicited and edited pioneering articles on local medical practices and customs in different parts of the Sudan, in *the Wellcome Research Laboratories Reports* of 1908, 1911, and 1913. In these reports, four articles were written by Anglo-Egyptian medical army officers, who worked in different parts of the country after the reconquest of the Sudan in 1899. Balfour also added some additional notes contributed by Sir Rudolph Baron von Slatin Pasha, Inspector General, Sudan Government, which, he says, were derived from Slatin Pasha's extensive experience of dervish customs and from information furnished by one of the more reputable local *bakims*. The notes included narratives of the

treatment of syphilis, gonorrhoea, dysentery, *dabas*, headache, neuralgia, and other diseases.

A brief survey of the most common ailments people suffered from, and how they managed them, is given in this chapter. The items described should serve as an epitome of forms and techniques of treatment, rather than an inventory of known illnesses and recipes. In addition, here and there some exotic, and undoubtedly ingenious, curative methods are alluded to. For example, in northern Sudan nocturnal enuresis of children is treated with an interesting method; a beetle is wrapped around the penis of the affected child in such a way that it wiggles with the first drop of urine passed. When this happens, the child wakes up disturbed, and when this is repeated over many days, the child wakes up without the help of the beetle.

### **Chest complaints**

Cough is considered a disease in its own right rather than a symptom, and as such is given several names denoting its character, severity, and duration. For example, cough in general is called *qubba*. When it is light, it is *nasma*, *khabita* when coarse. Some of the appellations are pathognomonic of specific diseases. For example, *um qanatu* and *al-katkota* is whooping cough. *Nafas* and *fakak sadr* are designations reserved for asthma, which is known by its characteristic breathlessness and audible wheezes. Pulmonary tuberculosis is easily identified when the cough is protracted and accompanied by bloodstained sputum and *nosar* (wasting). The disease is known interchangeably as *al-sul*, *al-marad al-barid*, and *maqtu' al-tari*.

Various recipes and techniques are employed in the treatment of coughs. The following items are taken as internal medicines for all types: decoctions of *karkade* (*Hibiscus sabdariffa*) *qarad* (sunt pods, *Acacia arabica*) *um ghelegbla* (*Astrochlaena lachnosperma*), *qurunful* (cloves), gum Arabic, *ganʿabil* (ginger), *kholongan* (*Alpinia galanga*) tea leaves, and *nabaq* roots (*Ziziphus spina-christi*); a macerate of *qalyat 'aish* (roasted sorghum) ground and mixed with *qarad*; powdered *ganʿabil* pods mixed in honey or donkey's milk, and *abu al-'issail* (particularly for whooping cough); sesame or fish oil are popular for soothing irritant and dry coughs. *Qarad* pods and *karkade* (red sorrel) are sometimes sucked, *qurunful* smoked in a pipe

and *qarad* pods burnt for incensing to soothe an irritant cough. In tuberculosis, red chili is sometimes added to food, and sorghum mould is sometimes added in chronic cough.

In all types of chest complaints, cupping, scarring and cauterizing the painful sites of the chest wall are resorted to, especially below the clavicle or at the site of pain or swelling. The patient's heel is sometime cauterized to 'root out' cough. A little piece of *mistika* (mastic) is warmed and rubbed over a child's chest and covered with a piece of cloth as treatment for acute cough and for *naẓla*, *ẓukam*, *sutam* (common cold). In *naẓla* (coryza), fumes of boiled *kasbara* (*Coriandrum sativum*), or burnt *harjal* (*Solenostemma argel*) and sugar are considered beneficial especially when *naẓla* is accompanied by *dosha* (dizziness).

*Abu sufuf* (pleurisy) is treated by scarring over the ribs. Four rows of 4-5 scars are inflicted on each side of the chest and then rubbed with natron until blood gushes out.<sup>254</sup> Alligator lung or elephant dropping are said to be good for asthma. Sometime *al-risha* (the uvula) is incriminated as a cause of intractable cough and consequently excised to achieve a cure. Quranic verses are frequently inscribed on a triangular piece of *qara'* (pumpkin) and worn around the neck for whooping cough.

### **Worm and parasitic infestation**

Intestinal parasites that infest man are known categorically as *daidan* (worms), but when the infesting worm is *Taenia Saginnata*, the name *hanish* is given. *Qirfat al-dud* (*Albizia anthelmintica*) is the commonest cure for all worms. It is powdered, mixed with milk, and taken on an empty stomach. Guinea worm infestation is particularly common in the Sudan. It attracted the attention of early travellers; most probably due to the dramatic way, the local people extract it from the body.

James Bruce visited Abyssinia, the Sudan, and Egypt (1765-1777) and gave a shrewd account of guinea worm infestation-the parts most susceptible, a clinical description of the disease and how it was managed. Nonetheless, when his book appeared, he was branded as a highly imaginative liar.<sup>255</sup> He wrote:

“The plague appears indiscriminately in every part of the body, but oftenest in the legs and arms. I never saw it in the face or head, but

far from affecting the fleshy parts of the body only, it generally comes out where the bone has least flesh upon it. Upon looking at the worm on its first appearance, a small black head is extremely visible, with a hooked beak of whitish colour. Its body is seemingly of a white silky texture very like a small tendon, bared and perfectly cleaned. After its appearance, the local people of these countries who are used to it, seize it gently by the head and wrap it round a thin piece of silk, or a bird's feather. Every day or several times a day, they try to wind it up on the quill as far as it comes readily, and upon the smallest resistance, they give over for fear of breaking it. I have seen four feet or something more of this extraordinary animal winded out with invincible patience in the course of three weeks."<sup>256</sup>

It is interesting to note that this is still the commonest treatment. *Ferindeet* (guinea worm), *Dracunculous medienensis* is known to penetrate the skin while wading in pond water. The Nuba extracted it as described above, but they also devised a special type of patten with very high heels and leather strapping to protect them against catching the worm in the first place (see Figure 1: Nuba pattens (protective against guinea worm infestation, page 711).

*Um jiljil* or *jiljil* (*Aristolochia bracteolata*) is known to expel worms if taken orally. One dose of 80 seeds of pumpkin is said to dissipate worms from the intestines. Worms infesting purulent wounds are treated with *hijlij* (*Balanites aegyptiaca*) chewed to paste and applied to the wound. *Um abaka* (*Gardenia lutea*) and *takirti* (*Albizzia anthelmintica*), which were identified by Anderson in Kordofan, also expel worms if taken orally.<sup>257</sup>

Figure 20: Nuba pattens usually worn with leather strapping for protection against guinea worm.

## Skin eruption

### Smallpox

Healers and laypersons alike have differentiated between *al-burjum* (chickenpox), (also known as *al-burjuk*), and *hisba* (measles). *Judari* has always been difficult to diagnose except during epidemics. They have also identified several types of skin rashes, and labelled the itchy *dam al-*

*tayyir*. The infecting agents in all these diseases were not known, but methods of contagion were suspected, and, therefore, the many ways of management developed.

We have no evidence that people knew the agent that caused smallpox. Healers infrequently confuse its diagnosis with impetigo, psoriasis and other skin lesions. People refer to the deadly smallpox as *judari al-karufa*, a phrase indicating that the disease is so virulent that it is contracted through breathing.

Smallpox is a highly dreaded and stigmatized disease. It has been known in the Nile valley and neighbouring countries for around a millennium and a half.<sup>258</sup> During recorded history, a number of devastating epidemics have scourged the land, giving rise to appallingly high mortality. Of all diseases, smallpox was unique in lending itself to traditional control measures, and more than one method of variolation, prevention, and treatment were practised.

With the exception of anointing the skin with oil, which is particular to the Sudan, other preventive measures were also known in neighbouring Egypt and Ethiopia. People shut themselves indoors. The sick were segregated and sometimes the population moved en masse.

Traditional variolation is practised to protect cattle against cowpox and *abu qinniet* (pleuro-pneumonia). In cowpox, a piece of the lung of an infected cow is cut after it has died, and sewn in an incision inflicted in the ear of a healthy cow. In cases of pleuro-pneumonia, inoculation is done on the tip of the cow's tail. In *abu lisan*, a piece of cloth is soaked in the saliva and tears of an infected cow and the contents blown up the nostrils of a healthy animal.

Several methods of traditional inoculation were practised in the Sudan in the early days. Some were perhaps indigenous to Africa, others were probably Arabian.<sup>259</sup>

Inoculation was known and practised long before the Mahdiyya. Pus was taken from a pustule of an infected person and rubbed into a scarified wound of a healthy one. A highly infected person was preferred as a donor to somebody lightly infected; the disease caught from a heavily infected person is said to have spent itself, and, therefore, would not be

severe if caught. Bloss noted that the mortality among those inoculated was only about two or three percent, which, considering the total mortality, was very small.<sup>260</sup>

Bruce in 1790 described the commoner type of inoculation, *tishteree el jidderee* (buying the smallpox). This type was common among the Shulluk, the Nuba, and Arabs. In Bruce's words 'women, both the blacks and Arabs, those that live in the plains, like the Shulluk or inhabitants of El Aice, those of Nuba and Guba, those that live in the mountains, all the various species of slave that come from Dyre and Tegla have known a species of inoculation which they call ...'

During the fairest and driest season of the year, and upon the first appearance of smallpox anywhere, women of Sennar go to an infected person and wrap a fillet of cotton cloth around an infected area. They then start bargaining with the patient's mother over the price of this 'infected charm'. After it has been bought, it is taken home and tied round the arm of the person to be inoculated. When the person develops the disease, he is supposed to get no more pustules than have been paid for in the bargain.<sup>261</sup>

W.G. Browne, who travelled from Egypt by Darb A- Arba'in road to Fasher in 1793, also described local inoculation.<sup>262</sup> A less favoured method called *dag el jedari* (hitting the smallpox) was described by Burckhardt.<sup>263</sup> This method, they observed, was unpopular in both northern Sudan and southern Egypt. Little benefit was said to be gained from this technique, which consists of rubbing the fluid taken from the pustule of an infected person into an incision inflicted on the leg of a person to be inoculated.

Throughout the Sudan, smallpox patients were isolated and put under the care of elderly persons, such as a woman well past her menopause. In Darfur, a patient was isolated in a cottage called *al-kurbaba* (*kurfa* in central Sudan), and nursed by a person who had had the disease before. Patients were fed on a frugal diet, mainly milk and porridge. They lay on beds of ash; where the eyes were inflamed, onion juice was dropped in.

Among the Fur, however, Beaton writes, smallpox is treated as an honoured guest and referred to euphemistically as grandfather (*abo*); grain and flour are sprinkled outside houses to propitiate it and to avert a

fatal visitation. So far in fact do such propitiatory rites go that sometimes a deputation is sent to an infected village where pustules are punctured and the pus conveyed to the uninfected village for use in a primitive sort of inoculation.<sup>264</sup> When smallpox hits a village, the Acholi generally isolate the affected cases and whole villages are often burnt after an epidemic. Vaccination is practised, the actual pus of a patient being rubbed into a cut on the forehead of the man who is being vaccinated.<sup>265</sup>

### **Chickenpox and measles**

Chickenpox and measles in their full-blown forms or during epidemics have been differentiated and identified as inevitable childhood maladies. A number of ways of prevention and treatment have been tried. The diseases were formerly believed to be aggravated by any strong odours, whether those of perfume or of cooking. Patients were, therefore, isolated away from any possible exposures.

The pustules of chickenpox are covered with deep river clay or mud collected from underneath earthenware water pots. The earth probably works as a soothing poultice; antipyretic, astringent, and antibiotic effects are possible.<sup>266</sup> *Hisba* (measles) rash is rubbed with the froth of goats' milk.

Patients with either measles or chickenpox are isolated in a *kurfa*, an isolated lodge, whose walls are made of a special red *birish* (a straw mat), or red cloth, laid on beds covered with red *birish*s; the red colour is considered to have healing properties and soothes the inflamed eyes. Eye inflammation that usually accompanies these diseases, however, is treated with eye drops made of a decoction of tundub (*Capparis decidua*), sorghum, or *dukhun* (*Pennisetum typhoides*), to which onion juice is added. The body is anointed with oil to limit the spread of skin lesions. When *hisba* rash appears, full recovery is believed to be imminent. A number of methods are resorted to to expedite this process. They include fumigation with *harjal* (*Solenostemma argel*), rubbing the skin with goats' milk, especially when the eyes are inflamed. Patients with chickenpox and measles are not bathed for a period of seven days; they are then bathed with a macerate of 'aradeb (tamarind, *Tamarindus indica*), soaked in water over night. In Darfur, flour is spread outside the patient's room every morning, and the room itself is not cleaned for fear of raising dust.

## Fevers

Fever, a manifestation of many infections, is seen as a disease caused by almost any natural or supernatural agent. The Evil Eye, however, ranks high among the agents that cause fever in all ages, while *um al-subiyān* (see page 69) affects only the young and causes other diseases in addition to fever. However, when fever is accompanied by convulsions, the diagnosis is surely directed towards *um al-subiyān*. In this case, the parents are forbidden from touching the child. The sign of the cross is drawn in soot on the forehead, and the *faki* is asked as well to pray for a cure. Many plants are used for their antipyretic effects, and some are claimed to be specifically anti-malarial, antibiotic, or anti-inflammatory as well.

The ascites and enlarged spleen in *kala-azār* and malaria are designated *jana al-wirda* (the outcome of fever). Because fever is seen mainly as due to supernatural causes, treatment is associated with ritual fumigation, incantation and magico-religious spells including the use of *bakbras*, *mihayas*, and the laying-on of hands (see religious healing techniques pages 123-). Physical methods are also resorted to and include massage with coolant herbs and salts, cupping and cautery.

Among fevers, malaria has attracted a lot of attention and received much better documentation in classical medical and literary works, as well as the best descriptions in local tongues. Fever is known under a variety of labels-*humma*, *wirda*, *sabrajā*, and is qualified, when it is a malarial fever, as *humma um barid* (fever with rigours), *hummat kharif* (rainy season's fever), *gibbiyya*, *tiltawiyya* and *rib'*. *Ghibbiyya* (literally a fever that recurs every other day) is quotidian in northern Sudan<sup>267</sup>, and tertian (recurring every third day) in Darfur.<sup>268</sup> *Wirda*<sup>269</sup> is quotidian in Darfur.

In 1819, Burckhardt wrote:

“The people of Berber were on the whole a healthy race probably due to the situation of the town at the edge of the desert. When the Nile was in flood, a fever called *wirdee* occasionally became epidemic. It did not occur every year but when it did there was a high mortality rate among those afflicted.”<sup>270</sup>

Al-Tunisi in his narrative of the Darfur kingdoms, *Tashhidh Al-azhan bi-sirat bilad Al-Arab wal-Sudan*,<sup>271</sup> describes *al-humma al-mutbiqa*, and likens it

to *al-nosha* (typhoid fever) of Egypt. However, whether this name is actually known in Darfur is doubtful because Al-Tunisi soon adds that, 'all types of fever are called *wirdi* by the Sudanese; they do not differentiate between them.'

People also recognize *al-humma al-raj'a* (relapsing fever) and *abu-farrar* (cerebro-spinal meningitis); for treatment, they cup the back of the neck and rub the skin with *qarad* (*Acacia nilotica*), and vinegar.

Awad Al-Karim Muhammad Hindi in his *Mukhtarat Al-Sayigh* quoted the views of some notable healers of his time on the causes of fever:

"Basir Mustafa Bati of Omdurman attributes *wirda um barid* to accumulation of internal dirt, walking on hot ground, exertion, or *damm* [plethora]. Basira Fatima bit Talib of Berber, classifies fever as either due to *nugud al-halaq* [syphilis], especially in winter, *kbiderat* [tonsillitis], or '*afanat al-matar* [dampness of rain]. Basira Fatima adds, "If *kbiderat* [infected tonsils] are treated, fever subsides."<sup>272</sup>

Purulent wounds draining in the groin and armpits are known to cause *ashgaddi* (lymphadenitis) and fever. When a child runs fever with rigours, the parents are forbidden from touching him or her because the condition is believed to be due to *um al-subiyān*. In this case, the *faki* draws the sign-of-the-cross in antimony or in black soot on the child's forehead while reading some incantations and selected verses from the Quran. This is a common procedure required to pacify the demons and evil spirits. The '*uqda* (knot, see page 132) is blown upon both for prevention and for cure of fever. A patient is fumigated to exorcise evil spirits, and reverse the ill effects of the evil eye. The following items are used as fumigants chameleon's skin, hedgehog skin, tealeaves, common salt, *sheeh* (*Artemisia absinthium*), and *dofr* (dried cartilaginous remains of shellfish).

As further treatment for fever, the skin is massaged or rubbed with vinegar, *qarad*, *henna* (*Lawsonia alba*), mixed with common salt and water, oil or liquid butter. The scalp is covered with sheep's tallow, and the patient's bed covered with ground *qarad*. Wet cupping of the nape is practised both for prevention against various diseases and for treatment. In Darfur, when fever is high, the young patient is cauterized on the forehead. For *wirda um barid*, recipes include *kasbara* (Coriander), *kurkum*

(turmeric, *Curcuma longa*) ‘*aradeb* (tamarind), *mistika* (mastic), *jardiqa*, *maqarat*, *qirfa* (cinnamon, *Cinnamomum zeylanicum*), *kbolongan* (*Alpinia officinarum*), *mahareb* (*Cymbopogon proximus*), sugar and *samn* (butter oil).

Internal medicines for fever include the following: macerates of *qarad*, ‘*aradeb*, *turaiba*, and *jardiqa*, the last two are type of earth taken sometimes with dates; a decoction of *barjal*; a decoction of *murdu* known also as *gulum* (*Capparis tomentosa*) and *tysin* (the last three are peculiar to Kordofan). To cool the skin, massage with *henna* and *kball* (vinegar) is practised. The late *basir* Mahjoub Hamad of Berber used to immerse a febrile patient in Nile water three times to cool down.<sup>273</sup>

Slatin Pasha, among his observations on the practices of the dervishes during the Mahdiyya, in his book *Fire and Sword*, mentions that *senna* (*Cassia acutifolia*) and ‘*aradeb* were taken as purgatives by the dervishes for the treatment of fever.

Irrespective of the cause, splenic enlargement with ascites is known as *tobal*, *marad al-sa'id*, *um saloki*, *himl al-rujal* (literally man's pregnancy), *wad al-wirda* (*jana al-wirda*), and the sophisticated folk would call it with its classical Arabic name, *istisgha*. All these alternatives describe the abdomen in *Kala-Azar* in endemic areas in southeastern Sudan.

Reduction of the swollen abdomen mechanically by tight bandaging is first tried. *Al-qaris* (sour camel's milk) is given to patients to live on exclusively. At the same time, they are required to exercise strenuously. A decoction of several herbs is mixed in camel's milk. The mixture includes *janzabil* (*Zingiber officinalis*), *qurunful* (*Eugenia caryophyllus*), *qirfa* (cinnamon), *filfil* (*Capsicum annuum*) *cammon aswad* (*Nigella sativa*), *kasbara*, *shamar* (*Cuminum cyminum*), *hilba* (fenugreek, *Trigonella foenum-graecum*), *toum* (garlic, *Allium sativum*), *basal* (onions), and *barjal*. All are incubated for 3 days, and when it is ready, the patient takes it freely for 12 consecutive days.

### Venereal diseases

Venereal diseases used to be quite common in the Sudan to the extent that whole tribes were said to have perished because of the ensuing sterility. *Al-bol al-har* (burning micturition), though a symptom of urinary tract infection, is considered a disease in its own right. *Sayalan*, *basar* (gonorrhoea) is sometimes confused with *bejel* (lymphogranuloma

inguinale). *Sass*, *zūbri* (syphilis) is fairly well known in its different stages, which are described. The syphilitic ulcer is known as *safra* (the yellow sore), the skin rash, *darish*, and the tertiary manifestations *balaq* (circles), *giqqail*, *sharr*, *sass*, and *nugud al-balaq*. People incriminated sexual intercourse as a cause of *al-boal al-bar* (Gonorrhoea?), *balaq*, *sass*, or *jiggail* (syphilis).

In Kordofan, the appearance of syphilitic sores, ulcers and other skin lesions is considered an 'outlet' for the disease, and, therefore, beneficial. The syphilitic sore, ulcer and skin lesions are generally not treated. Treatment regimens include starving the patient and use of drastic purging and enforcing diuresis. Haematuria induced with local catheterization is looked upon as essential to cure. Anderson reported, early this century, that the diagnosis of syphilis is very uncertain amongst the people of Kordofan, and that many lesions, such as impetigo and psoriasis are confused.<sup>274</sup> But he added: 'Wonderful cures' are of course reported on all sides, and the non-professional English official is quite convinced in many cases that the local *Hakim* possesses mysterious knowledge and medicines far superior to the mercury and iodides of the English physician.<sup>275</sup>

*Al-khashaba* and *burma* treatment regimens are popular throughout Muslim Sudan; they vary from locality to locality and from healer to healer, but in minor details only. *Al-khashaba*<sup>276</sup> is an enforced starving dietary regime accompanied by disciplinary measures imposing penance on patients, particularly those with venereal diseases.<sup>277</sup> Fat and salty food is restricted and the patient may eat only dried *'ishba* (*sarsaparilla*). This herb is powdered and mixed with an equal amount of sugar and taken twice daily. It is also made as a paste mixed in honey. During treatment, the patient is kept in a quiet place, avoiding any extremes of emotions, and confined to a room under the care of an old woman. The patient should not eat cheese, beef, *molokhiya* (Jew's mallow, *Corchorus olitorius*) or use salt. The regime continues for forty days after which the patient is allowed to undergo incensing with burning aromatic wood.

In the '*burma*' regime, three pounds of *turaiba*<sup>278</sup> are mixed in six pounds of water in a *burma* (earthenware pot), and left to stand for 3 days. Half a pound is drunk every morning and evening for a week, during which

time the patient eats only dry saltless *durra* bread and drinks half a pound of *samin* (ghee). During the second week, goats' meat, *durra* bread with half the usual ration of salt, is allowed. In a medical tour to western Kordofan in 1917, Negib Eff. Yunis, reported on the *burma* treatment as practised by the Baggara. He said that the herbalist collects iron filings and adds some *qarad*, *'aradeb*, *'atroun* (natron), and certain herbs. The mixture is boiled in a *burma* for 24 hours, the quantity of water being increased whenever evaporation makes this necessary. The patient is admitted into the house of the herbalist and remains under his supervision for 15 successive days. In the meantime, the patient is permitted to take freely of the contents of the *burma* but little else. When released, the patient is very weak and emaciated; he goes away to come back for another session in few months time.<sup>279</sup>

Several recipes are prescribed as internal medicines for the treatment of syphilis including *'atroun* in milk and *samin*, decoctions of *tiebra* root, *denobia* root and *daiu* root (peculiar to Kordofan); decoctions of *shirkaila no. 2*, *karkade* (red sorrel), *tibet-tree* root, with *khara hadid*<sup>280</sup> (iron smelter refuse), or a decoction of *dukhun* (bull-rush millet, *Pennisetum typhoides*) drunk in protracted cases.

The syphilitic lesion is occasionally cauterized, and powdered root of *ghrur*, *kursan* fruit (*Boscia senegalensis*), natron and *turaiha* (*Pterocarpus lucens*) are sprinkled over long-standing ulcers, or *turaiha* (anti-syphilitic earth), which is imported from the Nile or obtained from the vicinity of Bara, is taken as pills or as a drink.<sup>281</sup> In the *Wellcome Reports* alluded to earlier, the recipes collected for syphilis included: milk and butter mixed with burnt natron, or pure honey mixed with green *tutiya*.<sup>282</sup> This is to be taken daily before breakfast for three days. During this treatment, the body should be washed and perfect cleanliness observed. The diet should consist of beef, onions and vegetables, and sexual intercourse avoided. The bread in these diets should consist of saltless white *durra* or *durra shami* (maize), with no onions. *Feterita durra* should not be used. The patient should be fumigated with *talh* wood (*Acacia albida*).

Slatin Pasha added:

“As regards the *turaiba*’ treatment, it is said that no other medicine is so effective for syphilis because our forefather Adam was made of earth!”<sup>283</sup>

For the treatment of gonorrhoea, the patient is submerged in a tepid infusion of *bilba*.<sup>284</sup> This medicinal bath is repeated for three days. To speed recovery, half-sweetened black tea is left in the open all night, and drunk for seven days.

The symptoms of gonorrhoea are infrequently confused with other causes of pyuria and haematuria, which may or may not share *al-bol al-har* (burning micturition). When these symptoms are found, an infusion of *jardiga*, honey, cocoa, or *henna* is taken orally. The *Sberkaila No. 2* Root taken with milk is claimed to be particularly effective in children, and in the treatment of syphilis.

The adverse effects of the traditional treatment of the genito-urinary tract, especially gonorrhoea, are reported. Some of the local cures are considered not only ineffective, but also dangerous. Deaths due to anuria, acute ascending nephritis, gangrene of the penis and scrotum, with severe vomiting, diarrhoea, and acute inflammation of the kidneys with haematuria, are reported. Though *rab’a* (*Trianthema pentandra*) root taken by mouth is considered very effective in treating burning micturition, it is incriminated as the most probable cause of certain cases of poisoning and death, which were reported following some local prescriptions for the treatment of gonorrhoea. R.G. Anderson has this to say:

“The native treatment of gonorrhoea is not only ineffective but most dangerous. There have been three deaths in the Civil Hospital, El Obeid, during the last year from malpraxis in this direction, one from, anuria, another from acute ascendant nephritis, and a third from gangrene of the scrotum and penis. Each of these unfortunates had, prior to admission, undergone a course, resulting in severe vomiting, diarrhoea, and acute inflammation of the kidneys, with haematuria, the passage of blood being looked upon as an essential to the cure. In the case of the patient who died from anuria, *raba*’ was the medicine used (as indeed I suspect in all three instances)”<sup>285</sup>

*Mahlab* (*Hypoestes verticillaris*) seeds are taken in *marisa* (a local alcoholic fermented drink) for the treatment of gonorrhoea and other cases of burning micturition. In Kordofan, a number of plants are reported to be effective remedies for burning micturition; these include *gadda* (*Ferula foetida*) powder, *kharasmi* (wormseed), *sheeb* (wormwood) and *kalto* (*Ximenia americana*), which is particularly known to cause severe diarrhoea and vomiting. The roots no. 1 and 3 from *Shirkaila* and *'irq al-kujur* (unidentified Latin name) is all taken in milk or in *marisa*, some of them with tragic consequences. *Bamiya* (okra, *Hibiscus esculentus*) is sometimes cooked into a paste and eaten as treatment.

Yet another treatment of gonorrhoea, the fruit of *hanzal* (colocynth) is emptied of its seeds through a rounded hole at one end. The resulting cavity is then filled with milk in the evening and allowed to stand all night, being drunk the following morning. The same fruit lasts for three days, when, if a cure is not complete, another should be used.<sup>286</sup>

Catheterization of the penis with instillation of medicinal infusions is performed using an eagle's quill. An infusion of *kalto* is also instilled into the urethra using a locally made tin or a pierced horn-syringe. Rectal infusions through a perforated sheep's horn are sometimes tried, especially when there is sinus or prostatic involvement. Daily infusions of *abu lebru* (*Boerhavia plumbaginaceae*) fruit are given. Sitting on warm *samin* and local fumigation for women are also resorted to. Potent diuretics are identified in *sha'ir* (barley, *Hordeum sativum*) *kbilla* (*Ammi visnaga*), *marisa* and *damsiesa* (*Artemisia absinthium*), *'usher* (*Calotropis procera*) and *dar sini* (Cinnamon, *Cinnamomum zeylanicum*).

### **Insect stings and snakebites**

Poisonous snakes, scorpions and other harmful animals and insects are identified, their habits and habitat are known, and, when man or animal is bitten, traditional management begins. Antidotes derived from the local flora are prepared, and amulets (including herbal items) are worn for protection.

It is known that these creatures do harm through poison introduced through the skin when it is breached by a sting or a bite. A tourniquette proximal to the affected site is immediately applied. The site itself is

incised as quickly as possible, and all blood sucked out. The patient is immobilized and transferred to the shade. Inactivity and rest are thought to speed recovery by arresting the spread of the noxious material to the rest of the body.

Evans-Pritchard reports on the Azande submitting an accused to the poison oracle by giving the subject a strychnine-like potion to drink:

“If the poison were going to kill a boy it would not kill him while he sat still on the ground, though he would suffer spasms of pain that would make him stretch his arms backwards, gasping for breath. When a boy fell to the ground efforts were made, with the king’s consent, to revive him by administering a slimy mixture made from the *mboyo* plant, the *kepoyo* tree, and salt. This made him vomit the poison. Afterwards they carried him to a brook-side and laid him in the shade and poured cold water over his face.”<sup>287</sup>

Abd Allah Abd Al-Rahman, in his book *Al-‘Arabiyya fil-Sudan*<sup>288</sup>, mentions that it is a common custom among Sudanese Arabs to attach women’s jingling bells to a man bitten by a snake to prevent him from sleeping for a few days; poison was thought to spread in the body during sleep<sup>289</sup>.

The incriminated scorpion, if found, is killed and tied on top of the stung site. If it is a snake, it is buried to keep it away from the effect of the hot sun. Cure is believed to take effect through the principle of ‘like cures like’, that is, if the snake is left exposed to the scorching heat, the patient suffers similarly, and vice versa.

### **Pain and consciousness**

As in other societies and cultures, different varieties of pain are described by the Sudanese. Likewise, the reactions to pain and the expression of it are influenced by special social and psychological factors. A number of painkillers are known and used, but not as many as one would hope for, nor in a potency to make any sizeable surgical intervention endurable. The concept of anaesthesia as is known in modern medical practice is not developed, but recipes that alter the state of consciousness are known.

Observers believed that the Sudanese display a high degree of tolerance and stoicism to pain, something the Sudanese themselves boast of having. Indeed, tolerance to pain seems to be an important attribute of Sudanese manhood. It is deemed shameful that a man should complain of pain or show fear in situations of distress. It is a matter of pride, for example, to move the whole body, instead of turning the head alone when one is shouted at from behind. Not only that, but if one is being bitten by a dog, one should not turn to push the dog away; others should do this instead. It is, equally, shameful to flee any life-threatening situation, and certainly not a death penalty. In many tribes, a praise-song of a *hakkama* (a tribal poetess) in a dancing party is all a young man can hope for in life. Such songs spread a man's valiant deeds (or cowardice acts) among the tribe, and therefore enhance or revile a young man's reputation.

In marriage ceremonies, young men, mostly eligible bachelors, practise *butan* (ritual whip flogging). In front of girls, they vie with their rivals in bravery, endurance, and manly prowess. Each pair of rivals take their shirts off, and, in turn, whip each other on the naked back until one falls unconscious or arbitrators intervene to call it a draw. The whiplashes produce scars so deep that one wonders how they are tolerated and borne without a word uttered or even a grimace. If one of the rivals were to show the slightest reaction to whipping he would be labelled a coward, and girls would not accept him in marriage. Another show of courage is when, in a marriage ceremony, a man in love approaches his beloved girl while she is among others, takes his knife out of its case, utters words that assert that he is the one who will protect her, and starts scarring himself with the knife until the audience stop him. The girl would be duly flattered.

Signs of such ventures were frequently seen on the bodies of men in earlier days. Other procedures are also cited as examples. *Shulukh* (ritual facial marks), *fisada* (bloodletting), *kai* (cautery), *tajbir* (bone setting), male and female circumcision, among other surgical procedures, are all performed without anaesthesia or analgesia. Even the young boast of their endurance to pain by performing *shataru* among themselves. Young boys heat a date palm seed by rubbing it vigorously over a smooth stone, and apply it immediately to each other's forearm. The most courageous

is the one who tolerates the painful stimulus without wincing. The one who utters a cry or shows undue signs of feeling pain will be held in disgrace and lampooned.

Pain is described as *alam* or *waja'*, and, though these terms are interpreted differently, they connote an underlying disease process. For example, when one complains of *waga' kila* (kidney pain) or *waga' kabid* (liver pain), one is actually complaining of an ailment somewhere in the region of the loins or the right hypochondrium, respectively.

People complain of *waga' ras* and *suda'* (headache), *shaqiqa* (migraine). When headache is thought to be due to *fabq* (neck twisting) or muscle sprain, the nape is massaged and lifted up with the two thumbs, in a procedure called *rafa' al-fiqar* (nape lifting up).<sup>290</sup> A mild, transient, and throbbing headache is treated with a scarf tied tightly around the head, just above the eyebrows. Persistent headaches need more aggressive management, and are usually referred to the *faki*, who treats them with *'azima* (spitting cure) and incantations. In the treatment of *shaqiqa* headache, the *faki* draws squares on clean sand in which he inscribes special letters and numbers; then he puts a probe in each square in turn while reading some selected verses from the Quran.

General measures for treating headache include the application of a variety of poultices, which are considered to alleviate headache. Among these are poultices of *harjal*, *shebb* (alum), *benna* (*Lawsonia alba*), salt (*Qa'ab* salt in particular), and goats' butter. These are applied to the cleanly-shaven scalp, *Cammoun aswad* is sniffed together with *samm* through a special instrument called *mis'at*. The same procedure is applied in the treatment of the mentally ill; both situations are based on the same inherent misconception. Like the ancient Greeks and early Arabs, the Sudanese believe that the nostrils are directly connected to the brain and, therefore, that nasal secretions descend from its base; hence the name *naẓla* (coryza).<sup>291</sup>

Sometimes, a patient with a chronic headache that is not responding to a drink of *haza* (*Haplophyllum tuberculatum*) for example, is described as *rasu fat-ba*, i.e., he has an 'open head'. The case is diagnosed by measuring the circumference of the head vertically and transversely to establish this fact. To close the head, a band is wound around the head over the

temples and a key or a piece of wood is used for tightening. A mixture of *wadak* (tallow) and *zait* (oil) is poured over the crown of the head. The procedure is repeated every day for three days until the head is declared 'closed'.

*Waja' al-kila* (kidney pain), which includes renal colic and all types of loin pain, is relieved by a decoction of *bizr al-kihilla* (visnaga, *Ammi visnaga*) taken orally; this is believed to expel stones from the urinary passages. Infusions of *mahareb* (*cymbopogon proximus*) or *sha'ir* (barley) are drunk to clear the urinary passages. *Haḡa* (*Haplophyllum tuberculatum*) *sheeb* (wormwood, *Artemisia absinthium*), *harjal* (*Solenostemma argel*) *damm al-ikhwa* (*Daemonorops* sp.) and *habbat al-muluk* (croton oil seeds, *Jatropha curcas*), *yansoun* (anise, *Pimpinella anisum*), *caranya* (caraway, *Carum carvi*), *na'na'* (peppermint, *Mentha viridis*), and *qurunful* (cloves, *Eugenia caryophyllus*), are powdered and ingested as internal medicines, to relieve pain or expel stones.

*Waga' al-kabid* (liver pain) stands for all types of pain and discomfort arising in the right hypochondrium. Dry cupping, scarring, bloodletting, and cautery, are frequently performed over the site of pain. As internal medicines, powdered *sha'ir hindi*, *hijlij* (*Acacia aegyptiaca*), *ikhwa*, *senna mekki* (*Cassia acutifolia*) are mixed together and taken orally first thing in the morning.

A mixture of powdered *karawiya*, *qurunful*, *zātar* (thyme, *Thymus vulgaris*), *zangabil* (ginger, *Zingiber officinalis*), and *qirfa*, is taken sometimes in honey for the treatment of *waja' al-kabid*. Also, *shā'ir*, a known diuretic, is believed to be a radical cure for jaundice.<sup>292</sup>

*Waga' al-qalib* (heart pain) refers to epigastric pain. For the treatment of this malady, an infusion of *hilba* or *harjal*, is prepared singly or added to 'aradeb, and taken freely. *Harjal*, 'aradeb, *cammoun aswad* (black cummin) mastic and *sukkar nabat* (white barley sugar) are powdered and taken twice daily.

When the *al-dhafiira* (toothless gum) of an infant is itchy and painful during teething, it is either rubbed with a piece of charcoal or cauterized. Alternatively, the baby is given a sheep's tail or 'irq al-teeb (*Iris germanica*)<sup>293</sup> to suck and bite on.

To protect a child against any possible problems that might accompany teething later, the newborn is lifted four times towards the shrines of the two holy men, Hamad and Khogali,<sup>294</sup> invoking them for blessing and protection against this particular malady.

A number of medicinal plants are applied locally to alleviate toothache. These include 'aradeb, *filfil*, *tumbac* (tobacco, *Nicotiana tobacum*), *shatta* (chili, *Capsicum frutescens*), and *qurunful*. The latter is also chewed or smoked for gingivitis. Alternatively, 'afus (gall nuts) powder or *dalli* (*Trianthema salsoloides*) ash are mixed with tallow or water respectively and applied to the swollen cheek. Teeth and gums are brushed with *neem* (*Azadirachta indica*) or *arak* (*Salvadora persica*) twigs and rubbed with 'ud *qarba* (*Cucurbita pepo*) or *qurunful* powder.

According to *faki* Al-Mahgoub Muhammad of Berber,<sup>295</sup> *wag' al-mafasil* (joint pain) is either due to *sass* (syphilis) or to *buruda* (coolness). If it is due to *buruda*, efforts are directed to reverse it by fumigation, exposure to direct heat or with a 'sand cure'. The affected area, after anointing with oil, is exposed to the heat of a charcoal fire. Alternatively, a red brick is heated, sprinkled with water to put the flames out, wrapped in cloth and applied to the affected area. To achieve the same effect, a trench the size of the man's body is dug in the ground. Burning wood is put in it for some time; this is then cleared away and the trench sprinkled with water. The patient's affected limb is anointed with oil; he lies on a straw mat and is covered with blankets. He stays in the pit for an hour. The procedure, particularly prescribed for lumbago, is repeated until a cure is achieved.

Fumigation with *talb* is universally believed to be beneficial in rheumatic pains, referred to as *rutuba*. Dry and wet cupping and cauterization of the affected area are sometimes resorted to. The *Qa'ab*<sup>296</sup> valley is frequently visited for a 'sand cure'. This is resorted to in chronic joint pains and for other intractable illnesses. The patient's whole body is anointed with oil and buried in the sand to cause profuse perspiration. The 'bath' is followed by massage, and the patient is given rich food. The regime goes on for a few days (usually more than 10 days).

Internal medicines are also given to alleviate joint pain. These include a decoction of *khiyar shanbar* (*Cassia fistula*), *kasbara*, *harjal*, or *mahareb*. The

cooked paste of *toum*, milk, ghee, and *'asal nabl* (honey) are also given. The late *shaikh* Yaqoub shaikh Hagu of Sennar claimed that this last recipe is most beneficial. Sometimes, purgation with a decoction of *'aradeb* and *senna* taken orally, may precede treatment, *qutran* (tar) made of burnt *'amyoga* seeds, is used as a paint for the affected part. *Dukhun* flour, dates, and *hilba* are mixed in water and taken as internal medicine.<sup>297</sup>

*Al-motaib* (dysmenorrhoea) is treated with *barjal* or strong unsweetened coffee. *Mosa* and *mardhaija* designate uterine colic in general, and are treated with *hilba*. *Robe* (sour milk), is taken for *waga' al-jarat* (post delivery uterine colic). The tip of a spear or a knife is directed towards the painful site when the colic is thought to be due to the woman giving birth to a boy after a girl; if vice versa, a woman is then described as *qalba* (reversing).

*Waga' al-'nyoun* (literally eye pain), refers to all types of eye infections, and is treated with lotions, powdered tealeaves, *qarad*, *dome*, *habat al-'ain*, *myrrh*, saffron, *lobia tayeba*, *tumbac*, *filfil*, *shatta*, onion and lemon juice, *rihan* and *'irq al-dahab*.<sup>298</sup>

More local cures for eye ointments have been reported by Beiram.<sup>299</sup> However, he believes that:

“Such local medicines are dangerous whether in powder or liquid form. In the first case, they could be highly injurious by producing abrasions, and secondly they may be dangerous through chemical toxicity or pH variations. Both may introduce fungus infections or other virulent organisms into the eye.”

When medicines are of no help and the eyes become a source of repeated trouble, two or three superficial scars are inflicted on the temples as a measure in treating some chronic eye ailments. A large proportion of people who were originally from the northern Sudan, where trachoma and other eye infections prevail, carry the characteristic two to three superficial scars on both sides of the temples.

## References and Notes

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<sup>1</sup>Muslim Sudan in this context refers to any place where there is a Muslim community and not to any geographical region in particular.

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- <sup>2</sup> Hussey, Eric R.J. A Feki's Clinic, *Sudan Notes and Records*; 1923; 6: 35.
- <sup>3</sup> Hussey. Op. Cit.
- <sup>4</sup> Grove, Captain E. T. N. Customs of the Acholi. *Sudan Notes and Records*. 2(2): 157-182.
- <sup>5</sup> 'Amar ink is a mixture of soot, gum Arabic, and water containing a tuft of hair soaked in a *dawaya* or an ink-pot; it is prepared by the *fakis* for writing in *khalwas* (Quranic schools), and for general purpose writing, as well as in making the different types of *hijbat*.
- <sup>6</sup> Al-Tom holds a different view. He argues, and logically, that 'the commitment of the Quran to memory is regarded [in Berti society] as superior to the other two methods of retaining the Quran, its superiority lying in its potential for instant reproduction through recitation. Although the drinking of the Quran is seen as inferior to its commitment to memory, this is regarded as superior to retaining it in the form of amulets. The latter stands at a disadvantage as the amulet can be lost, left behind or spoilt by ritual dirt.' (Al-Tom 1987, Op. Cit.). However, logic does not always hold true in real life; erasure is always prescribed for a particular occasion limited in time and place, and it is not all the Holy Book that is contained in the writing but a few verses or short chapters. That is why in Berti society erasure is taken only a few times in a year, and why in the northern Sudan it is taken just prior to the intended venture or at the onset of a disease, for example.
- <sup>7</sup> Abdullahi Osman El-Tom. Drinking the Koran: The meaning of Koranic verses in Berti erasure. *Africa*; 1985; 55, 4.
- <sup>8</sup> El-Tom. Op. Cit. Page 22.
- <sup>9</sup> *Hajar Al Mihaya* (erasure stone) is a stone scooped so that it becomes a container in which *khalwa* students wash their tablets at the end of every working day.
- <sup>10</sup> Abd Allah Al-Tayib reported on a Riverain version of this incantation (1958).
- <sup>11</sup> Howes, Michael. *Amulets*. London: Robert Hale & Company, 1.9-15: 12.
- <sup>12</sup> Sigerist, Henry E. *Primitive and Archaic Medicine*. New York: Oxford University Press; 1967. 564 pages.
- <sup>13</sup> Tigani Al-Mahi. *An Introduction to the History of Arabian Medicine*. (in Arabic) Khartoum: Misr Printing Press, 1959: 18.
- <sup>14</sup> The word *buruz* is also used to denote the category of protective amulets in general.
- <sup>15</sup> In Arabic, a *tamima* is an amulet worn on the body.

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- <sup>16</sup> Abdullahi Osman Al-Tom. Berti Qur'anic Amulets. *Journal of religion in Africa*; 1987; 17(3): 224-244.
- <sup>17</sup> Ready-made *hijbat* are sometimes sold by street peddlers. They are exhibited with medicinal herbs, roots, and small items, in the streets of most Sudanese towns. Al-Tom reported on a similar tendency of impersonalization of *hijbat* among the Berti tribe in Darfur. This trend to commercialize and display *hijbat* for sale, he added, is abhorred by many *fakis* in the Berti area. Al-Tom 1987: 226.
- <sup>18</sup> The price of a *hijab* ranges from few piastres to few hundred pounds in the currency few decades ago.
- <sup>19</sup> Reference here is to the medieval four humours theory alluded to in page 42.
- <sup>20</sup> Muhammad Al-Nur Ibn Dayf Allah (-1809). *Kitab Al-tabaqat fi khusus alawliya wa l-salihin wa l-ulama wa l-shu'ara* (1805!) ed. Yusuf Fadl Hasan, Khartoum: Khartoum University Press, 1985. Page 146.
- <sup>21</sup> Naom Shuqair, early this century, identified this stone as 'aqiq.
- <sup>22</sup> A mineral bead that is bluish-green or greenish-blue in colour.
- <sup>23</sup> Abu Huraira, a companion of the Prophet Muhammad, and a narrator of Hadith, was said to be the first to use the rosary in Islam, and his was made of 1000 glistening beads.
- <sup>24</sup> In ancient Egypt the "Scarab beetle ... was the emblem of Khepera or Kheperi, the self-begetting, self-creating sun god, ... holding the solar disk as the beetle holds his dung ball" *Encyclopedia of Religion and Ethics* (scarab beetle); see also Wallis Budge, E.A. *Amulets and Superstition*, pages 135-37.
- <sup>25</sup> Mac Diarmid, DN. The Sign of the Cross. *Sudan Notes and Records*. 1920: 3: 171.
- <sup>26</sup> Arkel, AJ. The Double Spiral Amulet. *Sudan Notes and Records*. 1939, 20: 151-55.
- <sup>27</sup> Arkel, AJ. Op. Cit.
- <sup>28</sup> See Arkel, A.J. Op. Cit. for further discussion on the different views relating this spiral to sex, and to the hieroglyphic emblem of the same design.
- <sup>29</sup> Mac Diarmid, DN. Op. Cit.
- <sup>30</sup> Abd Allah Abd Al-Rahman in *Al-'Arabiyya fi Al-Sudan* (page 13) reported on this Arab custom. He quoted a saying for Osman the fourth successor (Caliph) of the Prophet Muhammad, who said when he saw a handsome healthy child, and was afraid that the child would be bewitched, '*dassimu nunatubu*' (antimonize his chin dimple).

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- <sup>31</sup> In addition to its religious symbolism, the Coptic Christians in Egypt tattooed or drew the sign of the cross on their arms as an amulet to ward off the evil eye. This was done both for its aesthetic value, and to identify them as an ethnic minority among Muslims.
- <sup>32</sup> The 10th day of Rajab, the seventh month of the Hijra calendar.
- <sup>33</sup> Crowfoot, J. W. Angels of the Nile (*Banat al-hur*). *Sudan Notes and Records*. 1919; 2(3): 183-194.
- <sup>34</sup> See footnote: Crowfoot, J. W. Angels of the Nile (*Banat al-hur*). *Sudan Notes and Records*. 1919; 2(3): 189.
- <sup>35</sup> The bride's and bridegroom's *birishs* are made of white mat.
- <sup>36</sup> This is the first and most important of the five pillars of Islamic faith.
- <sup>37</sup> Clark, W.T. Manners, Customs and Beliefs of the Northern Beja. *Sudan Notes and Records*, 1938: 21 (1); 1-29.
- <sup>38</sup> Clark, W.T. Op. Cit.
- <sup>39</sup> Oyler, Rev. D.S. The Shilluk's Beliefs in the Good Medicine Men. *Sudan Notes and Records*; 1920; 3: 110-116.
- <sup>40</sup> This manuscript is in my possession and is appended to a forthcoming book.
- <sup>41</sup> *Zar* is an ambivalent word that indicates both the name of the possessing spirits and the propitiatory ceremonial dances performed to appease them.
- <sup>42</sup> Tigani Al-Mahi. *Zar Archetypes in the Sudan: 1937-68*. (Manuscript in possession of Dr. Ahmad Al Safi).
- <sup>43</sup> Dancing is a popular activity in Sudanese life. It is part of almost all festivities, especially those associated with various initiation rites. It is also part of the religious remembrance liturgies or *ziker*. It is seen as a recreational activity, a means for keeping fit, and an activity that enhances group interaction and body awareness. The *Kampala* dance performed by the Nuba is an excellent example of a dance fulfilling these all-embracing functions.
- <sup>44</sup> Ahmad Al-Safi, Samira Amin, Abd Allah Muhammad Abd Allah. *Zar in the Sudan*. Arabic (in press). 1989.
- <sup>45</sup> See samples of music scores in Ahmad Al Safi and Samira Amin. *Zar and Tumbura in the Sudan* (in press).
- <sup>46</sup> Tigani Al-Mahi. Al-Rayyid La Yakdhib Alilahu: Tahlil Al-Haya Al-Nafsiyya lil Maraa Al-Sudaniyya [Arabic]. *Majallat Al-Sudan Al-Jadid*; 23 June 1944: pages 6, 19.

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- <sup>47</sup> The late Psychiatrist Hasabu Sulaiman circulated and popularized in the daily newspapers and television interviews the term 'hysterionic' as a label for these patients.
- <sup>48</sup> Constantinidis, Pamela M. Women Heal Women: Spirit Possession and Sexual Segregation in a Muslim Society. *Social Science & Medicine*, 1985; 21(6): 685-692.
- <sup>49</sup> Lewis, I.M. Spirit Possession and Deprivation Cults [The Malinowski Memorial Lecture]. Delivered at the London School of Economics and Political Science, 8 March 1966: *Man*; 1966; 1(3): 307-399.
- <sup>50</sup> Rahim, S.I.A. Clinical Analogues of *Zar* in Sudan. In: The International Symposium on the Spiritual Dimension of Traditional African Medicine, January 1988: Traditional Medicine Research Institute, Institute of African and Asian Studies, Khartoum and International African Institute, London.
- <sup>51</sup> Rahim, S.I.A. *Zar* among middle-aged female psychiatric patients in the Sudan. I.A. Lewis; Ahmad Al-Safi; Sayyid Hurreiz, editors. *Women's Medicine; The Zar-Bori Cult in Africa and Beyond*. Edinburgh: Edinburgh University Press; 1991: 137-146.
- <sup>52</sup> Constantinidis, Pamela M. Women Heal Women: Spirit Possession and Sexual Segregation in a Muslim Society. *Social Science & Medicine*, 1985; 21(6): 68: 685-692.
- <sup>53</sup> Nadel assumes that many shamanistic performances are genuine cases of hysterical dissociation, and raises the question of how far we must assume the existence of a specific psychological predisposition in the groups where this form of mental instability plays so prominent and socially attractive a part. Nadel 1946.
- <sup>54</sup> Buxton, Jean C. *Religion and Healing in Mandari*. Oxford: The Clarendon Press; 1973. Pages 114, 298.
- <sup>55</sup> Buxton. Op. Cit.
- <sup>56</sup> Hydrocele was said to be so common among the Koma tribe of southeast Sudan that it was almost a tribal characteristic. It is known by the name kuk [kuka in northern Sudan]. Though very common, yet little in the way of treatment is done by the natives.
- <sup>57</sup> Theodor Krump, a German missionary, observing the customs of the Sudanese (1700-1702), namely of the Danaqla, wrote that 'on their foreheads, cheeks, thumbs, breasts and calves they tattoo designs with pins.' Krump, Theodor (1660-1724). *High and fruitful palm-tree of the Holy Gospel ...* [German]. Augusburg; 1710. Page 227.
- <sup>58</sup> Several names of tribal chiefs and sufi *shaihs*, for example *dabi al-wa'ar*, *al-khishin*, are reminders of these attributes.

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- <sup>59</sup> The word is Tibdawi in origin and mostly used for swellings of the face and gums.
- <sup>60</sup> Yusuf Fadl Hasan. *Al-Shulukh wa Asluba wa Wazifatuba fi Sudan Wadi Al-Nil Al-Amsat* [Arabic]. Khartoum: Khartoum University Press; 1976. 90 pages.
- <sup>61</sup> Sayyid Hamid Hurreiz. *Birth, Marriage, Death and Initiation Customs and Beliefs in the Central Sudan*: Leeds University; 1966.
- <sup>62</sup> The practice of drawing the sign-of-the-cross in antimony on the forehead of a child running fever could be seen as a temporary tattoo or cautery.
- <sup>63</sup> Titherington reports that among these tribes, these three practices are universal but circumcision is not: the latter seems a matter of caprice and often some sons are circumcised and their brothers not -- apparently at random. Few of the circumcised have encountered Muslims. (Titherington, Major G.W. The Raik Dinka of Bahr El Ghazal Province. *Sudan Notes and Records*; 1927; 10: 160-209).
- <sup>64</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: page 218.
- <sup>65</sup> Op. Cit. Pages 236-7.
- <sup>66</sup> Op. Cit. Page 406.
- <sup>67</sup> Stevenson, R.C. The Nyamang of the Nuba Mountains of Kordofan. *Sudan Notes and Records*; 1940; 23: 75-98.
- <sup>68</sup> Also known as *aghawat* in Egypt. See Ahmad Abd Al-Rahim Nasr for a narrative of eunuchs in Saudi Arabia (...).
- <sup>69</sup> Al-Tunisi. Op. Cit. Pages 249-267.
- <sup>70</sup> Abd Al-Majid Abdin. *Tarikh Al-Thaqafa Al-'Arabiya fi Al-Sudan* [Arabic] Beirut: Dar Al-Thaqafa; 1967, page 117.
- <sup>71</sup> Badi, M.H., El Hakim, A.M. Cases of Intracranial Haemorrhage: A History of Head Surgery in the Sudan, 450 BC- 450 AD. Paper presented to the Sudanese Surgeons' Congress (undated) Xerox copy, 2 pp.
- <sup>72</sup> Tienyu, Shang. Treatment of fracture and soft tissue injury by integrated methods of traditional Chinese and Western medicine. In: Bannerman, R.H, editors. *Traditional Medicine and Health Care Coverage*. Geneva: WHO; 1983: 86-9.
- <sup>73</sup> Crowfoot, J.W. Customs of the Rubatab. *Sudan Notes and Records*; 1918; 1: 119-134.
- <sup>74</sup> For management of toothache, see page 147.

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- <sup>75</sup> Ahmed Abd Al-Halim. Native Medicine in Northern Sudan. *Sudan Notes and Records*; 1939: 22.
- <sup>76</sup> Anderson, R.G. Some Tribal Customs and Their Relation to Medicine and Morals of the Nyam-Nyam and Gour People Inhabiting the eastern Bahr El Ghazal. *Wellcome Research Laboratories Report*. London: Bailliere, Tindall and Cox; 1911; 4A: 239-277.
- <sup>77</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: 132.
- <sup>78</sup> Muhammad Haroun Kafi. *Al-Kujur* [Arabic]. Khartoum: Folklore Department, IAAS, University of Khartoum; 1976; Silsilat Dirasat fi Al-Turath Al-Sudani. Page 103.
- <sup>79</sup> Muhammad Ibn 'Omar Al-Tunisi. *Tashbih Al-Adhban Bi-Sirat Bilad Al-'Arab Wa-l-Sudan* (Arabic), (Eds) Khalil M. 'Asaker and Mustafa I. Mus'ad, Cairo: Al Dar Al Masriya Lil-Ta'lif wal-Tarjama, 1965: page 277.
- <sup>80</sup> Throughout West Africa, Nigerians are known to be skilful in couching.
- <sup>81</sup> Awad Al-Basha. *Couching for Cataract in Western Sudan* [M.S. Thesis]. Khartoum: University of Khartoum; 1980.
- <sup>82</sup> Circumcision of females is known as *khifad* and that of males *khitan*, and both are known interchangeably as *tabara* (literally purification), or *ta'rib* (literally arabization).
- <sup>83</sup> Indeed, among the northern Sudanese neither boys' nor girls' circumcision seem to be associated with entrance into any new group.
- <sup>84</sup> In an elaborate study, Nadel described male circumcision among the Nuba, and stressed its pivotal role in the age-grade ceremonies. He also remarked that the meaning of these various age-grade ceremonies--which he described at length--goes beyond that of marking off phases of adolescence. The sacrifices, as is expressed in the invocations and prayer formulae which accompany them, are meant to secure health, prosperity, and fertility. The ritual procedure and the grouping of the congregation, besides, underline, with the weight of supernatural associations, the social structure of the group; they throw into relief the existing group units--the local group, the hill community, the tribe; and they affirm the hierarchy of accepted allegiances--to the local spirit priest, to the hill priest, and to the rain-maker of the tribe. (Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: 412).
- <sup>85</sup> Herodutus. *The History of Herodutus*: Rawlinson.
- <sup>86</sup> Strabo. *Geographia* (17 books).

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- <sup>87</sup> Ibn Salim, Abd Allah Ibn Ahmad Ibn Salim Al-Aswani (969). Account of Nubia (975-996).
- <sup>88</sup> Seligman, Charles G. Aspects of the Hamitic problems in the Anglo-Egyptian Sudan. *J. R. Anthropol. Inst.*; 1913; 40(3): 593.
- <sup>89</sup> Browne, W.G. *Travels in Africa, Egypt and Syria from the Year 1792 to 1798*. London; 1799.
- <sup>90</sup> Burton, R.F. *First Footsteps in East Africa*. 1856 1st ed. London; 1966.
- <sup>91</sup> Bruce, James (1765-1777). *Travels to Discover the Source of the Nile (in the years 1768, 69, 70, 71, 72 & 73)*. Edinburgh; 1790. Vol. 4: 5.
- <sup>92</sup> ‘Abd Al-’Azim Muhammad Ahmad ‘Akasha, Translator into Arabic. *‘Ala Tukhoun Al-’Alam Al-Islami* (On the Frontiers of Islam), two manuscripts concerning the Sudan under Turco-Egyptian rule 1822-1845. Hill, R.L. , Editor and Translator from the Italian into English. Khartoum: Al-Matbou’at Al-Arabiya; 1987: page 68.
- <sup>93</sup> It was reported that in 1845 (1261 A.H.), the Governor of Khartoum, under public pressure, issued a decree banning this type of circumcision. The decree did not include the Egyptian type in which only the clitoris was excised, and prohibited any presents brides used to ask of husbands in order to perform plastic recircumcision. ‘Abd Al-’Azim Muhammad Ahmad ‘Akasha, Translator into Arabic. *Ala Tukhoun Al-’Alam Al-Islami* (On the Frontiers of Islam): Two Manuscripts Concerning the Sudan Under Turco-Egyptian Rule 1822-1845, Hill, R.L. , Editor and Translator from the Italian into English. Khartoum: Al-Matboulat Al-Arabiya; 1987; page 68.
- <sup>94</sup> Abd Allah Al-Tayib. The Changing Customs of the Riverain People of the Sudan--III. *Sudan Notes and Records*; 1964; 45(3): 12-28.
- <sup>95</sup> Genital cutting of females is known as *khifad* and that of males *khitan*, and both are known interchangeably as *tahara* (literally purification), or *ta’rib* (literally arabization).
- <sup>96</sup> Negib Yunis, Yuzbashi. Notes on the Baggara and Nuba of Western Kordofan. *Sudan Notes and Records*. 1922; 5: 201-207.
- <sup>97</sup> Nadel, S.F (1947). Op. Cit. Pages 486-487.
- <sup>98</sup> Third report on the situation regarding the elimination of traditional practices affecting the health of women and the girl child, produced by Mrs. Halima Embarek Warzazi pursuant to Sub-Commission resolution 1998/16”, Commission on Human Rights, Sub-Commission on Prevention of Discrimination and Protection of Minorities, E/CN.4/Sub.2/1999/14, 9 July 1999.
- <sup>99</sup> UNICEF Global Consultation on Indicators, November 2003

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- <sup>100</sup> Rahim S.I.A. Cederblad M. Effects of Rapid Urbanization on Child health and Behaviour in a Part of Khartoum, Sudan, Xerox report undated, p 17.
- <sup>101</sup> Department of Statistics, Ministry of Economic and National Planning. *Sudan Demographic and Health Survey 1989/1990*. Department of Statistics, Ministry of Economic and National Planning, Khartoum, Sudan, and Institute for Resource Development/Macro International, Inc. Columbia, Maryland USA; 1991 May: page xx.
- <sup>102</sup> UNICEF Innocenti Digest: Changing a Harmful Social Convention: Female Genital Mutilation/Cutting. 2005 .
- <sup>103</sup> UNICEF The State of the World's Children. 2006.
- <sup>104</sup> Bayoumi, Ahmed (2003), Baseline Survey on FGM Prevalence and Cohort Group Assembly in Three CFCI Focus States, UNICEF Sudan Country Office, Khartoum.
- <sup>105</sup> Obstetricians call this incision the median episiotomy; another postero-lateral one is sometimes needed to aid delivery.
- <sup>106</sup> Constantinidis, Pamela M. Women Heal Women: Spirit Possession and Sexual Segregation in a Muslim Society. *Social Science & Medicine*; 1985; 21(6): 68: 685-692.
- <sup>107</sup> UNICEF Innocenti Digest: Changing a Harmful Social Convention: Female Genital Mutilation/Cutting. 2005 .
- <sup>108</sup> UNICEF Innocenti Digest: Changing a Harmful Social Convention: Female Genital Mutilation/Cutting. 2005 page 12.
- <sup>109</sup> Zugnoni, Father J. Yilede, a secret society: Among the Gbay "Kreish", Aja, and Banda tribes of the Western District of Equatoria. *Sudan Notes and Records*: 106-111.
- <sup>110</sup> Anderson, R.G. Medical Practices and Superstitions Among the People of Kordofan. In *Third Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum 1908*: 281-322.
- <sup>111</sup> Kronenberg, Andreas. Nyimang Circumcision. *Sudan Notes and Records*; 1958; 39: 79-82.
- <sup>112</sup> Brock, Major R. G. C. Some Notes on the Azande Tribe as Found in the Meridi District (Bahr El Ghazal Province). *Sudan Notes and Records*. 1918; 1: 249-262.
- <sup>113</sup> Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), 1979.
- <sup>114</sup> Convention on the Rights of the Child (CRC), 1989.
- <sup>115</sup> Universal Declaration of Human Rights. Articles 2 and 3 ; 1948.

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- <sup>116</sup> International Covenant on Economic, Social and Cultural Rights. Article 12 ed.; 1966.
- <sup>117</sup> UN Committee on Economic, Social and Cultural Rights (article 12).
- <sup>118</sup> UNICEF Innocenti Digest: Changing a Harmful Social Convention: Female Genital Mutilation/Cutting. 2005 page 15.
- <sup>119</sup> Lady Huddleston, the wife of Sir Hubert Huddleston, Governor General of the Sudan, wrote on the subject in the *Lancet* in 1949.
- <sup>120</sup> Council of the Church of Scotland Mission [Memorandum]. Female Circumcision: Appendix 1, Medical Aspects of Male and Female Circumcision and Clitoridectomy. Signed by 4 physicians. Boston, Mass, USA: African Library, Boston University; 1931.
- <sup>121</sup> Foreign Office Files. The third meeting of the Advisory Council for Northern Sudan. Female Circumcision in the Sudan; F.O. 371/41433, 1944, F.O. 371/45994: 5: 1, 1945.
- <sup>122</sup> Priddle, E.D.; Lories, A.O.; Cruickshank, A.; Hogel, G.S.; MacDonald, R.D.; Abd Al-Halim Muhammad; Tigani Al-Mahi; Omer Abu Shamma. Female Circumcision in the Anglo-Egyptian Sudan [Arabic and English]: Report to Sudan Government; 1 March 1945. Note: Introduction by: Sir Hubert Huddleston, Governor General of Sudan, Sheikh Ahmad Al-Tahir, Grand Mufti of Sudan, Sayyid Ali Al-Mirghani, Sayyid Abd Al-Rahman Al-Mahdi.
- <sup>123</sup> Sudan Government: Circumcision: legislation against excision and infibulation as it was practised in the Sudan, 1946. 15/1/1946. Legislative Supplement, *Sudan Government Gazette*.
- <sup>124</sup> Civil Secretary. Statement on Mahmoud Muhammad Taha Refusal to Work [Arabic]. *Jaridat Al-Rai Al-'Am*. Khartoum; 26/6/1946.
- <sup>125</sup> Mahmoud Muhammad Taha. Pharaonic Circumcision [Arabic]. Khartoum: Matbu'at Al-Akhwan Al-Jumhuriyyin; 1981 Oct 10;52.
- <sup>126</sup> Ahmad Al Safi. *A Bibliography of Female Genital Cutting in the Sudan*. Pamphlet issued in support of Khatroum College of Medical Sciences medical students symposium (Combating Female Genital Cutting), 21 December, 2005: 40 pages.
- <sup>127</sup> Traditional Medicine Research Institute Booklet (1981).
- <sup>128</sup> UNICEF 2005 op cit.
- <sup>129</sup> Quoted in: Seligman, Paul, Some notes on the collective significance of circumcision and allied practices. *J. Anal. Psychol.*; 1965; 10: 5-21.
- <sup>130</sup> Prophet Muhammad's was quoted to say in an authentic *hadith* the following: Narrated Abu Huraira: I heard the Prophet (PBUH) saying, "Five practices are characteristic of the *Fitra*: "Circumcision, shaving

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the pubic hair, cutting the moustaches short, clipping the nails, and depleting the hair of the armpits." (Al-Bukhari, Abu Abd Alla Muhammad Ibn Isma'il, Compiler. *Sahih Al-Bukhari* [Arabic-English]. Muhammad Muhsin Khan, Translator. Beirut, Lebanon: Dar Al Arabia; 1985; Volume VII, page 516. Also Prophet Muhammad was quoted as saying, in a weak *hadith*, that Prophet Abraham was circumcised (or circumcised himself) at the age of 80 using a quddum, a brick hammer (or at the place called Qudum if the word is pronounced differently). According to this *hadith*, and others, the learned men of Islam are unanimous that it is a definite act of *fitra* (literally, human nature), and in this context, Islamic pattern and tradition of the Prophet), an ordinance and an attribute of faith.

<sup>131</sup> Abd Allah Al-Tayib. Op. Cit.

<sup>132</sup> Quoted from: Ghalioungui, Paul. *Magic and Medical Science in Ancient Egypt*. London: Hodder and Stoughton; 1963: page 95.

<sup>133</sup> Seligman, Paul. Some notes on the collective significance of circumcision and allied practices. *J. Anal, Psychol.*; 1965; 10: 5-21.

<sup>134</sup> Abd Allah Al-Tayib Op. Cit.

<sup>135</sup> Due to several factors including medical opinion, the trend throughout northern Sudan to perform the operation as early as possible with markedly less ritual and celebration.

<sup>136</sup> Crowfoot, J.W. Customs of the Rubatab. *Sudan Notes and Records*; 1918; 1: 119-134.

<sup>137</sup> For more details of this ritual and the accompanying songs see Kronenberg, Andreas, Nyimang Circumcision. *Sudan Notes and Records*; 1958; 39: 79-82.

<sup>138</sup> Nadel, S.F (1947). Op. Cit. Pages 237-8.

<sup>139</sup> There are three kinds of ritual cleansing (ablution) required of an individual before performing certain religious functions. The cleansing performances symbolically restore the individual to a state of ritual purity as well as physical cleanliness. The first is *ghusl* (greater ablution), involving washing of the whole body, and is imperative after all causes of *janaba* (the consequences of sexual intercourse, intromission, ejaculation with or without coitus, menstruation, childbirth, major blood-letting and contact with a corpse). Converting to Islam, consecration for pilgrimage, entering a mosque or handling the Arabic text of the Quran also need *ghusl*. The second type of ablution is *wudu* (purification for prayer). This removes the impurities of *abdath* (the consequences of the bodily functions, breaking wind, touching a dog, minor bleeding, loss of consciousness or sleep). *Wudu* is required before the canonical prayers and other religious functions. The third kind of ablution is *tayammum* where through lack of, or legitimate

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aversion to, water—a substitute of sand, earth or unfashioned stone is used ritually instead of water. (See also C. Classe, *Concise Encyclopaedia of Islam*, page 17).

<sup>140</sup> Bruce, James (1765-1777). *Travels to Discover the Source of the Nile (in the years 1768, 69, 70, 71, 79, & 73)*. Edinburgh; 1790. Vol. 4; 5.

<sup>141</sup> In most regions of the Sudan, houses are built out of mud or mud bricks and plastered with cow dung. The dung is mixed with soil and hay, watered, and covered for several days to ferment into *zibala* that is used for plastering the walls. People have always known that the ferment makes a suitable breeding place for flies and are careful to cover it with soil so that no soggy part is exposed. Sanitary overseers have devised regulations to make this procedure safe.

<sup>142</sup> Useful smoke is called *dukhan*, the useless type generated by fire, etc. is called *'ussab*.

<sup>143</sup> The word describes the process and the material used, and a woman either massages her self, her woman partner, or her spouse.

<sup>144</sup> Petherick, John. *Egypt, the Soudan and Central Africa*. London; 1861.

<sup>145</sup> Titherington, G.W. Burial alive among Dinka of the Bahr Al-Ghazal, *Sudan Notes and Records*; 1925; 8: 196-197.

<sup>146</sup> Buxton, Jean C. Op. Cit.

<sup>147</sup> Nadel, S.F. Op. Cit. Pages 95-6.

<sup>148</sup> These are other Lotuko-speaking tribes.

<sup>149</sup> Seligman, Charles G.; Seligman, Brenda Z. The social organization of the Lotuko. *Sudan Notes and Records*. 1925; 8: 1-45.

<sup>150</sup> Abdullahi Osman El Tom and Ahmad El Safi. Traditional Practices Affecting the Health of Pregnant Women and Children. Traditional Medicine Research Institute (Khartoum) November, 1988, 59 pp (Photostat).

<sup>151</sup> Muhammad Haroun Kafi Op. Cit. Page 90.

<sup>152</sup> We interpret the word *sunna* in this context as an action which is ordained in nature, instituted and established, and that man has no control over or cannot change, even if he so wishes. When used to describe female circumcision, we think the word is being used in the same way, rather than in its religious sense, as a traditional teaching of the Prophet Muhammad.

<sup>153</sup> Abd Al-Rahim Sayyid Ali. Herbal Folklore Medicines in the Sudan. National Council for Therapeutics; March 1972; The Sudan Medical Council. Khartoum: 65-70.

<sup>154</sup> Clark, W.T. Op. Cit.

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- <sup>155</sup> Abdullahi Osman El-Tom et al. Op. Cit. 20-21.
- <sup>156</sup> Nadel, S.F. The Nuba: An anthropological study of the Hill Tribes of Kordofan. London: Oxford University Press; 1947: 204.
- <sup>157</sup> Nadel. Op. Cit. Page 192.
- <sup>158</sup> Awad Al-Karim Muhammad Hindi (Al-Sayigh). *Mukhtarat Al-Sayigh* (The Goldsmith Collection) [Arabic]. Cairo: Matba'at Al-Zahran; 1949; 3 vols, pages 399, 400.
- <sup>159</sup> Recently, young women used a type of glue known by the brand name of *Amir* to make a rubbery sheet on the outer side of the introitus. This, in addition to providing resistance to intromissions, helps to narrow the vaginal opening by providing an artificial tight ring. The practice was not without reported injurious effects.
- <sup>160</sup> Nadel, S.F. (1947) Op. Cit. Page 300.
- <sup>161</sup> Ibn Qayyim Al-Jawziyya, Shams Al-Din Muhammad Ibn Abi Bakr Ibn Ayyoub (1292-1350). *Kitab Al-Tibb Al-Nabawi* [Arabic]. Cairo: Dar Ihiya Al-Kutub al-Arabiyya; Many editions.
- <sup>162</sup> Al-Zahabi, Al-Hafiz Abi Abd Allah Muhammad Ibn Ahmad Ibn Osman (1274/1348). *Al-Tibbb Al-Nabawi* [Arabic]. Cairo: Republican Library; 1946.
- <sup>163</sup> Among the rubatab, a modified type is called *qat' al-sa'afa* (cutting of the palm frond).
- <sup>164</sup> In the old days, the bride is told to turn the whole exercise of consummation into a mock rape whereby she uses all her force, preferably coupled with audible screams, to prevent penetration. This is called *hal al-bizama*. The bride is indeed dressed up for the fight. A sari is used by her as a skirt wrapped around her waist and belted with a strong robe. The robe is made into several knots designed in such a way that each time a knot is loosened, other knots get tighter.
- Though slightly more fortunate than the bride, the groom also has a lot to worry about. His mother will show up in the early morning to be assured of the manhood of her son. Knowing the kind of resistance his bride is expected to give, the groom comes well prepared for a fight also. His *wazir* (best man) provides him with a cord of the type used to hold up underwear (*tikka*), but much stronger than usual. This he may use to subdue the bride by binding her hands or tying them to the bed if necessary. Defloration should be completed in the first night. However, if visible signs are not satisfactory, the bride is interrogated to tell the true story.

In order to make sure that the bride is telling the truth, she may be made to tell the story with a hand on the Quran. After listening to her,

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further tests may be in order to confirm her virginity. In rare cases, however, she is examined, and possibly decircumcised if necessary.

- <sup>165</sup> *Quran*, The Holy. Translation and Commentary by A. Yusuf Ali, Islamic Propagation Centre International, Copyrighted 1946 by Khalil Al-Rawaf: Sura II, Baqara, or the Heifer, verse 222, pages 87, 88.
- <sup>166</sup> Snowden, R., Christian, B. (eds. ). *Patterns and Perceptions of Menstruation*. Croom Helm, London and Canberra and St. Martin's Press, New York, 1983. Quoted by El Tom et al, Op Cit.
- <sup>167</sup> Nadel. Op. Cit. Page 94.
- <sup>168</sup> Department of Statistics, Ministry of Economic and National Planning. Sudan Demographic and Health Survey 1989/1990. Department of Statistics, Ministry of Economic and National Planning, Khartoum, Sudan, and Institute for Resource Development/Macro International, Inc Columbia, Maryland USA.: 1991 May. 180 pages.
- <sup>169</sup> Maha Nasr El-Din Babiker. Master of Veterinary Science, University of Khartoum, Oct. 1988. (unpublished thesis).
- <sup>170</sup> Anderson, R.G. Op. Cit.
- <sup>171</sup> Chaudhury, R.R.. *Plant Contraceptives: Translating Folklore into Scientific Application*. Adventures in MCH, Oxford University Press, 1985. For a review of the traditional methods of contraception in various parts of the world.
- <sup>172</sup> Anderson, R.G. 1908. Op. Cit.
- <sup>173</sup> Anderson, R.G. 1908. Op. Cit.
- <sup>174</sup> Sobhi El Hakim. Sudan: Replacing TBAs by Village Midwives. In: A. Mangay-Maglacas and H. Pizurki, Editors. *The Traditional Birth Attendant in Seven Countries: Case Studies in Utilization and Training*. Geneva: World Health Organization; 1981: 131-166. 211. (Public Health Papers; v. 75).
- <sup>175</sup> Kendall, E.M. A Short History of the Training of Midwives in the Sudan. *Sudan Notes and Records*; 1952; 33(1): 42-53.
- <sup>176</sup> Crowfoot, J.W. Angels of the Nile. *Sudan Notes and Records*; 1919; 2: 183-197.
- <sup>177</sup> Abdullahi Osman El-Tom et al. Op. Cit. 23.
- <sup>178</sup> El-Tom. Op. Cit.
- <sup>179</sup> Grove, Captain N. Customs of the Acholi. *Sudan Notes and Records*. 2(2): 157-182.
- <sup>180</sup> Anderson, R.G. Op. Cit.
- <sup>181</sup> Beaton, A.C. The Fur. *Sudan Notes and Records*, 1948; 29(1): 1-39.

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- <sup>182</sup> Cooke, R.C. Bari Womb surgery [Note with no title]. *Sudan Notes and Records*; 1945: 356.
- <sup>183</sup> This notion is shared by many other cultures throughout the world as reported by A.H. Krappe in *Folklore* (Arabic translation by Rushdi Salih) Dar Al-Katib Al-Arabi, Cairo 1967: 346-347.
- <sup>184</sup> Taha Baasher. *Al-Hakim Medical Students Journal*, Faculty of Medicine, Khartoum, 1964.
- <sup>185</sup> Evans-Pritchard, Edward E. A preliminary account of the Ingassana tribe in Fung province. *Sudan Notes and Records*; 1927; 10: 69-83.
- <sup>186</sup> Hall, F. Women's Customs in Omdurman. *Sudan Notes and Records*; 1918; 1(3): 199-201.
- <sup>187</sup> Somerset, R. R. Major the Hon Fitz. The Lotuko. *Sudan Notes and Records*. 1918; 1: 153-159.
- <sup>188</sup> Trimmingham, in *Islam in the Sudan* drew attention to the difference between *sibr* and *'ada*. *Sibr* refers to these customary ceremonial practices. *'Ada* or *sawalif* (Arabic but used by Bega) is 'custom' in the wider sense of the customary mode of action to be adopted in any given situation. (Op. Cit., page 180).
- <sup>189</sup> A forty-day period of seclusion has also been observed in a *firash* or a *furash* (mourning period), for brides and bridegrooms. It has also been reported that in the early days a similar period of seclusion was observed by kings of Argo and Mahas and possibly Darfur in accession to the throne. The number 'forty' has attained ritual significance worldwide, and much has been given in justification. Adam, in an interesting anecdote, was said to have lain for forty years at the gates of heaven before the soul was blown into him. During this period all angels were enchanted by the perfect creation. In commemoration of this heavenly mastery, people in the Sudan celebrate birth of a baby on the fortieth day (and end the *mushabara*). Similarly, they celebrate the return of the soul back to its creator on the fortieth day of death (*karamat al-arba'in*). Incidentally, this period roughly coincides with that necessary for physiological restoration of normal body functions after delivery. In addition to its ritual use, 'forty' became synonymous with 'many' and 'completion', in daily expressions both in the Sudan and elsewhere. Among Christians 'The forty-day period between child birth and purification', writes Crowfoot, 'has been ordained for mothers by the Religious Law at least since the date of the Book of the Leviticus (c. vii, 4)'. Crowfoot, J. W. Angels of the Nile (*Banat al-bur*). *Sudan Notes and Records*. 1919; 2(3): 183-194.
- <sup>190</sup> Trimmingham. Op. Cit., page 180.
- <sup>191</sup> The word *mushabara* is derived from the Arabic word *shahr* (month). In Egypt, Crete and Iraq the *mushabara* is a necklace of special beads worn

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by women. In all these regions, it is associated with fertility and childbirth. *Mushahara* is the set of taboos, the artifacts used in the rituals, and the ailments that befall the pregnant woman or her baby if any taboo is breached.

<sup>192</sup> In this region '*itkabas*' is used for 'to be smitten by the peril.' (Abd Allah Al-Tayib, Op. Cit., 1955).

<sup>193</sup> Crowfoot, J.W. Customs of the Rubatab. *Sudan Notes and Records*; 1918; 1: 119-134.

<sup>194</sup> With little variations, the following is a general outline of the *jirtiq*. The head: unguents and *darira*, the temples: a handkerchief tied around it holding a *hafidha* (crescent-shaped golden piece), the neck: one or more of the following necklaces: a necklace of a *somit* and other golden beads, a necklace made of a red silk band with a *farajalla* (a guinea gold coin) and a *bunduqi*, a necklace made of a red silk band and a slip of a palm-branch tied to it, a necklace made of a rosary or gold objects, the body: covered with an unsewn *tobe* (sari) of white silk for men and a *firka* (female sari) made of fine silk for females, the shoulders: carry a sword, the right wrist: a silver bracelet with a *jirtiq* bead (a bluish-green stone) threaded in red silk with a long tassel (the Shayqiyya use this only in performing *rubat* for the pregnant woman) with a fish vertebra and an ostrich feather strung to the red silk or stuck through the bead, the right ring finger: a silver ring with a large red stone and the right hand: carries a whip.

<sup>195</sup> Crowfoot, J. W. Wedding Customs in the Northern Sudan. *Sudan Notes and Records*. 1922; 5: 1-28.

<sup>196</sup> Trimingham. Op. Cit., page 182.

<sup>197</sup> Crowfoot described *jirtiq* among the Shayigiyya, Ja'aliyyin, Danaqla and Mahas. See also Trimingham. Op. Cit. Page 187.

<sup>198</sup> In marriage *jirtiq*, the beads are first dipped in milk 'to bring bright days' and then in *zirri'a*, sprouting dura, 'to make the marriage fruitful'.

<sup>199</sup> When ante-partum bleeding is not due to *kabsa*, it is treated by *jarr al-anqaraib* (pulling of the bed). This involves moving the bed with the sick woman on it, symbolically indicating a funeral. It is presumably performed to drive away the evil force that caused the bleeding. (Abdullahi Osman El Tom et al. Op. Cit. , page 18.

<sup>200</sup> This bowl is imported from Egypt. it is made of brass and in the inner sides of which are inscribed verses of Quran and names of prophets, (El Tom, 1989).

<sup>201</sup> Crowfoot, J. W. Op. Cit.

<sup>202</sup> Crowfoot, J.W. Op. Cit.

<sup>203</sup> Evans-Pritchard, Edward E. A preliminary account of the Ingassana tribe in Fung province. *Sudan Notes and Records*; 1927; 10: 69-83.

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- <sup>204</sup> Corfield, F.D. The Koma. *Sudan Notes and Records*; 1938; 21: 124-165.
- <sup>205</sup> Abdullahi Osman El Tom. Op. Cit.
- <sup>206</sup> Abd Allah Al-Tayib. *Min Nafidhat Al-Qitar*. Khartoum: 1966: 81-82.
- <sup>207</sup> Muhammad Al-Nur Ibn Dayf Allah (-1809). *Kitab Al-tabaqat fi khusus alawliya wa l-salihin wa l-ulama wa l-shw'ara* (1805!) ed. Yusuf Fadl Hasan, Khartoum: Khartoum University Press, 1985. page 56.
- <sup>208</sup> See also Mariya ritual among the Sakkoat page 195.
- <sup>209</sup> Muhammad Al-Nur. Op. Cit. Page 62.
- <sup>210</sup> Corfield, F.D. The Koma. *Sudan Notes and Records*; 1938; 21: 124-165.
- <sup>211</sup> Brock, Major R, G. C. Op. Cit.
- <sup>212</sup> Crowfoot, J.W. Customs of the Rubatab. *Sudan Notes and Records*; 1918; 1: 119-134.
- <sup>213</sup> Helman C. *Culture, Health and Illness*. Bristol: Wright. PSG, 1984: 23-41.
- <sup>214</sup> Tigani Al-Mahi. Food Customs and Cultural Taboos. in: Ahmad Al-Safi et al (Editors) *Tigani Al-Mahi Selected Essays*, Khartoum; Khartoum University Press, 1981; 129-137.
- <sup>215</sup> In most villages, a family, according to its means, would raise its own stock of chickens, various other types of livestock, and grow vegetables in the back garden. These may help to provide for the family's sustenance, and ensure household petty cash. Though this may seem ideal, families may frequently opt to sell their products rather than consume them, leaving some members of the family at risk of dietary imbalance.
- <sup>216</sup> The works that dealt with nutritional surveys include those of Geraldine Culwick: *Social Factors Affecting Diet*. Khartoum; 1954: A dietary survey among the Zande of the South East Sudan. Khartoum, Sudan: Khartoum Agricultural Publications Committee; 1950; *Diet in the Gezira Irrigated Area, Sudan*: Sudan Survey Department; February 1951; (No. 304), and Sukkar, M.Y. *Human Nutrition*. London: Biddles Ltd.; 1985.
- <sup>217</sup> Ahmad Al-Safi; Taha Baasher, Editors. *Tigani Al-Mahi: Selected Essays*. ed. Khartoum: Khartoum University Press; 1981; University of Khartoum, Silver Jubilee (1956-1981): 130.
- <sup>218</sup> Each locality in Muslim Sudan has prepared its own foods for the Month. The Fur, for example, prepared a food called *diri* made of the boiled and skimmed fruit of the *Cordia abyssinica*, *Balanites aegyptiaca*, *Zizphus spina cliristi*, *Tamarindus indica* and *Grewia betulaeifolia*, with and admixture of flour to make it into an edible paste or honey to convert

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it into a palatable drink. (Beaton, A.C. The Fur, *Sudan Notes and Records*; 19-18; 29(1): 1-39.

- <sup>219</sup> The ninth month of the Arab and Islamic calendar. The word Ramadan originally meant “great heat,” a description which originates in the pre-Islamic solar calendar. This month was holy in Arab tradition before Islam and was one of the months of truce. Fasting during the month is one of the Five Pillars of Islam. C. Glasse. *The concise Encyclopaedia of Islam*. Stacey International, London: 1959; see Ramadan.
- <sup>220</sup> Ritual slaughter is performed by pushing the animal to lie down on its left side, the front of the neck facing the east or the *Qibla* (the Muslim Holy Mosque in Makka) and then uttering *Bismillah, Allahu Akbar* (In the name of God, God is great) three times before cutting the throat, carotid arteries and jugular veins of the animal with a quick bold slash of a sharp knife. Compared to other ways of animal slaughter, for example, the *Pharaonic*, Jewish shechita, the captive bolt technique, electric stunning followed by venesection etc., Muslim *zabih* is said to be satisfactory, humane and secures better exsanguination of the carcass.
- <sup>221</sup> The Sudanese are very partial to camel’s heart which they eat raw. To make it more tender the *shaykhs* of quite a number of tribes such as the Shukriyya, the Kababish and the Rufa’a have it cut into small pieces which are then soaked in *bilbil* and served to the guests with rounds of drinks. The heart is seasoned with salt, cloves, chillies, all in powdered form. The many who are fond of it invariably pay a lot for it. A camel’s heart always costs round about 15 francs.” From an anonymous journal describing events in the Sudan, in: Sante, P.; Hill, Richard, Translators and Editors. *The Europeans in the Sudan 1834-1878*: Clarendon Press; 1980. 250 pages.
- <sup>222</sup> Bloss, J.F.E. Notes on the Health of the Sudan Prior to the Present Government. *Sudan Notes and Records*; 1941; 24: 131.
- <sup>223</sup> Equipment used for leavening and making bread, for example, *rahayia* and *murhaka* (grinder) with *jarrash* or *mus-ban* (grindstone) and *raddad*, and handling utensils, such as *mukmama* (gourd cup) and *qarqarieba*, *qaraa*, *kass*, (bottle gourd), *qarn kbirtit* (rhino’s horn), *mu’raka*, and containers: *bukhsa*, *burma*, *khummara*, and *kantoush*, have all virtually disappeared from urban centres. Also, the traditional processing of bread is dying out. The process used to involve a series of steps; washing grain, for example, sorghum, then *warsh* (spreading), *darish* (coarse grinding), *tabn* (fine grinding) in a *murhaka* or a *funduk*, *takbmir* (fermenting) into *‘ajin*, and, finally *‘nasa* (baking) on a *doka* (flat stone or baked clay oven). Traditional leavening and baking have preserved the unique taste, colour and aroma of bread. It is noted, in addition, that

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baking on a *doka* produces tastier bread than baking on a *saji* (flat metal oven).

- <sup>224</sup> Bruce, James (1765-1777). *Travels to Discover the Source of the Nile (in the years 1768, 69, 70, 71, 72, & 73)*. Edinburgh; 1790. Vol. 4; 5.
- <sup>225</sup> *Holcus saccharatus* as described in: Kotschy, Theodore; Peyritsch, M, Editors. *Plantes Tinneennes: Plants collected on the Tinnean Expedition in Central Africa by 3 Dutch ladies (1861-3)* [French & Latin]. Mme. Also described other local plants including: *Teloboon*, *bamia*, coffee, *dura*, beans, tamarind, sesame, groundnut, *dalaib*, seeds of lotus, *dome*, *dukhun*, maize, butter tree, *tebelde*, *higlig*, as well as the poisonous *shajarat al-sim* (*Euphorbia candelabrum*) and *Cissus quadrangularis*. (See Foreign Impressions page 453).
- <sup>226</sup> *Laloab*, *nabaq*, *tasali*, *qiddaim*, *fool sudani*, *turmus* and *jurum* are among the light snacks favoured by children and adults alike.
- <sup>227</sup> The subject was reviewed well in the Regional Training Course on Fermented Foods of the Arab World; 1-15 February 1987; Faculty of Agriculture (University of Khartoum), Food Research Centre (Agricultural Research Corporation) and UNESCO. Khartoum.
- <sup>228</sup> Khattab, A.G.H. Nutritional Benefits from Food Fermentation. Regional Training Course on Fermented Foods of the Arab World; 1-15 February 198-1; Faculty of Agriculture (University of Khartoum), Food Research Centre (Agricultural Research Corporation) and UNESCO. Khartoum.
- <sup>229</sup> Natural fermentation occurs when environmental conditions permit interaction between microorganisms and susceptible organic substrates. The changed products have been found to keep well in a variety of climatic conditions, to have better appearance, to taste better, to be less toxic and to dry more quickly. Also, fermentation improves the nutritional value of food and renders it easily digestible. Fermented foods also have an agreeable texture and flavour due to the mild acid or alcohol produced.
- <sup>230</sup> Osman, O.H. The Pharmacological and Nutritive Properties of Kawal (*Cassia tora*). *Sudan Medical Journal*; 1972; 10(1): 40-44.
- <sup>231</sup> This is a root of the Smilax species (*sarsaparilla*), and is imported from India. It is found to be rich in starch and a source of smilagine (a source of steroids).
- <sup>232</sup> Slatin Pasha, Sir Rudolf Karl von, Baron (1557-1932), was an Austrian officer in the service of the Egyptian and Sudan Governments, and held various high-ranking posts in the Sudan. After fighting a series of battles against the Mahadist troops, he surrendered in March 1884; for eleven years, he remained in captivity at Omdurman; he escaped in 1895.

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- <sup>233</sup> Muhammad Al-Nur Ibn Daif Allah. Op. Cit.
- <sup>234</sup> *The Holy Quran*. verse 69, Sura 16 (*surat al-Nahl*).
- <sup>235</sup> “And in the cattle you have a proof (of the greatness of God). We give you to drink of what is in their bellies from between faeces and blood, pure milk that is pleasant to swallow by drinkers.(66) And of the fruits of the palm trees and grapes, you take therefrom an inebriant and a goodly provision. Surely in that is a sign to a people that are scrupulous.(67) And your Lord reveals to the bees, saying, ‘Take to yourselves lodging from the mountains, and from the trees and that which they thatch.’ (68) Then eat of every kind of fruit, and follow your Lord’ s ways in ease. Out of their bellies comes forth a syrup of diverse hues, in which is medicine for mankind. Surely in that is a sign for a people who reflect.(69) The Bounteous Koran: Sura 16 Surat al Nahl (The Bee).
- <sup>236</sup> Abdullahi Osman El-Tom. Nutritional Beliefs & Practices in Umshanig Townships, eastern Gezira. Plan/Sudan (Central Region). Khartoum: TMRI.
- <sup>237</sup> During famines, various tribes in the Sudan showed extraordinary pride and stamina in facing inevitable death. When they lose hope of getting food, they tied their children down and closed their doors; they preferred to die in dignity, rather than expose themselves to the humiliation of begging.
- <sup>238</sup> Tigani Al-Mahi. Op. Cit.
- <sup>239</sup> Nadel. Op. Cit. 97-8.
- <sup>240</sup> Nadel. Op. cit. pages 189-90.
- <sup>241</sup> Nadel. Op. Cit. page 98.
- <sup>242</sup> Nadel. Op. Cit. Page 110.
- <sup>243</sup> For more details, see Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: 188-9.
- <sup>244</sup> Trimingham, J.S. *Islam in the Sudan*. London: Oxford University Press; 1949: page 185.
- <sup>245</sup> Nadel, S.F. *The Nuba: An anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: 60-1.
- <sup>246</sup> Nadel. Op. Cit. page 284.
- <sup>247</sup> Muhammad Haroun Kafi. *Al-Kujur* [Arabic]. Khartoum: Folklore Department, IAAS, University of Khartoum; 1976; Silsilat Dirasat fi Al-Turath Al-Sudani: page 104.
- <sup>248</sup> The American Heritage Dictionary defines ‘beverage’ as ‘any of various liquids for drinking, usually excluding water’, Houghton Mifflin

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1982; Longman Dictionary of Contemporary English 'liquid for drinking, esp. one that is not water, medicine, or alcohol', Longman 1984. For the purpose of this work, 'beverage' is defined as any drink taken to allay or quench thirst be it water—pure, modified in taste or odour, or which has any additive including mild alcohol--, or drinks obtained from plants, which supply the body's fluid requirements.

- <sup>249</sup> *Zeers* are traditionally placed on *hammalas* (holders).
- <sup>250</sup> These are leather bags that are treated with *qarad* (sunt pods) or more recently, tar from the outside to prevent the leather from chapping and ensure a longer life.
- <sup>251</sup> Samia Al-azhariya. See relevant entries in the appended *Bibliography*.
- <sup>252</sup> See also pages 453 – for comments on the contributions of Samuel Baker.
- <sup>253</sup> The Mahdi died in the 1885 epidemic of cerebro-spinal meningitis, according to his attending doctor Ex. Bimbashi Hassan Effendi Zeki. However, Slatin Pasha and Ohrwalder think it was typhus.
- <sup>254</sup> Muhammad Ibn 'Omar Al-Tunisi. *Tashbih Al-Adhhan Bi-Sirat Bilad Al-'Arab Wa'l-Sudan* (Arabic), (Eds) Khalil M. 'Asaker and Mustafa M. Mus'ad, Cairo: Al Dar Al Masriya Lil-Ta'lif wal-Tarjama, 1965: 328.
- <sup>255</sup> Bloss, J.F.E. Notes on the Health of the Sudan Prior to the Present Government. *Sudan Notes and Records*; 1941; 24: 131.
- <sup>256</sup> Bruce, James (1765-1777). *Travels to Discover the Source of the Nile (in the years 1768, 69, 70, 71, 72, & 73)*. Edinburgh; 1790. Vol. 4; 5.
- <sup>257</sup> Anderson, 1911: Op. Cit.).
- <sup>258</sup> Pankhurst, Richard. The history and traditional treatment of smallpox in Ethiopia. *Medical History*; 1965; 9: 343-55.
- <sup>259</sup> Miller, G. *The Adoption of Inoculation for Smallpox in England and France*. Philadelphia: University of Pennsylvania Press; 1957: 45-69 (chapter 3).
- <sup>260</sup> Bloss, J.F.E. Notes on the Health of the Sudan Prior to the Present Government. *Sudan Notes and Records*; 1941; 24: 131.
- <sup>261</sup> Bruce, James (1767-1777). *Travels to Discover the Source of the Nile (III ears 1768, 69, 70, 71, 79, & 73)*. Edinburgh; 1790. Vol. 4; 5.
- <sup>262</sup> Browne, W.G. *Travels in Africa, Egypt and Syria from the Year 1792 to 1798*. London; 1799.
- <sup>263</sup> Burchhardt, J.L. *Travels in Asia*; 1819: pages 229 and 337.
- <sup>264</sup> Beaton, A.C. The Fur. *Sudan Notes and Records*; 1948; 29(1): 1-39.
- <sup>265</sup> Grove, Captain E. T. N. Customs of the Acholi. *Sudan Notes and Records*. 2(2): 157-182.

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- <sup>266</sup> This is reminiscent of the medieval *Terra Sigillata*.
- <sup>267</sup> Ahmad Abd Al-Halim. Native Medicine in Northern Sudan. *Sudan Notes and Records*, 1939: 22.
- <sup>268</sup> Anderson RG. Medical Practices and Superstitions Amongst the People of Kordofan. In *Third Report of the Wellcome Research Laboratories at the Gordon Memorial College*, Khartoum 1908: 281-322.
- <sup>269</sup> The name is derived from *wird*, one of the names of fever in Arabic.
- <sup>270</sup> Burchhardt, J.L. *Travels in Asia*, 1819: pages 229 and 337.
- <sup>271</sup> Muhammad Ibn 'Omar Al-Tunisi. *Tashbih Al-Adhban Bi-Sirat Bilad Al-'Arab Wa-'l-Sudan* (Arabic), (Eds) Khalil M. 'Asaker and Mustafa M. Mus'ad, Cairo: Al Dar Al Masriya Lil-Ta'lif wal-Tarjama, 1965: 328.
- <sup>272</sup> Awad Al-Karim Muhammad Hindi (Al-Sayigh). *Mukhtarat Al-Sayigh* (The Goldsmith Collection) [Arabic]. Cairo: Matba'at Al-Zahran; 1949; 3 vols, pages 399, 400.
- <sup>273</sup> Al-Sayigh. Op. Cit.
- <sup>274</sup> Anderson, R.G. Medical Practices and Superstitions amongst the People of Kordofan. *Third Report of the Wellcome Research Laboratories at the Gordon Memorial College*, Khartoum, 1908: 282-322.
- <sup>275</sup> Anderson, R.G. Op. Cit.
- <sup>276</sup> *Taksheeb*, therefore, came to mean any course undergone for the cure of this disease.
- <sup>277</sup> Also prescribed in cases of joints' diseases.
- <sup>278</sup> Turaiba, anti-syphilitic earth is imported from the Nile and another variety obtained from the vicinity of Bara. The earth is taken as pills or as a drink, (Anderson, R.G. Op. Cit.)
- <sup>279</sup> Negib Yunis, Yuzbashi. Notes on the Baggara and Nuba of Western Kordofan. *Sudan Notes and Records*. 1922; 5: 201-207.
- <sup>280</sup> This is chiefly fused carbon, oxides of iron and possibly arsenic.
- <sup>281</sup> Anderson, R.G. Op. Cit.
- <sup>282</sup> Anderson. R.G. Op. Cit.
- <sup>283</sup> Rudolph Baron von Slatin Pasha. Additional Notes. *Third Report of the Wellcome Research Laboratories at the Gordon Memorial College*, Khartoum, London: Bailliere, Tindall and Cox, 1908: 277-79.
- <sup>284</sup> The Editor of the *Wellcome Reports* alluded to above says that Sir Rudolph refers to another of the *Leguminosae*, *Argyrolobium Abyssinicum*, *Janb. et Spach*.
- <sup>285</sup> Anderson, R.G. Op. Cit.

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- <sup>286</sup> Anderson, R.G. Op. Cit.
- <sup>287</sup> Evans-Pritchard, E.E. *Witchcraft, Oracles and Magic among the Azande* (1937): Abridged with an introduction by Eva Gilles. Clarendon Press: Oxford: 1976, page 145.
- <sup>288</sup> Abd Allah Abd Al-Rahman. *Al-'Arabiyya fil-Sudan*. Beirut: Dar Al-Katib Al-Libnani, 1967: 13.
- <sup>289</sup> Similar beliefs were prevalent in ancient Arab poetry.
- <sup>290</sup> The two thumb sites coincidentally coincide with acupuncture points that are used to treat the same ailment.
- <sup>291</sup> The word is derived from the Arabic root *nazal* 'to descend'.
- <sup>292</sup> Abd Al-Rahim Al-Sayyid Ali. Investigation of the Therapeutic Use and Efficacy of Some Medicinal Plants Employed in Folk Medical Practice in the Sudan. In: Sudan Medical Council, National Conference on Therapeutics, Khartoum, 31.3-2.4. 1972: 65-70.
- <sup>293</sup> This root is also known as '*ud um abiyad* and '*ud al-hind*. It is a root or rhizome imported from India and Syria, and which has a nice smell. It is also hard and smooth, and therefore does not break and injure the gum when given to the baby to suck instead of its thumb. The root is also a known antispasmodic and anti-flatulent when given to children.
- <sup>294</sup> Hamad wa (and) Khogali, two notable holy men of the Funj Kingdom known for their supernatural achievements, especially in healing, and, sometimes, in reviving the dead. (See entries in Yusuf Fadl Hasan. Op. Cit., 173, 190). Hamad ibn Muhammad ibn Ali Al-Mashyakhi (born 1646/5 on Tuti Island north of Khartoum), nicknamed after his mother's name, Hamad Wad (son of) Um Maryoum, was well-known as a religious teacher, preacher and reformer. His plea for the preservation of the woman's hymen as being a *sunna* act, has been interpreted as being the first public denouncement of female circumcision (Yusuf Fadl Hasan. Op. Cit.). Al-Zubair Abd Al-Mahmoud Al-Shaikh Al-Zaki, however, in a booklet entitled *Hamad Wad Um Maryoum*, offers another interpretation to the wording of the quotation which appeared in *Al-Tabaqat*. What is meant, he argued, is a denouncement of a practice that was current in Egypt and probably in the Sudan at that time wherein the hymen is penetrated by hand (Misr Printing Press, Muharram, 1385 AH: 7); the other notable, Khogali Ibn Abd Al-Rahman Ibn Ibrahim, was born also in Tuti Island.
- <sup>295</sup> Awad Al-Karim Muhammad Hindi. Op. Cit.
- <sup>296</sup> *Qa'ab* or *Qa'ab Al-laqiyya*, an oasis with a valley of sand dunes around, is situated in the Libyan desert at 19.15 N and 30.07 E., approximately 15 minutes' drive west of Argu town. People come to this health resort from all over the country, usually in groups, seeking a sand cure, or rest and recreation. It is also patronised by honeymooners.

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<sup>297</sup> Abd Al-Rahim Al-Sayyid Ali. Op. Cit.

<sup>298</sup> The minerals used include *shebb*, *tutia beida* (zinc oxide), *tifta hamra* (rosaniline), *kobl* (antimony) and a variety of animal products including crocodile, crow and gazelle liver and bile, bone marrow and human milk.

<sup>299</sup> A survey for total blindness was carried out by Beiram in the Blue Nile Province in 1969, and in northern Province in 1970. The number of persons examined was around 379,000. 0.66% were found to be blind in the Blue Nile Province and 0.61% in northern Province. 48% of the blind had tried all sorts of native methods; none of them had tried any modern medical treatment. 12.9% availed themselves of medical care and 14.8% underwent couching operations. The native medicines encountered, thirty in all, are of animal, plant and mineral origin.

## Chapter 4

### RECIPES

The Sudanese *materia medica* contains a variety of *wasfas* (recipes, prescriptions) fulfilling therapeutic, nutritive, health-promoting, preventive and cosmetic functions. It includes plants, organic substances, minerals, salts, soils, waters, and various fluids. Some of these items are used for food, others for treating and preventing diseases, or maintaining general health. It also includes toxic and poisonous plants and minerals that are the active agents in muscle relaxants, central nervous system stimulants, cardiac depressants, narcotic, or oxytocic and abortifacient preparations.

The recipes usually consist of different proportions of plants, animal products and excreta, minerals, salts, and metals, among other things. The animal products include meat, fat, milk, as well as bile, urine, dung, and special substances such as powdered rhinoceros tusk, ostrich oil, or bees' honey.

The healing methods they have identified include the use of purges, emetics, astringents, skin emollients, diuretics, lactogenics,<sup>1</sup> analgesics, spasmolytics, and tonic medicines. They also include oxytocic, abortifacient, and contraceptive agents as well as sedatives, narcotics, muscle relaxants, and plants extracts that induce convulsions; all have been used as poisons for human beings, animals, and fish.

Plants make up the bulk of the Sudanese *materia medica*. Out of a collection of more than 565 items that appear in Chapter 5: *A Sudanese Materia Medica*, only 15% are minerals, salts, soils, or items of animal origin; the rest are plants.

The *materia medica* plays its part in a variety of domestic contingencies. Women use poisonous plants to captivate flirty spouses, to commit infanticide, or to induce abortion. Some tribes smear arrows, lances and spear heads with extracts of poisonous plants. They use these poisoned weapons either to incapacitate victims so that they may conveniently be robbed or captured, or to kill them outright.

Some recipes are as simple and ubiquitous as a single sip of sesame oil; others are complex. In addition, the ways the healers mix plants with mineral substances or organic matter are also complicated. The recipes frequently contain more than one ingredient that the healers or the families keep secret and maintain as cherished knowledge that is passed from one generation to the next. When a healer dispensed a purgative, for example, that proved to be drastically fatal, the poisonous ingredients often escaped detection even by modern laboratories' testing. All that could be done to prove the poisonous nature of the remaining sample, if any, is to feed some of it to experimental animals.

### **Forms and efficacy**

At this point, we review the basic lay beliefs that underlie the choice of medicinal formulation, dosage, and intake. We also examine what people look for in a medicine, how they measure potency, and how they interpret side effects.

Claridge<sup>2</sup> noted the complex interaction of factors in drug action and called it the 'total drug effect'. The factors include:

- Pharmacological properties.
- Drug attributes (taste, shape, colour, name, etc.).
- Patients' attributes (experience, education, personality, sociocultural background).
- Attributes of the person prescribing, or dispensing the drug (personality, professional status or sense of authority), and
- The setting in which the drug is administered (a doctor's laboratory or social occasion).

We will take advantage of these categories and provide a few examples from the Sudanese practice of traditional medicine.

Medicines are like diseases in the lay mind; they have meanings and are associated with personal and social experiences. The way a medicine is taken is culture-specific, and is associated with a variety of personal and social habits and customs, and, most importantly, with rituals that should be strictly performed. The timing of the dosage, the measures they use,

and the incantations that accompany their intake, are important for the medicine to work effectively. A medicine may be prescribed to be taken only at sunrise or at sunset,<sup>3</sup> and when the dosage is fixed, the number of sips, mouthfuls or pellets are usually related to arbitrary magical numbers (see Chapter 3).

Recipes have been prepared in different ways, have come in a variety of formulations, and (with the exception of the injection) have been given through all other known routes. Some recipes have been prepared as potions, macerates, or decoctions. Some are presented as powders, sachets, or pills. Some have been given as gargles, or applied to the skin as ointments and poultices. Some have been inserted in the back passage as suppositories, introduced as enemas, infused into the urethra, inhaled, or used as electuary. Others have been administered as washes for the nose and the ear, or as collyria (eye lotions). Sometimes a plant has been sucked, chewed, or burned as incense.

People believe that the severer the impact of a medicinal item on body functions, the more effective it is. Potency is directly related to effectiveness. The belief that serious diseases require potent remedies is common to many cultures. This leads to some medicines being taken for the side effects they produce, which are thought to portend a cure when they happen.

A surgical or a medical procedure is considered beneficial if it evokes severe pain, induces heavy perspiration, or severe vomiting. Bleeding during catheterization, a frequent procedure in manipulating strictures of the urethra is seen as portending a successful outcome.

Uncontrollable diarrhoea is also looked upon as a measure of how effective a purgative is, and so healers prescribe drastic *sharbas* (purges) to satisfy their patients. Both the healer and the patient believe that a purgative medicine works better when it is potent. Patients therefore seek drastic purges and the healers often oblige, but caution their unwary clients of the potential hazards they are likely to face. Nonetheless, drastic purges have been given to patients and have caused severe bouts of diarrhoea and even death.

If a medicine causes sneezing when inhaled, then it is surely effective. The evil spirits are expelled, and the patient is thankful.

Metaphor and symbolism have given most Sudanese medicinal items their names and meaning, and frequently defined their therapeutic value as well. Metaphor has helped the healers and the patients alike to perceive, chose, and use medicines. Some medicaments are chosen for their symbolic significance, their shape, taste, colour, or behaviour. Their virtues are derived by analogy rather than from any rational process of observation. The main principle underlying plant choice in these instances is *similia similibus curantur* (likes cure likes). The plant *shajarat al-khbalas* (chastity tree) that resembles the placenta, offers a typical example (see also page 116).

Similarly, pumpkins are used to treat breast abscesses and swellings because they look like the breasts. A half-cut fruit is applied to the affected part with the rounded surface outwards. It is thought that this procedure not only cures the disease but also will restore the breast to its former smooth and rounded shape.

In addition, round objects that look like the eyeball, are used for the management of eye problems. A *marfa'in's* (wolf's) orbit is pulled out of its socket, dried up, and applied to a cataractous eye to reverse eye opacity.

The way the porcupine unfolds and retracts has probably led the lay mind to believe that the animal's meat has delivery-enhancing properties. A pregnant woman partakes of the porcupine's meat or attaches a piece of the animal's skin to her body when delivery sets in, to unfold the womb as the porcupine unfolds itself.

The consistency of a substance is also considered when looking for cures. The *sananir* is a type of fruit (or seed) that is imported from Jeddah in Saudi Arabia, and is used because it is slimy. The people of Sawakin in the Red Sea region use this plant to treat infants' diarrhoea and teething problems. They make a watery paste out of the plant, and then apply it to the top of an infant's head allowing it to run down to the chin. This, they believe, draws the teeth down through similar action.

The side effects of medicines, Tigani Al-Mahi noted:

“Were hailed as oracular and were used in the manner of omens which augur and portend success; for enhancing the psychological

responses, moralizing in treatment. This practice in antiquity was perhaps more subtle in a way than the use of Tartar Emetic by Sir Samuel Baker, explorer and African traveller of the last century. Though Sir Samuel was not a physician, he had better and deeper insight into human needs and problems. Sir Samuel used Tartar Emetic as a shotgun prescription for all maladies to induce vomiting which, as a manifestation, he predicted beforehand to the patients. His prediction was regarded by his patients as oracular, which, on happening, proved the veracity of his work. His success was enormous, and the 'bearded Englishman' draught became proverbial."<sup>4</sup>

The role of the colour red in the healing cults and rituals of the Sudan has been mentioned elsewhere in this book. Red-coloured objects feature as amulets, and in ritual and medicinal items. Many of these are related to the colour of blood and, therefore, are used to treat alleged blood disorders. The *karkade* (red sorrel) is a common soft sweet beverage in many parts of the Sudan. It is also a popular medicine for *darbat al-damm* (blood stroke), and for a cough in which blood is present in the sputum. A patient sucks a few pods of this plant or takes it as a hot drink.

*Turmus* (*Lubinus termis*), and *molaita* (*Reichardia tingitana*) are plants that are alleged to have anti-diabetic properties. Both are bitter when raw, and are therefore taken raw by patients suffering from diabetes mellitus in the belief that they lower sugar in the body through opposite action. This is a superficial understanding of the essentials of a common disease such as diabetes mellitus.<sup>5</sup>

### **Medicinal plants**

Recipes of vegetable origin make up the largest part of the Sudanese *materia medica*. Some plants when used in healing have genuine pharmacological effects, while others are believed to work through supernatural or magical attributes, or because they are a certain shape, have a specific consistency, a peculiar smell, or colour.

A recipe may contain one plant or more, and the plant may be used as a whole, as is the case with herbaceous plants, or in part.<sup>6</sup> Examples

include the leaves of *barjal*, the fruits of *hijlij* (*Acacia aegyptiaca*), the latex of *'usbar* (*Calotropis procera*), and the gum of *Acacia arabica*.

Most medicinal plants grow wild, but some are imported from neighbouring Arab countries and the Far East. Examples of imported plants include *qirfa* (cinnamon), *ganzabil* (ginger), *habba han* (cardamom), *karanya* (caraway), and *sandal* (sandal wood). Herbal items are sold by urban vendors in the streets of many Sudanese towns, and in groceries called the *'attara'* (herbal shops).

Herbal treatment is usually associated with magical and religious rituals and incantations. *Bakbur al-taiman* (the twins' incense), for example, is burned whenever a disease is suspected to be due to the evil eye;<sup>8</sup> the incense, it is believed, exorcises the evil. Healers, on the other hand, add various religious prescriptions-amulets and erasures-to support medicinal recipes. Some things are believed to protect women during pregnancy by averting the evil eye and evil spirits that haunt them during pregnancy and confinement. Examples include the eggplant, cumin seeds (that are used for their black colour), and onions (for their repellent smell). These are kept under the beds of women who have recently delivered, as part of the *mushabara* (page 197).<sup>9</sup> *Shajarat al-khalas* (chastity tree), on the other hand, is kept handy whenever a woman is about to give birth, to ensure safe and easy delivery.

The fumes of boiled *durra* (sorghum), known as *balila*, are believed to drive evil away. In performing this type of cereal sacrifice, people frequently say *'yazil al-bala bi al-balila'* (literally, boiled *durra* removes harm).

These therapeutic regimes have shed some of their usual cultural overtones, and the magical and religious rituals have consequently decreased in recent years. This is particularly noticeable in urban settlements, probably due to contact with modern medical institutions and practitioners. The basic dictates of traditional medicine are still followed.

### **Poisonous plants**

People have always suffered from snakebites and scorpion stings, and experienced the noxious effects of various mineral and vegetable

poisons. Over the years, these have been identified and named, and practitioners have harnessed the resources of their bountiful environment to provide measures for protection. They have also discovered how to extract poisons from some of these plants, and probably how to prepare antidotes. The poisons they have extracted have been used to commit crimes such as homicide or infanticide, and to aid legitimate pursuits such as fishing and hunting. Warriors of the southern and western tribes paint lances and arrow-tips with poisonous extracts, and use these deadly weapons in hunting animals, in personal combat, and in war.

This section includes description for man, cattle, camel, fish, fowl poisons, as well as molluscicides, pesticides, insect repellants, anti-lice, elephant hunting aids, arrow and lances poisons, and agents used in ordeal, homicide, infanticide, suicide, abortion, and anti-dotes.

*Shajarat al-sim* (*Adenium bonekei*), also known as *daraq* in Taqali, *narurai* in Al-Liri, and *tumu* in Kaduqli of the western Sudan, is a common source of poison. However, many other plants are known and used. I have included in this inventory most, if not all, the poisonous plants that have been reported in the Sudanese literature including those identified in recent surveys.

Many tribes in the southern Sudan cultivate certain plants or collect wild ones to isolate their poisonous principles for catching fish. Fishermen throw or spray pieces of bark, fruits, branches, pods, seeds or leaves on top of a pond or a running stream. They sometimes macerate the plant before they throw it in water. The active principle oozes, stupefying or killing the fish, which eventually float to the surface to be caught. They are then usually eaten as wholesome food.

Many poisons do not harm human beings or higher animals, but affect lower species and insects. Preparations of *dawa al-samak* (*Tephrosia vogelli*), have killed insects such as lice and other vermin. Other poisons are so potent that they may kill a small crocodile, cause diarrhoea in human beings, or harm grazing cattle.

The poisonous properties of some plants have attracted researchers in insecticides, molluscicides, and anti-bilharzials. Sir Robert Archibald<sup>10</sup>, as early as 1933, suggested that *lalobe*, the fruit of *hijlij*, *Balanites aegyptiaca*,

might be used to combat bilharzia in the Sudan. He noted that the active principle in *lalobe* could poison freshwater snails and the bilharzia parasite in its free-living stages.

Certain plants have strong narcotic effects, which the people have recognized and used to advantage. They have sometimes crushed *saikaran* (*datura*) seeds and added them to the local beer, *marisa*; alternatively, the latex of '*usbar* (Sodom apple) is used. In both cases, the intoxicating effect of the beer is increased. This is used in the course of robbery and in hunting monkeys. Other poisons have been used in suicide, homicide, infanticide, in inducing abortions, or in inflicting various types of injury. The emmenagogues<sup>11</sup> on the other hand, may be none other than abortifacient substances.

Without explicitly stating why, the women in Kordofan have forbidden adolescent girls to eat the *lalobe*, they have apparently noted that girls who consume large quantities of the fruit conceive late, or may even become infertile. Recent research, furthermore, has given some support to this traditional belief. Maha Nasr Al-Din Babiker and Ibrahim Abu Al-Futuh in the Faculty of Pharmacy of the University of Khartoum have provided this evidence. They found that the oral administration of the succulent edible part of the *lalobe* produced post-coital infertility effects in female rats. They attributed this either to the fruit inhibiting implantation, or to its interference with the normal process of pregnancy.<sup>12</sup> It is noteworthy that women seeking contraception in the Kordofan region have found this fruit most effective. They only need to suck a few unripe pieces of the *lalobe* to achieve their goal.

Accidental poisoning has frequently occurred through a person inadvertently taking an overdose of a common medicinal plant routinely used to treat some everyday ailment. The offender is usually an inexperienced healer or a quack who is evidently ignorant of the toxic properties of the plant he or she is prescribing.

The latex of '*usbar* is held to be harmful to the eye, and it is therefore blamed for causing blindness. This, however, is not borne out by experience. The milky juice has caused more or less severe inflammatory eye reactions, but these do not result in blindness.

Burckhardt in *Travels in Asia* (1819) reported on the health conditions in Shendi and Berber towns. He noted that there was a big slave market at Shendi. Besides, he also observed that the slaves had endured great hardship on the way to the market, and that many had died before they reached it. He also said that if a female slave became pregnant; her master would do his best to get an abortion by one means or another. They would either give her some medicines to drink, beat her on the abdomen, or put the extract of the Dead Sea fruit [*'usbar*] on a piece of cotton inside her vagina.<sup>13</sup> The latex of *'usbar*, *Calotropis procera*, is still used for this purpose in many parts of the Sudan. Nadel writing about Heiban and Otoro tribes of the Nuba Mountains observed that virginity of the bride is appreciated-vaguely and in a platonic fashion. It is rarely, if ever, a reality. The girls in Otoro and Heiban are familiar with methods of preventing childbirth or procuring an abortion. They range from pure superstitions, like pulling a string from the fringes of the pubic apron and burying it under the door of the sleeping hut (to dig it up again after marriage), to more empirical practices, e.g. massage of the abdomen and the use of strong laxatives: a preparedness all the more characteristic, as in this society, where girls marry as soon as they are sexually mature, the danger of an untimely pregnancy is comparatively small.<sup>14</sup>

*Shatta* (red pepper) is a popular condiment and appetizer of which people consume small quantities with food. However, when they take it in large quantities, it proves to be harmful. It results in a burning sensation in the mouth, throat, stomach, and rectal passages, and causes vomiting, colic, diarrhoea, and even death.

The Azande and their kindred tribes of the southern Sudan use certain poisonous plants and minerals in divination procedures. Evans-Pritchard has described at length some of these practices and reported on the nature of the poisonous material used in divination by ordeal.

Broun and Massey recorded the use of the seeds of *Erythrophleum guineense* as an ordeal poison among the Dinka tribe. They reported that:

“The accused is required to swallow four of the seeds with water, after they have been cut into two, the belief being, that the innocent vomit the poison and are safe, while the guilty retain the poison and die.”<sup>15</sup>

Grove<sup>16</sup> described the use of another ordeal poison among the Acholi tribe, and Anderson noted yet another Azande one but neither of these authors characterized the agent. However, the Azande were known to force a condemned person to eat four small beans obtained from the pods of a tree called *lappa*. This was most probably the plant *Erythrophleum guineense*.<sup>17</sup>

The *banga* cult has attained a special importance among oracular procedures because it uses a poison ordeal. Early anthropologists, who have studied the social systems of the southern tribes of the Sudan, have described the cult at length. Edward Evans-Pritchard dealt with the cult in *Witchcraft, Oracles, and Magic among the Azande*.<sup>18</sup> Major Brock writing in *Sudan Notes and Records* in 1918 reported that the poison is obtained from the root of a shrub usually found growing in *kehor*; it is rarely found in the Bahr Al-Ghazal and mostly comes from the Belgian Congo.<sup>19</sup> Kirk later reviewed the evidence related to the nature of the poisons used, and incidentally noted that investigating this field is laden with difficulties because many of these practices are highly secretive. He reported that:

“*Benge* is described by Anderson<sup>20</sup> as a powdered root obtained from the Congo, by Seligman<sup>21</sup> as a red powder obtained from a creeper growing in the wooded region south of the Uelle River in the Belgian Congo, in the land of the Mongbettu and the Abasambo. Its nature is a little uncertain. An ordeal poison known as ‘*bengue*,’ and obtained from the Haut-Oubangui region by Pouthiou, was analyzed many years ago at Bordeaux by de Nabais and Dupoy, who found that it contained strychnine and a red coloured matter, and concluded that it was identical with the M’Boundou poison of the Gabon (*Strychnos Icaja* Baill.). A sample of *benge* from the Bahr Al-Ghazal was analyzed in Khartoum by Dr. Beam<sup>22</sup> and found to consist of a brownish-red oxide of iron with a small amount of fine sand. It contained no organic material or metallic poison. Beam suggested that the powder was probably selected because of its bright red colour, and when a bad omen is desired poison of some sort is added. A later sample analyzed by Mr. Grindley<sup>23</sup> in 1943 was found to contain strychnine.”<sup>24</sup>

Some plants poison human beings or grazing cattle when they are eaten raw, improperly cleaned or processed, as may happen in famines and periods of general scarcity. Cyanogenesis occurs if bitter cassava, *Manihot utilisima* is consumed uncooked. This type of poisoning arises from failure to remove the contained glucoside and ferment. These two components, in the presence of water, liberate the poisonous prussic acid. Thus, the glucosides and ferments that are contained in the milky juice should be thoroughly pressed out by washing, scraping, and grating the tuber before it can be used safely.<sup>25</sup> Animal owners have also noted that the roots of some plants are poisonous to their livestock. *Haikabit*, for example, also known as *sbaroba* and *gulum* (*Capparis tomentosa*) is well known to be poisonous to camels.

Father Zugnoni of Deim Zubeir Mission has heard that members of the *Yiledé* secret society in the Banda country in southern Sudan use several kinds of poison. They avoid medicines, which produce immediate deaths for they are too afraid of the courts, but they use poisons, which are alleged to cause death after several days, perhaps after months. One of these poisons is said to be prepared from the juice of the *mbuga* (*Euphorbia* sp.), which is administered in gravy and produces swelling of the belly. People under its effects drink much water, and death probably results in ten to fifteen days. Women have no fear of this poison for they prepare their own food, and eat it apart by themselves; also, they are believed to know the antidote, and will willingly administer it to people who yield to their wishes, make reparation, and pay the fines. Another similar poison is produced from certain tubers, which are pounded and mixed with millet flour. This produces nausea and vomiting. Blindness can be produced by certain small leaves, which are placed in the water with which a person is to wash.<sup>26</sup>

Traditional health practitioners take great pains in preparing safe medicinal recipes. They try hard to eliminate the harmful substances in the plants they use. Nonetheless, cases of severe toxicity, irreversible organ damage, or even deaths have occurred. In 1908, Anderson commented on the outcome of the local treatment of gonorrhoea in Kordofan:

“The native treatment of gonorrhoea is not only ineffective but most dangerous. There have been three deaths in the Civil Hospital, El Obeid, during the last year from malpraxis in this direction, one from anuria, another from acute ascending nephritis, and a third from gangrene of the scrotum and penis. Each of these unfortunates had, prior to admission, undergone a course, resulting in severe vomiting, diarrhoea, and acute inflammation of the kidneys, with haematuria, the passage of blood being looked upon as an essential to the cure.”<sup>27</sup>

‘Root therapy’ is the use of plant roots in healing and in magic. The Fullan tribes of Darfur, the Nigerians in the Sudan, and all the people of the western Region of the country and neighbouring Chad, have attained a wide reputation for proficiency in the use of *‘uruq* (roots).

In the early 19<sup>th</sup> century, Al-Tunisi, an Egyptian traveller, visited Darfur, and described incidents in which the *‘uruq al-sibir* (the magic roots) were implicated.<sup>28</sup> He asked his *shaikh*, Medani Al-Fotawi, about the secrets of the *Nara* roots so popular in the region at that time. He was told that the holy books that were communicated from God to Adam, Abraham, and other prophets, were buried and grew plants. The seeds of these plants were later borne in the air and dispersed throughout the globe; from these also grew the plants from which the ‘roots’ in question are dug out and used in subsequent years.

The ‘roots’ are credited with a variety of attributes throughout the Sudan. People believe that some of these roots protect against snakebites, scorpion stings, gun shot wounds and knife injuries. Others help to attain love or attract a spouse. The roots that protect against snakebites and scorpion stings are also used in the treatment of these afflictions.

Some ‘roots’ are used to scare away locusts in the Nuba Mountains and Darfur Region. The Dar Masalit and Zaghawa tribes are famous in this field. In these tribes the *Dambbari* keeps the secret knowledge about certain ‘roots’ and uses them with the necessary rituals to scare away locusts. In the Nuba Mountains, the right to carry out this procedure and that of rainmaking are prerogatives of the *kujur*’s office.

Some people wear specific types of ‘roots’ as amulets to protect them against troubles of one kind or another. Others keep some handy to be

used as and when necessary. If one is bitten by a scorpion, for example, one chews a piece of 'a scorpion root' and applies it to the affected site. Alternatively, one rubs the root vigorously over the bitten area to effect a cure.

Eric Hussey reported on the crocodile charmers in the Dindir area in 1917. Among the West African folks who wander through the Sudan on their pilgrimage to Makka, one occasionally finds members of the Hausa-speaking Kabbi tribe, a race of fishermen who live for the most part in a large city called Argungo, about one day's journey west of Sokoto. Members of this race are recognizable by the marks on their faces; ten long cuts spreading out in a fan-shape from the corner of the mouth on the right side, and nine on left, meeting vertical cuts on each side of the brow.

These people have a curious power over crocodiles, which they pull out of the water alive, the crocodile apparently being subject to their influence. A crocodile, reported Hussey, was taken out of the Dindir River in his presence, and was very much alive but quite under the spell of his captors. He was afterwards cut up and eaten.

The secret of this power is said to lie in a certain *'uruq* compounded with herbs found in the forests of Nigeria and its composition is known only to the old men of the tribe. The *'uruq* are smeared on the body and a small portion is eaten by the fishermen before entering the water. A line is stretched across the stream with baited hooks attached on which fish are caught, while the fishermen walk up and down beside the line. If an inquisitive crocodile comes up to the line, one man seizes it by the jaws and another by the tail and they drag it alive to the shore. If it is a very large crocodile, a rope is tied to its tail; several men are then required to pull it up the bank. This method had to be adopted with a crocodile, 16 feet long, which happened to be caught one day when a sub-mamur was staying at the village. In 1914, the pools in a large stretch of the Dindir River were cleared of crocodiles by three or four men of this tribe who were living at the large Fallata village on this river.<sup>29</sup>

### Mood adjusters and narcotics

The arrival of coffee in the Sudan late in the 16<sup>th</sup> century A.D. had its impact on the conservative Muslim society of that time. The learned men approved coffee for individuals with a ‘phlegmatic temperament,’ but not for those with a choleric temperament, because they believed that coffee increases cholera.<sup>30</sup>

The problem of tobacco remained a point of disagreement among early scholars for a long time. Ibn Daif Allah, an 18<sup>th</sup>-century Sudanese historian, described at length how the fervent debates among the Sudanese scholars were taken up by the learned men in Egypt and continued with equal vigour and enthusiasm.<sup>31</sup>

Tigani Al-Mahi elegantly reviewed the history of *kbat* and coffee in East Africa. In this review, he described the proverbial attachment of the famous Yemeni mystic Ali Ibn Umar Al-Shazli’s (1442 A.D.) to coffee. He said:

“According to tradition, Al-Shazli was responsible not only for the spread of coffee but for making coffee much more popular than *kbat*. It is necessary to explain in this respect that coffee was and is still being prepared for use from the husks and not from the beans. This is true in Yemen and in some parts of Arabia and of Ethiopia. The name given to this preparation is *al-kahwa al-kishriyira*, i.e., husk coffee. The husk coffee is sweetish and agreeable in taste and its stimulating effect is even stronger than the bean coffee. In many respects, it is superior to the ordinary coffee. The name of Al-Shazli is immortalized today as the patron saint of coffee. To mark his championship, coffee is given the appellation of *Al-Shazli Abu Al-Hasan* in some countries such as the Sudan.”<sup>32</sup>

During the Mahdiyya theocracy (1885-1899), the Mahdi denounced and banned the consumption of alcoholic beverages, smoking tobacco and the use of *tumbac* (snuff). He declared the consumption of these items to be unforgivable sins.

*Tumbac*, it is worthy to note, holds a special place in the *materia medica* of the Bahr Al-Ghazal Region of the southern Sudan. It is a staple remedy

for all illnesses. It is used as a medicine, a dressing for wounds, and as a wash to safeguard animals against the bites of ‘fly’.<sup>33</sup>

Since the Condominium, the law in the Sudan has banned the smoking and handling of *hashish* (*Cannabis indica*) known interchangeably as *banqu* and *kamanqa*. Nonetheless, *hashish* remains popular, and is smoked secretly throughout the country.

Shanty settlements surround every major city and town in the Sudan due to the ravages of the protracted civil war in the southern Region. Because of the crowded conditions in these areas and growing poverty in general, *shammasha* (vagrant children) swarm the streets, and have developed their own ‘street culture’. They have established various habits including sniffing a variety of petrochemicals including acetone, silicone, benzene, glue, and the like for ‘kicks’.

In Muslim Sudan, the teachings of Islam forbid the consumption of alcoholic beverages, but in spite of that, different tribes continue to distill and brew a variety of them. They distill ‘*araqi*’ from sorghum, dates, bananas, onions, guava, grapefruits, oranges and many other substrates rich in starch.

Dealers selling alcoholic drinks secretly, often adulterate these beverages to increase their intoxicant effects. They even dare to add chemicals from old car batteries to their brew, resulting in severe poisoning. Some Sudanese within the country and those who have immigrated to the neighbouring countries that ban alcoholic beverages have consumed eau de cologne and other perfumes containing methyl alcohol. This practice produces permanent optic nerve atrophy and results in permanent blindness.

*Marisa*, ‘*asaliya*’ and *sharboat* are fermented beverages that are popular throughout the country. Cereal grains, dates and a wide variety of fruits make the most common substrates for brewing these beverages. *Marisa*, a local beer<sup>34</sup>, is a staple food in the southern and the western Sudan. Krump while at Mosho [Hafir Mosho] and Sennar (1700-1702), wrote:

“Not only here but in many other countries of the Moors, too, they make a drink or beer called *busa* from this *durra* in the following way. They soften this cereal in water, then dry it in the sun as we

do (in Europe) in the malt-kiln, then they pound it to flour on which they then pour boiling water and leave it until it has cooled, then they leaven it so much with yeast that it becomes similar in colour and smell to hops ... by drinking this brew they get drunk.”<sup>35</sup>

In eastern Sudan, ‘*asaloab* is a strong alcoholic drink that is made from honey and the bark of a certain tree imported from Abyssinia. The locals call this tree the *sadob*. Kirk, who described this drink, says the following of this bark:

“... As far as I am aware, it has not yet been identified either botanically or chemically. Mead to which this substance has been added is extremely potent. Comparatively small quantities produce rapid and prolonged intoxication, even in habitual heavy drinkers of alcohol. In some cases it has been noticed that the pupils are dilated.”<sup>36</sup>

In the same region, the followers of the Mirghaniyya Sufi order partake of a special beverage or porridge during their religious services on Mondays and Fridays. It is called *qabwat loz*-coffee with milk and crushed almonds. When it is porridge, it is made of rice, milk, sugar, crushed almond, or peanuts if almond is not available. *Loz* (almond), however, is a very rare ingredient in the Sudanese *materia medica*, but it is popular in Arabian recipes, and is credited with various virtues. It is believed that it is a panacea for chest troubles, that it treats liver, spleen and skin diseases, augments eyesight, and increases the amount of ejaculated semen.

### **Organic substances**

The traditional Sudanese diet combines staple foods, the meat of different animals-cattle, sheep, camels and goats, as well as fish, poultry and seasonal fruits and vegetables. It naturally varies according to locality, ethnic group, mode of life and degree of contact with cultures. The Turkish and Egyptian, influences on culinary habits are clearly seen in the northern and central Sudan, and among Muslim groups throughout the country.

Recipes that are more exotic are prescribed for rarer ailments. Finely ground crocodile's sex organs and rhinoceros tusk are prescribed as aphrodisiacs. People also eat the meat of *abu-dalaq*, a rare black bird, as a cure for rabies. They use *dofr* <sup>37</sup>(the dried cartilaginous remains of shellfish) to manage fever and wasting diseases.

Sorghum flour is sometimes cooked into *madida* or *nasha* (drinkable porridge), and various medicinal herbs are added for their flavouring and spasmolytic properties. The following are typically added: the herb *mahareb* (*Cymbopogon proximus*) as flavouring and a spasmolytic agent, or *hilba* (fenugreek), and *tahniya* (sesame sweat cake) are lactogenic items.

*Samin* (local purified butter), dates, and milk also recur frequently in recipes. Some animal organs, products, and excreta are credited with therapeutic properties influencing mind and body. Cat's meat and donkey's milk are taken for whooping cough. An extremely minute amount of finely powdered crocodile penis, *ihlil al-tumsah*, is credited with aphrodisiac properties. Porcupine's meat is said to hasten delivery, that of *abu al-dalaq* cures rabies, and crocodile's lung treats asthma. Lemon juice or *qarad* (sunt pods) macerate in curdled milk, rice water, *rashad* (*Senebiera nilotica*) seeds in goats' milk, boiled milk, *harjal* (*Solenostemma argel*) paste in cold water, have all been alleged to treat diarrhoea in children. Meat in general and beef in particular are believed to cause *haboub* (wind) and flatulence.

People consume the milk of sheep, cows, or camels when it is fresh or after fermentation. In the northern Sudan, they prescribe donkeys' milk fresh and warm from the breast for the treatment of whooping cough. The patient keeps drinking it until a cure is achieved. If a child falls ill with measles, its skin is rubbed with goat's milk; later, the rash is anointed with the milk froth.

The Sudanese consume a variety of milk products. *Robe* (milk curd) is considered a healthy drink and one that keeps longer than fresh milk. *Samin* (ghee) and *wadak* (animal tallow) have frequently appeared in the preparation of medicinal and cosmetic recipes. They have also been constantly used in body massage and skin care. Women also frequently apply oil, alone or mixed with perfumes and other ingredients, to their skin to keep it supple and healthy.

The Hadandawa tribesmen of the eastern Sudan apply *wadak* liberally to their distinctively plaited hair. This often gives their hair a peculiar smell that is barely tolerable to those unaccustomed to it. They also apply *wadak* as a poultice on abscesses, to ripen them until they burst spontaneously.

Stories have been circulated in early Sudanese chronicles attributing miraculous cures to certain foodstuffs. Tigani Al-Mahi stressed that these dramatic recoveries were overwhelmingly psychological. He said:

“It is difficult to see how a dish of dates prescribed to a patient bed-ridden for months could possibly bring relief to the sufferer almost all of a sudden. In a seventeenth century chronicle we are told that this was prescribed by a physician to a patient whose name was given, and a member of the family taking the caravan route in earnest in a round trip of fifteen days brought the dates from another part of the country and dutifully laid them before the patient, who on partaking of the fruit brought by his nephew made a sudden and spectacular recovery. Perhaps the rigorous trip in the mind of the patient was the major psychological issue that triggered the process of recovery. His disease must have been largely if not exclusively psychological.”<sup>38</sup>

*Kala-az̧ar* (Visceral leishmaniasis) is endemic in southeastern Sudan, especially in the Singa area of Blue Nile region. There the locals designate the disease *marad al-sa'id* (the disease of the North), and have tried several cures (page 229). The nomads in this area give the patients a diet formed exclusively of *al-qaris* (fermented camel milk), on which they live until cured. Sometimes they add 12 kinds of medicinal herbs that they call *buharat* (spices) to the milk, and the patient is expected to drink it for 12 days.

Oil obtained from ostrich fat is famous in many parts of the country as a relaxant for the muscle contracture and shortened tendons that frequently complicate burns and fractured bones when they are badly set. Oil is massaged over the affected site for several weeks with allegedly gratifying results.

The glands of some animals produce certain secretions that man has found to be useful in certain circumstances. The tears and saliva of cattle

suffering from *abu-lisan* or *gadda'* (foot-and-mouth disease) have been found to protect the healthy herd through a process akin to variolation. A piece of cotton gauze is soiled in the tears or the saliva of the sick animal, and then transferred to a healthy one. It has obviously been noticed at some stage that such secretions protect the herd against the disease. Another type of variolation makes use of a dead cow's infected lung. Cattle owners cut this lung into small pieces, make small incisions on the ear of each of the healthy cows, embed the lung tissue in the wound, and sew it up. This, they believe, protects the cows against catching the disease.

A mother frequently applies her saliva to the eye of her baby to expel a foreign body from it, and covers an infant's infected boil with spittle in the belief that saliva has healing powers. Sniffing camel hump is believed to relieve urine retention in man

Sheep's bile is another item that frequently appears in food and in therapy. The inhabitants of the northern Sudan love it as an appetizer that they add to the popular dish of raw entrails, *marara* (a *hors d'oeuvre* of raw offal-stomach, liver and lung) and to *um-fitfit* (raw stomach and small intestine). These two dishes are delicacies that are freshly prepared after home slaughter. When one is presented with one of these dishes at breakfast, it is a sign that one is a truly honoured guest.

Animal excreta have also appeared in the Sudanese *materia medica*. In several occasions, people knew how they got ill. They noticed that mosquitoes swarm in rainy seasons and fevers increase then. To protect themselves and their animals, cattle-owning tribes throughout the country paint their bodies with oil or ash and burn cow dung to drive away flies and mosquitoes. The smoke repels mosquitoes and flies, and the fire scares away predators. Among the Dinka tribes, cattle are a source of wealth and power, and the cow is held in high esteem. It is therefore expected that they endow cows' dung, urine, and other excreta with favourable attributes. Indeed, they believe that cow dung is a potent cure for all wounds, and when it is burned, the ash is used in body-care. Many southern tribes apply the dung as a dye to their hair to give it a reddish tint. Shuqair reported in 1903, that the Dinka also gave cow's urine special attention, and preferred it to fresh water when washing

themselves and their utensils; it was also used to flavour their butter.<sup>39</sup> The Dinka are not alone in using cow's urine this way, Shuqair added that urine was used in washing also in the eastern parts of the country, while the bark of the *iblij* tree<sup>40</sup> was used for washing in the west.<sup>41</sup> On the other hand, in the northern parts of the country, human urine is occasionally used to clean fresh wounds, and in the places where elephants are found, their dung is used as a cure for asthma.

The meat of several animals and fish is an important part of the Sudanese diet. Islam specifies the types of meat man should consume and those that he should not touch (page 209). Shot animals should not be eaten unless ritually slaughtered immediately, animal blood is not drunk, and pork is strictly forbidden. Fish that have fins and scalps are eaten, but no other seafood. In addition, children in the Darfur Region barbecue locusts as snacks, and children eat termites in the southern Sudan. In the western Sudan, people of all ages sometimes ferment caterpillars and eat them.

People attach specific therapeutic significance to poultry and eggs, and order them as food for the sick, the convalescent, and nursing mothers. The belief is that both speed up the healing of wounds and fractures.

On the other hand, it is believed that egg yolk delays the development of a child's ability to talk. It is, thus, a taboo food in early childhood. Eggshells, however, are thought to have styptic properties. Users burn them, powder them, and apply a small pinch of the powder inside a bleeding nose.

In cases of eye inflammation, they instill in the eye a crocodile's liver extract or bile, a gazelle's bile, a cow's liver extract, or a nursing woman's milk.

Beeswax and honey have a special place among the organic products used in the Sudan. The popularity of honey stems from the Quran in which two verses stipulate that in honey is found 'medicine for mankind.' Whenever food for the sick is sought, honey comes first. It is instilled as drops for the inflamed eye, used for dressing wounds, and eaten as a general tonic. For infected wounds or *karu* (chronic leg ulcers), honey is the specific treatment. Several foods are believed to increase *ba'a* (virility). Some are indigenous, others were learnt of through contact

with neighbouring cultures and from the Arabs. The Muslim medieval texts describe these items at length. Local items include dates, ginger, *zarana* seeds (unidentified Latin name), *al-mardud* (unidentified Latin name), *tahniya* (sesame sweet cake) and honey. *Goro* (*Cola acuminata*) (kola nut), is a popular plant that Nigerian chew as a general tonic. Though this root is available, the Sudanese do not use it, most probably because it stains the teeth red, and, therefore, its use and the reasons for which it is taken are evident. Things pertaining to sexual vigour are always considered personal.

### Metals, minerals & soils

Different minerals and soils have been awarded special attributes for supernatural or religious reasons. Some minerals have been blessed with the *baraka* (blessing) of a holy man, and have acquired, thus, a potency unrelated to any intrinsic quality. *Tinat* Al-Mikashfi<sup>42</sup>, and *tinat* wad Al-Turabi<sup>43</sup>, are two types of clay that have been credited with this holy power. Both are clay that has been collected from the burial places of the holy *shaikhs*. The first is believed to cure snakebites, the second rabies. The *jardiqa*<sup>44</sup> and the *turaiba*<sup>45</sup> are two types of clay that are used as purgatives. The *turaiba*, in addition, is a specific cure for syphilis, and is dispensed as 'syphilis pills.' The chemical analyst of the *Wellcome Research Laboratories* in Khartoum reported the following about this mineral in 1904:

“*Tureba* is very generally used in the Sudan as a remedy for syphilis. The most highly prized is that from the vicinity of Berber; and the wonderful effects ascribed to it are attributed to the presence of mercury. How this idea originated is not known-probably simply by inference from its supposed anti-syphilitic effect. So general is the belief in the presence of mercury that the local *bakims* even employ small cones for treatment by fumigation.”<sup>46</sup>

The samples tested revealed no mercury, but examination of the watery extract prepared the local way<sup>47</sup> showed it to contain a considerable proportion of sodium carbonate and bicarbonate along with a certain, usually smaller, amount of sodium sulphate and chloride. A large amount of organic matter, humates, etc., was present in all samples, as well as a

trace of iodine. The last was however in far too small proportion to have any medicinal effect.<sup>48</sup>

The Prophet Muhammad has been quoted in the *hadith* (Prophet's Sayings) as having advised the use of earth or sand to cleanse utensils that a dog has soiled, irrespective of whether the dog is rabid or not. This is not a usual practice in the Sudan. Different types of earth have been used for other functions including healing. Deep river mud is the first choice for managing the *burjum* (chicken pox). It is believed to lessen itching and prevent infection of the pox.

*Shebb* (alum) is well known both as a substance that purifies turbid water and as a magical substance. A small piece of this mineral precipitates suspended matter in turbid water. In addition, an incense ingredient is used to identify an evil-eyed person. People believe that when alum is burnt in a censer, it melts and moulds itself into the shape of the evildoer.

*'Atroun* (natron) is equally important in at least two processes. It digests the fibres of the popular food vegetable *molokhiya* (Jew's mallow) and makes its cooking easier. It also breaks down the tobacco fibres during the process of *tamtir* (*tumbac*-making), and releases the active principle from the carbohydrates in the tobacco leaves.

*Qa'ab Al-Laqiya* is a valley near Donqola in the northern Sudan with extensive sand dunes, which, unlike many others in the country, are strikingly free from poisonous insects and reptiles. The region also has fine weather all the year round. Its people believe that *Qa'ab* sand treats a variety of diseases if the patient is buried in it. The place has therefore become a holiday resort for recreation, convalescence, and for the treatment of rheumatic diseases, hypertension, and other ailments that biomedical specialists have failed to cure. People simply are buried in the sand, eat well, rest, and frequently indulge in massage and *dukhan*.

People use a variety of plants and minerals to purify turbid water. *Turab al-ranmaq* (purifying earth) and *shajar al-ranmaq* (purifying tree) are popular in the northern region of the Sudan. *Turab al-arda* (termites' hills) also has purifying properties when sprayed on turbid water.

Many cultures believe that soot and spiders' webs have antiseptic properties, and use them as wound remedies. In the Sudan, the ceiling of the local kitchen usually collects soot, dust and grows spiders' webs. People collect this mixture and use it in the dressing of wounds. The spider's web is probably seen as the active principle in this mixture.

Many metals, including iron, copper, and zinc, and inadvertently, lead have found their way into the Sudanese *materia medica*. The waste from iron smelters, known as *kbara-hadid*, was a popular medicine for syphilis in Kordofan. *Tutiya baida* (amorphous powder of Zinc Oxide), *kobl* (Antimony), *tutiya hamra* (Rosaniline, a tri-phenyl methane dye) and *hajar maqar*, have all been used in treating eye diseases. For more information on these metals, see the *Sudanese Materia Medica* page 295. Use of *kobl* (antimony) needs a special word of caution here as it is freely available and some products are sometimes adulterated with lead, charcoal, vegetable ash and possibly other organic matter, hence rendering it potentially harmful to users. The samples reported from Kordofan as early as 1908, were found to contain black antimony; no adulterating substances were identified.<sup>49</sup>In the Sudan, *kobl* is mainly used as eyeliner by women. Men rarely use it, and then only as bridegrooms. It is also applied to the eyes of children of both sexes when being prepared to be circumcised, but the potentially dangerous use is its application to the eyes of the newborn.<sup>50</sup> Worley reported in 1968 on lead poisoning due to lead adulterating *kobl*.<sup>51</sup> Lead-based *kobl*, absorbed from the naso-lacrimal mucosa or ingested through sucking the contaminated fingers, may lead to chronic lead poisoning causing hypochromic and microcytic anaemia, chronic encephalopathy, and renal damage. Similar investigations corroborated these findings using samples obtainable in Saudi Arabia. In a survey published in 1993, Al-Kaff <sup>52</sup>et al investigated five most commonly used commercial products of alleged *kobl* eyeliners.<sup>53</sup> Pure *kobl* was found to contain antimony sulfide and trisulfide as its main constituents, and its source is a shiny, dark stone known in Arabic as *ithmed*, antimony in English, and *surma* in Urdu. The samples analyzed showed that some preparations have a high pH and a high lead concentration (88%), indicating that most preparations are lead-based rather than antimony-based. It is also found that some *kobl* preparations have a weak antimicrobial effect against Streptococcus, Staphylococcus

and *Proteus* species. Earlier studies by Tabbara et al found that *kohl* samples were heavily contaminated with *Bacillus* species, gram negative Bacilli, and a number of fungi.<sup>54</sup>

Goldsmiths use *sulaimani* (Arsenic) to purify their gold, but sometimes the substance is swallowed in attempts at suicide, causing severe corrosion, oedema of the mouth and the upper respiratory passages, and sometimes death. Copper, on the other hand, is popular in the southern parts of the country as a treatment for rheumatic pain when worn as bangles.

### **Blessed and healing water**

We have discussed earlier methods of water management and the material used to make it wholesome and potable (page 219). Some types of water, however, have been credited with holiness.

A holy man's *rakwa* (ablution jar), stands as a source of *baraka* for all those who touch it (see Figure 19 for a historical *rakwa* and *maqlouba* (prayer mat), page 724). The water it contains is blessed and is a cure for various ills. A car owner, indeed, might prime the radiator of his new car with its blessed fluid; this is believed to protect the car on the road.

Pilgrims to the Muslim holy land drink and wash repeatedly from the *Zamzam* water spring in Makka. This is the holy spring whose water gushed from underneath the feet of Hagar and her son Ishmael. All Muslims believe that this water is holy, and drink it for its therapeutic value. They often bring it back home after the pilgrimage for relatives, friends, and well-wishers to use. They take a sip, if the amount is large; otherwise, they satisfy themselves with dabbing the ailing parts.

*Hammamat 'Akasha* (the 'Akasha hot springs) in the northern Sudan, attract many patients from all over the country, in these spas people indulge in prolonged bathing. They usually suffer from trouble with their joints, skin problems, or other vague, chronic maladies.

Wells sometimes attain supernatural attributes. They become blessed if, for example, water gushes out more forcefully than expected. This happened in *Id al-Tin*, a village near Qadarif in the eastern Sudan. During the digging of an artesian well, an extensive underground river was tapped. Water rushed out with unexpected force, gushing several

feet upwards. On analysis, the water was found to have had a high salinity, alkalinity, and sulfate content. It was also unpalatable. Nonetheless, the well became a Makka for all the sick from all over the country. Ahmad Bayoumi reported on this incident:

“The influx of water, being the first of its kind in the country, became a subject for supernatural and commercial speculation. A large illiterate population, with various cultural backgrounds, began to collect around the well, being attracted by a strong belief, which rapidly circulated around the country about the holiness of the water and its supernatural healing powers. The well became known by the local Arabic name *Faki Abu Nafura*, which literally means ‘Fountain Healer’. The initial curious gatherings gradually added up to form a huge assembly of people turning the once infamous Idd El Tin into a pilgrimage ground. This great conglomeration of people, amongst whom were the ill, the deformed and the disabled, drank voraciously from the pool or massaged their bodies with its mud, hoping for miraculous cures.”<sup>55</sup>

It is sad to record that all this resulted in an unfortunate epidemic of cholera-like gastroenteritis. Dozens of patients died before people were able to see that the water was neither holy nor healing.

## References and Notes

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- <sup>1</sup> An agent that increases the milk flow in nursing women (also known as a galactagogue).
- <sup>2</sup> Claridge, G. *Drugs and Human Behaviour*. London, Allen Lane 1970.
- <sup>3</sup> In this context chronological time is of little or no significance to the layman, and, hence, rarely, if ever, is a specific hour of time mentioned for taking the medicine.
- <sup>4</sup> Tigani Al-Mahi. The use and abuse of drugs. Ahmad Al-Safi and Taha Baasher, editors. *Tigani Al-Mahi: Selected Essays*. 1st ed. Khartoum: Khartoum University Press; 1981; University of Khartoum, Silver Jubilee-1956-1981, pp. 67-77.
- <sup>5</sup> This belief may not be always incorrect, as certain bitter-tasting plants, such as bitter melon (*Momordica charantia*), do exert an antidiabetic effect.

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- <sup>6</sup> The parts used include the leaf, the root, the stem, the twig, the fruit, the seed, the bean, the tuber, the rhizome, the bark, and the flower. Exudates such as latex, gum, resin and oil are also employed.
- <sup>7</sup> This name is borrowed from neighbouring Egypt.
- <sup>8</sup> The incense is burnt while chanting loudly certain incantations. These incantations were documented by Abd Allah Al-Tayib in articles titled: The Changing Customs of the Riverain People of the Sudan in *Sudan Notes and Records*, starting 1956; 37(2): 56-.
- <sup>9</sup> The *mushabara* is both the set of pregnancy protective taboos and the ailments that may befall the pregnant woman or her baby from the 7th month of pregnancy to the fortieth day after delivery. The word *mushabara* is derived from the Arabic word *shabr* (month). In Egypt, Crete and Iraq, the *mushabara* is a necklace of special beads women wear, and is associated with fertility and childbirth.
- <sup>10</sup> Archibald, R.G. *Trans. R. Soc. Trop. Med. Hyg.* 1933; 27, 247.
- <sup>11</sup> An emmenagogue is an agent or measure that induces menstruation or 'bring down the courses' when the flow is irregular.
- <sup>12</sup> Maha Nasr El Din Babiker. Master of Veterinary Science, University of Khartoum, October 1988. (unpublished thesis).
- <sup>13</sup> Burckhardt. *Travels in Asia.* 1819, pages 229 and 337.
- <sup>14</sup> Nadel, S.F. The Nuba: An anthropological study of the Hill Tribes of Kordofan. London: Oxford University Press; 1947: 119.
- <sup>15</sup> Broun, A.F.; Massey, R.E. *Flora of the Sudan.* London: Thomas Murley & Co.; 1929.
- <sup>16</sup> Grove, E.T.N. *Sudan Notes and Records.* 1919: 2, 157.
- <sup>17</sup> Anderson, R.G. Some Tribal Customs and Their Relation to Medicine and Morals of the Nyam-Nyam and Gour People inhabiting the eastern Bahr El Ghazal. *Wellcome Research Laboratories Report.* London: Bailliers, Tindall and Cox; 1911; 4A: 0.39-277.
- <sup>18</sup> Evans-Pritchard, E.E. *Witchcraft, Oracles and Magic among the Azande* (1937): Abridged with an introduction by Eva Gilles. Clarendon Press: Oxford: 1976.
- <sup>19</sup> Brock, Major R. G. C. Some Notes on the Azande Tribe as found in the Meridi District (Bahr El Ghazal Province). *Sudan Notes and Records.* 1918; 1: 249-262.
- <sup>20</sup> Anderson, R.G. Op. Cit. 239.
- <sup>21</sup> Seligman, C.C.; B.Z. *Pagan Tribes of the Nilotic Sudan.* London: Routledge; 1932.

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- <sup>22</sup> Quoted by Gall and Clarac (1911), *Traite de pathologie exotique*, Vol. v. Impoisonnements. Paris: Balliere et Fils. (Quoted by Kirk op. cit).
- <sup>23</sup> Grindley, D.N. (1943). The information was circulated in Sudan Medical Service Circular Letter of 12th June 1943. (Quoted by Kirk Op. Cit.).
- <sup>24</sup> Kirk R. Some Vegetable Poisons of the Sudan. *Sudan Notes and Records*. 1946: 27: 127-157.
- <sup>25</sup> Kirk, R. Op. Cit., page 147.
- <sup>26</sup> Zugnoni, Father J. Yilede, a secret society: Among the Gbay "Kreish", Aja, and Banda tribes of the Western District of Equatoria. *Sudan Notes and Records*: 106-111.
- <sup>27</sup> Anderson, R.G. Medical Practices and Superstitions Among the People of Kordofan. *Third Report of the Wellcome Research Laboratories at the Gordon Memorial College*, Khartoum, 1908: 281-322.
- <sup>28</sup> Muhammad Ibn 'Omar Al-Tunisi. *Tashhidh Al-Adhban Bi-Sirat Bilad Al-'Arab Wa-'l-Sudan* (Arabic), (Editors) Khalil M. 'Asaker and Mustafa M. Mus'ad, Cairo: Al Dar Al Masriya Lil-Ta'lif wal-Tarjama, 1965 : 328.
- <sup>29</sup> Hussey, Eric R. J. Crocodile Charmers [Note] *Sudan Notes and Records*; 1918; 1: 206-207.
- <sup>30</sup> Muhammad Al-Nur Ibn Daif Allah ( -1809). *Kitab Al-tabaqat fi khusus Al-awliya wa l-salihin wa l-ulama wa l-shu'ara* (1805?) ed. Yusuf Fadl Hasan, Khartoum: Khartoum University Press, 1985: 51-54.
- <sup>31</sup> Muhammad Al-Nur. Op. Cit.
- <sup>32</sup> Ahmad Al-Safi; Taha Baasher, Editors. *Tigani Al-Mahi: Selected Essays*. Ist ed. Khartoum: Khartoum University Press; 1981; University of Khartoum, Silver Jubilee-1956-1981. 187 pages. Page 91.
- <sup>33</sup> Anderson, R.G. 1911 Op. Cit.
- <sup>34</sup> Though names of *marisa* differ from place to place, its methods of preparation are essentially the same. Abu Salim described *marisa*-making in northern Sudan, and several travellers described it in the last three centuries.
- <sup>35</sup> Krump, Theodor (1660-1724). *High and fruitful palm-tree of the Holy Gospel ...*[German]. Augusburg; 1710. 510 pages. Note: The book has a title 198 words long. Page 246.
- <sup>36</sup> Kirk, R. Op. Cit. 135.
- <sup>37</sup> *Dofr*, in addition, is a valued item in perfumes, and an indispensable ingredient in fumigation mixtures.
- <sup>38</sup> Tigani Al-Mahi. Op. Cit., page 130.

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- <sup>39</sup> Naom Shuqair. *Gughrafiyat wa Tarikh Al-Sudan*, (1903) [Arabic] Beirut: Dar Al-Thaqafa; Many editions, 1972: page 201.
- <sup>40</sup> For more information on this plant see Ibn Rasoul, Yusuf Ibn Umar Ibn Ali (D. 694 A.H.), King of Yemen. *Al-Mu'tamad fi Al-Adwiya Al-Mufrada* [Arabic]. Beirut: Dar Al-Ma'rifa; 1982, and Daoud Al-Darir (the blind) Al-Antaki (of Antioch) *Taẓkīrat Ulil Albab wa Al-jami' lil 'Ajab Al-'Ujab*, Cairo: 1836. Many editions in Arabic.
- <sup>41</sup> Naom Shuqair. Op. Cit., 223-292.
- <sup>42</sup> Abu Umar Al-Mikashfi of the Shikeiniba village in Gezira region, Central Sudan.
- <sup>43</sup> Ahmad Wad Al-Turabi Al'Araki of Al-Talha village, was originally buried in Abu Haraz village in the eastern part of the Gezira. Later, his remains were removed to Al-Talha village, which has been known ever since as Talhat Wad Al-Turabi. His *hafir*, (water pond) there became a source of the blessed *tinat* (clay).
- <sup>44</sup> *Jardiqa* is dug out of a shallow lake in a volcano crater called Malha in Jebel Medab in Darfur. The Kababish and Kawahla Arabs use it for fattening cattle.
- <sup>45</sup> *Turaiba* is also obtained from around the towns of Bara in the Western Sudan, Atbara in northern Sudan, Kosti in southern Sudan or from Qoz Rajab.
- <sup>46</sup> *First Report of the Wellcome Research Laboratories at the Gordon Memorial College*, Khartoum 1904: 237.
- <sup>47</sup> A couple of pounds, more or less, of the earth is treated with hot water and, in the morning, the clear dark brown supernatant liquid is poured off and drunk. (*First Wellcome Research Laboratories Report*, 1904; 239).
- <sup>48</sup> First Wellcome ... Op. Cit. 239.
- <sup>49</sup> Anderson. R.G. Op. cit.: 1908.
- <sup>50</sup> Application of *kohl* to the umbilicus of the newborn is also a common practice in Saudi Arabia.
- <sup>51</sup> Worley, M.A., Blackedge, P. O'Gorman, P. Lead poisoning from eye cosmetic. *British Medical Journal* 1968: 1 : 117.
- <sup>52</sup> Al-Kaff I. Ali, et al. Kohl--the traditional eyeliner: use and analysis. *Annals of Saudi Medicine*. 1993 (January) 13(1): 26-30.
- <sup>53</sup> Due to the influx of goods from Saudi Arabia through the massive migrant Sudanese, and individuals visiting the country for *Ummra* and pilgrimage, some of these commercial products could be introduced in the Sudan. This is not to mention the possibility of introducing the

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same or similar products directly from India and Egypt together with other medicinal items and cosmetics.

<sup>54</sup> Tabbara, K.F., Burd, E.M. Microbial content of *kohl*. *Annals of Saudi Medicine* 1987; 7(3): 177-9.

<sup>55</sup> Ahmad Bayoumi. *The History of Sudan Medical Service*. Nairobi Kenya Literature Bureau, 1979: 316-7.



## Chapter 5

### A SUDANESE MATERIA MEDICA

#### Introduction

Some material in this descriptive inventory has appeared in my earlier pamphlet *Native Medicine in the Sudan* published in 1970 by the Sudan Research Unit, University of Khartoum. Since then, I have continued adding new items, and authenticating and updating information. I have corroborated much of the data other researchers had already collected, and tried hard to work out the relation between Sudanese practices and those documented in Medieval Arabic medical texts. This, I think, is a necessary step towards identifying some historical origins of the Sudanese practices, many of which are similar if not identical to those in neighbouring countries and the Arab world.

In this inventory, I have deliberately omitted all detailed data on pharmacology, phytochemistry, and toxicology. Interested readers may consult the source books and papers on these subjects. In addition, a few precautions are in order regarding the nomenclature I have used. There are always problems in transcribing Arabic terms into English no matter how stringent the transcription rules are. There are different languages and dialects in the country; all, including Arabic dialects, need their own special rules to help readers pronounce them properly. For these reasons, I have transcribed the vernacular terms (names of diseases, plants, organic and mineral items) in English exactly as the healers or the laity pronounce them. To help the Sudanese reader recognise these words easily, an Arabic transcript list will be published soon.

A plant should have only one legitimate, correct, and acceptable scientific name.<sup>1</sup> Scientific synonyms are illegitimate and should not be used. Nonetheless, plants in the coming list are entered under their currently accepted scientific names and under their synonyms because they were compiled over many years from different sources. Authors are added to the binomial whenever available. Since the purpose of providing a name for a plant is to assure repeatability of observations or experiments, it is expected that the correct and complete scientific name

be used. Having this in mind, this list should be taken as a guide for other researchers to expand, improve on, and authenticate. Each plant, indeed, is a subject of an in-depth study that is more professional.

Furthermore, local people have described some plants by adding the common 'um' (mother of) and 'abu' (father of) as prefixes. For example, *Aristolochia bracteolata* has the following names: *jalajil*, *abu-jalajil*, *abu-jiljil*, *jiljil*, *jaljil*, and 'irq al-'aqrab (the scorpion root). This plant also illustrates another aspect worthy of note, the common use of onomatopoeic and descriptive names. *Jalajil*, for example, in local Sudanese Arabic as well as in classical Arabic, is a word that stands for the jingling bells that are tied to the feet of babies or animals. The Sudanese also call the seeds of senna *jalajil* because of this tinkling effect.

Moreover, many plants are named after the causative agent, and, therefore, we find a number of plants of different species called 'irq al-*dabib* (snakeroot) or 'irq al-'aqrab (scorpion root), for example. In view of this liberty in using prefixes and descriptive names, researchers should be duly careful in identifying such plants.

This work has relied on extensive field surveys of traditional practices. It has also drawn extensively on the information that has accumulated in the literature throughout the last two centuries. I have visited many regions in the Sudan since 1966 to interview both healers and laity about their local recipes; all gave me valuable information. I have reviewed most of the literature on traditional medicine, and scanned with particular care most of the early anthropological and ethnographic studies on the different cultural groups in the country. With assistance from experienced taxonomists, I have meticulously checked and compared the vernacular and binomial names reported in the different sources. This has been a difficult job because there is no reference point. The only herbarium the country had, the Wellcome Laboratories herbarium, has been lost. A new herbarium has been started in the Medicinal and Aromatic Plants Institute in the National Council for Research, Khartoum; this is the only reference point for checking and authenticating medicinal plants in the country. To perform its functions properly, the Institute has launched several projects to collect, identify, and preserve herbal specimens. Had these projects been fruitful, or their

results available, individual endeavours such as this would naturally have taken a different approach. In the meantime, the data in this inventory, and indeed, any data collected similarly, should be welcome additions, but should always be subject to specialized critical examination.

The preparation of medicinal recipes is often a skilled practice that differs from healer to healer. I have omitted the details that individual healers give for preparing recipes. Important as they may appear, I have not found them consistent; there are no uniform methods of weighing and combining the ingredients. Nonetheless, I have included the main principle involved whenever appropriate; these I thought should be of help for future researchers to take the subject further.

Some medical terms I have used in this work may appear vague when measured by modern medical rules. For example, liver pain and stomachache connote diagnoses different from the ones a modern practitioner would tend to understand. However, this is the terminology the healers and the laity use, and it is part of their system of medicine. I have therefore used modern medical terminology sparingly, and even then, I have used the terms that have general rather than technical applications.

A lot of work is expected from researchers and institutions interested in medicinal plants. Currently, there are extensive repositories of knowledge available few clicks away. Further information of a much wider nature and appeal, and certainly a lot of support would be found in the International Plant Names Index,<sup>2</sup> and the Integrated Taxonomic Information System,<sup>3</sup> to mention a few.

The poorly known botanical diversity of the Sudan requires a broad, multifaceted, yet clearly prioritized approach. The research programmes of MAHRI (page 427), TMRI (page 428), and the not-for profit organizations like the Sudan Medical Heritage Foundation (page 434) should in addition to their regular research activities fully endorse the priorities recognised by the international community<sup>4</sup> to describe and collate world plant species in a reasonably short time.

## Inventory

1. Abadaib. *Ceratotheca sesamoides* Endl.  
An annual herb that grows in the lowland plains in Central and Southern Sudan. Poultice of leaves is used to treat swellings and tonsillitis in camels.
2. Abanus. Ebony. *Dalbergia melanoxylon* Guill. & Perr.  
A deciduous tree. Stem used as fumigation ingredient, and in treating joints and muscles affections.
3. Abray. Durra flakes.  
Thin white flakes made out of fermented porridge of white varieties of durra specially feterita. Various herbs including black cummin, shamar, 'aradeb and hilba are added. The product soaked in water and drunk sweetened without straining as a beverage during Ramadan (Moslem fasting month), and as food.
4. Abu Ajoura and Abu Qallout. *Leucas martinicensis* (Jacq.).  
Erect annual herb. Whole plant used as anthelmintic, and in treating jaundice.
5. Abu Al-Iffain and Al-Lira. *Momordica balsamina* L.  
An herbaceous climber. Fruit and leaves used as laxative, purgative, and anti-spasmodic.
6. Abu Al-Lissaiq and Abu Laban. *Commicarpus africanus* (Lour.) Dandy; *Boerhavia africana* Lour.; *Boerhavia plumbaginea* Cav., and *Commicarpus plumbagineus* Cav. Standley.  
A glabrous herb that grows in Eastern and Central Sudan. Decoction of root is used in treating jaundice.
7. Abu Aweisha. Unidentified Latin name.  
A root obtained in Talodi in Kordofan.
8. Abu-Jalajil; Um-Jalajil; Irq Al-Aqrab; Abu-Jiljil; Jaljal; Jaljil, and Abu Jalajil. 'Scorpion root'. *Aristolochia bracteolata* Lam. and *Aristolochia bracteata*.  
Shrub or tree. Root or whole plant is chewed and applied to the bitten site as anti-dote against scorpion stings. It is worn or used

for cauterization after charring, or powdered and swallowed in severe scorpion bites. *Jalajil* means jingle bells, or seeds of *senna* in Sudanese vernacular. Used also for treating infections of the breasts, abdominal disorders as laxative, purgative, and anthelmintic. It is applied to decayed teeth to soothe pain.

9. Abu Lebru. *Boerhavia plumbaginaceae* Cav. and *Commicarpus plumbagineus* (Cav.) Standley.  
Solution injected rectally through a perforated horn of a sheep. Used in treating gonorrhoea.
10. Abu Marfa'in; Shajar al-Marfa'in, and Irq Shajar al-Marfa'in, 'Snake Root', 'Hyena Root'. *Randia nilotica* Stapf and *Catunaregam nilotica* (Stapf) Tirv.  
Fruit, root, and bark are used as anti-emetic, anthelmintic, and antidote for snakebites.
11. Abu Qawi. *Gardenia ternifolia* Schum. & Thonn.  
A glabrous shrub. Fruit, root: used in treating Bilharzia, jaundice, and enlarged spleen.
12. Abu Qutna. *Lasiosiphon kraussianus* (Meisn.) Burt-Davy; *Gnidia kraussiana* Meissner, and *Lasiosiphon kraussii* (Meisn.).  
Pubescent herb. Whole plant and root used as poultice, in treating leprosy, and abdominal disorders.
13. Abu Rakhiesa. *Jussiaea erecta* L. and *Jussiaea acuminata* Sw.  
Erect perennial herb or shrub that grows in marshy plains throughout Sudan. Macerate of the whole plant is used in massage to lower feverishness.
14. Abu Roru. *Stylochiton grandis* N. E. Br.  
An erect annual herb. Root used as anthelmintic.
15. Abu Shutour and Umm Mashtour. *Kegelia africana* (Lam.) Benth.  
A large Savanna tree. Bark used in treating joints affections, abdominal disorders, and dysentery.
16. Abu Shuwaika and Haj Al-Moya. *Hygrophilia auriculata* (Schumach.) Heinel.  
An erect spiny herb. Whole plant used as poultice, diuretic, in

treating jaundice, joints affections, and swellings.

17. Abu Sinaina. *Acacia polyacantha* Willd.  
A local lowland tree. Bark used in treating jaundice and bilharzia.
18. Abu Surug. *Prosopis africana* (Guill. & Perr.) Taub. and *Prosopis oblongata* Benth.  
A local wild tree. Pods, bark, and wood used in boat building, in tanning, as treatment for sepsis and fish poison.
19. Abu Tamr Ahmar. Unidentified Latin name.  
A variety of date tree. Root reduced to a pulp and packed in small leather charm, or stuffed in the cut ends of gazelle horns. Used as tonic.
20. Abu Tiffa and Kashaw Kashaw. *Leonotis nepetifolia* (L.) R.Br.  
A pubescent herb. Fruit used as poultice, anti-spasmodic, and in treating swellings.
21. Abu Zafaya. "Snake Root". Unidentified Latin name.  
Used as an anti-dote for snakebites.
22. . *Acacia nubica* Benth. in Hook., Lond. J. Bot.  
A lowland spinescent shrub that grows wild in Northern and Central Sudan. The stem and branches are used in the treatment of rheumatic pain. The root is used in fumigation.
23. Acetone. Dimethyl Ketone.  
Colourless inflammable liquid with a pleasant smell usually used as nail varnish. It is inhaled by vagrant kids for kicks.
24. Adas. Lentil. *Lens esculenta* Moench; *Lens esculenta*, and *Lens culinaris* Medic.  
Used as food and in water purification.
25. Adas Sudani and Lubia Adas. Pigeon Peas. *Cajanus indicus* Spreng. and *Cajanus cajan* (L.) Millsp.  
Seeds used for food.
26. Adm Samak. Fish vertebra.  
Fertility symbol and ritual item.
27. Afi Namasin. Unidentified Latin name.

Stem used in Al-Liri of Southern Kordofan.

28. Afna and Gadda. Asafoetida; Asafetida; Assafetida. *Ferula foetida* (Bunge)Regel.  
Mass mixed with butter and smeared on lips of children with colic, or wrapped in cloth as anti-sterility. It is a gum resin obtained from the root latex of *Ferula* species (Persian aza: mastic, and Latin fetida: stinking), imported from Egypt. Used in treating swellings, carious teeth, flatulence and colic, gonorrhoea, abortion, guinea worm, abdominal disorders, as anti-sterility agent, and toothache analgesic.
29. Afsa. Gall Nuts.  
Imported from India, Egypt, and Java. Used as toothache analgesic, in treating dabas, diarrhoea, and carious teeth and as dehydrant to the vaginal canal (hence tightening).
30. Afyoun. Opium. *Papaver somniferum* L.  
Seeds; capsule; powder; mass used as aphrodisiac, and narcotic.
31. Agib Al Mai. Miremid; Rimit. *Bergia suffruticosa* (Del.) Fenzl. and *Lancertia suffruticosa* Del.  
Perennial herbs that grows in the lowlands of Northern and Central Sudan. Root is used to treat syphilis and leucoderma, and alkaloids detected in stems.
32. Ain Al-Dik; Ain Al-Ifrit; Habbat Al-Ain; Habbat Al-Arus, and Yagomo (Golo). Bead Tree; Crab's Eye; Wild Liquorice. *Abrus precatorius* L. and *Glycine abrus* L. (synonym).  
A local wild shrub. Seeds; root; leaves used. It is recognized as a poisonous item. It is used in treatment of sterility, inflammation of the eye, headache, and as a laxative, purgative, anti-cough, emetic, demulcent, and as an agent in water purification.
33. Ain Al-Marfa'in. Wolf's Eyeball.  
Used in the treating inflammation of the eye.
34. Ajjour and Faqqous Al-Marfa'in. *Cucumis metuliferus* Naud.  
A prickly weed. Fruit used to treat abdominal disorders.
35. Al-Arayib. Unidentified Latin name.

Camel fodder. Whole plant used to feed camels in long journeys to make them more tolerant to water starvation, and hence recognized as tonic.

36. Al-Bighail; Shoak Al Dhab, and Siha. *Blepharis linariifolia* Pers.;  
*Blepharis ciliaris* L., and *B. persica* (Burm.f.)Kuntze.  
A local pubescent annual herb that grows in khor beds of Western Sudan. Whole plant used as tonic, in the treatment of abdominal disorders, Bilharzia and poultice used in treating swellings. Seeds used for water purification.
37. Al-Gani Ma-Gani. Unidentified Latin name.  
Plant introduced by Nigerians. Root used in managing the evil eye, as a repellent of evil spirits, and as a fumigation ingredient.
38. Al-Rowand and Khashab Al-Rowand. Rhubarb. *Rheum officinalis* L.  
and *Rheum officinale* Baill.  
Plant imported from India and North Africa. Rhizome (crushed in cold water). Used in treating chest complaints, inflammation, diarrhoea, as contraceptive, tonic, and emmenagogues.
39. Alag. *Kedrostis gijef* (J.F. Gmel.); *Coraliocarpus gijef* (J.F. Gmel.), and  
*Turia gijef* (J.F. Gmel.).  
Lowland annual herb that grows in Western, Northern, and Central Sudan. Macerate of whole plant is used as anti-spasmodic.
40. Alali; 'Irq Alali, and Irq al-Sehir. 'King of Roots'. *Securidaca longepedunculata* Fresen.  
A wild local glabrous-branched spiny shrub or small tree. Used whole, fruits, root (worn, sniffed or burnt) or stem for treating fungal infection, headache, joint pain, sunstroke, fever, as anti dote for snake bites, anthelmintic, an ingredient for water purification and fumigation.
41. Ananas. Pineapple. *Ananas comosus* (L.)Merr.  
Fruit; stem used for food, substrate alcohol beverages.
42. Anber. Ambergris. *Ambra grasea* .  
Intestinal concretion of sperm whale. Used in amulets, and an ingredient in perfume.

43. Andrab and Ginbeel. *Cordia sinensis* Lam. and *Cordia rothii* Roem. & Schult.  
A small tree that is widespread throughout Sudan in lowland water catchments. Roots and stems are used to treat wounds.
44. Ankolieb. Sweet Cane. *Holcus saccharatus*.  
Cane chewed for its sugary juice. Reference to it is found in Kotschy et al. *Plantae Tinneennes*. Vienna, 1867.
45. Ar'ar. Juniper Berries; Common Juniper. *Juniperus communis* L.  
Tree that grows in India and Saudi Arabia. Bark is used to treat piles.
46. Arad and Arada. *Albizia amara* (Roxb.)Boiv. subsp. *sericocephala* (Benth.)Bren and *Albizia sericocephala* Benth.  
A local deciduous tree that grows in the lowland of Central and Southern Sudan. Pods, bark, and leaves used as emetic, a poultice, a poison, astringent, anti-cough, anti-malarial, anti-inflammatory, and in the treatment of jaundice.
47. Aradeb; Tamr hindi; Tumra (Kordofan); Al-Subbar (Arabic), and Danufi (Nuba). Tamarind Tree; Date of India. *Tamarindus indica* L. and *Tamarindus officinalis* Hook.  
A large wild or cultivated tree that grows in Central and Southern Sudan. Parts used include young leaves, flowers, and fruit bulb. Fruit bulb is boiled to thick paste, dried, and sold as balls or cakes. Infusion of fruits senna, qurunful, and karkade added is drunk to treat malaria and jaundice. Frayed twigs are used as toothbrushes.
48. Arak; Shao; Miswak, and Akiol (Dinka). Mustard Tree of the Bible; Tooth Brush Tree; Saltbush. *Salvadora persica* L.  
Grows in Sudan. Frayed twigs as toothbrushes; root; fruits; stem; bark used in treating dabas, flatulence, colic, as anthelmintic, toothbrush. Juice is used to aid digestion, and as contraceptive.
49. Araqi.  
Native alcoholic spirit, distilled from a wide variety of carbohydrates: dates, durra, guava, bananas, etc. Used also in treating splenic enlargement.
50. Asal Nahal. Bees' Honey.

Used in treatment of a variety of ailments including burning micturition, tropical ulcers, wounds, eye infections, joints affections, as anti-cough, in amulets, and as beverage, and surgical dressing.

51. Asaliya.

Fermented alcoholic beverage, brewed from dates, durra (wad 'akar or fetarita) or millet to produce a sweet mild alcoholic beverage.

52. Asaloab.

Fermented alcoholic beverage, brewed from honey and a bark of *sado* (a tree imported from Ethiopia).

53. Asida; Luqma; Qurrasa; Muttala; Abbuda; Hadib; Dibliba; Um-Halibin; Um-Kushkush; Bukkabiya; Wej; Mongakilo; Kesh Keshi; 'Ussara, and Sambousa.

Gruel or bread of different stiffness and shapes made of leavened durra, millet, bulrush millet, or wheat. Before cooking, the grain is leavened as 'ajin (fermented dough); the bread is eaten throughout the country with mulah (stew, soup); composition of durra 'asida: 14% protein, 1.5% ash, 2.5% crude fibre, 1% sugar on dry matter basis, 80% moisture (H.A. Dirar: 1987).

54. Atroun. Natron.

Common "surface salt", powder rock picked up in dry, hard yellow cakes from Bir Al-Natroun and other places in Donqola and North Eastern Kordofan, used as a medicinal item, helps beating *molokhiya* while being cooked (a drop of tea has a similar effect according to Abdulla Al-Tayib: *SNR*; 45, 1945, page 22), or helps in the preparation of *tumbac* (snuff). Constituents: sand and clay, Sodium Chloride, Iron Oxide, Sodium Carbonate, Sodium Bicarbonate, Calcium Carbonate, Chlorides and Nitrates. Used also in treating syphilis, abdominal disorders, gonorrhoea, fever, splenic enlargement, jaundice, for dressing wounds, in managing teething troubles, as animal food, laxative, purgative, aphrodisiac, and in cooking.

55. Atroun Binna.

An amorphous obtained from Dongola region. Constituents: an alkaline earth. Boil, strain water on to dates, boil together. Used in

treating fever and as a cooking item.

56. Bafra; Babwa (sweet variety), and Bazmangi (bitter) (Zande). Cassava (sweet and bitter varieties). *Manihot utilisima* Pohl and *Manihot esculenta* Crantz.  
A cultivated tall woody herb with tuberous roots. Tuber (poisoning through cyanogenesis); frequently consumed during famines.
57. Bahr Al-Ghazal Fish Poisons. *Paullinia pinnata* L.  
Climber seeds; root. Used as fish poison.
58. Baid Ni'am. Ostrich Egg.  
Used in amulets.
59. Baida.  
Oil perfume extracted from *Mahlab*. Used as a perfume especially in massage.
60. Bakhra.  
'Fumigation paper' with astrological formulae written on it before folding. Burnt alone or with frankincense and ambergris. It is burnt to drive away the evil eye and evil spirits.
61. Bakhur Al-Taiman. 'The Twin's Incense'.  
Constituents: *shebb*, *irq alali*, *qarad* (7 pods), *ain al-'arous*, *kasbara*, *cammoun*, *luban ladin*, *ghasoul*, *fakouk*, *si'da*, *murr bigazi*. Used as panacea fumigation for all disease that is caused by the evil eye.
62. Bakhur Al-Tumbura. 'Tumbura Incense'.  
Constituents: 'Uda, sandal, *jawli* (Javanese incense), *luban*, *mastica*, *dam'a sayila*, *kafour tayyar*, *mahlabiyya*, *surratiyya*, *majmou'*, and liquid perfume. Used in divination related to zar tumbura rituals.
63. Bakhur Al-Zar. 'Zar Incense'.  
Constituents: *'udiya*, *luban jawi*, *luban 'adani*, *luban*, sandal, *mastika*, *dam'a sayila*, *fakouk*, *ghasoul*, *murr bigazi*, perfumes. Used for fumigation in zar rituals.
64. Bakhur Jawli. Javanese Incense.  
Collection of stones of different colours brought from Java, burnt with other ingredients in bakhur al-tumbura.
65. Balana. Unidentified Latin name.

A plant introduced and used by Fellata (Nigerians). Root (decoction) used in treating fits and sunstroke.

66. Bambai. Sweet Potato. *Ipomoea batatas* (L.) Lam.  
Tubers used for food.
67. Bamia; Waika; Dweinde (Nuba), and Foma (Dinka). Okra. *Hibiscus esculentus* L. and *Abelmoschus esculentus* (L.) Moench.  
Fruits and leaves known as *waika* when dried, *bamia* leaves are known as *sabaroag*, all of which are made into *mulah* (gravy). Also used as a poultice, in treating leprosy and in water management.
68. Banga; Benge, and Bengue.  
This is an Azande ordeal poison of debatable nature, probably composed of a certain plant and minerals: strychnine-like alkaloid and brownish-red oxide of iron. The plant involved is possibly a creeper obtained from the wooded region south of the Uelle River in Belgian Congo. Part used is probably root. Used in divination by the Azande, and as fowl poison.
69. Banjar and Salij. Beetroot; Beet; Chard. *Beta vulgaris* L. var *cicla*.  
Any of several widely cultivated plants. Leave eaten as greens, and the bulbous root eaten as a vegetable.
70. Baqdounis. Parsley. *Petroselinum crispum* (Mill.) Nym.; *Petroselinum sativum* Hoffm.; *Carum Petroselinum* Benth. & Hook., and *Apium Petroselinum* L.  
Plant cultivated in Sudan. Whole plant is used in treating kidney stones and infections, and enhances growth of scalp hair and eyebrows, diuretic, and digestive. Used in salad.
71. Baroud. Gun Powder.  
Used as abortifacient.
72. Barqouq. Plum. *Prunus domestica*.  
Fruit.
73. Barsiem and Qhadhab. Alfa Alfa; Lucerne; Purple Medicle. *Medicago sativa* L. and *Trifolium alexandrinum* L.  
Plant cultivated in Central and Northern Sudan. Whole fresh plant used in the treatment of kidney disease and stones.

74. Basal. Onion; Common Onion; Shallot. *Allium cepa* L.  
Plant widely cultivated in Sudan. Fruits, seeds, and cover are used in treating disease of the chest, skin, throat, eye, ear, and nose, in treating fever, diarrhoea, dysentery, and gonorrhoea, as spice, food, diuretic, anti-septic, and in rituals.
75. Basal Al-Kilab. *Scilla lilacina* (Fenzl)Bak.  
Tuber used as fish poison.
76. Basham Al-'Abied; Tirioti (Mandari), and Ulumba Banda). *Grewia bicolor* Juss. and *Grewia meollis* Juss.  
A plant used in administering oath in Yilede and Kudu secret societies of the Banda tribe. Bark (boiled with turbid water to purify it), leaves are used by Banda tribe for making local salt (*kombo*).
77. Batatis. Potato. *Solanum tuberosum* L.  
Tubers used for food.
78. Battikh. Water Mellon. *Citrullus vulgaris* Eckl. & Zeyh. and *Citrulus lanatus* (Thunb.)Mansf.  
Fruits, seed kernel, and root used as analgesic poultice.
79. Bayad Al-Baid. Egg White.  
Egg white used to treat the inflamed eye.
80. Bazingan. Aubergine; Egg Plant. *Solanum melanogena* L.  
Vegetable used for food and as a ritual item.
81. Bebet; Bambit, and Nuwaiwiera. *Celosia trigyna* L.; *C. Adoensis* Hochst. ex A.Rich., and *C. acroprosoides* Hochst. ex Oliv.  
Annual herb widespread in water catchments in Sudan. Maceration of whole plant is used against tapeworm.
82. Benbeta; Asfar; Danabia; Hariera; Lablab Ahmer; Nuwwara, and Umm Balboul. *Digera muricata* L.; *Digera alternifolia* L.; *Achyranthes muricata* L.; *Achyranthes alternifolia* L., and *Digera arvensis* Forssk.  
An erect herb that grows in the lowland and irrigated fields throughout Sudan. The maceration of the whole plant is used to dispel tapeworm.
83. Benzene.  
Inhaled by vagrant kids for 'kicks'.

84. Bisilla. Garden Pea. *Pisum sativum* L.  
Peas used as food and in water purification.
85. Bizr Kittan. Linseed; Flax Seed. *Linum usitatissimum* L.  
Linseed is imported from India, and is used as poultice for treatment of fevers.
86. Bizr Qatna. *Plantago afra* L.  
Seeds used like *rashad* in water with sugar for treatment of dysentery.
87. Boal al Naqa. Camel urine.  
Increases labour contraction in women.
88. Boware (Nigerian). Unidentified Latin name.  
A root imported and used by Fellata (Nigerian) used as decoction and drunk. Alleged to aid metamorphosis and helps in communicating with the spirit world.
89. Buda. *Striga hermontheca* Benth.  
Root (decoction) used in treating leprosy.
90. Bunn and Bunn Habashi. Coffee Beans. *Coffea arabica* L.  
Imported from Ethiopia and Kenya. Berries used as styptic, freshly brewed as gahwa beverage, anti-spasmodic, in treating diarrhoea and chest complaints. Coffee was and is still being prepared for use from the husks and not from the beans. This is true in Yemen and in some parts of Arabia and of Ethiopia. The name given to this preparation is *al-kahwa al-kishriyya*, i.e., husk coffee. The husk coffee is sweetish and agreeable in taste and its stimulating effect is even stronger than the bean coffee. In many respects, it is superior to the ordinary coffee.
91. Burtuqal. Orange. *Citrus sinensis* L.  
Fruit used as food, and in treating abdominal disorders.
92. Cammoun Akhdar; Cammoun; Gandar; Shamar, and Shabat. Cumin; Cummin; Cummins Seeds; Green Cummin; White Cummin; Comino. *Cuminum cyminum* L.  
A cultivated annual herb. Fruits; whole herb: powdered aromatic seeds; snuffed for headache or added to porridge as nourishment

for invalids. Used also as spice, stomachic, carminative, diuretic, astringent, emmenagogues, stimulant, anti-spasmodic, in treating headache and sterility.

93. Cammoun Aswad; Al-Habba Al-Soda, and Habbat Al-Baraka. Black Cumin; Nigella; Fennel Flower; Nutmeg Flower; Roman Coriander. *Nigella sativa* L.  
Cultivated in Sudan or imported from Ethiopia. Presumably named after Prophet's Muhammad woman slave called Baraka, and hence sometimes called Habbat Al-Soda. Dried seeds and oil are used for treating neuralgia, mental illness, headache, splenic enlargement, epigastric pain, chest complaints, as diuretic, emmenagogues, abortifacient, anthelmintic, carminative, stimulant, and as a flavouring agent and spice. It is also alleged to reduce high blood sugar, high blood pressure, treat peptic ulcer, inflammation of the prostate and ureters, and colonic ailments. It is reputed to dispel tapeworm and giardia, and is effective in allergic conditions, sinusitis, tuberculosis, and in preventing hair fall. In addition, it is a common item in bakhur al-taiman (the twin's incense) when used to abort the ill effects of the evil eye.
94. Dabalab. *Flueggea virosa* (Willd.)Voigt and *Flueggea microcarpa* Blume.  
A Shrub of moist grounds. Bark used as astringent and fish poison.
95. Dabkar. *Crateva adansonii* DC.  
Wood and stem.
96. Daboba.  
*Marisa* brewing by-product. Used mainly as animal food.
97. Dagra. Unidentified Latin name.  
Leaves of an herb used as juice to treat inflammation of the eye.
98. Dahasir. *Indigofera oblongifolia* Forssk.  
Undershrub.
99. Daiu. Unidentified Latin name.  
Root (of a tree) used decoction in treating syphilis.
100. Dakkai.  
A fermented alcoholic beverage in northern Sudan. Dates are

incubated in water for spontaneous fermentation for 3-4 days, contents strained to give *dakkai*.

101. Dalaib. Fan Palm. *Borassus aethiopum* Mart.  
Leaves and root powder mixed with shea butter is used to treat bronchitis and chest infection; palm wine is considered a tonic: seed kernel. Used also for water filtration, in treating eye inflammation, chest complaints, as tonic, aphrodisiac, and food.
102. Dalli. *Trianthema salsoloides* Fenzl ex Oliv.  
Hairy herb. Whole herb (ashes). Ashy product of repelling odour. Used to treat swellings, fever, and as toothache Analgesic.
103. Dambaza. *Physostigma mesopondicum* Taub.  
Pubescent climber. Tuber used in treating dysentery, and as laxative and purgative.
104. Damin 'Ashara and Min Addak. 'A guarantee of 10'. Unidentified Latin name.  
Root worn or charred and used for cautery, and as anti-dote for snakebites and as an amulet.
105. Damin Khamsa. 'A guarantee of 5'. Unidentified Latin name.  
A highly trusted root worn around neck or arm, or charred and used for cautery as anti-dote for snakebites, and as an amulet.
106. Damm Al-Ikhwa and Damm Al-Akhawain. *Daemonorops* sp.  
Used in the treatment of liver and loin (renal) pain.
107. Damm Halloof. Wild hog blood.  
Applied externally or taken internally in the treatment of leprosy.
108. Damm Kharoof. Sheep blood.  
Applied externally or taken internally in treating leprosy.
109. Damsisa. *Ambrosia maritima* L.  
An herb that grows in the banks of the Nile in Central and Northern Sudan. Whole plant is used in the treatment of kidney infections, renal stones, Diabetes mellitus, and hypertension.
110. Damsisa; Sheeh; Diqn Al-Shaikh (Arabic); Afartamasia (Arabic); Afsintin (Arabic); Sheeh Roumi (Arabic); Sheeh 'Iraqi (Arabic), and Sheeh Khurasani (Arabic). Wormwood; Santonica; Absinthe; White

Artemisia; Desert Wormwood; White Mugwort. *Artemisia absinthium* L. and *Artemisia herba-alba* Asso.

A wild small tree that grows in Sudan and well known by *diqn al-shaikh* (old man's beard). Leaves: powder or decoction used in treating abdominal colic; with *barjal* in dyspepsia and flatulence; rubbed on teething gums. Also used in treating diabetes mellitus, renal colic, indigestion, gonorrhoea, loin (renal) pain, wounds, swellings, urine retention, as fumigation ingredient, laxative, purgative, anthelmintic, stomachic, tonic, menstruation regulator, abortifacient, and oxytocic especially in dispelling a retained placenta.

111. Darfur Remedy. *Marsdenia rubicunda* (K.Schum.)N.E.Br. and *Dregea rubicunda* K.Schum.  
Leaves of a plant local to Darfur Region used to treat flatulence and colic. It is known to be poisonous.
112. Darira.  
Scented powder usually applied ritually to the head of the bride and bridegroom, and the circumcised. Constituents: *mablal*, *qurunful*, sandalwood, and a variety of liquid perfumes. It is made in three layers: first, the head is painted with *karkar* (scented oil), second *mablal*, and third powdered sandalwood are applied. A handkerchief is wound around the head to keep the paste as a crown.
113. Daroat. *Terminalia laxiflora* Engl. & Diels.  
A glabrous tree: root; bark; leaves, used to treat inflammation of the eye and as fumigation ingredient.
114. Deina bana. Unidentified Latin name.  
Small plant leaves and stem used in treating syphilis.
115. Denobia. Unidentified Latin name.  
Tree root (decoction) used in treating syphilis.
116. Dihin Ghanam. Goat's butter.  
Snuffed for headache treatment.
117. Dihn Abu-Al-Hussain. Fox's fat.  
Used to treat dabas.

118. Dihn Al-Saq. Bone marrow.  
Used to treat eye inflammation.
119. Dilka. 'Massage'.  
Cosmetic and health restorative paste mainly applied in massage; it is called *dilka murra* (bitter) if unscented and *bulwa* (sweet) if scented. Constituents: durra paste enriched with fumes and vapours of burnt talh wood, *klait* wood, *shaff* wood, and paste made of powdered *mahlab*, *qurunful*, *dofr*, and sandal wood (this mixture is called *al-marbou'*) and if *luban* and *simbil* are added (then called *al-makbmous*). Also contains varying amounts of musk, *jilad*, and *zabad* to make special *dilka*, and sugar, liquid perfume, *zait al-ni'am*, *surratiyya*, *zait sandaliyya*, *majmou'*, and *baida* may be added; the paste is used with oil for body massage; also a piece is rubbed on the teething gum to soothe it. Unmarried girls use *dilka-burtuqal* (orange paste) only. *Dilka* is used as an adjuvant to joint affection treatment regimes, and sometimes in treating diarrhoea.
120. Dodary. Fermented offal.  
Animal large intestine stuffed with fat, tied at both ends and left to ferment and dry under cooking smoke.
121. Dofr.  
Dried cartilaginous remains of shellfish. Used in treating fever, wasting disease, and as fumigation ingredient, fertility symbol, and as an amulet.
122. Dome. Dom palm. *Hyphaene thebaica* (L.) Mart.  
Tree that grows widely in Eastern, Central and Northern Sudan. Fruit and fronds are used in treating bacterial eye infection, ascites, wounds, and abdominal disorders.
123. Doodmaly and Baigetü.  
Fermented and dried caterpillars, later fried or crushed and made stew.
124. Dukhun. Bulrush millet; Pearl millet. *Pennisetum typhoides* (Burm. f.) Stapf & C.E. Hubbard and *Pennisetum glaucum* (L.) R.Br.  
Grains used for food. Its porridge is alleged to treat rheumatism.
125. Duma.

An alcoholic beverage in Equatoria and Bahr al-Ghazal regions. Prepared by fermentation of bees' honey by special yeast usually kept secret in families.

126. Dumou' Al-Baqara. Cow's tears.  
Tears of a cow infected with cowpox or recently dead of the disease are instilled in the nostrils of healthy cows as a method of prevention by variolation.
127. Durra. Great millet; sorghum. *Sorghum vulgare* Pers.; *Sorghum bicolor* (L.) Moench cv. *Feterita*, and *Sorghum bicolor* var. *caudatum* Stapf cv. *Feterita*.  
The principal cultivated staple cereal of the Sudan, grains are used as bread, *balila* or roasted as *farik*. Used a surgical dressing agent, as fertility symbol.
128. Durra Shami and Aish Rif. Maize grains; Corn; Maize; Corn silk; Sweet corn. *Zea mays* L.  
Plant grown throughout Sudan. Grains are used as bread, *balila* or roasted. Also used in treating syphilis, kidney infections, renal stones, and in diet.
129. Edgab (Hadandawa). *Aerva lanata* (L.) Schultes and *Achyranthes lanata* L.  
Pubescent annual herb. Branches used as decoction for the treatment of headache.
130. Equatoria Fish Poisons. *Mundulea sericea* (Willd.) A. Chev. and *Mundulea suberosa* (DC.) Benth.  
Wild or cultivated plant. Branches, seeds, and leaves as a fish poison and an agent of homicide.
131. Erkab. Unidentified Latin name.  
Seeds of a plant obtained from Gardud Awlad Hamied in Kordofan.
132. Erkawit and Tattas (Hadandawa). *Dodonaea viscosa* Jacq.; *Dodonaea angustifolia* L.f., and *Ptelea viscosa* L.  
Shrub or small tree. Branches used in fumigation for joints pain.
133. Eue de Cologne.

Citrus oil in alcohol ingested by adults as an alternative to alcoholic beverages.

134. Faham. Charcoal.  
Usually charred (powdered) and used sometimes for surgical dressing.
135. Faki Bila-Dawaya. 'A holy man without an inkstand'. *Leonotis nepitifolia* (L.)R.Br.  
Small shrub around al-Obeid. Root worn, chewed, sniffed, or burnt. Used in averting the evil eye, evil spirits, and as fumigation ingredient.
136. Fakouk.  
Fumigation assortment for which the patient bathes in *rigla* water before exposure. Constituents mixed with *ghasoul* and *bakbur al-taiman*. Mainly used to avert the evil eye.
137. Fashfash Al-Baqara. Cow's lung.  
Pieces of lung of a cow that died recently of cowpox are cut and embedded in incisions in the skin of healthy cows for protection by variolation against the disease.
138. Fashfash Al-Tumsah. Crocodile's lung.  
Used in treating allergies.
139. Fasikh.  
Fermented fish. Special types of Nile fish namely '*kass*' and '*kawwara*' are salted and fermented.
140. Fasoulia 'Arida. Butter bean; lima bean. *Phaseolus lunatus* L.
141. Fasoulia Baida. Haricot bean. *Phaseolus vulgaris* L.  
Seeds used in water purification.
142. Feterita. Millet. *Sorghum caudatum* (Hackel)Stapf ex Prain var. *feterita*.  
Grains.
143. Fijil. Garden Radish. *Raphanus sativus* L.  
Leaves, root, seeds used in treating dabas in addition to being food.
144. Filfil Aswad and Filfil Abyad. Black Pepper. *Capsicum annuum* L. and *Piper nigrum* L.

Imported from Egypt, Far East countries and cultivated locally. All parts of fruit except outer cover (black pepper) are used as spice. Remainder of fruit is *filfil abiyad*. When mixed with luban, murr Higazi, ginger, and cinnamon, is used to treat asthma and as expectorant.

145. Fornono. Unidentified Latin name.  
A plant obtained from Herban. Parts used: twig; gall; fruit.
146. Faraola. Strawberry. *Fragaria chiloensis*.  
Fruit.
147. Ful Masri. Bean; Broad Bean. *Vicia faba* L.  
Fruit is a popular food item and for purifying water powder suspension is poured through strainer over turbid.
148. Ful Soya. Soya bean seeds. *Glycine max*.  
Seeds and oil.
149. Ful Sudani. Earthnut; groundnuts; peanut. *Arachis hypogaea* L.  
Seeds, oil used for food, producing oil and in water purification.
150. Fursa.  
Milk native butter: curdled milk is shaken in skins until it gathers at the mouth of the skin. Some is offered to children, but mostly fried to make *samin* (ghee); mixture with honey is a reputable aphrodisiac.
151. Furundu (Darfur) and Kunafa (Nuba Mountains).  
Fermented food made of *karkade* in Darfur and Nuba Mountains. *Karkade* seeds are crushed to fine powder, '*atroun* (or *waikab*) and water added and mixed to squeeze oil out. The paste is incubated for 10 days until fungal growth is seen, and then it is mixed again for 2 days. It is consumed like *kawal* in Darfur (*mullah furundu*), or mixed with durra or *dukhun* dough as *nasha*, *madida* or *luqma* in Nuba Mountains.
152. Gafal. Mecca Myrrh; Mecca Balsam; Balm; Balsam of Gilead.  
*Commiphora opobalsamum* L.: *Commiphora guidottii* and *Commiphora madagascariensis*.  
A finely pubescent shrub that is widespread in Western and Eastern Sudan. Stems are used for fumigation in rheumatic disease.

153. Garingan. Unidentified Latin name.  
Bulb of root dried and powdered with cinnamon bark, and used as decoction) as stimulant.
154. Gashaya and Abu Lagoita. *Cleome brachycarpa* DC. and *C. brachycarpa* DC. var. *angustifolia* Gilg.  
A perennial herb that grows among rocks in lowlands of Western and Northern Sudan. Whole plant is used for fumigation against epileptic fits.
155. Gazar. Carrot; Wild carrot; Queen Anne's Liace. *Daucus carota* L., subsp. *carota*.  
Vegetable cultivated in Sudan, and used for food in salad. Also used as juice, and for promoting hair growth and as tonic.
156. Gharb Al-Wadi. *Veronica amygdalina* Del.  
A pubescent shrub or small tree. Root used in treating abdominal disorders, skin disease, swellings, as anti-spasmodic, and poultice.
157. Ghasoul. *Salicornia* sp.  
Fumigation assortment including the plant (patient bathes in *rigla* water before exposure), probably imported from India. Whole herb mixed with *fakouk* and *bakbur al-taiman*. Used mainly to avert the evil eye and the evil spirits.
158. Gheleighla; Um Gheleighla; Um Gheleila; Um Ghalighil, and Maghlila (Nuba). *Astrochlaena lachnosperma* (Choisy) Hall.f.; *Astripomoea lachnosperma* (Choisy) Meeuse; *Croton zambesicus* Mull.-Arg., and *Croton gratisimus* Broun & Massey.  
Small, yellow, aromatic seeds (decoction) used as tonic, anti-cough, for treatment of flatulence and colic, in managing malaria, fever, and as an oxytocic.
159. Ghobaira. *Chrozophora plicata* Vahl and *Croton plicatus* Vahl.  
Perennial herb grows in the Nile banks. Whole plant is used to speed up wound healing.
160. Ghobbaish. *Guiera senegalensis* J.F. Gmel.  
A grey tomentose shrub widespread in Central Sudan. The root is used to treat leprosy. Tea made of leaves is drunk to lower high blood pressure, lower high blood sugar, all types of fevers, and as

anti-emetic.

161. Ghrur. Unidentified Latin name.  
Root (powdered and sprinkled on ulcers), and used in treating wounds and syphilis.
162. Gilliban. Chickling vetch. *Lathyrus sativus* L.  
Used for water purification.
163. Gir.  
Friable rock obtained from Jebel Otoro and other sites in Nuba Region. Constituents: Talcose Serpentine decomposed granite). Crushed in water and used to paint the bodies of adolescent at ceremony of "Cutting the Gir" among the Nuba.
164. Glue.  
Inhaled by vagrant kids for 'kicks'.
165. Gogmassow (Nigerian). *Mitracarpus villosus* (Sw.); *Spermacoce hirta* L.; *Spermacoce villosa* Sw.; *Mitrocarpa scabra* Zucc., and *Staurospermum verticillatum* Schumach. & Thonn.  
An annual weed of cultivation in the fallow and arable land of Central and Southern Sudan. Poultice is used to treat leprosy and skin ulcers.
166. Goro (Nigerian). Kola Nut. *Cola acuminata* (Pal.) Schott & Endl.  
Imported from Nigeria and exclusively used by Nigerians. Seeds used as a tonic and aphrodisiac.
167. Goze Al-Tib. Nutmeg; Mace. *Myristica fragrans* Houtt. and *Myristica moschata* Thumb.  
Imported from India. Seeds are added to milk or tea for treatment. Kernel is crushed and added to water and used as flavouring agent, spice, perfume ingredient, as well as in treating impotence, joints affections, and chest complaints. It is a cause of hallucinations.
168. Grape fruit. Grapefruit. *Citrus paradisi* Macfad.  
Parts used: fruits.
169. Guddaim and Basham. *Grewia tenax* Forssk.; *Chadara tenax* Forssk.; *Grewia bopulifolia* Vahl, and *Grewia betulifolia* Juss.  
A small tree widespread in the sandy areas of Central and Southern

Sudan. Powdered root is used to treat tonsillitis. Ash obtained after burning the root and mixed with maize is applied as poultice for swellings. Fruits are used to treat malaria and anaemia.

170. Gulungan; Kholongan, and Ghorungal. Galangal; Galango. *Alpinia galanga* L.; *Alpinia officinarum* Hance.

Imported from India and China. Rhizome and root are added to cinnamon and used as anti-cough, flavouring agent, in treating common cold and chest complaints.

171. Gutgat; Gudgat, and Abu Rihan. *Geigeria alata* DC. Benth. & Hook. and *Diplostemma alatum* DC.

An erect annual herb that grows in the lowland plains of Western, Central and Northern Sudan. Macerate of whole plant is used as anti-spasmodic.

172. Habba-han; Al-Hal (Arabic), and Al-Hail (Arabic). Cardamom; Ceylon cardamom; Malabar cardamon; small cardamom; lesser cardamom. *Elettaria cardamomum* (L.)Maton; *Amomum cardamomum* L.; *Alpinia cardamomum*, and *Matonia cardamomum*.

Aromatic pungent spice, imported from India and Australia. Seeds, fruits, and capsule are used as spice, carminative, and in flavouring food. It is also used as men tonic, in treatment of leprosy after adding henna and olive oil to it.

173. Habbat Al-'Ain. *Cassia absus* L. and *Chamaecrista absus* (L.)Irwin & Barneby.

Black heart-shaped seed with a bright yellow centre. Decoction of crushed seeds used in treating inflamed eyes.

174. Habbat Al-Muluk. Croton oil seed. *Jatropha curcas* L.

Shrub (garden hedge plant). Seeds crushed and taken with milk or water; outer covering poisonous. Used in treating loin (renal) pain, as laxative, purgative, detergent and oil source. It is a known poison.

175. Haikabiet; Sharoba; Gulum, and Murdu. *Capparis tomentosa* L.

Prickly shrub. Fruits, leaves, root, stem (dried and powdered), and bark, alleged to be medicines for man and animal. It is animal food, which is sometimes poisonous to camels. It is also used in treating

leprosy, syphilis, and wounds.

176. Hajar Maghar.  
Constituents are not identified. Used mainly to treat inflammation of the eye.
177. Halawa Tahniya. Sesame sweet cake.  
It is a food of high calorific value, which is considered as lactogenic and tonic. It is used as also as a poultice.
178. Handal; Duab (Nuer), and Sinat (Hadandawa). Bitter Apple; Bitter Cucumber; Colocynth; Wild Gourd; Bitter Gourd; Vine of Sodom; Wild Watermelon. *Citrullus colocynthis* (L.)Schrad.; *Cucumis colocynthis* L., and *Colocynthis vulgaris* Schrad.  
Desert and semi-desert annual wild herb, prostrate or climbing that is widespread in Sudan. Fruit's and seed's bulb or whole fruit is put on sole of foot, scarred or not, as laxative. Pulp is also used as a drastic purgative. Garlic is added to decoction of handal root to treat snake bites; Seeds are used in making tar (*qutran*), as anti-moth, anti-scorpion stings, anti-snake bite, anti-lice and in treating diarrhoea; the seeds are taken whole to treat diabetes mellitus, gonorrhoea, piles, tuberculosis, skin affections including eczema.
179. Haraz. *Acacia albida* Del. and *Faidherbia albida* (Del.) (Synonymous).  
A local wild tree used in treating diarrhoea.
180. Harhar. *Lonchocarpus laxiflorus* Guill. & Perr.  
A deciduous tree. Bark used as anthelmintic.
181. Harjal. Argel. *Solenostemma argel* (Del.) Hayne.  
A desert wild shrub that grows in Sudan. Leaves used alone or with *sheeb* in indigestion and flatulence. Used in treating epigastric pain, joints affections, fever, common cold, headache, loin pain, puerperal fever, nausea, indigestion, as a laxative, purgative, carminative, abortifacient, anti-spasmodic, and beverage.
182. Harmal. Peganum; Wild Rue; African Rue. *Peganum harmala* L.  
A cultivated perennial plant, imported from Egypt and India. Dried seeds, leaves and root used as anthelmintic, narcotic, aphrodisiac, diaphoretic, and as an amulet. It is also alleged to improve memory and concentration especially if combined with mint and cinnamon.

183. Hashab. Gum Senegal; Gum acacia; Gum Arabic; Acacia gum.  
*Acacia laeta* R.Br. ex Benth.; *Acacia senegal* L., and *Acacia vereke* Guill. & Perrott.  
 Hashab trees are widespread in Sudan. Its gum is used in treating peptic ulcer, diarrhoea, and in water purification. Recently it is alleged to help patients with end-stage renal failure.
184. Hashish; Bangu, and Kamanga. Cannabis; hemp. *Cannabis sativa* L.  
 A plant cultivated in Sudan against the law. Leaves, mass, sweets: snuffed or smoked. W. Beam discovered a chemical test for *hashish*: Fourth Report, Wellcome Tropical Research Laboratories, B, Khartoum 1911: 25. Used as a habit-forming plant, and aphrodisiac.
185. Hashishat Al Laimoun. Lemon grass; Citronella grass. *Cymbopogon citratus* DC. Stapf.  
 Plant imported from India, Kongo, and Madagascar. It is also grown in limited areas of the Sudan. Plant is used for the treatment of kidney infections, stones, lactogenic, sedative, and curtails growth of tumor cells.
186. Haza. *Haplophyllum tuberculata* (Forssk.)A.Juss. and *Ruta tuberculata* Forssk.  
 Small plant that grows in Northern Sudan. Flowers, leaves, and stem (decoction) are used in treating urogenital infections in male and female, flatulence and colic, indigestion, and as an abortifacient, laxative, purgative, and an agent to expel evil spirits.
187. Hazambal (Kasala). Unidentified Latin name.  
 Tree root used in treating chest complaints.
188. Hernab (Hadandawa). *Carissa edulis* Vahl. and *Carissa pubescens* A.DC.  
 Wild shrub or small tree. Root (worn, sniffed or burnt); stem used as anti-dote for snake bites, as fumigation ingredient, and in treatment of headache, sunstroke, fever, joints affections, fungal infections, and to expel evil spirits, and for water purification, and as an inhalant (*tas'it*) in psychiatric disorders.
189. Higlig; Sassud (Hadandawa); Shashot (Hadandawa); Rorak (Jebel Daier); Tira (Dilling); Kiri (Al-Liri); Tan (Dinka); Tu (Shulluk);

lalobe (fruits); Faith (fruits) (Nuer); Tamr Al Abied, and Balah Al Sahraa. Thorn tree; Desert date; Soapberry. *Balanites aegyptiaca* (L.)Del.; *Balanites roxburghii* Planch., and *Ximenia aegyptiaca* L. A semi-desert wild tree that grows in Sudan. Seven (7) unripe fruits sucked to induce abortion, and the plant is used in contraception. Root and bark are also used. The Masalit throw powdered wood in small ponds for poisoning fish before catching them. Fat is extracted from kernel of fruit in Darfur, and leaves and frayed twigs are used as toothbrushes. Plant could be laxative, anti-bilharzials, emetic, anti-diabetic, and detergent. It could aid healing of wounds, and is used as fumigation ingredient, an agent of water purification, and a source of salt, and oil. Bark is used to treat gonorrhoea, rheumatism, dysentery, tapeworm, and giardia.

190. Hilailij. Unidentified Latin name.  
Imported from India through Egypt. Fruits and seeds removed and used with senna as laxative or purgative.
191. Hilba and Um Ushush. Fenugreek; Fenugreek Seeds; Greek Clover; Greek Hay. *Trigonella foenum-graecum* L. and *Trigonella occulta* Del. ex DC.  
Plant is grown in Sudan. Seeds are crushed and made into *madidat bilba* (fenugreek porridge). Dried leaves are used in treating epigastric pain, joint affections, abdominal disorders, dysentery, as lactogenic, oxytocic, decreases menstrual cramps, poultice, restorative agent, beverage, food item, tonic, emollient, spice, in water purification, and as fumigation ingredient.
192. Hillaiw and Simaima. *Grewia flavescens* Juss.  
A pubescent shrub. Root used in treating tuberculosis.
193. Hilu Mur.  
Fermented drink consumed as beverage during Ramadan (Fasting Month). Solid brown crumbled sheets or flakes made of durra, ginger, *ghurungal*, cinnamon, coriander, cumin, black cumin, black pepper, cloves, *hilba*, *habba-han*, dates gruel, and decoction of *karkade*. All are fermented (this process is called *cojain*) and baked (*uasa*) together. For consumption, hilu mur is soaked in water for 2 hours, strained and sweetened. Contents: 6.1% moisture, 3.7%

lactic acid, 14.26% protein, 3.45% ash, 31% sugar, with lactic acid, ethanol, and acetic acid as major products.

194. Himmaid. *Sclerocarya birrea* (A. Rich).  
A glabrous tree that grows in Central and Southern Sudan. Leaves and bark are used in the treatment of abdominal disorders, and diarrhoea. Ground bark is used to enhance wound healing, and when mixed with sour milk treats dysentery.
195. Henna. Henna; Mignonette Tree. *Lawsonia alba* L. and *Lawsonia inermis* L.  
A tree or shrub cultivated in Sudan. Powder is imported from India. The red or reddish-orange pigment made of its leaves is used for dyeing the nails and hair and for decorating feet and hands. Water or vinegar are added to dried powdered leaves to make paste for topical use for cooling skin in fevers, for treatment of urinary tract infection, and for treatment of leprosy, headache, flatulence, colic, and pellagra. It is also believed to treat skin disease, prevent hair falling, and treat dandruff. When used with camphor oil, is used to treat migraine.
196. Hommos and Kabkabaik. Chickpea; Garbanzo Bean; Egyptian Bean. *Cicer arietinum* L.  
Plant cultivated in several places in Sudan. Fruits and seeds are used for food, and in lowering high blood sugar and in diet.
197. Humruk (Hadandawa). *Rumex vesicarius* L.  
Annual herb. Whole plant used as tonic.
198. Hurab Al-Hawsa. *Acanthospermum hispidum* D.C.  
A local weed. Whole plant or root used in treating bilharzia, and headache.
199. Hussua.  
Food usually given to pregnant women and children in ceremonial occasions. Durra and malt flour are fermented and made as balls. Sometimes honey is added to malt flour (*bussuat 'asal*) and then boiled. Fermentation may give an intoxicating drink; it is usually taken by men and women of religion.
200. Ihlil Al-Tumsah.

Crocodile's penis!. Used as aphrodisiac.

201. Inab al Nabaq and Anab. *Plicosepalus acaciae* Zucc.; *Loranthus acaciae* Zucc., and *Loranthus gibbosus* A.Rich.  
Semi parasitic shrub on *Ziziphus* and acacia species widespread in Sudan. The fresh whole plant is used as lactogenic and to enhance wound healing.
202. Iraidibu. *Cassia nigricans* Vahl, Symb.  
An annual shrub. Aerial parts used in treating abdominal disorders.
203. Irq al-Abiyad; Abu Abiyad, and Turaiha. 'White root'. *Pterocarpus lucens* Guill. & Perr.  
A root and stem obtained in Talodi in Kordofan, sometimes designed to protect children against the evil eye when worn. Also used in treating syphilis.
204. Irq Al-Aghbash. 'Grey root'. Unidentified Latin name.  
Root.
205. Irq Al-Ahmar. 'Red root'. Unidentified Latin name.  
Root.
206. Irq Al-Aswad. 'Black root'. Unidentified Latin name.  
Root.
207. Irq Al-Awaiy. *Saba florida* (Benth.).  
A glabrous herb. Leaves used in treating abdominal disorders.
208. Irq Al-Dabib and Abu 'Asal. 'Snake root'; Abu 'asal. *Heliotropium strigosum* Willd. and *Heliotropium cordofanum* Hochst.  
Perennial herb widespread throughout Sudan. Root is called Abu 'asal (literally, honey root), and is used as anti-dote against echis bites.
209. Irq Al-Dahab. *Cephaelis ipecacuanha* (Brot.)Tussac.  
Imported from Brazil through Egypt. Root (Irq Al-Dahab) literally 'gold root'. Used in treating dysentery and as emetic.
210. Irq Al-Damm. 'Blood root'. *Achyranthes aspera* L.  
Used in hunting hippos. Root (Irq Al-Damm) literally means 'blood root'.

211. Irq Al-Halawa. 'Sweet root'. Unidentified Latin name.  
Imported from Egypt. Root rubbed up in water and drunk. literally 'sweet root'. Used in treating flatulence and colic.
212. Irq Al-Hasud. Unidentified Latin name.  
A root obtained in Talodi in Kordofan. Parts used: root.
213. Irq Al-Jibbain; Jibbain; Manyoab (Hadandawa); 'Ain Al-Baqar (Arabic), and Al-Ithma (Arabic). 'Snake root'; 'curdling root'.  
*Solanum incanum* L. and *Solanum dubium* Fresen.  
Root used as anti-dote against snakebites.
214. Irq Al-Kujur. 'Kujur root'. Unidentified Latin name.  
Root used in treating gonorrhoea.
215. Irq Al-Mahabba; Abu Tamra; Abu Tamr; Wad Al-Barih, and Ashayib. *Maerua oblongifolia* (Forssk.)A.Rich.; *Alternanthera nodiflora*; *Capparis oblongifolia* Forssk., and *Maerua virgata* Gilg.  
A woody shrub that grows in the lowland plains throughout Sudan. Literally, plant's name is "the child of yesterday." It is obtained from the vicinity of Al-Obeid. Root usually carried with *Ushar* bush root as a female companion; worn or chewed and applied to bitten site as an anti-dote against scorpion and snake bites. Root is also rubbed on face to attract love of the other sex and hence its main uses are aphrodisiac, impotence treatment and as a tonic. Poultice is used in the treatment of ulcers and swellings.
216. Irq Al-Nal. *Waltheria indica* L. and *Waltheria americana* L.  
A grey tomentose herb that grows in Central and Southern Sudan. Root and leaves are used as anti-spasmodic, in treating abdominal disorders, as an analgesic in toothache, tonic, in treating joints affections, diarrhoea, and ulcers.
217. Irq Al-Nar. 'Fire root'. *Euphorbia* spp.  
Root used in treating purulent wounds, leprosy, syphilis, common cold, burns, and as toothache analgesic.
218. Irq Al Natsh. *Crotalaria thebaica* Del.  
A perennial herb that grows in the lowlands of Northern and Central Sudan. Powdered root is mixed with butter and applied to head for treatment of scabies.

219. Ireq Al-Sos. Liquorice; Sweetwood. *Glycyrrhiza glabra* L.  
Imported from Egypt and other Mediterranean countries. Root used in treating carious teeth, as beverage, and as treatment of peptic ulcer. It is also used in treating upper respiratory tract infections.
220. Ireq Al-Tahina; Dawa Al-Samak, and Tahina. *Tephrosia vogelii* Hook.f.  
Fish poison root in Equatoria Region. Cultivated shrub. Seeds, leaves; branches and root used also as insecticide, molluscicide, and arrow poison.
221. Ireq Al-Tais. *Tephrosia uniflora* Pers.  
An erect annual herb. Root used in treating toothache and as a tonic.
222. Ireq Al-Wata. 'Earth root'. Unidentified Latin name.  
Dug out of earth, white in colour. Root (possibly) is used in treating *babaq*.
223. Ireq Ansabra. Unidentified Latin name.  
Root used as amulet.
224. Ireq Banda. Unidentified Latin name.  
Could be *habl banda* (pumpkin root) which is credited with anti-magic qualities. Root used in homicide and infanticide.
225. Ireq Qaqqa. Unidentified Latin name.  
Possibly same as *qanqan*. Root sometimes mixed with *cammoun aswad* and toun. Used in homicide, infanticide, as fumigation ingredient, and in exorcising the evil eye.
226. Ishba and Khashaba. Smilax Spp.  
Imported from Egypt, India, and Morocco. Used in treating syphilis and a tonic.
227. Jardiqqa.  
A local brownish powdered earth obtained from Jebel Medab, Darfur. Dug out of shallow lake in a volcano crater called Malha. Kababish and Kawahla Arabs add to water for cattle to make them fat. Constituents: Common Salt, Sodium Sulphate, Sodium Bicarbonate, Iron Oxide, Calcium Carbonate, and Sodium

Carbonate. Used as laxative, purgative, in treating burning micturition, swellings, tonsillitis, splenic enlargement, abdominal disorders, and as animal food, and is recognized to be poisonous.

228. Jawli. Unidentified Latin name.  
Imported from India. Resin sold in bricks, and made by heating resin in water. Used as fumigation ingredient.
229. Jild Hirbaa. Chameleon's skin.  
Used as fumigation ingredient in treating fever.
230. Jild Qunfut. Hedgehog's skin.  
Used as fumigation ingredient in treating fever.
231. Jir Al-Rawwaq. Clarifying lime.  
Constituents: mainly montmorillonite, mica, calcite, kaolinite, and traces of feldspar, pyrite. Suspension added to turbid water to purify it.
232. Jiriya.  
Sour milk stew.
233. Jirjir and Jarjeer. Garden Rocket; Roquette; Arugula. *Eruca sativa* Miller.  
An exclusively salad item. Seeds, leaves, juice and ointment, claimed to aid hair growing on baldheads. Main uses include treatment of burns, as aphrodisiac, diuretic, and emmenagogues.
234. Joghana and Abu Sibla. *Diospyros mespiliformis* Hochst.  
A grey tomentose tree. Root used in treating leprosy.
235. Joicputch (Mandari).  
Small bushy plant. Reported in Buxton J. *Religion and Healing in Mandari*. Oxford University Press 1973: 422, 425. Parts used: root (pounded in water). Used as laxative and purgative.
236. Julud.  
Skins and hides of animals are sometimes eaten. Rawhide buried in mud to ferment until hair comes off, then striped, sun-dried, and cooked. This practice is seen in Tsetse fly belt of Equatoria Region of Southern Sudan. Rawhide eating is also seen during *marisa* drinking occasions in Nuba Mountains.

237. Juwafa. Guava. *Psidium guajava* L.  
Fruit tree widely cultivated in Sudan. Fruits and leaves are used in treating diarrhoea, fever, and malaria, as anti-tussive, anti-asthmatic, alcohol beverages substrate, and food.
238. Kabab sin. Unidentified Latin name.  
Imported from China via Egypt.
239. Kabarait.  
Cosmetic mixture of perfumes and an ingredient in cosmetic fumigation. Constituents: sandalwood, *shaff* wood, *kilait* wood, sugar, musk *Turki*, and a variety of liquid perfumes.
240. Kabd Al-Ghurab. Crow's liver.  
Used in treating eye inflammation.
241. Kabd Al-Jamal. Camel's liver.  
Used in treating dysentery.
242. Kabd Al-Tumsah. Crocodile's liver.  
Used in treating inflammation of the eye.
243. Kada Gabongre.  
Dark red rock obtained from Nuba Region. Constituents: Haematite of sand and clay, Iron Oxide; crushed, mixed with sesame oil and used for anointing ritually the body of males only.
244. Kadada (Kordofan); 'Ud al-Kadad; Kidad, and Akagod. *Dichrostachys nutans* (Pers.) Benth. and *Dichrostachys cinerea* (L.) Wight & Arn.  
Shrub root imported by Nigerians, or locally imported from Gardud Awlad Himaid. Used as decoction in treating syphilis, leprosy, wounds and as anti-scorpion stings.
245. Kafar Khushr. Unidentified Latin name.  
Crushed up in hot water and applied as paste, or inhaled from a hot watery decoction mixed with 'afna. Used in treating gangrene.
246. Kaff Maryam; Shajarat Al-Khalas, and Shajarat Maryam. Chastity Tree; Rose of Jericho. *Vitex agnus-castus* L. and *Anastatica hierochuntica* L.  
Woody Herb when dry takes the characteristic shape of a placenta or a clenched human hand. The dry whole plant or twig is used as

an item of sympathetic magic and its tea is taken to ease childbirth.

247. Kafur and Kafur Tayyar. Camphor; Camphire. *Cinnamomum camphora* (L.)Presl; *Camphora officinarum* Bauh., and *Laurus camphora* L. Imported from India, China and Japan. Camphor mass is always stored with Cummin to preserve it. Camphor oil is used in treating mental illness, headache, upper respiratory tract infections, and rheumatism. It is a religious healers' favourite; it is used in ritual fumigation, and Quranic verses are written on blocks of camphor mass.
248. Kaidu Digla (Nuba Mountains).  
Bone balls. Fermented animal vertebrae used as food.
249. Kajaik (Southern Sudan).  
Fermented fish. Fish cleaned of viscera, salted and sun-dried. Two types known black *kajaik* (best quality) made of *garmout*, *nuak*, *humar al-hute*, and *surta*, and white *kajaik* made of high quality fish -- '*ijil*, *dabas*, *bayad*, *bulti* and *khiraish*.
250. Kalando (Hadandawa) and Sabbar. *Aloe sinkatiana* Reynolds.  
Fleshy shrub. Leaves as dried mucilaginous substance and used as laxative and purgative.
251. Kalliya (Hadandawa). *Coleus barbatus* (Andr.)Benth.; *Plectranthus barbatus* Andr., and *Coleus forskohlii* (Poir.)Briq.  
Fragrant pubescent perennial herb. Leaves as decoction for treating abdominal disorders.
252. Kalto; Alankuwe; Abu Khameira; Mideka (Baqqara); Eil Hasal (Hadandawa); Um Mideka, and Kalto Kalto. *Ximenia americana* L.  
Obtained from western Sudan. Root used as in treating gonorrhoea, penile gangrene, as laxative, purgative, emetic. It is a recognized poison.
253. Kambu and Shourour.  
Amorphous mass obtained from filtered ashes of burnt qasab (durra stalks) in Sennar and Darfur. In Banda tribe, ash of *ulumba*, millet stalks and water are added to make salt. Constituents: Potash ash-salt, Potassium Chloride, Potassium Carbonate, Potassium Bicarbonate, Potassium Phosphate, Potassium Chloride, Iron

Oxide, Alumina, Calcium Sulphate and Magnesium Sulphate. Seeds are reported to be much esteemed in Kordofan and Cairo. Used in treating headache, as a source for salt, as a laxative, purgative, and in treating wounds, urine infection, and as food.

254. Karawiya and Shabat. Caraway; Caraway Fruit; Caraway Seed; Dill; Indian dill. *Carum carvi* L.; *Anethum graveolens* L.; *Peucedanum graveolens* (L.) Hiern, and *Apium carvi* Crante.  
A biennial herb that grows in the Mediterranean region, cultivated in many places in Sudan, and is imported from India and Egypt. Fruits, seeds, and oil are used as carminative, aromatic, in the treatment of colic, flatulence and dyspepsia, joint affection, sedative for babies, and as lactogenic.
255. Karib (Hadandawa). *Caralluma retrospiciens* (Ehrenb.) N.E.Br. and *Desmidorchis retrospiciens* Ehrenb. Ehrenb.  
Succulent leafless branched herb used whole as decoction in wound treatment.
256. Karkaday; Kororo (Nuba), and Al Injara. Red Sorrel; Roselle; Hibiscus; Sorrel; Rozelle; Indian Sorrel; Jamaican Sorrel; Java Jute. *Hibiscus sabdariffa* L.  
An annual plant that is cultivated in several regions of the Sudan. Sepals, seeds, and calyces are used as decoction or macerate. Used in treating diarrhoea, fever, flatulence, colic, chest complaints, tonsillitis, meningitis, impotence, blood sickness, syphilis, as beverage, anti-cough, tonic, diuretic, aphrodisiac, laxative, purgative, and the entire plant is edible. It is used to treat malaria after adding cloves and tamarind.
257. Karkar.  
Scented oil. Constituents: *Qurunful*, *mahlab*, *sandalwood*, *wadak* or wax, oil, *surratiyya*, *mahlabiyya*, *majmou'*, a variety of liquid perfumes. Used as cream for cosmetic skin management.
258. Karkarab. *Gossypium* spp.  
Cottonseed powder. Used for surgical dressing of wounds.
259. Karmadoda; Umm Dueima, and Lugusho (Mandari). *Nauclea latifolia* Smith. and *Sarcocephalus latifolius* (Sm.) Bruce.

A food tuber of a tuberous root of a large shrub or small tree. Fruits, root and bark used in treating dysentery, and as tonic, anti-spasmodic, and anti-tussive.

260. Kasbara. Coriander; Chinese parsley; Cilantro (leaves). *Coriandrum sativum* L.

An annual aromatic shrub cultivated in several regions of Sudan. Fruits and seeds are taken with food or as decoction. Used as carminative, spice, aromatic and flavouring agent, stimulant, and in treating joints affections, dyspepsia, and high blood pressure. It also dispels worms, and together with liquorice and black Cummin is used in treating peptic ulcer.

261. Kasiraswil. Unidentified Latin name.

Root (worn, used as cauterly or taken internally), the skin of a *waral* (large lizard) is commonly used in conjunction to refresh the site of bite before cauterly. Used as anti-dote against snakebites.

262. Kassa (Golo). Unidentified Latin name.

Root used in treating black water fever.

263. Kassava. *Manihot esculenta* (Rantz.).

Grains used for food.

264. Kawal; Harisha; Qalqal, and Soraib. *Cassia tora* sensu auct.; *Senna obtusifolia* (L.) Irwin & Barneby, and *Cassia obtusifolia* L.

A wild annual under-shrub that grows in Central, Southern and Western Sudan, viz. Jebel Marra Region. Kawal is found and used all over Sudan and in the Ethiopian border. Leaves are made into black powder added to *mulah* sauce, e.g., *waika*. Root, seeds, and leaves are dried and fermented to make kawal. Plant is rich in amino acids, vitamins, and minerals viz. Calcium. The fermented leaves are even richer- good content of sulfur amino acids, slightly low in lysine, protein content increased from 24% to 30% (H.A.Dirar: 1987). Kawal is used as food, meat substitute, coffee additive, diuretic and in treating ringworm. Leaves are used to dispel worms, laxative, and as poultice for rheumatic pains and skin affections.

265. Khall. Vinegar.

Acetic acid used for preservation and pickling, and in treating cerebrospinal meningitis, headache, fever, splenic enlargement, and in food.

266. Khamira. *Colchicum autumnale* L.  
Imported from Egypt. Mixed with sarsaparilla for old syphilis. Used for leavening, and in treating syphilis.
267. Khamirat 'Attar. *Colchicum ritchii* R.Br.  
Imported from Egypt. Rhizome (used with *la'ba murra* against diabetes and with butter as tonic). Used in treating diabetes mellitus and as baby tonic.
268. Khara Hadid.  
Refuse "slag" iron taken from the smelting furnace and made decoction with other drugs. Used in treating syphilis, and as a tonic.
269. Kharasmi. Wormseed. Unidentified Latin name.  
Seeds used in treating gonorrhoea.
270. Kharata. *Convolvulus deserti* Hochst. & Steud. and *Convolvulus microphyllus* Choisy.  
A hirsute herb that grows in shallow sandy soil of Western and Eastern Sudan. The maceration of the root is used as a gargle to treat gingivitis.
271. Khardal Aswad. Black mustard; Mustard seeds. *Brassica nigra* (L.)Koch; *Sinapis nigra* L., and *Brassica sinapioides* Roth.  
Seeds of an annual plant cultivated in Sudan. Known as spice, and emetic if used in large amount.
272. Khass. Lettuce. *Lactuca sativa* L. var *longifolia*.  
Used whole for food.
273. Khilla; Bizrat Al-Khilla, and Khilla Baladiya. Visnaga. *Ammi visnaga* (L.)Lam.  
An annual plant that is cultivated in Sudan. Seeds are used in treating burning micturition, loin (renal) pain, as diuretic, and ureteric muscle relaxant, and for the treatment of peptic ulcer.
274. Khimais Twaira.  
Literally 'five birds'. It is an enriched *kisra 'asala*. Contents: millet

flour, millet malt, sesame (or groundnuts), sugar and salt, eaten with little water added, a common travellers' food in western Sudan.

275. Khirwi'; Bullas (Hadandawa), and Hurua (Kordofan). Castor Oil Plant; Palma Christi; Castor Bean Plant. *Ricinus communis* L.  
A shrub or tall herb that is cultivated in Sudan. Seeds and crushed leaves are used in treating guinea worm, and as laxative, purgative, abortifacient, source of oil, and poison. It is used as poultice to enhance fractures healing. Leaves are used in treating swellings.
276. Khiyar. Cucumber. *Cucumis sativus* L.  
Fruits used by Arabs in treating stomach disorders and urinary problems. It is a popular salad item.
277. Khiyar Shanbar. Cassia pulp. *Cassia fistula* L.  
An ornamental plant imported from Egypt. Fruit's bulb used to treat joints affections, and as laxative, and purgative.
278. Khoukh. Peach. *Prunus persica*.  
Fruit used for food.
279. Khumra.  
A northern Sudanese potpourri usually kept in an Indian-made bowl called *buq* (a polychrome Meccan vessel). Constituents: *Mahlab*, lemon, *kabarait*, any available liquid perfumes, sandalwood, musk, *dofr*, musk *Turki*, *zabad*, *jilad*, cloves, cardamom (*khumrat hababan*). It is an important item in perfume, and massage.
280. Kilaimidab (Hadandawa). *Linaria sagittata* (Poir.)Hook.f.; *Antirrhinum sagittatum* Poir., and *Kickxia heterophylla* (Schousb.)Dandy.  
Spinescent climbing perennial herb. Whole plant used.
281. Kirili (Mandari). *Harrisonia abyssinica* Oliv.  
Leaves used in treating chest complaints and as a marisa additive.
282. Kirof (Mandari) and Habil. *Combretum fragrans* F.Hoffm.; *Combretum adenogonium* Steud. ex A.Rich.; *Combretum multispicatum* Engl. & Diels, and *Combretum bartmannianum* Schweinf.  
A glabrous tree that grows in Central Sudan. Bark is used in treating leprosy and jaundice. Root is used in fumigation "to cleanse a dead person's possessions".

283. Kisra.  
A variety of bread and porridge made of durra and millet 'ajin (fermented dough), mainly thin sheets baked on *saj* or *doka* (hot plate) and eaten with *mulab* or *tabikb* (sauce, soup, stew), milk, robe (curdled milk). Composition: 14% protein, 1.5% ash, 2.5% crude fibre, 1% sugar on dry matter basis, moisture 50% (H.A. Dirar: 1987). Also used for water purification.
284. Kisra 'Asala.  
Sweet or honey bread. Whole millet grain milled and made into stiff porridge (*kisra hamra*). A little millet malt is added and the fermented dough is baked into *kisrat kas*. This is sun-dried and crumbled into smaller flakes. Eaten after adding water, no salt or sugar; a common travellers' food.
285. Kisra Baida.  
A fermented millet bread of western Sudan.
286. Kitir. *Acacia mellifera* (Vahl) Benth.  
Shrub or tree. Bark and leaves used in treating joints affections.
287. Kohl. Antimony.  
Black antimony eye-liner powder, used cosmetically for edging eyes, for treating eye disease including granular lids, improving eye sight, and staining tattoos and facial scars permanently black; obtained from India where it is called *surma*. One variety is called *kohl al-malayika* (angels' *kohl*) or white *kohl*. Constituents: Antimony Sulphate, possibly also lead sulphate and oxides as adulterants; powdered; mixed with powdered sugar or with *zabad malih* in treatment; sold raw. Used also in averting the evil eye.
288. Kong Bui. Unidentified Latin name.  
Snake root, used in Diling, Kordofan Region. Root used as an anti-dote against snakebites.
289. Kowa Kowari. Unidentified Latin name.  
A plant used in Herban, Kordofan Region. Possibly root used as anti-dote against snakebites.
290. Kul. Unidentified Latin name.  
Food additive in Sennar and Darfur. Whole herb and flower, buried

to rot, beaten up mixed with salt, and added to *mullab* (stew), used in managing the evil eye.

291. Kulkul and Ligna (Nigerian). *Bauhinia rufescens* Lam.; *Adenolobus rufescens* L., and *Piliostigma rufescens* L.  
A local pubescent shrub that grows throughout Central and Southern Sudan. Root is also imported by Nigerians. Leaves, seeds, root (Quranic verses inscribed, boiled and decoction drunk) used in treating leprosy, diabetes mellitus, and as analgesic in toothache.
292. Kumba and Gambo. *Xylopiya aethiopica* (Dunal)A.Rich.  
Probably introduced by Nigerians from Central African countries, frequently used to adulterate coffee. Pods used as coffee additive and stomachic.
293. Kumithra. Pear. *Pyrus communis*.  
Fruit used for food.
294. Kunush. Unidentified Latin name.  
Imported from Persia. Root (powdered) used in treating syphilis.
295. Kurdan; Kurdala; Amyok (Dinka); Myook (Dinka), and 'Irq al-Sharba. *Courbonia virgata* Brongn.; *Courbonia decumbens* Brongn., and *Maerua pseudopetalosa* (Gilg & Bened.)DeWolf.  
Root twirled in turbid water until mud settles; when chewed it renders water sweet and cold when drunk; leaves; stem; fruits; frequently consumed during famines. Used as hyena poison, salt source, and emetic.
296. Kurkum. Turmeric; Curcuma. *Curcuma longa* L.; *Curcuma domestica* Vahl., and *Amomum curcuma* Jacq.  
A plant with thick rhizomes, imported from India. Rhizome and yellow root used as dye for bride's body care. Lotion gives body yellow colour specially when used with *dukkhban*. Used as spice, cosmetic, and as a flavouring and dyeing agent, and in treating biliary tract disorders, chest complaints, and swellings.
297. Kursan; Mikkhkhait; Shajar Al-Mikkhkhait, and Um Kheit. Assyrian plum. *Boscia senegalensis* Lam. ex Poir.; *Podoria senegalensis* Pers., and *Boscia octandra* Hochst. ex Rodlk.  
A local wild shrub or small tree that grows in the sandy low plains

of Sudan. The fruits are frequently consumed during famines. Bark, fruit (berries), leaves, and seeds are used in treating syphilis, chest complaints, indigestion, bilharzia, joints affections, tuberculosis, in water purification, as poultice, food, anthelmintic, and anti-inflammatory. The emulsion of the leaves is used as eyewash.

298. La'ba Murra. Bryonia. *Bryonia cretica* L.  
A climbing herb imported from Egypt. Rhizome used to treat skin disease, diabetes mellitus, chest complaints, and as newborn skin paint.
299. La'oat; Gamerot, and Uod. *Acacia oerfota* (Forssk.) Schweinf and *Acacia nubica* Benth.  
A lowland spinescent shrub that grows wild in northern and central Sudan. The stem and branches are used in the treatment of rheumatic pain, and joint affections. The root is used in fumigation and as an anti-dote for scorpion bite, and poultice.
300. Laban. Milk.  
Is a popular drug carrier, and fertility symbol.
301. Laban Al-Baqar. Cow's milk.  
Medicinally used to treat dysentery.
302. Laban Al-Ghanam. Goats' milk.  
Used in treating measles, leprosy, skin disease, syphilis, and diarrhoea.
303. Laban Al-Humar. Donkey's milk.  
Used in treating whooping cough.
304. Laban Al-Ibil. Camel's milk.  
Used in treating enlarged spleens (see *al-qaris*), and ascites (*istisqaa*) when camel urine is added.
305. Laban Al-Umm. Mother's milk.  
Considered cooked in breast. Used for treating diarrhoea, and eye inflammation.
306. Laban Rayib. Yoghourt.  
Onion's squash or qarad pods added for children's diarrhoea.
307. Laham Abu Al-Dalaq.

The meat of a rare black bird used in treating rabies.

308. Laham Al-Kadis. Cat's meat.  
Used in treating whooping cough and syphilis.
309. Laham Al-Qunfut. Porcupine's meat.  
Used as an oxytocic.
310. Laimoon. Lemon; Lime. *Citrus aurantifolia* (Christm.)Swing.  
Used as gurgle in tonsillitis, and as an anti-septic toothbrush. It is believed to be an anti-dote for poisons, and is used as a water-flavouring agent. It is believed to be helpful in upper respiratory tract infections. Boiled leaves are used to reduce blood sugar.
311. Lakhokha.  
A massage paste made of durra and other ingredients. Constituents: Durra porridge and oil. Ground rice or lupin added to help in application. Mainly used for massage.
312. Lakhokhat Bayad Al-Baid.  
A massage paste that helps the oily face. Constituents: Egg white.
313. Lakhokhat Khamirat Al-Biera.  
A face beautifying massage paste. Constituents: Beer yeast and yoghurt.
314. Lakhokhat Safar Al-Baid.  
A massage paste that stretches the face. Constituents: egg yolk.
315. Lappa (Azande). *Erythrophleum guineense* G.Don and *Erythrophleum suaveolens* (Guill. & Perr.)Brenan.  
Seeds and pods used in divination, as poison mainly as arrow poison.
316. Lasaf. Caper tree. *Capparis cartilaginea* Decne; *Capparis galeata* Fresen., and *Capparis spinosa* L.  
Mountainous slopes shrub. Leaves chewed as toothache analgesic, for treatment of eye and gingival infections, and used as a poultice for the treatment of swellings, and in purifying water.
317. Liba and Sarsoub.  
Colostrum of animals or human beings used as food.

318. Lidan. Unidentified Latin name.  
A root obtained in Herban in Kordofan.
319. Likbalie. Unidentified Latin name.  
Leaves, root (fumigant), used in treating syphilis, leprosy, and wounds.
320. Loz. Almonds. *Prunus amygdalus*.  
Taken as *qabwat loz* (coffee with milk, rice, sugar, and crushed almonds) as beverage or porridge in Red Sea Region viz. in *lailiyya* of the Mirghaniyya Sufi order. Crushed seeds used in treating cough, chest complaints. It is alleged to increase the amount of ejaculated semen.
321. Lu'ab Al-Baqara. Cow's saliva.  
The saliva of a cow that died recently of cowpox is transferred in cotton gauze to healthy cows as variolation to protect them against the disease.
322. Luba 'Afin and Lubia 'Afin. Red beans. *Dolichos lablam* L.; *Dolichos pseudopachyrhizus* Harms; *Lablab niger* Medic.; *Lablab purpureus* (L.) Sweet, and *Neorautanenia mitis* (A. Rich.) Verdc.  
A fodder crop beans commonly used as *balila*. Also used whole in water purification, and as anthelmintic.
323. Luban. *Commiphora pedunculata* (Kotschy & Peyr.) Engl.  
Imported resinous balls obtained from a wild plant, used as chewing gum and burnt with incense. Gum resin mainly used as fumigation ingredient.
324. Luban Ladin; Luban Dhakar, and Taraq Taraq. Olibanum; Frankincense; Oil of Lebanon. *Boswellia carteri* Bird.; *Boswellia sacra* Fleuck.; *Boswellia papyrifera* Del. Hochst., and *Amyris papyrifera* Del.  
A small tree that grows in Central and Southern Sudan, also imported from Saudi Arabia, and North Africa. Resin, bark, and gum used for chewing and an important ingredient of *bakbur* (ritual incense). When charred, the black powder is used as kohl (cosmetic eyeliner). It is used as expectorant, and in treating upper respiratory tract infections. Luban Dhakar (male Frankincense) is light-coloured and globular. It is the one used for medicinal purposes.

325. Lubia Taiba and Lubia Tayyib. *Lobelia enflata*.  
Commonly used as *balila*. Seeds used for food and in treating inflamed eyes.
326. Lulu and Rak (Dinka). Butter Tree; Shea Butter; Galam Butter. *Butyrospermum parkii* (Gaertn.f.)Hepper and *Vitellaria paradoxa* Gaertn.f.  
Fruit bulb, seeds, and oil massaged for relief of sciatica pain. Used in treating sciatica, for food and as oil source.
327. Ma Zamzam.  
Zamzam water, obtained from Zamzam spring inside the Holy Mosque compound in Makka, Saudi Arabia, a popular panacea.
328. Maghar.  
Dark red rock obtained from Soderi. Picked up amongst derelict houses on top of mountains. Constituents: a haematite of sand and clay, Iron Oxide.
329. Maghar Akhdar.  
Green Ochre obtained from Jebel Kan in Nuba Mountains. Constituents: Green friable lumps of sand and clay, Sodium Chloride, Iron Oxide. Crushed, mixed with sesame oil and used for anointing the body ritually and as a routine.
330. Mahareb; Hamareb, and Halfa Barr (Egypt). Camel's hay. *Cymbopogon proximus* (L.)Spreng.; *Cymbopogon schoenanthus* (L.)Spreng. subsp. *proximus* (Hochst.)Maire & Weiller, and *Andropogon proximus* Hochst. ex A.Rich.  
A wild desert perennial herb that grows wild throughout central and northern Sudan. Infusion of leaves, stem, and whole plant is used in treating kidney infections, gout, prostatic enlargement, as carminative, aromatic, anti-rheumatic, to dispel worms, antispasmodic, diuretic, and in treating joint pains.
331. Mahlab. *Hypoestes verticillaris* (L.)Soland. ex Roem. & Schultes and *Hypoestes cancellate* Nees.  
Imported from Syria and Egypt. Seeds (decoction), powder rubbed on child's gum or scalp. Used in treating ear diseases, diarrhoea, gonorrhoea, as anti-spasmodic, in water purification, as perfume

ingredient in massage.

332. Mahogany. Mahogany; Senegal Mahogany. *Khaya senegalensis* (Desr.) A.Juss.  
Tree that grows in Southern Sudan. Macerate of bark is used in treating malaria, liver affections, abdominal disorders, and sinusitis. Leaves are used to treat skin affections, abdominal disorders, and trachoma.
333. Majmou'.  
An imported "pot-pourri" scent. Mainly clove and sandal oil.
334. Manqa. Mango. *Mangifera indica* L.  
Fruit pulp, seed kernels, young leaves and shoots used in treating abdominal disorders.
335. Maqar Ahmar. Red Ochre.  
Obtained from Jebel Urunu, Jebel Kan, and Otoro in Nuba Region. Constituents: Red friable lumps of sand and clay, Sodium Chloride, Iron Oxide. Crushed, mixed with sesame oil and used for anointing the body ritually and as a routine.
336. Marakh and Ajwam. *Leptadenia pyrotechnica* (Forssk.); *Leptadenia spartium* Wight., and *Cynanchum pyrotechnicum* Forssk.  
A lowland erect shrub widespread in Northern and Central Sudan. Whole plant is used in treatment. Macerate of the root is used to treat urine retention. Stems are used in fumigation to treat rheumatic pains and sciatica.
337. Mararat Al-Tumsah. Crocodile's bile.  
Used to treat eye inflammation.
338. Mararat Ghazal. Gazelle's bile.  
Used to treat eye inflammation.
339. Mardagoash; Ardagoash, and Bardagoash. Wild marjoram; Sweet marjoram; Knotted marjoram. *Origanum majorana* L.; *Origanum vulgare* L., and *Origanum hortensis* Moench.  
Herb that grows in the Mediterranean region. It is imported and used as a whole in fumigation against asthma, and migraine.
340. Mardud. Unidentified Latin name.

Aphrodisiac.

341. Marisa; Baghu; Baqaniya; Bilbil; Bouza; Um-Bilbil; Um-Darbiq, and Darbiq.  
A fermented alcoholic beverage and a staple food for many tribes especially in southern, western, and southeastern Sudan. *Um-Bilbil* is considered a superior kind of *marisa*, while *baqaniya* a weak type usually consumed by the pious, being considered non-alcoholic. Brewed at home for family consumption or in Indayas (brew houses), main substrate is durra, characterized by high suspended starch matter. Contents include B vitamins, 13.3% crude protein, 2.58% ash, 4.5% fat, 2% crude fibre on dry matter basis (H.A. Dirar: 1987). *Mushuk* is the residue left after *marisa* is filtered, this is used in animal fattening. The substance of *marisa* is called *kujana* and *kajna*. *Marisa* is frequently used in intoxicating monkeys before hunting. *Daboba* is *marisa* in its first stages when water is added to *sourij*. *Marisa* is often used as drug carrier, diuretic, and in treating gonorrhoea.
342. Mastica; Mastiki, and Mistika. Mastic; Mastic Tree; Mastic Gum.  
*Pistacia lentiscus* L.  
A small tree whose resinous part is imported from Egypt and other North African countries. Bark oleoresin, leaves, seeds, and fruits are used to treat epigastric pain, chest complaints, fits, bad breath, as toothache analgesic and chewing gum. It is also used in food flavouring and scenting coffee cups.
343. Mekah. *Dobera glabra* L.  
A local plant used whole for treating swellings.
344. Mia. Unidentified Latin name.  
Imported from Eden via Egypt. Mainly used as fumigation ingredient.
345. Mihajriya. *Celtis integrifolia* Lam.  
A large deciduous tree. Bark used in treating abdominal disorders.
346. Mihaya. Erasure.  
Quranic verses written on wooden tablet or china plate in ink or honey.

347. Milh Ahmar.  
 Reddish powdery rock obtained from Um-Gawasir, Soderi, and Dongola regions. Constituents: sand and clay, Sodium Chloride, Iron Oxide, Calcium Carbonate. Salts, animal and human food.
348. Milh Al-Qa'a.  
 Earth obtained from Dongola desert and Soderi. Constituents: impure common salt containing considerable potassium, also Sodium Carbonate, Sodium Bicarbonate, Sodium Chloride, Sodium Sulphate, Calcium Carbonate. Hawawir and Kababish Arabs use it in cooking *mulab*. Used in treating headache, joints affections, and splenic enlargement.
349. Milh Al-Qa'ab.  
 The earth of Qa'ab al-Laqiya valley west of Dongola in Northern Sudan. Constituents: Qa'ab salt used in treating headache, and joints affections.
350. Milh Sharshar.  
 White crystalline salt obtained from Al-Qar Sharshar near Soderi. Constituents: Sand and Clay, Sodium Chloride and Sodium Sulphate. Salts animal and human food in Dar Hamid in Western Sudan.
351. Milh Ta'am.  
 Common salt obtained from Port Sudan. Constituents: Sodium Chloride. Used in food and for preserving fish.
352. Milh Zaqqoum.  
 Suppositories used as anti-inflammatory.
353. Milqat. Jalap. *Ipomoea hederacea* Jacq.  
 Twiner imported from India, Egypt. Seeds recognized as a poison, laxative, purgative, oxytotic, and in treating sterility.
354. Miris.  
 A popular fermented offal's food in Kordofan and Darfur Regions. Animal fat and offal are incubated in an earthenware and left to ferment until foul, then pounded to soft paste and used as such (boiled with beans, or okra, onions, spices etc. to make sauce.

355. Mishmish. Apricot. *Prunus armeniaca* L.  
Fruit used for food.
356. Misk. Musk.  
Perfume obtained from Musk deer (*Moschus Moschiferus*). Imported from the Far East. Best types are the Chinese and Tibetan, musk in pods or musk in grain.
357. Molaita. *Reichardia tingitana* (L.)Roth.  
Wild herb. Leaves alleged to treat diabetes mellitus.
358. Molokhiya and Khudra. Jew's Mallow. *Corchorus olitorius* L.  
Used in *mulah* (gravy) either fresh or dried. Stalks, leaves, seeds used in water purification, and as abortifacient.
359. Moura. *Stylochiton borumensis* N.E.; *Stylochiton lobatus* N.E., and *Stylochiton sensu* N.E.  
Erect annual herb that grows in the lowland and plains of Central Sudan. The roots are used to relief the pain of scorpion stings.
360. Moze. Banana; Plantain. *Musa nana* var. *Kavendishi*; *Musa sapientum*, and *Musa paradisiaca* Walk & Sill.  
Tropical plant that grows widely in Sudan. Eaten as fruit and the raw fruit is used to treat peptic ulcer.
361. Mughat and Inab Al Diek. Black nightshade. *Solanum nigrum* L. and *Solanum nodiflorum* Jacq.  
Fruit of this plant is taken as powder for the treatment of abdominal disorders.
362. Mulah and Tabikh.  
Gravy soups or stew. Different dishes are made of meat, vegetables, or sour milk, with onions, oil, tomato puree, salted, spiced, and served with fresh salad.
363. Murr; Murr Higazi, and Murrah. Myrrh. *Commiphora mukul* (Hook. & Stocks)Engl.; *Commiphora wightii* (Arn.)Bhandari, and *Commiphora myrrha* (Nees)Engl.  
Imported from Hejaz, some species grow in Sudan. Stem and its gum resin are used as fumigation ingredients, in treatment of wounds, gingivitis, swellings, flatulence, and colic, as digestive, anti-

spasmodic, and stomachic.

364. Mushuk.  
*Marisa* byproduct.
365. Musran.  
Fermented and dried animal small intestines. Pounded and added to boiling water to make sauce.
366. Na'anaa; Nada; Hersha, and Murkab. *Peristrophe bicalyculata* (Retz.); *Dianthera bicalyculata* Retz.; *Justicia bicalyculata* (Retz.), and *Peristrophe pilosa* Turrill, Kew Bull.  
Erect annual herb that grows in the water catchments of Central and Southern Sudan. Macerate of whole plant is used in the treatment of ear infection.
367. Na'na'. Peppermint; Mint; Spearmint; Common Green Mint; Horsemint; Fieldmint; Aquatic Mint. *Mentha × piperita* L.; *Mentha viridis* (L.)L., and *Mentha spicata* L.  
Leaves of an aromatic herb used for its nice aroma when added to tea and food. Also used as carminative, anti-flatulent, sedative, and anti-spasmodic. It is alleged to lower blood cholesterol, and helps in treating abdominal and urinary tract disorders.
368. Nabaq; Sidr; Sidra; Sidir; Qarat (Hadandawa), and Kanar. Christ's Thorn; Lore-tree. *Ziziphus spina-christi* L. Willd.; *Rhamnus spina-christi* L., and *Ziziphus africana* Mill.  
A thorny shrub or tree, wild and cultivated in Central and Northern Sudan. Fruits (nabaq), bark, and root are used in treating wounds, cough, diarrhoea, leprosy, gonorrhoea, as laxative, purgative, mouth wash, anthelmintic, anti-snake bite, and anti-spasmodic. Leaves are used to treat hair fall and dandruff and in washing the dead. Oil is used as a lotion in rheumatic pains.
369. Nabiet.  
A winter beverage in Dongola Region. Durra malt is added (in a piece of cloth) to fermented dates syrup, sealed in earthenware for 3-4 days, and buried in the ground for fermentation.
370. Nadiana. *Plumbago zeylanica* L.  
A glabrous herb. Whole plant used in treating leprosy.

371. Nakhwa . Bishop's Weed. *Trachyspermum ammi* and *Carum ajowan*.  
Imported from India. Seeds mixed with honey and milk and used to anoint penis as prophylaxis against soft sores after coitus during menses. Used as laxative, purgative, and in treating gonorrhoea.
372. Nal. *Cymbopogon nervatus* (Hochst.)Chiov.  
Leaves and stalks used to flavour water.
373. Nasha and Madida.  
Drinkable durra paste or thin porridge made of durra or millet.
374. Neem. Nim; Neem; Indian Lilac; Margosa Tree; Azedarach.  
*Azadirachta indica* A.Juss. and *Melia azadirachta* L.  
Tree originally imported from India and is now widespread in Sudan. Stem, bark, and leaves are used as poultice and applied for treatment of *Abu-Diqnan Dayira* (mumps). Frayed twigs are used as toothbrushes. Also used in treating skin infections and diseases including eczema, measles, chicken pox, malaria and swellings (*dabas*), as insect repellent, anti-lice, and repellent of worms when taking on an empty stomach.
375. Nimlol. Unidentified Latin name.  
A plant used in Herban, Kordofan Region. Parts used: stem.
376. Nirwan. Unidentified Latin name.  
A plant obtained from Herban. Parts used: twig.
377. Noro. Unidentified Latin name.  
Parts used: root; corn.
378. Nuba Kartilla.  
Stratified crystal concentrate obtained from Jebel Otoro of Nuba Mountains. Constituents: Sand and clay, Sodium Carbonate, Sodium Bicarbonate, Sodium Sulphate and Iron Oxide.
379. Papai. Papaya; Pawpaw. *Carica papaya* L.  
Parts used: fruit.
380. Porsho (Mandari). *Ziziphus* spp.  
Small tree. Tuberous root (eaten), and used in treating diarrhoea.
381. Qalafonia. Colophony; Pine resin. *Pinus* sp.  
Imported from India. Mass used in soldering and a recognized

poison.

382. Qaliyat 'Aish.  
Torrified durra. Macerate. Used in treating cough.
383. Qamh. Wheat. *Triticum sativum* Lam. and *Triticum aestivum* L.  
Grains used for bread making, roasted or boiled as *balila*. Used in treating gonorrhoea and dysentery.
384. Qanq. *Clerodendron capitatum* (Willd.) Schum.  
A local grey tomentose herb, powder added to meat. Root used as tonic.
385. Qara' Kosa. *Cucurbita pepo* L.  
Fruits used for food.
386. Qara'; Dubbaa (Arabic), and Yaqtin (Arabic). Pumpkin; Marrow; Winter squash. *Cucurbita maxima* Lam. and *Cucurbita pepo* L.  
A plant noted in Quran as a wound dressing, used locally as a surgical dressing for a burst abdomen. Parts used: fruits; seeds; leaves (infusion). When eaten, the skin odour becomes mosquito repellent. *Um-Jalabi*, a type of pumpkin, is made inkstand for writing Quranic verses as treatment for skin diseases. Used in surgical dressing, as anthelmintic, in treating hypertension, skin disease, mental illness, allergy, splenic enlargement, and as tonic. Seeds are used to dispel tapeworm, *Ascaris*, giardia. When senna and cumin are added, it is used to treat dysentery.
387. Qarad Abu-'Arida; Sunt, and Qarad. Sunt Tree; Gum Arabic; Gum Acacia. *Acacia nilotica* (L.)Willd. ex Del. subsp. *nilotica*; *Acacia arabica* (L.)Willd.; *Acacia nilotica* subsp. *nilotica*; *Acacia vera* Willd.; *Acacia vereke* Guill. & Perr.; *Acacia seyal* Del.; *Acacia seyal* Del. Var, fistula Schweinf. Oliv.; *Acacia seyal* Del. var. *seyal*; *Acacia nilotica* subsp. *nilotica*, and *Acacia senegal* (L.)Willd.  
A wild or cultivated tree that grows in Northern and Central Sudan. Fruits, pods (decoction), bark; leaves and gum are used as a popular panacea. Used topically to treat fever, in tanning, astringent, and anti-diarrhoea, for sore throat, as fumigation ingredient, in treating syphilis, leprosy, piles, gonorrhoea, diabetes mellitus, blood sickness, impetigo, and cerebro-spinal meningitis.

Gum (*sumq*) of different varieties is tapped from *Hashab*, *Sunut*, and *Talb* (*talba hamra* and *talba baida*) trees, and used in treating chest complaints, cough, and tonsillitis.

388. Qaris.  
Fermented camel milk. Produces as high as 2% alcohol hence intoxicant; it could be the only food available for nomads and camel herders. For treatment of Leishmaniasis, (kala-azar) 12 kinds of spices (medicinal ingredients) are added to it and incubated in earthenware under the ground for 12 days. Patient is fed on this for 12 days.
389. Qarn Khartit. Rhinoceros horn.  
Horn powdered and used as aphrodisiac.
390. Qat Hindi. Unidentified Latin name.  
Imported from India via Egypt. Rubbed up with *damm al-Ikhwa* on indolent sores and tropical ulcers.
391. Qatb and Qadb. *Lotus arabicus* L.  
Animal food, which is known to be cattle poison.
392. Qirfa; Qirfat Al-Damm, and Dar sini (Arabic). Cinnamon; Ceylon cinnamon. *Cinnamomum zeylanicum* Blume and *Cinnamomum verum* J.S. Persl.  
A spicy bark imported from India. Bark is used in oil and in treating blood sickness, urine retention, and as a flavouring agent. Bark is used to treat kidney infections, diabetes mellitus, tonic for memory and concentration, and expectorant.
393. Qirfat Al-Dud; Takirni, and Umm Takirni. Worm bark. *Albizia anthelmintica* Brongn.  
Tree widespread in Sudan. Bark powdered, mixed with milk and used as anthelmintic to dispel tapeworm, treat dysentery, malaria, and eye infections. Saponins from bark are effective as molluscicidal, larvicidal, and wormicidal.
394. Qishr Al-Baid. Egg shell.  
Powdered and sniffed in treating epistaxis.
395. Qishta. *Annona senegalensis* Pers.

Fruit of a local shrub or small tree, used as a poultice and as antilice.

396. Qurunful and Mismar (Arabic). Cloves. *Eugenia caryophyllus* (Spruce) Bullock; *Syzygium aromaticum* (L.) Merr. & Perry; *Eugenia caryophyllata* Thunb., and *Eugenia aromatica* (L.) Bail.  
Evergreen trees that grow in India. Cloves fruits are popular panacea for reducing pain in teething, headache, toothache, common cold, leprosy, gingivitis, and ear disease. It is also used to improve mouth odour, decrease high blood pressure and as a sedative. Fruits are sometimes smoked in a pipe to alleviate cough.
397. Qutran.  
Tar made of colocynth. The Kababish obtain it from the seeds of the watermelon by a simple process of distillatio per descensum. See C.G. Seligman. *Sudan Notes and Records*; 1918; 1(3): page 202, for an illustrated description of the process. Used in dressing wounds.
398. Qutun. Cotton. *Gossypium barbadense* L.  
This is an oil source and animal food.
399. Rab'a and Irq al-Rab'a. *Trianthema pentandra* L. and *Zaleya pentandra* (L.) Jeffrey.  
Prostrate pubescent herb widespread in Sudan. The root is powdered before use. Whole plant is used as emetic, purgative, laxative, in treating gonorrhoea and scorpion stings. It is reported to cause acute nephritis and bloody diarrhoea in man.
400. Rabal. *Pulicaria undulata* (Linn.) C.A. Mey.  
Plant widespread throughout Northern and Central Sudan. Whole plant is used as poultice for the treatment of baldness.
401. Ramad.  
Plant's ash dusted over turbid water to purify it. It is also dusted over smallpox sores (when Banona wept her brother Amara she wanted him to die in battle shrouded in blood and not with smallpox dusted with ash.) .
402. Raml. Sand.  
Used in dressing wounds.

403. Ras Al-Qoam.  
Obtained from Jebel Marra area. Used in treating inflamed eyes.
404. Ras Al-Shayib; Danab Al-Kalb, and Shaiba. Cockscomb; Quial grass. *Celosia argentea* L.  
A glabrous weed that grows in Central and Southern Sudan. Leaves are used as anthelmintic to dispel worms.
405. Rashad. Pepper cress; Garden cress; Pepper grass; Pepperwort; Pepperweed. *Senebiera nilotica* (Del.)DC.; *Coronopus niloticus* (Del.)Spreng., and *Lepidium sativum* L.  
Local herb and sometimes imported from Egypt. Aromatic seeds added to goats' milk and drunk as a cure for dysentery. Also used as rectal enema, in treating eye disease, skin affections, as stomachic, and anthelmintic. Poultice made of seeds is used for plastering broken bones, and taken as powder for abdominal ailments.
406. Rawath Al-Fil. Elephant's dung.  
Used in treatment of allergy.
407. Rawath Baqar. Cow dung.  
Usually charred. Used as fumigation ingredient and in dressing wounds.
408. Rawath Dhan. Sheep dung.  
Usually charred. Used as fumigation ingredient and in dressing wounds.
409. Rawath Jamal. Camel dung.  
Usually charred. Used as fumigation ingredient and in dressing wounds.
410. Rawwaq.  
Clarifying clay soil, obtained from all along Nile valley.  
Constituents: mainly montmorillonite, plus feldspar, calcite, dolomite, chlorite, and traces of palygorskite, amphibole, mica and kaolinite. Suspension added to turbid water.
411. Rihan; 'Arwal, and Hadanit (Hadandawa). Basil; Sweet Basil; Common Basil; Garden Basil. *Ocimum hadiense* Forssk.; *Ocimum basilicum* L., and *Ocimum lanceolatum* Schum. & Thonn.

A cultivated and wild aromatic plant widespread throughout Northern and Central Sudan. Seeds, flowers, leaves, and stem, are boiled in water and sweetened for treatment of jaundice. Also used as carminative, demulcent, flavouring agent, expectorant, stimulant, in treating allergy, ascites, dysentery, and eye infection. Also used as mosquito repellent, analgesic in labour, and anti-dote for scorpion stings. When vinegar is added, it is inhaled to recover unconscious patients.

412. Rigla. Purslane. *Portulaca oleracea* L.  
A succulent herb that is cultivated in the Sudan as a vegetable crop. Whole young plant is used for food and in treating abdominal disorders.
413. Rita.  
Silver cleansing agent. Used as hair insecticide.
414. Robe and Laban Rayib (Egypt).  
Sour milk curds produced by spontaneous fermentation of milk, usually stored in *si'in* (milk skin) and *bukhsa* (milk gourd); butter is obtained in the process and buttermilk is used for different types of milk sauces, viz. *ni'amiya*, *kurrara* etc., or diluted with water and consumed as *ghubasha*. Spread over turbid water for purification. Used also in treating diarrhoea, as anti-spasmodic, and as beverage.
415. Rumman. Pomegranate. *Punica granatum* L.  
Juice is used in treating peptic ulcer. Fruit cover is used to treat epistaxis, dysentery and to dispel worms.
416. Ruz. Rice. *Oryza sativa* L.  
Grains used for food.
417. Sabagna. *Jatropha glauca* Vahl, Symb. Bot.; *Jatropha lobata* Muell.-Arg.; *Jatropha ricinifolia* Fenzl., and *Jatropha glandulifera* Roxb.  
Erect perennial undershrub of the lowland plains of Northern and Central Sudan. Root is used as post-partum analgesic. The seeds are used as laxative.
418. Sabar and Sabbar. Aloe. *Aloe perryi* Bak.  
A bitter plant imported from Middle East countries and India. Leaves mass moistened with water or coffee, and used in treating

chest complaints, as laxative, and purgative. It is used as anti-dote for arrow poison.

419. Sabtu.  
Used in treating hypertension.
420. Sado.  
Bark of a tree imported from Abyssinia and used in the preparation of *asaloab*.
421. Safar Al-Baid. Egg yolk.  
Used in treating tonsillitis.
422. Safoufat Al-Usul.  
Constituents: *Habbat al-Muluk* etc.
423. Saikaran; Tarmf (Dilling); Mekayyis (Hadandawa), and Simm al-Far. Thorn-Apple; Datura. *Datura stramonium* L.; *Datura muticus* L.; *Datura metel* L.; *Withania somnifera* (L.)Dunal; *Rogeria adenophylla* J.Gray ex Del.; *Physalis somnifera* L., and *Hyoscyamus muticus* L.  
A wild gravel soil undershrub widespread in Sudan. All parts especially seeds, which are crushed and mixed with food, or marisa, stem bark, and root are used in chronic abdominal pain. A known arrow and lances poison, aphrodisiac, narcotic, poultice, and diuretic. It is also used in treating diarrhoea.
424. Sakan. Soot.  
Main constituent of '*amar* (native black ink).
425. Sala'la'; Katut (Hadandawa), and Tekwatko (Hadandawa). *Cissus quadrangula* L. and *Vitis quadrangularis* L.  
A widespread wild climber plant. Root, stem, and whole plant are used as stomachic, poultice, and wound anti-septic, fish poison, in treating saddle-galls, joints affections, as arrow poison, and anti-dote against scorpion stings. Used with fetarita durra to treat gonorrhoea.
426. Salah Mawgood. Unidentified Latin name.  
Root obtained from southern Kordofan and used in treating disease caused by the evil eye, to avert evil spirits, and as fumigation ingredient.

427. Saljam. *Acacia gerrardii* Benth. var. *gerrardii* and *Acacia hebecladoides* Harms (syn.).  
A local low land tree. Leaves used in treating abdominal disorders.
428. Samin. Ghee.  
Clarified butter, native butter oil, ghee. Used as a carrier for medicinal ingredients, for local application or internal administration. Used in treating mental illness, syphilis, and joints affections.
429. Samq Abu-Baka. *Gardenia thunbergia* L.f.  
Resin and used as laxative, purgative.
430. Sananir. Common groundsel. *Senecio vulgaris* L.  
Imported from Jeddah to Sawakin town. Annual herb: seeds and fruit applied as a smooth watery paste to fontanelle of young children and allowed to run down to chin. Draws the teeth down. Used also in treating diarrhoea.
431. Sandal. Sandalwood. *Santalum album* L.  
Imported from India as fumigation ingredient and an element in local perfume.
432. Sandaliyya. Sandalwood oil.  
Imported from India. Alcoholic perfume extracted and used for fumigation and as perfume ingredient.
433. Sandarus. Sandarac. *Callitris quadrivalvis* Vent.  
Imported from India. Mass used for religious ritual fumigation.
434. Saqam Fakka.  
Recipe of Shaikh al-Tayib Wad al-Marhi. Constituents: *Simbil*, *Qurunful*, *Mahlab*, *Filfil*, *Kohl*, powdered together and used in treating inflammation of the eye.
435. Sarih; Sha'ar Al-Banat; Sarha, and Sarah. *Maerua crassifolia* Forssk.; *Maerua uniflora* Vahl; *Maerua meyerijobannis* Gilg.; *Maerua uguenensis* Gilg., and *Maerua birtella* Chiov.  
A lowland spinescent-branched shrub widespread throughout Northern and Central Sudan. Branches and root used in fumigation to treat rheumatic pain. Also used in treating tropical ulcers, and in

water purification.

436. Sathab. Herbygrass; Rue; Herb of Grace. *Ruta graveolens* L.  
Tree imported from the Mediterranean countries. Fruits are boiled and sesame oil added and used for rheumatic pains.
437. Sawad Al-'Aish. Durra mould.  
Used in treating cough.
438. Sedam (Hadandawa). *Lavandula coronopifolia* Poir.  
Fragrant perennial herb. Used whole as astringent.
439. Senna; Senna Makka, and Senna Senna. Senna; Italian Senna; Mecca Senna. *Cassia acutifolia* Del.; *Cassia senna* L.; *Cassia obovata* Collad.; *Cassia augustifolia* Vahl; *Senna alexandrina* Miller; *Senna italica* subsp. *italica*, and *Cassia italiaca* Mill.  
A wild and cultivated undershrub that grows in Northern and Central Sudan. Pods, leaves, and seeds (known also as *jalajil*) are used in treating abdominal disorders, as laxative and purgative, in treatment of burns, wounds and as a *marisa* additive. Seeds are used in the treatment of eye infections.
440. Sha'aloab; Al Louis, and Al Sha'abiet. *Leptadenia arborea* (Forsk.); *Cynanchum arboreum* Forssk., and *Leptadenia heterophylla* Del.  
A widespread tomentose twining shrub. Stem and root are used in treating gonorrhoea, swellings, and nose disease. Poultice of branches and leaves are used to treat snakebites.
441. Sha'ar. Hair.  
Used as fumigation ingredient.
442. Sha'ar Fil. Elephant's hair.  
Used as amulet.
443. Sha'ar Zaraf. Giraffe's hair.  
Used as amulet.
444. Sha'ir. Barley; Peal Barley; Perlatum. *Hordeum sativum* Pers. and *Hordeum vulgare* L.  
Plant cultivated in Sudan. Grains used for bread making or roasted, in the treatment of kidney stones, Diabetes mellitus, infections, and as diuretic.

445. Sha'ir Hindi. *Scleropyrum wallichianum* (Wight & Arn.) Arn. and *Scleropyrum pentandrum* (Dennst.) Mabberley.  
Fruits imported from India used in treating urine retention, liver pain, and chest complaints.
446. Shabb. Alum; Potash Alum; Potassium Alum.  
A compound of several metals mainly white Aluminium Sulphate crystals (powdered or dissolved) obtained from Egypt possibly of Chinese origin. Brought mostly by ironworkers and Fellata. Used in treating inflammation and healing wounds, gonorrhoea, fever, leprosy, infection of the eye, as toothache analgesic, astringent, fumigation ingredient, and an agent for water purification. Like 'afsa, it is used as dehydrant to tighten the vagina.
447. Shaff. *Terminalia brownii* Fresen.  
Tree widespread in Sudan. Stem and branches are used for ritual incensing and therapeutic fumigation for rheumatic pains and back ache.
448. Shai. Tea. *Camellia sinensis* (L.) Kuntze; *Thea sinensis* L., and *Cemellia thea* Link.  
Plant imported from India, Turkey, and Tanzania and grows locally in Kordofan. Leaves are used in fumigation. Leaves decoction is used as stimulant beverage and mode adjuster, digestive, to treat fever, cough, eye infection, and anti-dote against scorpion sting, and as ritual item. It is alleged to decrease incidence of gastric cancers.
449. Shai Al-Misairiyya. Unidentified Latin name.  
Tea of Misairiyya tribe of Kordofan.
450. Shairi. Unidentified Latin name.  
Root (worn or powdered and snuffed) used in treating diseases caused by the evil eye, protects against giddiness, and as an aphrodisiac.
451. Shajar Al-Rawwaq; Anid (Dinka); Shajar Al-Zaki, and Ben.  
Horseradish; Sudan drumstick tree. *Moringa oleifera* Lam.; *Moringa pergrina* (Forssk.) Fiori, and *Moringa pterygosperma* Gaerth.  
Seeds used as agents for water purification and as a source for oil.

452. Shajar al-Sim; Al-Sabbar; Um lebeina; Shajar al-Zaraf; Shajar al-Dud, and Haid (Hadandawa). Candelabra tree. *Euphorbia calycina* N.E.Br.; *Euphorbia candelabrum* Kotschy; *Euphorbia veinifica* Kotschy; *Euphorbia aegyptiaca* Boiss.; *Euphorbia abyssinica* J.F. Gmel.; *Euphorbia convolvuloids* Hochst.; *Anisophyllum convolvuloides* Klotzsch. & Garcke, and *Euphorbia prieuriana* Baill.  
Erect annual herb that grows in the sandy hills of Western and Central Sudan. Juice is used as arrow and lances poison, in homicide and as laxative and purgative. Macerate of the root is used against gonorrhoea.
453. Shajarat Al-Nar. 'Fire tree'. Unidentified Latin name.  
Root used in treating syphilis, leprosy, and wounds.
454. Shajart Al Waram and Nadayana. *Anticharis linearis* (Benth.); *Dorotanthera Linearis* Benth., and *Distemon angustifolius* Ehernb. & Hempr.  
A lowland annual herb that grows in Northern and Central Sudan. Poultice of the whole plant is used in treating swellings. Also used as poultice, diuretic, in treating jaundice, and joints affections.
455. Sham' Al-Nahal. Bees' wax.  
Used in dressing wounds.
456. Shamar and Kammoun. Fennel. *Foeniculum vulgare* Miller; *Foeniculum officinale* All., and *Anethum foeniculum* L.  
An aromatic shrub that is cultivated in several places in Sudan. Leaves and seeds are used for seasoning. Whole plant, fruits, seeds, and leaves are used as carminative, spice, in treating diarrhoea, and as lactogenic.
457. Shammam and Gawwoon. Sweet melon. *Cucumis melo* L.  
Creeper or climber that grows in Sudan. Parts used: fruit; seeds; root (emetic and purgative). Used as diuretic, in treating allergy, as laxative, purgative and emetic.
458. Shams Al-Ma'rouf. Unidentified Latin name.  
A tree that grows in Darfur, its root used as aphrodisiac.
459. Sharboat.  
A fermented mild alcoholic beverage brewed from date with

different spices e.g., cinnamon, ginger, ghurungal.

460. Sharmut.  
Dried striped meat of different origins, sometime slightly fermented.
461. Sharrab Al-Shamsain (Um Rawwaba).  
Named after *snake M. Cordofanensis*, also its branches follow the rising and the setting sun, and hence the name. Root used as an anti-dote against snakebites.
462. Shatta; Filfil Ahmar, and Raria (Azande). Red chilli; Chili; Red pepper; Spur pepper; Hot pepper; Bird pepper. *Capsicum frutescens* L.  
Plant cultivated throughout Sudan. Extremely pungent and stimulant. The parts used include fruits (dried), leaves, seeds, and pods. Used as rubifacient, irritant, appetizer, spice, and stomachic, in treating syphilis, leprosy, wounds, and tuberculosis, and spleen enlargement, rheumatic pains, as poultice, fumigation ingredient, and toothache analgesic.
463. Shawwaya.  
Constituents: *wadak, zait, qarad, shebb* warmed and soaked in cotton wool as warm suppositories. Used in treating diarrhoea.
464. Sheibi; Ara; Elara; Ras Al-Shayib; Shajart Al Na'aga; Sha'ar Al Shayib; Ghobbaisha; Umm Shara, and Un Sharaya. *Aerva javanica* (Burm.f.) ex Schult.  
A woolly erect or suberect perennial herb that grows wild in the lowland of Central and Northern Sudan. The poultice of the whole plant is used to treat swellings and wounds.
465. Sherkaila Root No. 2. Unidentified Latin name.  
Root used in treating syphilis.
466. Sherkaila Root No. 3. Unidentified Latin name.  
Root used in treating burning micturition and gonorrhoea.
467. Shigu.  
A favourite additive of food in Nuba Mountains. Sesame seeds roasted dry, crushed into paste to which 'atroun or waikab added, oil separated and product incubated for 14 days. It remains soft for

months because of oil content. Used like *kawal*.

468. Shihhait. *Combretum aculeatum* Vent.  
A widespread grey tomentose shrub. Root is used as laxative, purgative poultice to enhance wound healing, and in treating tuberculosis.
469. Shom (Dinka); Kuar (Nuba), and Joghan. African ebony; Jackal berry. *Diospyros mespiliformis* Hochst. ex A. DC.  
Parts used: fruit bulb; seeds.
470. Shou; Shou Habashi, and Koussou. *Hagenia abyssinica* (Bruce) J. Gmel.  
Grown and imported from Ethiopia. Root (powdered and drunk with sour milk) and used as anthelmintic.
471. Si'da and Dis. Nut grass. *Cyperus rotundus* L.; *Typha angustata* Bory & Chaub.; *Typha angustifolia* L., and *Typha domingensis* Pers.  
Wild common grass. Parts used: whole; tubers; root, as astringent, anthelmintic, emmenagogues, stomachic, diuretic, aromatic, and in treating diarrhoea, and as an agent for water purification.
472. Sijal. *Veronica adoensis* Schultz. Bip.  
A pubescent herb. Root used in treating abdominal disorders, as anti-spasmodic, and anti-dote against scorpion bites.
473. Sim Ahmar; Shajar al-Sim (Baqqara); Darag (Togale); Narurai (al-Liri), and Tumu (Kadugli). *Adenium bonghel* A. DC. and *Adenium obesum* (Forssk.) Roem. & Schultes.  
Shrub with bright red flowers. Juice used as arrow poison and toxin.
474. Simbil and Sinbil. Spikenard. *Andropogon nardus* L. and *Cymbopogon nardus* (L.) Rendle.  
Small shrub imported from India. Leaves, branches (decoction) used in fever, anti-inflammatory and demulcent.
475. Simsa'a. Unidentified Latin name.  
Literally, means 'poison of an hour'. Used as an agent of homicide.
476. Simsim. Sesame. *Sesamum indicum* DC.; *Sesamum alatum* Thonn., and *Sesamum orientale* L.  
A herb cultivated in Sudan. Seed oil is used for food; *zait al-walad* is

famous for treating chest complaints, and as laxative. Widely used for the treatment of skin diseases and in massage. Also used to treat hair fall, dandruff, cough, common cold and upper respiratory tract infections.

477. Simsim Al Shaytan; Simsim Al Ifriet; Kharow (Nigerian), and Showaikat Al Gaizan. *Rogeria adenophylla* Gay. ex Del. Perennial herb that grows on hill slopes in Central Sudan. The powdered fruit is cooked with milk to treat gonorrhoea.
478. Sinan Al-Hatab. Wood resin. Prevents keloid formation.
479. Sinfab. Unidentified Latin name. Mixed with dates and *samin* as laxative and purgative.
480. Sogheir and Kurmut. *Cadaba glandulosa* Forssk. Glandular lowland shrub. The poultice of the whole plant is used to treat swellings.
481. Soun. *Capparis micrantha* A. Rich. A much-branched shrub. Root used as anti-spasmodic, and analgesic for toothache.
482. Soungood; Singeed (Hadandawa), and Karaga. *Indigofera spinosa* Forssk. Semi-desert spinescent woody herb in the deserts of Western and Northern Sudan. Root used as chewing stick, as toothache analgesic, and in treating abdominal disorders. Macerate of whole plant is used as anti-spasmodic.
483. Sourig. Biproduct of *marisa*.
484. Subaq. *Combretum trifoliatum* Vent. A wild tree. Wood used in fumigation.
485. Sukkar Nabat. Alphenic; sugar candy; white barley sugar. Imported from Egypt. Mass or powdered with *Kobl* in treatment. Used in treating eye infection, indigestion, fits, as fumigation ingredient, and an amulet.
486. Sulaimani. Arsenic.

A poisonous agent used in homicide and suicide.

487. Surratiyya. *Syzygium aromaticum* (L.) Merr. & Perry.  
Imported crude oil of cloves used in massage and perfume.
488. Suteib; Soutab, and Um Banqaiqa. White Lotus; Lotus white Lilly.  
*Nymphaea lotus* L.; *Nymphaea sagittata* Edgew., and *Nymphaea aegyptiaca* Opiz.  
An aquatic herb that is widespread in Central and Southern Sudan. Root is eaten as tonic, to treat dysentery and as fumigation ingredient to treat rheumatic pain. When mixed with sesame oil, it used as poultice for the treatment of swellings.
489. Tabaldi; Homera; Uffa (Hamaj), and Fak (Nuba). Baobab; Monkey Bread Tree; "Cream of tartar tree"; African calabash tree. *Adansonia digitata* L.  
A huge arid zones wild tree that grows in Northern and Central Sudan; water reservoir when hollow. Each tree in western Kordofan has a name coined usually with 'Um' (mother) and a substantive, e.g., *Um Asal* (full of honey). Each tree is registered in the government registry in the Region. Fruits (*gongolaise*) contains seeds covered with an edible sub-acid farinaceous pulp, which has cooling properties, and is made into *madidat* ( porridge) *gongolaise*. The powdered fruits (*gongolaise*) is mixed with powdered *zirri'a* (*durra*) and boiled with sour milk. The maceration of the mesocarp is used in treating dysentery and diarrhoea in general. It is also thought to induce pregnancy, and enlarge the breasts. Also used as diaphoretic, in treating haemoptysis, fever, abdominal disorders, and as beverage.
490. Tadar. Unidentified Latin name.  
Anti-snake root of western Sudan. A chick is stuffed with this root and tied around the site bitten by a snake, it is alleged that the snake's teeth come off in 3 days.
491. Tagtag and tiko. *Pavonia patens* (Andr.); *Pavonia glechomifolia* (A.Rich.), and *Pavonia macrophylla* E. M. Harvey.  
Erect perennial herb that grows in the lowlands of Western and Eastern Sudan. Poultice of the whole plant is used to treat swellings.

492. Tagtaga; Humbuk; Gargadan, and Um Barru. *Abutilon figarianum* Webb. and *A. graveolens* sensu Broun & Massey.  
A stellate pubescent erect perennial herb grows wild in Northern and Central Sudan. Leaves used as lactagogue and to treat sore throat.
493. Tailabon. Finger millet. *Eleusine coracana* (L.) Gaertn.  
Parts used: seeds; whole young plant.
494. Talh. Talh tree; Thirsty thorn. *Acacia seyal* Del. Var, *fistula* Schweinf. Oliv. and *Acacia seyal* Del. var. *seyal* .  
A thorny tree that grows throughout Sudan. Types include *Talha hamra* and *talha baida*. Used in treating problems related to teething, syphilis, leprosy, diarrhoea, and joints affection. Parts used include bark (for fumigation and as a decoction) and gum. Bark is known as *kitaiyat*. *Waqar al-wattaya* (moisture on sole of the foot) of a woman after fumigating with talh, is collected and rubbed on an itchy teething gum. Bark is used for the treatment of peptic ulcers. Fruit macerate is used in water as mouth anti-septic. It is also used for tanning.
495. Tamala.  
Tamala is the leavening plate cleansing cloth. Its contents, it is believed, if applied to the female breasts makes them larger.
496. Tamalaika. Amaranth; Bush greens. *Amaranthus caudatus* L.  
Parts used: leaves; seeds.
497. Tamatim. Tomato. *Lycopersicum esculentum* Mill.  
Fruit used for food.
498. Tamr Al-'Abid and Al-Tikko. *Grewia villosa* Willd.  
A grey tomentose shrub. Parts used: leaves; stem; root. Used in treating syphilis, small pox, and tuberculosis.
499. Tamr; Balah, and Nakhal. Date palm tree. *Phoenix dactylifera* L.  
A wild and cultivated tree in Northern Sudan. Fruits and fronds are used. Fronds are used as toothbrush and for whitening teeth, and in water filtration, in splinting bone fractures, in making ropes, baskets, and mats, in treating joints affections, asthma, tonsillitis, constipation, as fertility symbol, and as substrate for alcohol

beverages. Dates are the sweet nutritious fruits of the date palm tree. Out of this fruit *madidat tamr* (dates porridge) is used. When added to hilba and dukhun, it is used in treating rheumatic pain. Dried fronds are ground and used in bathing parturient women to activate blood circulation. Date pollen is added to honey and ginger and used as tonic.

500. Tanta. Unidentified Latin name.  
Known in Fanda Hills in western Sudan. Stem is eaten by *Kujur* as protection against local snake god Ividu whose shrine they have visited without observing due ritual.
501. Taraq Taraq and Shajar Al-Luban. *Boswellia papyrifera* (Del.).  
A local deciduous tree. Fruits; leaves: used in treating jaundice.
502. Tarfa and Al Athil. Tamarisk. *Tamarix nilotica* (Ehrenb.)Bunge and *Tamarix aphylla* L.  
Tree that grows widely in the Nile banks. Bark is used in the treatment of piles. Branches used in flavouring and purifying water.
503. Tarkin and Muluha.  
A fermented fish dish in northern Sudan. Fish of all types containing bones are fermented preserving juice as much as possible; the filtrate is *muluba*.
504. Tartous. *Hydnora abyssinica* A. Braun.  
Leaflet, rootless total parasite of the roots of *Acacia* spp. in Central Sudan. Whole plant is used to treat swellings, tonsillitis, and dysentery.
505. Teen. Figs. *Ficus carica* L.  
Fruit.
506. Tibet. Unidentified Latin name.  
Tree root used in treating syphilis.
507. Tibra. Unidentified Latin name.  
Tree root (decoction) used in treating syphilis.
508. Tien. Clay.  
Ordinary clay lining jars of turbid water; or collected fresh fluvial clay after flood or obtained from deep river beds or from

underneath earthenware water jars. It is used for treatment and is eaten by pregnant women and children. Used in treating chicken pox, and in water purification.

509. Tifta Hamra.  
Obtained from Belgium. Constituents: Rosaniline, a Triphenylmethane dye. Used in treating eye inflammation.
510. Tili (Golo). *Terminalia splendida* Engl. & Diels and *Terminalia stenostachya* Engl. & Diels.  
Red wood (powdered) and used in treating dysentery.
511. Tinat Wad Al-Mikashfi.  
Clay obtained from the shrine of Wad al-Mikashfi used as an antidote against snakebite.
512. Tinat Wad Al-Turabi.  
A piece of clay obtained from the shrine of Sheikh Wad al-Turabi and used as an anti-dote against rabies.
513. Tirtir and Baroat. *Sterculia setigera* Del.  
A deciduous tree. Bark used in treating jaundice, and bilharzia.
514. Toum and Basal Makada. Garlic. *Allium sativum* L.  
A cultivated small plant with pungent taste and very strong smell, grows in Sudan. Bulb used as diuretic, diaphoretic, expectorant, aphrodisiac, pesticide, stomachic, menstruation regulator, in treating sepsis, allergy, teething problems, fever, and joints affections. Alleged to decrease blood cholesterol and lower blood pressure. Presumed to increase body resistance mechanisms.
515. Tuffah. Apple. *Malus sylvestris*.  
Fruits.
516. Tuka. Unidentified Latin name.  
Popular in Gardud Aulad Himaid. Root used in treating infection of the eye.
517. Tumbac and Qamsha. Tobacco. *Nicotiana tobacum* L. and *Nicotiana rustica* L.  
Habit-making snuff (a pinch is inserted between upper or lower lips and gum (saffa) sometimes sniffed, leaves smoked in pipes or

chewed. Parts used: leaves: sold in large circular cakes (decoction); used sometimes in hunting monkeys. Used as demulcent, toothache analgesic, anti-inflammatory, in managing teething, as mood adjuster, and dressing for wounds.

518. Tundub. Capers. *Capparis decidua* (Forssk.) Edgew.; *Capparis aphylla* Heyne ex Roth, and *Sodada decidua* Forssk.

A lowland shrub widespread in Sudan. Plant is used in ritual fumigation in personal hygiene, as anti-bacterial, anti-rheumatic, and insect repellent. 'U*sfur* and *kurkum* (turmeric) are added sometimes to give the skin a yellow colour in fumigation. Decoction of fresh twigs of tundub is taken against jaundice, and poultice is used to treat swellings and joint pain.

519. Turab Al-Arda.

Termite hill earth (Darfur). Constituents: Mainly quartz also kaolinite, feldspar, and anhydrite. Dusted over turbid water to purify it.

520. Turaiba and Turaiba Zukhri.

*Turaiba* earth, powder brought from the neighbourhood of Bara, Malimma near Atbara, Kosti, Khartoum and Qoz Rajab. Constituents: Finely divided yellowish brownish-black earth probably containing iodides of mercury, or lead chromate: taken as decoction with water, main part of "Syphilis Pills". Used also as laxative, purgative, emetic, and in treating tropical ulcers.

521. Turmus. Lupin. *Lupinus termis* L. and *Lupinus albus* L.

A cultivated plant. Seeds boiled and fermented before eaten alone or with dates. It is used in expediting healing of fractures, as diuretic, anthelmintic, in treating diabetes mellitus, skin infections, and removing acne and face blemishes.

522. Tutia Baida.

Metal with powder obtained from India. Constituents: Zink Sulphate, Zink Oxide amorphous powder; usually mixed with water. Used in treating inflammation of the eye.

523. Tutia Hamra. Rosaniline.

A triphenyl methane dye.

524. Tutia Khadra. Green Copper Sulphate.  
Obtained from Egypt. Constituents: copper Sulphate. Used in treating syphilis.
525. Twini Digla.  
"Intestine balls", fermented offal dish in Nuba Mountains. Offal is fermented and dried, 'atroun, water and salt added, the damp material is made into balls which are left to dry and ferment for 8 more days. The balls are stored for months. Crushed and cooked for sauce making.
526. Ud Al-Hind; Ud um abyad, and Irq Al-Teeb. Orris. *Iris germanica*.  
This is a root or rhizome imported from India and Syria, and which has a nice smell. It is also hard and smooth, and therefore does not break and injure the gum when given to the baby to suck instead of its thumb. The root is also a known antispasmodic and anti-flatulent when given to children to teething.
527. Ud Al-Salib. Unidentified Latin name.  
Imported from Egypt, main use as *hujab* (amulet) to keep women faithful.
528. Ud Bakhur. Unidentified Latin name.  
Imported from Hijaz. Stem used as fumigation ingredient.
529. Ud Qarh; Ud Qarha, and Aqir Qarha (Arabic). *Cucurbita pepo* L.  
A plant imported from Egypt. Used in treating swelling and as toothache analgesic.
530. Ud Tartos and Tartos. *Cynomorium coccineum* L.  
Root (powdered and applied to wounds), and used in treating gangrene and dysentery.
531. Ud and Udiya. Aloeswood. *Aquilaria agallocha* Roxb.  
Wood used in treating syphilis.
532. Um Abaka. *Gardenia lutea* Fresen. and *Gardenia ternifolia* Schumach. & Thonn. subsp. *jovis-tonantis* (Welw.) Aubrev. var. *jovis-tonantis* (Welw.) Aubrev.  
Obtained from Gardud Awlad Himaid. Root (taken with takirni root) used as anthelmintic.

533. Um Mighashiesha. *Sida ovata* Forssk. and *Sida greviioides* Guill. & Perr.  
Lowland perennial herb widespread in Sudan. Whole plant is used as aphrodisiac.
534. Um Shakka.  
Fermented bread made of *durra* in northern Kordofan.
535. Um Shara and Dabkar. *Trichillia emetica* Vahl.  
Wild plant. Bark and wood used in making furniture. A poisonous item used as an emetic.
536. Um Sheera. *Ipomoea pilosa* (Roxb.) Sweet and *Ipomoea arachnosperma* Welw.  
Wild twining herb. Root used to treat abdominal disorders.
537. Um Shutur. Cegilia (?).  
A fish poison.
538. Um Shuwaika; 'Ussar (Hadandawa); Abu Shuwaika; Sholieb, and Um shoak. *Fagonia cretica* L.  
Semi-desert spinescent woody annual herb that is widespread in Central and Northern Sudan. Macerate of whole plant is used as anti-spasmodic, and in treating heartburn, and as poultice for swellings. The powdered fruit is mixed with sour milk and taken as anti-purgative.
539. Um Tuqulqul and Tilliem. *Vitex doniana* Sweet, Hort. Brit.  
A deciduous savanna tree. Root and bark used in treating inflammation and bilharzia.
540. Umm Shoak; Umm Shwaika, and Umm Sinanat. *Dicoma tomentosa* Cass.  
An erect perennial herb that grows in the lowland of Central Sudan. Whole plant is used to treat fever in the postpartum period.
541. Usfur and Qurtum. Safflower; Kartum; False Saffron. *Carthamus tinctorius* L.  
A bright yellow minute flower imported from Yemen and Saudi Arabia. It is used as dye and decoction. The plant has thorny leaves that give yellow colour to the skin specially when added to

*dukkhan* (ritual fumigation). It is also used in treating inflammation of the eye, in treating swellings, as appetizer, diuretic, and as oil source.

542. Ushar; Kursi Al-Nabi (flower), and Baras (Hadandawa). Sodom Apple; Dead Sea Apple Fruit; Swallow Wort; Giant Milkweed. *Calotropis procera* (Ait.) Ait. f. and *Asclepias procera* Ait.  
A wild shrub or small tree widespread in Sudan. Flower, leaves, bark, seeds, latex, and fruits are all used medicinally. Its latex is deposited on cotton wool or stem inserted in vagina to induce abortion; also used as hair remover in animals, and squeezed on thorn injuries to aid wound healing. The powdered leaves are either taken orally with animal oil as anti-asthmatic or rubbed externally as anti-rheumatic. Stem is used as necklace to protect children against diphtheria in Wadi Halfa. Plant is also used in treating eye infection, jaundice, ringworm, skin disease, gonorrhoea, and as sugar source. It is used as poison in infanticide and homicide, and arrow poison for elephant hunting. It is used as narcotic when added to marisa to increase its potency and induce sleep. Also used as diuretic, laxative, purgative, anti-dote against scorpion bite, and as fertility symbol. Latex is injected rectally in gonorrhoea.
543. Wadak. Tallow.  
Used in treating headache.
544. Waikab.  
Burnt durra straw steep water used for food.
545. Yam. *Dioscorea dumetorum* (Kunth) Pax.  
Common wild plant, occasionally cultivated. Tubers frequently consumed during famines though poisonous.
546. Yansoun. Anise; Aniseed. *Pimpinella anisum* L.; *Anisum vulgare* Gaertn., and *Anisum officinarum* Moench.  
A cultivated annual herb imported from Egypt and is cultivated in several regions of Sudan. Fruits (and also seeds) and oil are used as spices, beverages, carminative, aromatic, in treating diarrhoea, chest complaints, flatulence, colic, and as oxytocic, expectorant, anti-asthmatic, anti-tussive, and flavouring agents.

547. Yoab (Hadandawa). *Euphorbia cuneata* Vahl.  
Semi-desert and mountainous slopes glabrous branched shrub.  
Whole used in chest pain and complaints, as fumigation ingredient.
548. Yousifi. Mandarin. *Citrus deliciosa*.  
Fruit used as food.
549. Za'faran. Saffron; Crocus. *Crocus sativus* L.  
Plant widely grown in the Mediterranean region, and is imported from Egypt. Stigmas are used as spice, flavouring agent, stomachic, anti-spasmodic, and amulet. The aromatic oil is rubbed over facial swellings for treatment.
550. Za'tar. Thyme. *Thymus vulgaris* L. and *Thymus capitatus* L.  
Herbal plant imported from Syria. The whole herb and flowers are used as mouthwash, digestive, in treating flatulence, colic, chest complaints, and as spice, and flavouring agent. It is also used as anti-dote for snakebites, and its fumes are used to repel scorpions. It is also a potent anti-septic.
551. Zabad Malih. Cuttle-fish bone.  
Imported from Egypt; powdered and mixed with kohl. Used in treating eye inflammation.
552. Zabadi. yoghurt.  
Fermented milk, the overgrowth of *Lactobacillus acidophilus* protects against bacterial contamination.
553. Zabib Hindi. Unidentified Latin name.  
Imported from India through Egypt. Fruits in water used as laxative and purgative.
554. Zabib and Inab. Grapes; Raisins. *Vitis vinifera*.  
Fruit used as food.
555. Zagi. *Ctenolepis cerasiformis* (Stocks.); *Zehneria cerasiformis* Stocks.; *Blastania fimbriatipula* Kotschy., and *Melothria fimbriatipula* Kotschy. & Beyr.  
An annual herb that grows in water catchments in Western Sudan. Seed oil is used in the treatment of swellings.
556. Zahara. Washing Blue.

Drunk as abortifacient.

557. Zaibaq. Mercury Zinc.  
Obtained from Egypt and India. Constituents: Mercury; scented and used to destroy lice, or mixed with sand and placed on grain as pests repellent.
558. Zait Al-Ni'am. Ostrich fat.  
Used in relaxing contractures, in massage, in treating joints affections, and sprains.
559. Zait Samak. Fish oil.  
Used as anti-cough.
560. Zait Sandaliyya. Crude sandal oil.  
Imported from India as an ingredient in perfume. Used in massage.
561. Zait Simsim; Zait Al-Walad, and Zait Wad Al-'Assara. Oil; Sesame oil.  
Used in treating ear disease, chest complaints, splenic enlargement, headache, skin disease, as drug carrier, laxative, purgative, styptic, in massage, in dressing of wounds, and as anti-cough.
562. Zangabil and Ganzabil. Ginger; Canton Ginger; Stem Ginger; Common Ginger; Chinese Ginger. *Zingiber officinalis* Rosc. and *Amomum zingiber* L.  
A plant imported from India and Ethiopia. The rootstock has hot taste. The rhizome is used as beverage, in treating joints affections, common cold, chest complaints, heartburn, and as anti-cough.
563. Zarana.  
A recipe local to Darfur. Used as aphrodisiac.
564. Zarnikh. Arsenic.  
Used in treating lymphadenitis (khanazir).
565. Zirri'a. Sorghum malt.  
Dried sprouting durra grains. Used in treating diarrhoea, and as fertility symbol.

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92, 110, 292, 363, 405, 425, 462, 471, 514, 549

**Styptics (2)**

90, 561

**Tropical dis-ease (41)**

12, 28, 46, 47, 67, 81, 82, 89, 107, 108, 158, 160, 165, 169, 172, 175, 188, 189, 195, 217, 234, 237, 244, 275, 282, 291, 302, 307, 319, 368, 370, 374, 387, 388, 393, 396, 446, 453, 462, 494, 512

**Unguents (1)**

476

**Urinary genital dis-ease (74)**

9, 28, 31, 50, 54, 70, 73, 74, 93, 99, 106, 109, 110, 114, 115, 128, 161, 174, 175, 178, 181, 183,

185, 186, 195, 203, 214, 217, 226, 227, 244, 252, 253, 256, 266, 268, 269, 273, 280, 294, 297, 302, 308, 319, 330, 331, 336, 341, 368, 371, 383, 387, 392, 399, 425, 428, 440, 444, 445, 446, 452, 453, 462, 465, 466, 477, 494, 498, 506, 507, 520, 524, 531, 542

**Water management (51)**

24, 32, 36, 40, 67, 76, 78, 84, 93, 101, 141, 147, 162, 167, 170, 172, 178, 183, 188, 189, 191, 231, 260, 283, 295, 296, 297, 310, 316, 322, 330, 331, 358, 372, 392, 401, 410, 411, 414, 435, 446, 451, 471, 489, 499, 502, 508, 519, 546, 549, 550

## References and notes

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- <sup>1</sup> The scientific name of a plant is its genus and species (binomial), including authority (often referred to simply as the Latin name).
- <sup>2</sup> The International Plant Names Index (IPNI) is a database of the names and associated basic bibliographical details of all seed plants, ferns and fern allies. Its goal is to eliminate the need for repeated reference to primary sources for basic bibliographic information about plant names. The data are freely available and are gradually being standardized and checked. IPNI is the product of a collaboration between The Royal Botanic Gardens, Kew, the Harvard University Herbaria, and the Australian National Herbarium.
- <sup>3</sup> ITIS, the Integrated Taxonomic Information System contains authoritative taxonomic information on plants, animals, fungi, and microbes of North America and the world. ITIS is a partnership of U.S., Canadian, and Mexican agencies (ITIS-North America); other organizations; and taxonomic specialists. ITIS is also a partner of Species 2000 and the Global Biodiversity Information Facility (GBIF).
- <sup>4</sup> Reference here is made to the recommendations of Diversitas, Systematics Agenda 2000, Global Taxonomy Initiative of the Convention of Biological Diversity), etc.

## Chapter 6

### TRADITIONAL HEALTH PRACTITIONERS

In this chapter we describe and examine the different types of healers, their skills, achievements, behaviour, personality characteristics, roles and functions in society, and their efforts to organize their practice.

Since many practitioners perform several functions related to health in general and do not restrict their activities to treating diseases, the term traditional health practitioner (THP) has been introduced in research institutions to denote this category. British anthropologists who had worked in the Sudan during the Anglo-Egyptian Condominium, classified the THP they encountered in several regions in the country. For instance, most healers in the southern and western regions were categorized as medicine men, witch-doctors, or *shamans*; those in the northern parts included *faqirs*, *basirs*, and *habl* midwives. Edward Evans-Pritchard described the witchdoctors and medicine-men of the Azande and Nuer; Lienhardt, the medicine-men of the Dinka; Nadel, the *shamans* of the Nuba Mountains; Jean Buxton, the medicine-men of the Mandari, and Oyler, the medicine-men of the Shilluk.

If we retain the terminology that early researchers have used, it will be necessary to bear in mind the epistemological differences between these terms, and to note when, how, and in which area each term was first used.<sup>1</sup> In addition, whichever names researchers or historians give, and whichever system of classification they adopt, should be flexible enough to include any type of healer in any ethnic or cultural group.

G. W. Titherington reported in *Sudan Notes and Records* on Raik Dinka healers, saying:

“One often sees lists of such people and their different activities written out for other tribes but among the Raik there is very little that is hard and fast and universal practice. The clans vary greatly in this as in other things, and much depends on individual caprice. Practitioners often invent new ceremonial for themselves and among such credulous people any new magic which is either invented or introduced spreads rapidly at first, but is gradually

added to the long list of the old ones that sometimes work, but more often fail.”<sup>2</sup>

Titherington identified several Raik healers. A *Ben Bit* (*Mone-bit* in the East) owns an ancestral spear and cures sickness by sacrifice; he makes peace, brings rain, and presides at sacrifices to eminent ancestors. He has a good deal of general influence and is regarded as sacrosanct. An *Alueng* or *Awudweng* is a doctor and cures cattle sickness; he is often master of ceremonies at weddings and arranges for the first child to be a son. A *Doll*, however, may be a man or a woman; he or she spits on infants to cure sickness.

Traditional practitioners attend to the sick and manage health in several ways. Some are full-time healers for whom healing is their main job and source of income, while others work on a part-time basis. Some healers are beneficent, the type a Dinka calls *teitt*; others are instruments of evil, such as those known in northern Sudan as *sabhars*. The Shilluks, Oyler reports, think of the witch-doctors or medicine-men as good, not because their lives are good, nor yet because their practice is good, but because they are looked upon as the channels through which occult powers may be transmitted to men. Their powers are for sale, and man in his need may go to them for help. The patient who brings no fee will not be treated, as they do no charity work (see Nyam Nyam Doctors' Fees: Figure 27, page 736). In the contest between good and evil, they seem to typify the good, combating the powers of the evil medicine man.<sup>3</sup>

Professional healers include general practitioners and specialists. General practitioners include religious healers, witchdoctors, and magic-mongers, all of whom have specific skills with which they manage a variety of diseases. Specialists include herbalists, *zar* practitioners, *basirs* (bonesetters), *dayas* (midwives), and *shallaqs* (eye surgeons). Among the Shilluk, for example, many of the witchdoctors are specialists, while others undertake to work charms for many different things. In practically every undertaking, the witchdoctor is consulted. If a man is going on a journey, he lets the medicine-man work over him to protect him from dangers seen and unseen. Diseases are supposed to yield to their charms. The power to cure snakebites, and to heal a burn by spitting on it, is

special powers belonging to only a few. Many are able to provide a fetish, which protects its owner.<sup>4</sup>

Bonesetters and midwives do not only practise their respective specialties; they sometimes diagnose and manage other diseases. Some street vendors and grocers sell medicinal herbs amongst other merchandise, occasionally contributing a diagnosis, and, if necessary, writing amulets. Witch-doctors are also experts in preparing and using poisons.

With the exception of *zar* practitioners, midwives, and a few *basirs*, most healers are middle-aged or elderly. However, a young breed has appeared, making extravagant claims as healers, soothsayers, diviners, or astrologers. Some of them have inherited a reputable family name that has bestowed on them a measure of public confidence their meagre experience would not otherwise have inspired.

*Tabib* (*tabbabi* in Darfur) is a term generally given to a wise or a skilful person who attends the sick among other functions. *Hakim* is a popular synonym that is frequently used to designate any member of the medical profession: a nurse in a dressing-station, a medical assistant or technician, or a medical doctor.<sup>5</sup> *Faqirs* in northern Sudan perform general healing but mainly specialize in managing mental illness. Though we do not categorize them separately, *faki* and *mu'raqi* practice black magic that is intended to harm people, property, and possessions. (See also Magic page 77).

A layperson frequently initiates his or her own treatment. Sometimes a patient diagnoses his illness, suspects a cause, consults a diviner for confirmation, and finally visits a healer, who will prescribe treatment or issue an amulet.

Modern medical facilities have not affected healers until recently. In the last few years, bonesetters have started ordering X-ray pictures, and a notable religious healer on the outskirts of Wad Medani, has mixed *mihaya* with crushed phenobarbitone tablets and given it to calm agitated patients. Healers in major cities are now ordering laboratory tests, and asking their patients to have their blood pressure checked by a physician before reporting to them. In doing so, healers genuinely believe that they are acquiring new skills that improve their efficiency. At the same time,

patients are constantly assured that healers are keeping pace with rival modern medical technology.

Among healers, there are specialists who deal with only one type of disease and no more. Um Dubban's *maseed* does not accept epileptic patients, who instead are referred to *billat* (village of) Hasan Wad Husuna, who specializes in the management of epilepsy. Musa Al-'Azab and Ahmad Wad Al-Turabi have been notable in treating rabies. *Tinat* (clay from) Ahmad Wad Al-Tiraifi of Talha village in the Gezira region, is so famous for curing rabies that Wad Al-Tiraifi is nicknamed *dabi al-wa'ar wa khasim al-sa'ar* (viper of the wilderness and enemy of rabies). A diviner is another sort of specialist. Diviners diagnose diseases; identify social grievances, triggers of misfortune, and interpersonal grudges, before suggesting appropriate remedies. They rarely, however, involve themselves in the actual implementation of solutions, health-related or otherwise.

Whole tribes in the Sudan are famous for certain kinds of magic that are used sometimes in healing. The Zabali'a of Abu Jarid, for instance, is versed in magic and witchcraft.<sup>6</sup> The Um Bararu tribes of western Sudan are animal specialists and masters of arrow poisons.<sup>7</sup> The Rubatab of northern Sudan who are famous for their sharp repartee, have also acquired a wide reputation throughout Muslim Sudan for bewitching through verbal constructions. Consequently, a member of any of these tribes is always feared lest he should possess the dangerous expertise of his kinsmen and women.

Some healers are identified by name but have no designation, other than that of a skilled technician. For example, *shulukh* (facial marks) tattoos, lip, nose and ear perforation, lip splitting, and tooth extraction, are performed by anyone who cares to learn the tricks. Others are persons who have magical powers that serve general social functions, such as the *dambbari* (see below). As in early Europe, a kind of barber is known; he carries his circumcision clamp and a bleeding horn wherever he goes. Moreover, in the end, as in the beginning, there are mothers, the helpers and healers at home.

Jean Buxton carried out research in Mandari in 1950-1952, and described healing and healers in the region in a posthumous volume, *Religion and*

*Healing in Mandari.*<sup>8</sup> She described briefly a few types of healers. *Bunit lo tu'ya* (the doctor of the rattle), for instance, divines with the rattle (*tu'ya*). This practice is described as 'smelling-out' (*wowondu*), or 'following with a rattle' (*dadoa ko tu'ya*). These doctors use general medicines, recommend, and assist at sacrifices to traditional agents of disease (particularly Spirit-of-the-Above and ancestral ghosts), and carry out purifications and hunting rituals. They supply protective charms and talismans to pregnant women and people in critical conditions, and advise on suspected bewitching and nightmares. *Bunit lo ki* (specialists of Celestial sickness) specialize in Spirit-of-the-Above, working either traditionally with the rattle and medicines, or with a celestial guide and a shrine. A *kagorkeit* (exorcist) banishes evil spirits, and *komuryeit* (extractor) removes witchcraft objects.

Patients should satisfy the practitioner, and pay him an amount consonant with his social status or the importance of the task accomplished. If they do not, his ill will cause the treatment, amulet, spell, or divination procedure to lose its efficacy or potency. In fact, divination procedures are rarely conducted without an expression of faith in the healer in the form of an advance nominal fee called *bayad* in northern Sudan. When the procedure is concluded, full payment is settled.

Religious healers in Muslim Sudan run regular clinics in *maseeds* or at home. They also keep inmates in special cells for long-term treatment. The patients are mainly the mentally ill and schizophrenics. In addition to treatment, the *maseed* provides them with food and shelter, a reasonable occupation, and various methods of entertainment.<sup>9</sup>

### **Muslim religious healers**

Religious healers have always been important and influential in their communities. For different reasons, officials in all governments (national and colonial), have held them in great esteem. They have granted them land, money, and, more importantly, the right to intercede for their people. In exchange, the laity have respected, venerated, and always feared them. They have consulted them in religious and secular matters, and frequently sought their intercession. Tigani Al-Mahi has noted that religious healers are spearheads and exponents of religion, and, by virtue

of their alleged omnipotence, possess tremendous powers of suggestion and persuasion. They are, hence, capable of resolving symptoms in their sick followers by the development of religious transference of an intensive kind. He expanded on this, saying:

“Religious therapy is founded on ancestor cult and is based on animistic conceptions closely linked with religious doctrines. Its psychopathology emphasizes sinfulness and stresses the conflict between ‘good and evil’ and ‘religious and irreligious’ as productive of symptoms which are sometimes regarded as retribution. These good and evil influences are no doubt the prototypes and personifications of the *Id* and *Superego* which were later postulated by Freud.”<sup>10</sup>

*Faqirs* are usually descendants of *walis* and *salihin* (holy men) from whom they inherit *baraka*<sup>11</sup> and office. They have gained credibility among the masses because they are believed to commune with God, to intercede between Him and man, and to control supernatural powers and manipulate them, producing health or disease, fortune or misfortune; their supplications, prayers and blessings are always effective. *Faqirs* are exclusively men, apparently because men rather than women are the main regulators of Islamic religious life in the Sudan. Their literacy, in a predominantly illiterate society, has added to their power and authority; it has also enhanced their knowledge and improved their skills. Access to Arabic medical books has improved their diagnostic abilities and enriched their repertoire of recipes. *Faqirs* also function as sources of local and Arab *materia medica* for other healers.

Religious healers, many of whom are Sufi *shaiikhs*, have combined political, social, spiritual, and healing powers in varying degrees. In the last two centuries, they have enjoyed the encouragement and sanction of the state, and have become enormously rich. We read in Trimmingham’s *Islam in the Sudan* that:

“The *shaiikhs* were mainly powerful in the Jezira under the Funj. They were highly regarded and subsidized by the Funj kings and would intercede with them and could rebuke them with impunity. We read of Salih ibn Ban an-Naqa (1681-1773), who, we are told, ‘was the third of the *khalifas* who lit the fire of *Shaiikh* Abd Al-

Qadir in the land of the Funj’, that ‘the court gave him a share in the river-lands and rain-lands’, which, however, ‘he divided among the people as though it had been a banquet’. Of powers of intercession with kings (*ashshifa’a ‘ind al-muluk*) we read of Hamad b. Al-Majdhub (d. 1776) that ‘God made him exceedingly popular with both great and small. He used to intercede frequently with kings and sultans, especially the Ja’al, and normally his intercession was not rejected for he who rejected it could be quickly blighted.’<sup>12</sup>

Their ancestors were of Arab stock; they arrived in different parts of the Sudan, and each started a fraternity,<sup>13</sup> attracted followers, and established a sheikhdom. Several attained such fame that their names have become eponyms for towns, villages, *bafirs* (local ponds), and medicinal recipes. To give one’s offspring a holy man’s name, is enough to guarantee the child blessing and protection through life. A Sudanese may still be identified and probably traced to a certain region in the country or to a specific Sufi order, by his or her name, or, in rural communities, *shullukh* (facial markings).

### **Types of healers**

There are two types of religious healers in Muslim Sudan: *fakis* and *faqirs*. A *faki* is a peddler of religious recipes, an itinerant cleric travelling from village to village selling his merchandise. His healing abilities are not as wide as those of the *faqir are*, but people genuinely fear him because he practises black magic. Because of this, women ask him to work on their flirting husbands or incapacitate a rival second wife. Le Comte d’Escayrac de Lauture’s remarks still hold good in the Sudan: <sup>14</sup>

“We find in the villages only a clergy of a secondary order; a clergy low and poor, unknown elsewhere, holding their powers only by the general confidence, living on alms and privations. ... Men of this category are called *fekis*. Many have accomplished the pilgrimage to Mecca; all can read (more or less fluently). All read the Quran and some know it by heart. Each village at all important has its *feki*, it is he who teaches reading and writing to the children, presides at marriages and burials, fills the functions of judge or *qadi* in all minor disputes. He adds to these functions that of exorcist; he evokes at the bedside of the sick the demon who agitates them,

writes on bits of paper the *surat al-Falaq*, a talisman which protects him who carries it from the obsessions of the enemy of men, and even, according to some, the injuries and illnesses to which they might be subjected. He draws from the sale of these talismans some small profits, which enable him to live. This industry is quite innocent; the talismans do no one any harm and always produce a favourable effect upon the imagination. Besides, the *feki* does not seek to deceive others, he believes as fervently as they do in the efficacy of these *hamail* (charms). Nor does he limit himself always to exorcising the sick or administering to them bits of paper or the water in which a pious invocation has been washed, he often adds to this illusory medication the employment of vegetable essences of whose efficacy he has learnt through long experience or the traditions of his predecessors.”<sup>15</sup>

### **Organization of practice**

Every *shaiikh* has a distinctive ‘path,’ and heads a well-knit organization comprehending a huge fellowship. The headquarters of the ‘path’ is usually associated with a particular *maseed* (colloquial for mosque). The *maseed*, however, is more than a mosque. It is a religious centre comprising the mosque, shrine’s premises, *khalwa* (Quranic School)<sup>16</sup>, students’ lodgings, patients’ and visitors’ residencies as well as those of the *khalifa*, his assistants and functionaries.<sup>17</sup> The headquarters of the ‘path’ is also usually associated with a village or a town that frequently carries the name of the holy person.

*Faqirs* control and organize activities within *maseeds*, and sometimes those in the village or town. They establish a well-knit hierarchy of ‘*urafa*’s (delegates) (sing. ‘*arif*’), who are equally endowed with *baraka* as long as they are in the realm of the holy man. ‘*Arifs*’ may thus function as therapists. They sift cases coming to the *maseed* and refer difficult ones to the more competent *faqir* in his *khalwa* (sanctuary). Many towns and villages, for instance Kadabas,<sup>18</sup> Um Dubban,<sup>19</sup> and Shikainieba, have become centres of worship and healing. Their *maseeds* contain asylums for patients with mental disorders. While under religious treatment, inmates, unless aggressive or suffering an acute attack of illness, are not detained. They are left free to move, though in chains. Hence, a striking

feature of these villages is the sight of chained people roaming around or working as builders, farmers, woodcutters, or servants.

Most inmates spend long periods under treatment, and, when they recover, they frequently opt to stay and work for the *shaiikh*, to whom they credit their well-being. Some of them have been abandoned by their families and have no other place to go; they spend the rest of their lives there. They marry in the area and start families that maintain allegiance to the *shaiikh* and bonds with the *maseed*.<sup>20</sup>

### **Healer's roles**

The functions of religious healers are closely bound up with everyday people and their daily concerns, and healing is usually incidental to their other roles in society. They frequently claim knowledge of the magical interpretation of astrology, numerology, and divination for the diagnosis, treatment, and prognosis of diseases. Primarily, they officiate at most religious and social functions, sanctify rites, and assist safe passage through the critical periods of life. They are often in charge at wedding ceremonies, and act as judges and arbitrators in local disputes. They divine for the auspicious times for certain activities, and interpret Muslim shari'a (Muslim jurisprudence). As healers, they prescribe amulets that are believed to prevent illness, to protect against evil spirits, the evil eye, someone's jealousy, or anger, or to attain success in different spheres of life.

### **Occult powers and healing abilities**

*Faqirs'* healing techniques are based on Islamic teaching, animist vestiges, and beliefs in spirits, magic, and witchcraft. These techniques are neither standard nor uniform, but they are ultimately based on the Islamic faith and divine ethics. They draw on a rich legacy of Arabian *materia medica*. Customers are mainly 'followers of the path'-village or urban dwellers with various physical and mental diseases; all are seeking a holy blessing from the healer, whom they respect and trust. Researchers have frequently reported that healers give their patients personal care and spend enough time listening to them. Patients were, then, able to describe their complaints, ventilate their grievances, vent their bent-ups, and probably confess. Though this is typical of a *zar* healer, is typical of religious healers only when they are modest in practice and prestige.

Reputable healers rarely have time to give to each patient. Wad Al-Ubiyyid at the outskirts of Wad Medani was a reputable religious healer with a busy clinic in which he sees patients by himself. In a moderate size room, a crowd of over a hundred customers would gather waiting for his help. No privacy is provided, and the nearest to the *shaikh* would literally shout out his complaints. The *shaikh* transfers the *baraka* to his patient across the room through the waving of his palms. In Umm Dubban, few patients are granted audience by the late Khalifa Yusuf Wad Badr. To see him in person, one has to go through a rigid protocol. Customers are received in the *maseed* compound, and the *Khalifa's* secretary admits them to the reception room. There, while waiting, are offered camel's milk to drink and *qarad* (Sunt tree pods, *Acacia nilotica*) to suck. When their turn comes, the *Khalifa* receives them in a most gracious manner and listens to them attentively, and concludes the encounter by blessing them by reading the opening chapter of the Holy Quran. Further treatment is relegated to his delegates.

The efficacy of a healer's treatment is believed to be due to God's grace. Therefore, a healer should not ask for money in return for his services. Since customers are considered devotees, what they pay is seen as a nominal fee that supports the group and endorses the functions of the *maseed*. Thomas Arnold, writing about Islamic *da'wa* (propagation), advocated a missionary role for *fakis*. He offered what he thought was an effective means of recruiting new members to the faith. He said that *fakis* should strike a bargain in return for the amulets and incantations they prescribe for infertile women. If the woman has a baby, she should raise the child as a Muslim!<sup>21</sup>

### **Shamans (*kujurs*)**

*Kujurs* are individuals capable of producing a state of trance and mental dissociation interpreted as spirit possession. During these states, a *kujur* is believed to possess powers beyond those of ordinary people, powers that heal, bring down rain, or protect the harvest against invading locusts. Nadel described the *kujurs'* religious cult in the Nuba Mountains as proper shamanism, because it corresponds in all essentials to the classical shamanism of central Asia and North West America.<sup>22</sup> This cult of spirit possession is not confined to the Nuba Mountains only. Other

southern tribes have their *shamans*. The *jok* doctors of Mandari tribes and the medicine men of the Nuer, Dinka, and Azande, are examples though not as typical as the Nuba's.

A *kujur* (pl. *kujara* and *kanajir*), a *kujuriya* for a female (plural *kujuriyat*) in the Nuba Mountains is a human being in whose body the spirit of God or of another powerful deity such as the *uro* spirits among the Dilling tribes, is incarnated. Most incarnations occur in men at any time between 17 and 50 years of age. A person becomes a *kujur* after passing through a near-fatal sickness, such as epilepsy or madness, and then recovering. The spirit that is to be manifested in him reveals itself in dreams.

A *kujur* has to prove his powers before the community accepts him, and before he assumes his role. The consecration process is arduous and lengthy. It takes several years of various ceremonies loaded with sacrifices and elaborate rituals. In the last consecration ceremony, the *kujur* assumes the emblems and insignia of priesthood and office.<sup>23</sup> From now onwards his powers-spiritual, political, and social-that are traced back to the original power-god, permeate all aspects of life in his community. From now onwards too, he should obey certain ritual rules: he lives up on the hill, alone with his family; he must not walk down into the village or sit in other people's houses; and he must obey, more strictly than others, the seasonal food avoidances of the tribe.<sup>24</sup>

During a trance, a *kujur* divines for the unknown, brings down rain, helps to secure a good harvest, alleviates illness, and wards off epidemics and other evils. In healing, mainly manages serious mental illnesses, and refers simple ones to other healers in the vicinity.

### ***Zar bori* practitioners**

A *zar bori* practitioner is known as *shaikhat al-zar*, *ummiya*, *usta*, and *kudiya*.<sup>25</sup> Nobody yet has described *shaikhas* as *dhakariyyat* (masculine) though a suggestive description has been given by Constantinidis:

“The cult leaders’ sexual status is also low. Most are either divorced or widowed and several are childless. In a few cases known to me, *shaikhas* had engineered their own divorce: by persistent absconding; by refusing to make themselves attractive and submissive; by refusing to modify their forthright views before

their husbands; or by insisting on drumming the *zar* against the husband's wishes. It is a theme among these women that powerful healers and mediators with the spirits such as themselves have no need of men, or of their own sexuality—a theme borne out by their successful existence in a society antithetical to the lone woman. Indeed, ideas concerning the need for ritual purity in a cult leader clash entirely with the requirements of marriage. In order to retain the closeness of her relationship with the spirits, the cult leader should not have anything to do with such polluting things as sexual intercourse.”<sup>26</sup>

*Shaikhas* are predominantly elderly or middle-aged women, and are sometimes from poor families, or ethnically discriminated against because they are of slave descent. Alternatively, they might be the offspring of freeborn fathers and slave mothers, or Muslims of non-Arab stock, or descendants of anyone presumed to be slaves because of their dark colour.<sup>27</sup>

Male *zar shaikhs* are few but nonetheless remarkably famous. Al-Mabark shaikh Al-zahar<sup>28</sup> of the Shaiqiyya tribe has been so skilful that he has been frequently quoted in songs as an unchallengeable healer. Wad Hulla, a contemporary *zar* healer, is stirring society with his innovative musical ceremonies.

### **Ranks and offices**

A *shaikha*<sup>29</sup> is invariably a promoted *tabbaliya* (drummer) who has inherited her skills from her mother or a near relative. She is consecrated and girdled with a *zar* belt after a revelation. The powers and equipment are then passed on symbolically, and actually, through the handing over of an *'ilba* (box).<sup>30</sup> By this time she is versed in the knowledge of *zar* spirits or *mashaiykh* (sing. *shaikh*),<sup>31</sup> has mastered the tunes that summon them, and deciphered their esoteric language.

### **Functions**

A *Shaikha* in general possesses a well-integrated body of knowledge and a technique that enjoys a high degree of consistency. She knows her clients' social background and, indeed, some of their daily troubles. With that knowledge in mind, she divines for the possessing spirits through

*fath al-'ilba* (literally 'opening of the tin'). The divination procedure involves a battery of rituals, sacrifices, and feasting. Diviner and client dress for the occasion in special costumes. Drumming music is started to summon the blameworthy spirits. The divination ceremonies, though limited, may take a full week for the *shaikeba* to identify the spirits, find out their demands, and take the necessary steps to satisfy them. When the spirits are identified, their demands are conveyed to the novice and, more importantly, to her family, and they have to be fulfilled before the spirits are calmed and the patient recovers.

In *zar bori*, the *shaikeba* gives her client close personal attention. First, the client is enrolled for life-long membership of the *zar* group. In their ceremonies, the client is so much the centre of attention that she is called a *zar* bride. The *zar* rituals and taboos are elaborate, and are held in an atmosphere of intimate social interaction; devotees are invited in name to every *zar* ceremony in the vicinity, and each is given special attention on every occasion.

### **Zar tumbura practitioners**

The hierarchy of *zar tumbura* is more elaborate than that of *bori*, and its practitioners are so well linked that their organization resembles a society.<sup>32</sup> Each group has offices and ranks, and each person has a definite job. All *tumbura* practitioners are ex-patients who have been cured through *tumbura*, and have been members of the cult ever since.

### **Ranks and offices**

A *Daliel* (guide) is the senior leader of several cult groups or *tanabir* (pl. of *tumbura*). He occupies the highest rank in the organization, and is consulted on every aspect of the practice. He decides on the appropriate times for the ceremonies, and no 'playing' is ever performed in his absence or without his consent. Out of the four contemporary leaders in the greater Khartoum area, Jibril Idris Hasan, nicknamed *Abuya Sambu*, is the senior *daliel*.<sup>33</sup> A *Sanjak* is leader of a particular *tumbura* group and officers of its ceremonies. He is the most eligible to become *daliel* in due course if he so wishes. In contrast to the *bori* practice, a *Sanjak* is a male installed into office in a special ceremony. Occasionally, a woman occupies this post, and then she is called *ummiya* as in *bori*. The *Sanjak* or

sometimes *ummiya* conducts the dancing ceremonies, and plays *tumbura* (*rababa*) tunes that summon the spirits.

Every *Sanjak* has his entourage: *awlad al-'idda*, literally 'sons of the instrument' (male devotees), and *banat al-'idda*, literally 'daughters of the instruments' (female devotees). Every member of the entourage must have been a *tumbura* patient, and have specifically 'killed' an animal in sacrifice. Devotees do not change their *tumbura* group; they do not even visit other *tanabir* unless accompanied by a *Sanjak* or *ummiya*. When they do so, they march in a single file after their leader.

*Tanin al-Sanjak* (the *sanjak's* deputy) is called a *brigdar* (brigadier). He serves *awlad al-'ilba*, 'sons of the tin' (male participants), and takes care of any formalities and courtesies due to guest *sanjaks*. When there is a vacancy, a *brigdar* may be promoted to the rank of *Sanjak* if he so wishes.

*Taninat al-ummiya* (the *ummiya's* deputy) also known as *jaliessa* (woman companion), is the *ummiya's* delegate and is entrusted with various important functions. She guards the *tumbura* against the malice of envious *sanjaks*. She keeps the *majamir* (incense burners) alight, and adds incense at every *jawab* (tune). She also keeps a watchful eye on all womenfolk present at the *tumbura* ceremony in case they take advantage of the gathering to practise infidelity. *Abuya Sambu* is proud that he maintains strict discipline and has an impeccable reputation in his practice. He says that when his late aunt Amna Abonei was alive, no girl would dare to look up during practice; all their eyes were cast to the ground. Any irregular behaviour was punished with the whip. Amna used to escort every female-married or unmarried-back home when the ceremony was over and make sure that each was delivered safely there.

The *muttariq* (vocalist) recites *tirraiq* 'incantations' during the killing of the sacrificial animal, and during the serving of coffee. The *santary*, on the other hand, looks after discipline and keeps a watchful eye on any unbecoming behaviour, especially among men folk. The *najieba* serves womenfolk, and the *jarraya* (runner), the errand girl, invites women for the ceremonies. The *habobiya* (grandmother) or *habobiat al-kanoun* (stove grandmother) is the cook; she also brews *marisa* (a local alcoholic beverage) for the occasion.

### **The Installation of a *sanjak* or an *unmiya***

The installation or girdling (*tabẓima*) of a *Sanjak* or an *unmiya* is described by Ahmad Al-Safi,<sup>34</sup> and Makris.<sup>35</sup> This is performed after certain conditions are fulfilled. The candidate should be versed in *tumbura*, should be able to interpret the language and demands of the *rih* ‘spirits’, and should have had a near-fatal sickness that has been cured by *tumbura*. The case of Abuya Sambu<sup>36</sup> illustrates this process. Sambu was born in Deim Salman in Khartoum 70 to 80 years ago; his father was a Hamar, and a follower of Sultan Abd Al-Malik. His mother, Zahara Hasan Barsi, was a Ja’fariyya. He had three sisters and an elder brother. When his father died, in about 1924, his mother took up *tumbura* and practised until her death in 1926. Abuya Sambu was installed as a *Sanjak* in 1932. This is his story as he narrated it to me late in 1987 in his house in Um Badda in Omdurman:

“I was naughty when young. I used to line young boys in front of my father’s *tumbura*, pass urine over the *banwariq* (banners), and run away. The *tumbura* and my father were both very angry, and I had to pay for my misconduct. I suffered a sudden paralysis from the waist downwards, and was crippled for six months. My father, because of his anger, refused to help me. Grandfather Faraj (of the Zubaydia tribe) was kind to me. He fumigated me with incense for seven days and ordered a *qadah bayad* (a dish of porridge and milk stew) to be made. He then carried me over his shoulder to the wilderness where he left me. I had to come back, and indeed, I came back walking. The happy occasion was celebrated with the ‘killing’ of a sheep in sacrifice to *tumbura*. This happened in 1928, after which I started learning the arts and crafts of *tumbura*, and in 1932 I was installed as a *Sanjak*.”

For the installation of a *Sanjak* the following items have to be provided: sugar, coffee beans, sweets, dates, a bottle of perfume and two shawls—a green one for *Shaikh* Abd Al-Qadir Al-Jilani<sup>37</sup> and a red one for Bilal,<sup>38</sup> and a sheep. The *Sanjak* is sat on a chair. Two *Sanjaks* are present to serve as witnesses: one stands on his right and the other on the left. One of the *Sanjaks* put the two shawls over the new *Sanjak*, one on each shoulder and cross them in front of his chest. A sheep is then sacrificed, and the *Sanjak* is dabbed with blood and handed the ‘*idda* (the

instruments) for safe custody. The sweets and dates are distributed among the audience, and perfume sprayed over the new *Sanjak* and audience. A similar procedure exists for the installation of a new *ummiya*.

### ***Habl* midwives (*dayat al-habl*)**

Till 1920, midwifery in most of northern Sudan had been entirely in the hands of *dayat al-habl* (the midwife of the rope),<sup>39</sup> and other traditional midwives in the rest of the country.<sup>40</sup>

When the School of Midwifery started recruitment, candidates included *habl* midwives.<sup>41</sup> They were selected by nomination by tribal chiefs or by other senior persons agreed upon by the villagers. This led gradually to the incorporation of many traditional birth attendants in the mainstream of health delivery. However, the programme gradually changed its recruitment criteria so much that the traditional midwives were excluded at the end. There are now more than 22 midwifery schools in the Sudan, and since 1920, 8641 midwives of all types were trained, unfortunately, the number of *habl* midwives among them is unknown.

A *daya* attends birth at home, and assumes all the functions necessary for the well-being and health of a woman in labour and her newly born baby. She is also a consultant for women's diseases, advises on fertility problems, suggests contraceptive methods, and induces abortion. Because women are invariably circumcised, delivery is always preceded by surgical widening of the introitus. The midwife first undoes the circumcision by slitting the scar open,<sup>42</sup> delivers the baby and placenta, re-circumcises, and usually re-infibulates. She then ties the umbilical cord, and attends the newly born if it needs any help. The instruments a *habl* midwife uses may be dirty if not actually rusty, and the dressings, if any, are not prepared to any medical standards.

*Habl* midwives also circumcise girls, perform *tas-hiem* (plastic de-circumcision) of the newly-wedded, '*adal* (correction) for women going out of confinement, and re-infibulate divorced women, or any other women who desire it, to bring them back to 'virginity' or tightening the introitus, as the case may be, by stitching the vaginal opening.

The midwife attends women in the days following delivery, making dressings and giving advice on relevant matters. When the wound is

clean, the woman ambulant and the baby has been named, the midwife is paid for her services in money and kind. She is given the best of everything available in the house and sizable chunks of the meat of the sacrificed animal.

### **Herbalists**

Several medicinal and poisonous plants are known to almost all Sudanese. Jean Buxton noted, for example, that the Mandari keep household remedies such as herbal purgatives, the pungent roots of wild garlic chewed to relieve colds, and herbs used for treating infected wounds.<sup>43</sup>

However, special herbal knowledge is the prerogative of herbalists who have inherited the craft from their ancestors through apprenticeship; to these are added some others who have no family history of healing, and have labored to acquire the necessary experience.

Apart from *Al-taiman*<sup>44</sup> (the twins) in Omdurman, herbalists are not recognized as specialists in the same way as, for instance, *faki* and *kujur* are. They have no designations in Riverain Sudan, though they are sometimes called ‘*ashshab*’ or ‘*attar*’.<sup>45</sup> Herbal shops are few, and lack any special name; medicinal ingredients are sold there alongside other groceries (see Figure 21, page 726).

Some herbalists, notably *mu’raqis* (root dealers), peddle their merchandize in the marketplace. *Mu’raqis* are almost all Nigerian or local inhabitants of western Sudan who have acquired a wide reputation as being exceptionally skilful in practising effective black magic. They sell roots that are alleged to have aphrodisiac properties, protect against snakebites, scorpion stings, gunshot injuries, and stab wounds. They also sell love potions, prescribe amulets, and ‘do’ and ‘undo’ magic.

*Dutu ko winiko* (the medicine owners) of the Mandari tribe possess simple remedies for various illnesses as well as cures for snake bites. Snakebite cures are pounded and tied to the bitten area. Sometimes they are cooked, and the resulting fumes are inhaled for protection before travelling at night. Small stocks of other medicines may be bought from a healer who may also show the user where to dig for new supplies to continue treatment or to help friends and relatives.<sup>46</sup>

### **Bone-setters (*basirs*)**

A *basir* (*basira* for a female)<sup>47</sup> sets broken bones, treats sprains, contusions, dislocations, and advises on matters relating to pain and disabilities in the joints. They massage wrynecks and ailing muscles. Frequently, *basirs* advise customers to take special foods to speed up the healing of fractured bones. Popular recommendations include eating *turmus* (*Lupinus termis*), dates, and chicken. They also prepare and prescribe medicines. Jean Buxton described bonesetters in the Mandari tribe as practised people who set broken bones, sprains, and dislocations by tying them firmly with creepers, often to wood splints. Hot poultices are placed on swellings; incision may be made at the point of a break, and the bones pushed together.<sup>48</sup> Ostrich oil is the treatment of choice for muscle contracture, over which it is rubbed and then massaged for a few weeks until the stiff joint relaxes.

Some *basirs* circumcise boys, and perform cupping and cauterization. An *atitt* among the Raik Dinka is a bonesetter who sets broken bones, trephines skulls, and may be a spear-haft straightener. Other *basirs* make artificial limbs for the handicapped. Wad Ghiyama of Katotab village is a *basir* in the widest sense. He is a skilled bonesetter, and an experienced and resourceful innovator in other fields. He makes artificial limbs that are thought to be lighter and more competitive than imported ones. He is also a healer of man and animal, an astrologer, a renowned diviner, and a poet, to mention just a few of his talents.

Bone setting is a typical craft that runs in families, learnt through apprenticeship to older *basirs* who are senior members of the family. *Basirs* such as Al-Badri of Al-Abassiya (Omdurman), Wad Mukhtar of Al-Saggana and Wad 'Agib of Al-'Azozab (Khartoum), the late Mustafa Ahmad Bati of Omdurman (Wad Bati), and his daughter Zeinab Mustafa Bati (Bit Bati) (see Figure 22, page 727), have been the most famous.<sup>49</sup> The craft usually passes from grandfather, to father to son. Mustafa, however, inherited the craft from his uncle Arbab Bati, and handed it over to his daughter Zeinab, who has been practicing up to a very late age.

Zeinab Mustafa Ahmad Bati, known as Bit Bati (1923-2006) of Omdurman (see figure 22 page 727) has described how she learnt the art

and how she practices. She says she learnt bone setting, as a gift from God (*wahbiya min Allah*), and through watching (*bi al-shawf*) her father practising. Then, whenever her father was away, she used to act on his behalf managing easy cases. Although she treats people *li wajh Allah* (for God's sake), she will accept their gifts gladly.

She classifies a bone or a muscle injury as *radkh* (a contusion), *fakak* (a dislocation), and *kasr* (a fracture). The method she follows in setting bones is universal among Sudanese bonesetters. She first manipulates the fractured bone until it is set in good alignment, and then pads the site with cotton gauze or cloth. Next, she applies *tabb* or *jabiras* (splints) made of palm fronds, and tightens them. Finally, she bandages the injury. The tie should be firm enough to hold the fractured parts in place, but not too tight to stop *al-dawra al-damawiyia* (blood circulation).

Bit Bati has treated all types of fractures including compound injuries.<sup>50</sup> She says that she applies sulpha compounds to 'treat' bleeding, and refers infected cases to hospital. She attributes infection to either neglecting the wound, or starting treatment with an incompetent bonesetter. She does not mention any other medicines, but her father used to use *harjal* (*Solenostemma arge*). Although she knows that children's fractures heal in a week or so, and those of grown-ups take longer, she is also aware that children's fractures are difficult to handle because they are intolerant to pain. She uses no *banj* (anaesthesia); the only analgesic available to her, she said, is *al-sabr* (endurance).

Though bonesetters are ignorant of the exact relation of nerves, vessels, and bones, they yet manage all sorts of fractures-multiple, compound or those that need special handling such as supracondylar, and spine fractures. The successes of *basirs* are widely circulated, but their failures rarely mentioned. Their interventions have frequently been accompanied by complications, some of them very serious indeed. These include Volkmann's contracture of the extremities,<sup>51</sup> mal-union or nonunion of fractured bones, and sometimes amputation of fingers or limbs.

### **Witch-doctors & medicine men**

Beliefs in witchcraft and magic are widely held throughout the country but are remarkably prevalent among southern tribes. (See Witchcraft page 89).

Evans-Pritchard, who described witchcraft among the Azande, clearly portrayed the witch doctors in the following words:

“The Zande witch-doctor is both diviner and magician. As diviner, he exposes witches; as magician, he thwarts them. However, chiefly he is a diviner. In this capacity he is often known as *ira avure*, possessor of *avure*, the word *avure* being contained also in the expression *do avure*, ‘to dance *avure*’, which describes the dance of witch-doctors and in a more general sense the whole séance at which they perform. When he acts as a leech, he is known as a *binza*, but this word and *ira avure* are interchangeable in reference to his divinatory functions, though *binza* is alone used in reference to his leech craft. In both roles, his task is the same—to counteract witchcraft. As a diviner he discovers the location of witchcraft, and as a leech he repairs its ravages.”<sup>52</sup>

Evans-Pritchard added that a witch doctor also:

“Exercises supernatural powers solely because he knows the right medicines and has eaten them in the right manner. His prophecies are derived from the magic inside him. His inspiration does not spring from the Supreme Being nor from the ghosts of the dead,”<sup>53</sup>

He also added that a witch doctor:

“Possesses also other types of magic such as *baybuduma*, vengeance-magic. This type of magic, *mangu*, which they possess they say is quite different from that of witches—the biological one found in their bellies. Theirs is generated by magic.”<sup>54</sup>

Oyler, who described the witch doctors and medicine men of the Shilluk, noted that many of the medicine men of that tribe have physical defects, their children are usually sickly, and many of them are deformed. The local people say that this is caused by the fact that the shades of their victims bring a curse on the medicine man, and on his family. The medicine man is usually well to do because of his exorbitant charges, and

he can afford to, and does, take many wives, but he usually only has a few children. He also noted that a witch doctor will not treat himself when ill, and he does not treat the members of his own family. He goes to some other witch doctor to be helped.<sup>55</sup>

Women in Zandeland rarely become witch doctors, and when they do, they are usually past their youth and often widows. On the other hand, princes or members of the royal family, and commoners with political power or holding important rank, do not become witches either. Witch doctoring is learnt by apprenticeship. It is handed down from father to son gradually over the years, or, as a short cut, learnt quickly from other witch doctors in return for payment.

“A novice begins to eat medicines with other witch-doctors to strengthen his soul and give him powers of prophesy; he is initiated into the corporation by public burial; he is given witchcraft-phlegm to swallow; and he is taken to a stream-source and shown the various herbs and shrubs and trees from which the medicines are derived.”<sup>56</sup>

How witch doctors and medicine men receive their powers, and acquire witchcraft has always been a subject of speculation. Some Shilluks, for example, maintain that the power comes from God, and others, that it is hereditary; but the distinction is not absolute; those who think of the power as coming from ancestors would also say that the first person of the line to possess the power received it from God. A medicine man is usually followed by one of his sons. The child to receive the power is designated by the father, and is usually either the oldest or youngest son, though a daughter may also be possessed of the power to work charms. The occult power may also skip generations, passing to the descendants of a son or a daughter of a medicine man who did not inherit that power. The fact that the power of working charms can come to a person whose father was not a witch doctor is seen as a proof of the return of the power of some forgotten ancestor.<sup>57</sup>

Witchcraft may be attained through the possession of special artifacts. The story of how Mattiang Goh of the Agar Dinka possessed a special root that made him a famous witchdoctor, illustrates this method well. In fact, it was reported that Mattiang became possessed of great riches, and

the deadly effects of the medicine became so exaggerated as to instill fear into all the Agar, who lost no time in procuring the root to protect themselves. V. Fergusson, then Governor of eastern District, southern Sudan since 1919, reported on this witchcraft. He said that at the time, the medicine was universally used throughout the entire eastern and Rumbek District, and many Dinkas were enriching themselves by introducing it into the Nuer country. Fergusson himself did not pay any special attention to the practice until it was forced on his notice by a certain chief being reported as using it to lower the prestige of the Government in the eyes of the Nuers.<sup>58</sup>

The story goes that, about the year 1902, Mattiang, in special circumstances, acquired a special root from a Jur man who also instructed him on how to use it. The root, which is only known to important medicine men, is to be carefully covered with fat, rolled up in leaves or a piece of cloth, placed in a small pot and then hung up on the roof of the owner's house. Other roots of the same kind may also be worn round the neck or wrist if desired. The root is merely a visible sign that the owner is possessed of a wonderful 'Spirit' known to the Jurs as '*Mongork*'. This spirit only appears before medicine men as a kind of mist, taking no special form. It is extremely faithful to its owner who, however, must be careful not to offend it in any way. The owner cannot give an order to do anything at all, but must comply with its wishes. '*Mongork*' lives in the wall of its owner's house and should be offered a dish of either meat or fish potage every evening. The food will not be taken by it but should be eaten by the owner after he has allowed a reasonable time for the spirit to see that his dish has been prepared. It will protect the owner against the loss of his belongings by theft, and, should a theft take place, the spirit on its own will attack the thief and strike him down. The form of punishment inflicted on the thief lies in the hands of the spirit; his cattle may die of disease, his house be burnt down, his goats eaten by wild animals or he and his relatives may be rendered ill. In causing illness or death, '*Mongork*' only attacks the stomach and kidneys. If the theft has been serious, the stomach will swell out to an abnormal size, causing severe pain accompanied by acute diarrhoea, and the stricken enemy will die within an hour. On the other hand, if the offence has been light, the stomach or kidneys may swell and

remain so until the stolen property has been returned with suitable compensation. The spirit strongly objects to people wailing over any of its victims and if people do so, they immediately die.<sup>59</sup>

### **Eye healers (*shallanqin*)**

*Shallaqs* (couchers) are mostly Nigerians and on rare occasions, they are of western Sudan.<sup>60</sup> They move from village to village offering their service for a fee. The *shallaq* is the only type of eye healer known in the Sudan. He is the eye surgeon who performs *tashliq* (couching). Couching is the surgical displacement of the opaque lens in cataract. In this operation, a fine incision is made into the inside of the eye using a thorn or fine needle. The lens is displaced inside the eye and left there. This obviously improves eyesight temporarily if there are no other concomitant eye diseases. However, the operation is always followed by complications caused by the lens that is left inside.

### **The *dambbari***

Some persons such as the *dambbari* among the Fur of western Sudan perform specific jobs that are not directly related to health. Nonetheless, they are feared and their help to maintain health is frequently sought. The *Dambbari* of the Masalit and the Zaghawa tribes possesses knowledge of special roots that through magical attributes protect crops and trees against the ravages of locusts. He diverts locust invasions by pointing his stick towards the sky; the clouds of locusts then move away in the direction indicated. See also page 82 for more discussion.

### **A new breed of healers**

In the last few years, many Sudanese, some highly educated, have made extravagant claims of their success in treating various diseases. The late Abd Al-Karim Mirghani, Minister of Finance during Nimeiri's rule and once an ambassador of the Sudan in India, is a typical example. Mirghani admitted that he was acquainted with India's Ayurvedic and Unani medicine. He made his own recipes, and claimed a high rate of success in treating various illnesses including piles, diabetes, hypertension, and other intractable diseases.

The late Professor Hasan Al-Fatih Gharib Allah, Ex-Vice Chancellor of Omdurman Islamic University, has similarly claimed to treat several diseases including infertility, epilepsy, and mental illnesses, employing Quranic verses, and *Al-Tibbb Al-Nabawi* (Prophet Muhammad's Medicine).<sup>61</sup>

Al-Naiyal Abd Al-Qadir Abu Quroun, a practising judge, claims that he has treated an 'uncountable' number of patients suffering from different diseases including cancer, allergic bronchitis, epilepsy, snakebites, scorpion stings, and the evil eye. He claims that he uses the computer in diagnosing diseases, and that he treats his patients with herbs, honey, sesame oil and *bakbras* (paper incense), as well as other Quranic methods.<sup>62</sup>

Osman Abd Al-Monem's story is interesting. In the early seventies, Osman claimed experience in using medicinal plants, and that he had discovered break-through medicines for curing several intractable diseases, including cancer. He made a big fuss and the media took up his case. He said that he sought recognition from all those concerned with health and research. However, he met with no response. Indeed, he was ignored and sometimes scorned. Nimeiri, then President of the State, intervened personally to have his case vindicated. He was employed in the Medicinal and Aromatic Plants Research Unit of the National Council for Research as a specialist in medicinal plants, a post he is still holding. Osman collaborated with researchers in the Unit in field surveys, ensuring that he is acknowledged in publications. He has also helped the Unit in carrying out its annual field surveys of medicinal plants in different parts of the country. He has proved to be hardy, knowledgeable, and dependable. He is still assuming his role as a traditional practitioner clandestinely from within the Unit. Interestingly enough his breakthrough recipes have never become known, though claims made on their behalf may still be heard here and there.

## References and Notes

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<sup>1</sup> See Hultkrantz, Ake. The *shaman* and the medicine-man. *Social Science & Medicine*; 1985; 20(5): 511-515, for discussion of the terms medicine-man and *shaman* as used by scholars and scientists. Hultkrantz

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concludes that the *shaman* is primarily the mediator between the supernatural powers and man, and the medicine-man is primarily the curer of diseases through traditional techniques. The *shaman* may also be medically active when his expert knowledge of the supernatural disease agents is called for. This means that some *shamans* are medicine-men. Conversely, some medicinemen are *shamans*.

- <sup>2</sup> Titherington, G.W. Magicians, etc. Among the Raik Dinka. *Sudan Notes and Records*; 1925; 8: 194-195.
- <sup>3</sup> Oyler, Rev. D.S. The Shilluk's Beliefs in the Good Medicine Men. *Sudan Notes and Records*; 1920; 3: 110-116.
- <sup>4</sup> Oyler, Rev. D.S. Op. Cit.
- <sup>5</sup> The proverb goes *al-'agil tabib nafsu*, which literally means 'the wise heals himself.
- <sup>6</sup> This group, mainly flourished before the Mahdiyya in Abu 'Ushar, Soba and other regions of the Gezira. They formed a distinct society and a peculiar religious sect, often described as heretic. The notable Shaikh Farah Wad Taktouk refuted in a disputation their claims with 'rational and traditional arguments'. Members of this group marry only amongst themselves, avoid intercourse with others, and forbid tobacco and strong drink. It was said that the founder of the sect, Sherif Abokr, had associated himself with some Nuba instead of going into a worshipping seclusion while initiating the sect; the Nuba, the version claim, taught him magic and other occult arts. This, it is believed, is the basis of the magical powers that the Zabal'a possess.
- <sup>7</sup> The Um Bararu are the nomad Fellata and call themselves Fulbi; in northern Nigeria, the Hausa called them Fulani; the Burnu called them Fellata. The part that settled in the western Sudan, were called the Fellata Tulus.
- <sup>8</sup> Buxton, Jean C. *Religion an Healing in Mandari*. Oxford: The Clarendon Press; 1973. 444 pages.
- <sup>9</sup> In modern jargon, the *maseed* provides oocupational therapy, rehabilitation and asylum for the mentally ill, handicapped and those with chronic diseases. It also provides a haven for runaways, a shelter for those worn out by social pressure and competition. The *maseed* is, indeed, a comprehensive guest house for foreigners, passersby, students of Quran who come from different parts of the country or from neighbouring countries. However, in addition to its religious tasks of worshipping and prayer, the *maseed* provides religious education, elementary Arabic, and in-service training in basic crafts. While in the *maseed*, the students, usually very young, are initiated in an atmosphere of cooperation, self denial, modesty, humility, and interaction between various colours, tribes and nationalities.

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- <sup>10</sup> Ahmad Al-Safi; Taha Baasher, Editors. *Tigani Al-Mabi: Selected Essays*. Ist ed. Khartoum: Khartoum University Press; 1981; University of Khartoum, Silver Jubilee-1956-1981. Page 25.
- <sup>11</sup> *Baraka*, the blessing or goodness of God, is believed to emanate from a holy man when he is invoked. (See page 49).
- <sup>12</sup> Trimingham, J.S. *Islam in the Sudan*. London: Oxford University Press; 1949. Page 198.
- <sup>13</sup> At the head of each order is the *shaiikh* who is the spiritual heir of the founder, to whom the revelation has been passed on and to who it is personal and inherent. He is called *shaiikh as-sijjada* because he inherits the prayer-carpet (often a sheep-skin) of the founder as the symbol of his authority. He lives usually at the place where the founder's tomb is situated."Trimingham: Op. Cit. , 202.
- <sup>14</sup> Quoted by S.J. Trimingham. *Islam in the Sudan*. 1946: 140.
- <sup>15</sup> De Lauture. *Le Desert et le Soudan*. 1853, pp. 446-8.
- <sup>16</sup> According to a Ministry of Religious Affairs census (1990) there are around 14,684 *khalwas* in the Sudan. Quoted from Tayib M. Tayib. *The Maseed*. 1991.
- <sup>17</sup> Idris Salim El Hasan. *On Ideology: The Case of Religion in Northern Sudan*. Ph.D. Dissertation, The University of Connecticut, 1980.
- <sup>18</sup> Kadabas is a village 50 kilometers north of Atbara town in northern Sudan. Shaikh Ahmad Al-Ja'ali (1927-1977) was the head of the fraternity in this village; at present shaikh Hajj Hamad is the head, and leader of the *Qadiriyya* sufi order.
- <sup>19</sup> Um Dubban village was founded by *shaiikh* Muhammad Al-Ibaid wad Badr around 302 A.H. The actual name of the *shaiikh* was Muhammad Ibn Ahmad Ibn Ahmad Ibn Ali Ibn Musa Ibn Ahmad Ibn Badr (born 1235 or 1234 A.H. ). The elderly people in the village claim that Wad Badr was originally from Badr or Hunain regions in Saudi Arabia. The *shaiikh's* forefather, Musa, was the first of the family to arrive in the Sudan at the request of *shaiikh* Hasan Wad Husuna. The Um Dubban *maseed* encloses the *shaiikh's qubba* (shrine) and those of his sons.
- <sup>20</sup> Muhammad H. Daoud. Kadabas: A healing faith. *Sudanow*. March 1982: 38-39.
- <sup>21</sup> Arnold, Thomas. *Al-da'wa ila Al-Islam*. Arabic translation by Hasan Ibrahim Hasan et al. Cairo: 1947: 297.
- <sup>22</sup> Nadel, S.F. A Study of Shamanism in the Nuba Mountains. *J. R. Anthropol. Inst.*; 1946; 76: 25-37.
- <sup>23</sup> Insignia include a small ostrich feather, rings and bangles, and a carved stool on which he must sit during the spirit seances.

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- <sup>24</sup> Nadel. Op. cit., page 441.
- <sup>25</sup> *Kudiya* is mainly used in those parts of the Sudan near to Egypt where the term is common.
- <sup>26</sup> Constantinidis, Pamela M. Women Heal Women: Spirit Possession and Sexual Segregation in a Muslim Society. *Social Science & Medicine*, 1985; 21(6): 685-692.
- <sup>27</sup> Constantinidis, Pamela M. Op. Cit.
- <sup>28</sup> *Al-zahar* is a corrupted word for *al-zar*.
- <sup>29</sup> Among *shaiikas*, an *ummiya* is higher in rank.
- <sup>30</sup> The tin contains *bakbur al-zar* (Frankincense, mastic, etc.), and other paraphernalia of office including the *shaiika's* costumes, personal artifacts, and musical instruments. Kenyon, reporting on *zar* in Sennar, rightly noted that this 'tin' also serves other important functions; it acts as a mnemonic device which both aids and reinforces other historical sources, primarily oral accounts supplemented by documentary evidence. Kenyon, Susan M. "The story of a tin box: *zar* in the Sudanese town of Sennar." *Women's Medicine: The Zar-Bori Cult in Africa and Beyond*. editors I.M. Lewis, Ahmad Al-Safi, and Sayyid Hurreiz. Edinburgh: Edinburgh University Press, 1991. Pages 100-117.
- <sup>31</sup> A *shaiikh*, in common usage, is the head of a clan, or an elder in a family; a respected one. Here the appellation is borrowed to denote a *zar* archetype or model.
- <sup>32</sup> Most other healers practice independently, and do not liaise or form associations.
- <sup>33</sup> Ahmad Al-Safi. *Tumbura Revisited*. *The International Symposium on the Spiritual Dimension of Traditional African Medicine*; 11-13 January 1988; Khartoum.
- <sup>34</sup> Ahmad Al-Safi. Op. Cit.
- <sup>35</sup> Makris, Gerasimos P.; Ahmad Al-Safi. The *tumbura* spirit possession cult of the Sudan, past and present. I.M. Lewis; Ahmad Al-Safi; Sayyid Hamid Hurreiz, editors. *Women's Medicine: The Zar-Bori Cult in Africa and Beyond*. Edinburgh: Edinburgh University Press; 1991: 118-136.
- <sup>36</sup> Sambu or Sam is the nickname the English gave him when he was a cook in the British Army in the Sudan.
- <sup>37</sup> Abd Al-Qadir Al-Jilani (470-561/1077-1166 A.D.). A celebrated sufi and founder of Al-Qadiriyya order of sufis. Abd Al-Qadir was born in Jilan in Persia, and lived and died in Baghdad, where his tomb stands today.

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- <sup>38</sup> Bilal was the first ‘*muaazzin*’, caller-to-prayer in Islam. He was a black Abyssinian slave in Makka, and an early convert to Islam. His master treated him badly for his religious beliefs, and he was subsequently ransomed and freed by his fellow-convert Abu Bakr. The Prophet Muhammad chose Bilal to summon people for prayers because of his fine voice, in spite of his defective pronunciation of Arabic. He served the Prophet Muhammad, and was the chamberlain to the first Caliphs.
- <sup>39</sup> This appellation is descriptive, referring to the method of delivery in which the woman in labour takes a semi-standing position supporting herself by a *habl* (rope) suspended from the ceiling. The midwife squats between the woman’s legs to receive the baby.
- <sup>40</sup> Sobhi El Hakim. Sudan: Replacing TBAs by Village Midwives. In: A. Mangay-Maglacas and H. Pizurki, Editors. *The Traditional Birth Attendant in Seven Countries: Case Studies in Utilization and Training*. Geneva: World Health Organization; 1981: 131-166. 211. (Public Health Papers; v. 75).
- <sup>41</sup> Miss Mabel E. Wolff established in Omdurman the first midwifery school in the Sudan in 1921, and was Matron of the school up to 1930. She was then Inspector of Midwives till her retirement in 1937. Miss Wolff also started the first ante-natal clinic in the Sudan. Before she becomes Inspector, she was joined by her sister Gertrude L. Wolff, who took over the job of Matron of the school.
- <sup>42</sup> Obstetricians call this incision the median episiotomy; another postero-lateral one is sometimes needed to aid delivery.
- <sup>43</sup> Buxton, Jean C. *Religion and Healing in Mandari*. Oxford: The Clarendon Press; 1973. Page 314.
- <sup>44</sup> *Al-taiman* (the twins) of Omdurman worth a special note. They are Hamza and Osman Rahama of the Rubatab tribe. They are brothers and not twins as the name implies, see page 446 for more information.
- <sup>45</sup> *Ashshab* and ‘*Attar* are two common designations in medieval Arabic medical texts, and in several Arab countries nowadays.
- <sup>46</sup> Buxton, Jean. Op. Cit. page 314.
- <sup>47</sup> *Basir* (plur. *busara*) is a person skilled in any craft but it is mostly related to midwifery, and bone-setting, as well as animal healing and boat-making. The word derives from *basara* (craftsmanship). Its Arabic etymological root ‘to see’ indicates insight, wisdom, experience and technical competence.
- <sup>48</sup> Buxton, Jean. Op. Cit., page 314.
- <sup>49</sup> People often cite the fictional lady, Al-*Basira* Um Hamad as an example of a foolish and stupid *basir* or *basira*. Once a calf put its head into an earthenware jar and failed to pull it out. The calf’s owner sought *basira*

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Um Hamad for advice. She ordered them to cut the animal's throat. They did that, but the head was still inside. She then ordered them to break the jar to retrieve the head!

- <sup>50</sup> These are fractures that are associated with soft tissue injury exposing the fractured bone.
- <sup>51</sup> A contraction of the fingers and sometimes of the wrist, with loss of power, developing after severe injury in the region of the elbow, improper use of tourniquettes, or splints.
- <sup>52</sup> Evans-Pritchard, E.E. *Witchcraft, Oracles and Magic among the Azande* (1937): Abridged with an introduction by Eva Gilles. Clarendon Press: Oxford: 1976, page 66.
- <sup>53</sup> Evans-Pritchard E.E. Op. Cit., page 73.
- <sup>54</sup> Evans-Pritchard E.E. Op. Cit. page 112.
- <sup>55</sup> Oyler, Rev. D.S. The Shilluk's Beliefs in the Good Medicine Men. *Sudan Notes and Records*; 1920; 3: 110-116.
- <sup>56</sup> Evans-Pritchard E.E. Op. Cit., page 91.
- <sup>57</sup> Oyler, Rev. D.S. Op. Cit. 1920.
- <sup>58</sup> The Government referred to here is that of the Anglo-Egyptian Condominium.
- <sup>59</sup> Fergusson, J. Mattiang Goh Witchcraft. *Sudan Notes and Records*; 1923; 6: 112-4.
- <sup>60</sup> Also known as *shallanq* or *shallanqi* (pl. *shallanqin* or *shallanqa*). *Shallanq* is an eye healer in Fur tongue. In Arabic *shalaq* is a longitudinal incision. It is uncertain whether there is any relation between the two meanings.
- <sup>61</sup> *Al-Moslimoun* Weekly Magazine. (Interview) 1991, July 19: page 3; July 26: page 3.
- <sup>62</sup> He said he diagnoses diseases using the computer assisted by Dr 'Asim Abd Al-Rahman Al-Shaikh, lecturer, Faculty of Economics, University of Khartoum.



## **Chapter 7**

### **THE PROFESSION OF TRADITIONAL MEDICINE**

**I**n this chapter we describe the profession of traditional medicine in the Sudan, and we also examine the official attitudes and legislature regulating medical practice in general and traditional medicine in particular, and the roles played by researchers and research institutions.

#### **Official recognition**

Traditional medicine is a system of beliefs derived from an accepted theory of cosmology, and which prescribes the best methods of managing health. Healers are the caretakers of this system, and the repository of its knowledge. In recent years, this system has faced the rivalry of the powerful biomedical establishment with its arsenal of institutions, regulations, and supporting laws, backed up by a new set of organizations, new precepts and an intolerant and powerful authority. This rival system has asserted itself and enforced its practices through institutions that are regularly funded. The traditional system, on the other hand, has suffered neglect, contempt, and, frequently, outright hostility. When its presence was acknowledged, the system was described as one of superstitions, charlatanry, or quackery. This system is forced to exist outside the mainstream of biomedicine, and it is sometimes actively opposed by legislation.

Traditional medicine is a present-day reality; it is practised by a major sector of the community. If some of its recipes have been found useful, one would have expected that this would be officially acknowledged, and practitioners trained, licensed, registered, and their activities recognized<sup>1</sup> and made lawful.<sup>2</sup> None of this has happened so far.

Sustained by the encouragement of continuing popular demand, and strengthened by mutual support, traditional healers tried different approaches. Some asserted their presence and tried to snatch recognition and legitimacy by forging an organization that was officially and socially accepted. The official system either responded with hostility, or remained silent or indifferent. As in many African countries, healers in the Sudan did not opt to form organizations, and the only one formed

recently should be closely studied. Bannerman et al noted some of the important reasons for the difficulty of organizing national healers' associations in most African countries:

1. In pre-colonial times, there were no national states as we know today but ethnic entities and indigenous healers therefore grouped themselves along ethnic geographical lines, into district and local level associations.
2. There were various healing sub-systems, each one forming one occupational group.
3. Language difficulties hindered the formation of any umbrella national organization.
4. Distance was another factor, which made it difficult for indigenous healers to form one body, and thus only those healers within a certain geographical ethnic area were able to form occupation groupings.<sup>3</sup>

One example illustrating the difficulties involved is that of the late Wad Hulla, a notable *zar* practitioner. Wad Hulla adopted several approaches to bring about the legalization of *zar* practice, because of the obstacles he, as well as other practitioners, found standing in the way. Like all *zar* practitioners, he was harassed by Muslim fundamentalist groups and by Ansar Al-Sunna Al-Muhammadiyya (the followers of the Prophet Muhammad's deeds and sayings). These groups saw, in practices such as *zar*, a clear divergence from the straight path of orthodox Islam, and were convinced that it was incumbent on them to fight these deviations as being *munkar* (abominations), and *bid'as* (novelties). He announced on several occasions that he was particularly careful to see that his practice was godly and law-abiding. He did not allow alcohol or blood to be drunk in his *zar* ceremonies. He went even further; he modernized the music of *zar* by introducing brass instruments. Then he organized a society, of which he became the president, and, instead of holding ceremonies at the clients' houses, made his enormous house a centre for *zar* public performance. Unlike many *zar* practitioners, Wad Hulla takes an interest in and, indeed, welcomes being interviewed by the media and researchers, and would always take the initiative of inviting his *zar* ensemble and followers to take part.

He befriended almost all the personalities whom he thought would support his practice.<sup>4</sup> Sometimes he would ask earnestly for a certificate of good standing or one that stated that he was cooperative and helpful

to researchers.<sup>5</sup> The drawing room in his mansion-house in Kalakla Sanqa'at is full of framed paper testimonials from psychiatrists, researchers in traditional medicine, Ministry of Health officials, etc.

Wad Hulla is an imaginative man, and he and his group are making an impression on women of Khartoum and other major cities. What is more important, he is taking *zar* out of its traditional environment and into newer spheres. The year 1987 witnessed his campaign to establish a society under which *zar* practitioners could pursue their activities free from harassment, one that ensured social and official sanction, and that provided protection against litigation.

In Port Sudan, where his fellowship is large and particularly intimate, Wad Hulla started a quiet campaign to found *The Society of Zar and Folklore Shaikhs*. Television actor and a graduate of the Institute of Music and Drama, Khartoum, Ni'mat Hammad joined him and led the campaign of enlisting the minimum number of persons required to register a new society. She accompanied him in 1987 and 1988 in all his *zar* tours and interviews, obviously acting as his public relations officer.

The society was registered on 27 October 1987 at the Office of the Registrar of Societies, Department of Social Affairs, under a registration certificate number 253. Wad Hulla was the founding president and Ni'mat Hammad was his deputy. This development was both important and interesting.

Researchers read this innovative step in different ways. Professor Sayyid Hamid Hurreiz, a renowned scholar and folklorist, was quick to sense the new trend. He saw the bylaws of the society as important sociological data providing information about the nature and contemporary state of *zar*. Moreover, it contains a clear vision of how *zar shaikhs* (or at least those who have joined the association) see themselves and how they are seen by others. Professor Hurreiz went through the society's bylaws and reported on them in the International Symposium on the Spiritual Dimension of Traditional African Medicine held in Khartoum in 11-13 January 1988.<sup>6</sup>

The list of members included in the founding document contains 64 names, 40 males, and 24 females. The executive committee of the association consists of 19 members, about two-thirds of whom are

males. The president of this committee is the notable *zar* practitioner Shaikh Muhammad Wad Hulla and his deputy is a woman, whereas the secretary of the committee is a university student at Cairo University, Khartoum branch. Members of the association come from different professional backgrounds, e.g., drivers, housewives, clerks, carpenters, students, businessmen, etc.

Two of the six objectives of the association lay stress on entertainment and the release of tension through music, acting, and singing (article 11: Objectives 3 and 5). *The Society of Zar and Folklore Shaikhs* sought affiliation to the National Council for Arts and Letters. Of notable significance, however, is that the council granted the Association affiliation in accordance with article (b) of the council's constitution of 1976: 'The promotion of theatrical activities, music, and folk arts'. It is, thus, legitimate to conclude that the *zar shaikhs* referred to above considered themselves, and were considered by the official authorities at the council, as an artistic dramatic society.

Article 3: membership of the Association is also relevant. It specifies that any person who is 18 years old or above may join the Association, provided that he [or she] applies for membership while fully aware of the Association's objectives, and that the application should be endorsed by two members.

Professor Hurreiz clearly saw the new divergence in the approach and practice of *zar* as far as this group is concerned. He concluded that, compared with the Wad Hulla group, traditional *zar* groups in the Sudan are closed societies, almost like secret societies. Members of such groups are *zar* practitioners and patients. All of them are fellow sufferers, and if a single individual is the focus of a *zar* ritual performance, other members will act as auxiliary egos. It is important that the individual seeking treatment behave as a patient among patients. This is rather different from what we see in *Shaikh* Muhammad Wad Hulla's Association. Its founders are evidently also seeking respectability in the modern idiom of drama and psychodrama.<sup>7</sup>

### **The Mahdi's ban on sacrilege**

Traditional medicine has been looked upon suspiciously and some of its practices criticized by the ruling authorities since the time of the Mahdi, who described as sacrilegious and banned several social activities including healing practices. The Mahdi, and later several other preachers, invoked religious reasons to condemn and outlaw certain healing activities. In addition, the Ansar Al-Sunna alluded to earlier, were particularly intolerant of many forms of traditional medicine and preached strongly against them, frequently following violent words with violent action.

Practices related to the worshipping of saints must have been quite popular in the last century. The Mahdi, in his theocratic state, the Mahdiyya (1881-1898) tried to reform the morals and change the customs of the Sudanese people. In doing so, he completely banned several practices. He declared non-Islamic and, therefore, unlawful, the practice of magic, the prescription of *ahjiba* (amulets), and *ta'ziem* (spitting cures). He banned *bika* (loud wailing for the dead) and visiting shrines for the sake of the *baraka*. Nobody was allowed to take alcoholic beverages, smoke tobacco, or use snuff. Even music and festivities were considered blasphemy. Processions, marriage and circumcision feasts were forbidden, as well as all types of music, except when employed in a summons to war.

The Mahdi renounced these customs and practices as earthly vanities because this world can be kept in peace only through abstinence from amusements and through prayer. He also ordered his adherents and all the Sudanese to put aside everything that bore the slightest resemblance to the manners and customs of Turks [here meaning any fair-skinned foreigner during colonial rule] and infidels.<sup>8</sup>

The practices that the Mahdi outlawed had until then formed the essence of Sudanese social life. They remained underground throughout the Mahdiyya, but returned in full force after its downfall. The Mahdi's adherents, known as *Ansar*, visit his *qubba* in Omdurman as a sign of veneration and *lil-tabarruk*, in search of blessing. *Khalifa* Abdu Allah, known as Khalifat Al-Mahdi (the successor of the Mahdi), reigned 1885-1898, later delivered an ordinance permitting visiting the Mahdi's tomb

as a pious act. Such a visit, he added, should not be regarded as pilgrimage but as a pious visit only.

Several men of religion also contributed to the campaign against certain healing practices. Al-Zubair Abd Al-Mahmoud wrote *Irsbad Al-Badawi lil Din Al-Nabawi* in 1392 A.H.<sup>9</sup> The book started with basic instructions on the Islamic faith directed mainly at illiterate nomad and rural communities. Later in the book, the author identified the practices that people commit out of ignorance, which, he argued, were against orthodox Islam. He first defined a *wali* (holy man), and denounced people's conviction that the offspring of this man should be thought of as infallible, and entitled by right of birth to commit mistakes even if against Islamic teaching. He gave himself as an example of a person who accepted and indulged early in life in many unorthodox practices on this pretext, until he repented, and God accepted his return, he said. The practices he condemned included: beliefs in the powers of holy men granting children to infertile women, the rituals of *mushabara* (pregnancy taboos), *nadr* (conditional vow) to a holy man, facial scarring, *zar*, certain food taboos-especially the Marghomab tribe's custom of eating animals' hearts, naming children with slave names and inflicting un-recognized pattern of facial scars to elude evil spirits (a practice frequently resorted to by women whose children die young), shaving the child's head at a holy man's shrine, belief in good and bad omens, beliefs in auspicious days, birds or animals and astrology. He also denounced all divination practices except *istikbara* (God's invocation) as described by the Prophet Muhammad.

*Al-Munqiz min Al-Mahalik* (undated) is a small booklet containing the Tiganiyya Sufi order's views on various popular traditional practices.<sup>10</sup> The author of this work, Muhammad Al-Tahir ibn Yusuf Al-Tigani, denounced the magical practices resorted to by *faqirs* and *fakis*. He also condemned all divination procedures and beliefs in auspicious days. He supported his argument with reference to the works of several Muslim scholars including Muhi Al-Din Ibn Al-Arabi, *Al-Futubat Al-Makkiya*, Al-Arabi Ibn Al-Sayyih, *Bughiat Al-Mustafid*, Abd Al-Wahab Al-Sha'rani, *Al-Anwar Al-Ghudsya*, and Al-Nazhifi Al-Tigani, *Mawabib Al-Latif*.

### Secret societies

Later, critics of a different type appeared: expatriate colonial officers and anthropologists studying the local practices that might have some political potential, and those interested in animist customs from a Christian viewpoint. Some closed societies for the practice of magic were described early this century among some tribes in southern Sudan. The most important were the *Mani*, *Bili*, and *Bir* societies in Zandeland, and the *Yielde* in the Banda country which is an exclusively women's organization.

A *Mani* is a typical closed society reported from the Yei River district, the *Tumbura* in Bahr Al-Ghazal and the Belgian Congo;<sup>11</sup> these *Mani* societies are spread all over but are chiefly found in the Azande district, Evans-Pritchard thought that these organizations are most probably foreign in origin, and that (at the time of the report) they were not incorporated into Zande social organization, and were regarded as underground subversive movements. Its membership must have numbered thousands; it certainly included people of all ages, except the elderly and the very young. A *Mani* is a society of commoners in which authority is derived from the medicines that are unique to each society, and which have the attributes of good Magic.

Some magicians in southern Sudan have set up their own secret societies. Harm or even death by magic agencies and medicines or *poisons* is alleged to befall those who do not obey their orders, comply with their rules, or who betray their secrets. These societies are not all healing in function. Some of them harbour fugitives and impostors to the extent that they have become a source of growing concern and complaint to their fellow witch doctors, Christian Missionaries, administrators, and Sultans.

A *Bir* or *Bili* is a typical society of this type that prevailed in the Yambio, Meridi, and *Tumbura* districts. The votaries of these societies were skilled in the preparation of poisons, which they used for criminal purposes. Police raids on their premises often discovered large quantities of *hashish*. *Bir* was also rampant in Belgian Congo among the Azande. The chief of this cult is supposed to have been able to cause and cure diseases, ensure good crops or cause them to be destroyed by elephants and to kill people by means of lightening, etc.<sup>12</sup>

Father J. Zugnoni, a Christian missionary of Deim Zubeir Mission, described the Yilde society among the Gbaya, Aja, and Banda tribes of the western district of Equatoria, showing its harmful influences on people.<sup>13</sup> The *Yilde* is a women's closed society centred in the Banda country and most probably of Banda origin. The chief aims of women in this society are to be independent from their husbands, free from motherhood responsibilities, to enjoy feasts and dances, help each other in need, and gratify private revenge.<sup>14</sup>

The society is a well-organized group rebelling against subjugation by men. Every group has a chief, sub chief, and officers. There may be a group in every village. Every group has its own membership, meetings, dances, initiation rites, laws, referral system, bylaws, and oath of allegiance. The society sometimes helps non-members, by providing medicine, or providing assistance against an enemy. Men are only allowed to enter the society if they are influential, or in order to perform duties that women are unable or unwilling to do. *Yilde* is invoked in different occasions mostly in vengeance against husbands. The society is believed to use poison for criminal purposes. One such poison is prepared from the juice of *mbuga* (*Euphorbia* sp.), which is believed to cause swelling of the belly. People under its effect drink a lot of water and death probably results in ten to fifteen days. Father Zugnoni considers that the society is the main cause of the low Banda birth rate. After careful enquiry in the four localities of Sopo river, Mbuu, Gule and Birdi, he has ascertained that out of 555 married women, 320 (57%) are childless. In addition to the fact that women deny their husbands their marital rights, the society supplies its members with abortifacient items such as gun powder and paw-paw seeds. He thinks that the genital excision, which Banda girls undergo at puberty, is one of the reasons for their aversion to motherhood, for it renders childbearing extremely painful.

Deaths and illnesses have frequently been attributed to the activities of this society, and for this reason and for the veil of mystery that surrounds it, people fear it greatly. They are even afraid to mention the name of the spirit *Yilde*. In this, it differs from other secret societies such as those of the spirits *Yanda* and *Kudu*.

In addition, the Editor of the *Sudan Notes and Records* reported in 1920 on secret witchcraft societies in the southern Sudan as described by the journal's correspondents in the region. These organizations were alleged to have an increasingly baneful influence, and the Government consequently found it advisable to pass special legislation<sup>15</sup> to suppress their 'dangerous and obscene' rites.<sup>16</sup>

### **Advocating the Therapeutic Village System**

Dr. Tigani Al-Mahi (1911-1970) was a refined Sudanese intellectual and a psychiatrist of vision. Early in life, he developed an interest in traditional medicine and became ever afterwards an avowed advocate. He saw traditional medicine as a national heritage worthy of being studied and made use of. After specializing in psychiatry in the United Kingdom, he came back to the Sudan, started psychiatric practice, and established the first mental health clinic in Khartoum North in 1958. He thought it was imperative to study the local culture in general and the healing system in particular. To do that, he preached, researchers should befriend the healers; this he did, and he did so for yet another more important reason. He believed that if the system of traditional medicine is to be acknowledged and recognized by the authorities, the gap between the two systems-medical and traditional-should be bridged. He started and maintained dialogue with and befriended several notable religious healers in several parts of the country. He used to refer psychiatric patients to their care, and they reciprocated courteously. The late Al-Mikashfi of Shikainieba, and *Khalifa* Yusuf Wad Badr of Um-Dubban village, east of Khartoum North, both renowned holy men, were among his best friends. Religious healers, unlike all others, organized themselves in strict hierarchies of religious fraternities or Sufi orders, established codes of ethics, initiation rites, wrote litanies, founded schools of thought, and most importantly, healing centres and asylums for the mentally-ill.<sup>17</sup>

Tigani Al-Mahi contributed significantly to the inception and promotion of an African model of psychiatric health delivery that came to be known as the "village system" as typified by that of the village of Aro in Abeokota in western Nigeria. The system permitted treatment of the mentally ill by utilization of the inherent dynamic resources of the social environment as the principal therapeutic technique.<sup>18</sup> Earlier, T, Adeoyo

Lambo (a Nigerian pioneer psychiatrist), and Tigani Al-Mahi postulated that under stress-emotional or otherwise-newly-acquired and highly differentiated social attitudes and ideologies are more susceptible to 'damage,' leaving the basic traditional beliefs and indigenous moral philosophy functionally overactive. This insight leads them to recognize the part played by indigenous psychotherapeutic approaches in the total management of patients, without any lowering of standards of medical practice. They also found, through long practice in Africa, that a multi-disciplinary approach and collaboration with traditional healers is necessary for better scientific understanding of man and his environment. Lambo wrote:

“For example, Dr. El Mahi and I have for a number of years made use of the services of African ‘witch doctors,’ especially selected for epidemiological work and other aspects of social psychiatry (for example, a community attitude survey), a procedure that is indefensible by Western standards. Through their participation, we have enriched our scientific knowledge of the psychopathology and psychodynamics of the major psychiatric disorders occurring in these exotic societies. We have also been able to accumulate a mass of data on the natural history and prevalence of many psychiatric disorders, in terms of cultural and social variables that are ill defined and remain resistant to Western forms of categorization. Without the help of the ‘witch doctors,’ we would not have known how and where to look and what obstacles to skirt in searching for simple disorders like obsessional neurosis in the indigenous population of Africa. Most of these traditional healers who are employed by us and are participating in this scheme have considerable experience in the management of African patients. They supervise and direct the social and group activities of our patients in the villages under our guidance.”<sup>19</sup>

Tigani's endeavours to study and apply the traditional health systems were genuine and far-sighted, but were not sufficiently supported to establish a “Sudanese model,” and the Sudanese experiment he initiated did not progress to fruition. The next generation of psychiatrists maintained links with traditional healers with little enthusiasm and possibly with little conviction. The exemplary project that he started

dwindled into a makeshift clinic run by a psychiatric nurse and visited occasionally by a psychiatrist. The clinic experiment did not succeed, though often quoted as illustrating healthy integration and collaboration with traditional healers. There is no documentation of this experience available, though it is known that it was established within the *maseed* of Um-Dubban. Tigani's contemporaries were genuinely concerned and committed. They believed in the worth of traditional mental health systems in patient care. However, Taha Baasher, Tigani's successor as Senior Psychiatrist in the Ministry of Health, who was equally interested in traditional medicine, proposed his reasons for the failure of this experiment, and probably the whole model. He said:

“A pertinent question may be raised here, i.e. if the village system has been traditionally well-established for centuries in the Sudan and is still generally popular, why has it not been further developed as an integral part of psychiatric services? The reasons for this seem to be historical, social, and geographic. Historical, because the traditional village system has its roots in rural communities, while modern psychiatric services have been developed in urban centres. Social, for the village system fitted rather well with an agrarian and nomadic population. Geographic, for the traditional and modern institutions were at such a distance apart, that it was not feasible to establish an effective relationship and efficient cooperation. However, the channel of communication between the two systems continued to be usefully active. Some of the traditional healers having been oriented towards modern psychiatric thinking and practices, proved helpful in early referral of patients, in providing support and guidance to patients where no other alternative medical care was available, in public education and in enhancement of community resources.”<sup>20</sup>

Apart from these early efforts, contacts with traditional healers have been unofficial, informal, and maintained through personal interest in culture and in cross-cultural psychiatric approaches. Muhammad Al-Hasan Al-Qaddal, a psychiatrist in Atbara Civil Hospital, established friendly relations with the religious healers in the Kadabas *maseed*. Tigani Adam Hammad, at the Faculty of Medicine of the Gezira University, maintained similar links with Wad Al-Ubiyyid in Wad Al-Ubiyyid village

on the outskirts of Wad Medani city in Gezira, central Sudan. These trials and probably others were, no doubt, genuine, but since they were personal, they remained sporadic academic experiments. For these reasons, and in spite of the resources available for the support of such research, almost all of them withered.

Taking note of these experiments and other experiences, the traditional medicine programme that has been sponsored by the Ministry of Health and the National Council for Research, as embodied in the Traditional Medicine Research Institute objectives stressed the need for making use of the resources of all available traditional health practitioners through recruitment and training.<sup>21</sup> Yet, apart from the teaching and training of *habl* midwives as part of the domiciliary midwives' training scheme in the Ministry of Health, no other category of healers has received any type of instruction in the basic techniques of modern medicine. On the other hand, no allopathic health worker-medical or paramedical-has received any introduction in traditional medicine. Brief interactions have occurred sporadically between researchers including psychiatrists and religious healers. The Department of Community Medicine in the Faculty of Medicine, Khartoum, encouraged under-graduate research in traditional medicine, but only as partial fulfillment for qualifying in community medicine examinations. The Faculty of Medicine, Gezira University, with its emphasis on community orientation, is encouraging more fieldwork and contact with healers. The departments of psychology and social anthropology in the University of Khartoum and the Ahfad College for Women are encouraging undergraduate projects in traditional medicine, but very little postgraduate research is pursued.

Village midwives have attracted special attention in the Ministry of Health since its inception as the Sudan Medical Service early this century. A programme to train village midwives including traditional birth attendants, was launched as early as 1921 in Omdurman.<sup>22</sup> Dr Sobhi El Hakim summed this experience up, saying:

“Among all the countries of the world, the Sudan is one of those with the longest experience in the formal training of TBAs [Traditional Birth Attendants]. Although the programme started as an effort to train women who were known to be practising

traditional midwifery, it gradually evolved and by the early 1960s, it included those who had no experience in this regard. It now focuses almost exclusively on the latter, who are trained to assume higher and broader functions than the TBAs. For this reason, the training programme is now referred to as one for village midwives.”<sup>23</sup>

Training started with the realistic approach of persuading illiterate women, including *habl* midwives, to attend a four-months-course in modern midwifery. Tuition was entirely practical, using simple language and techniques adaptable to the Sudanese house. The candidates were taught to recognize powders, tablets, and other forms of medicines by feel, taste, and smell. The course eventually increased to 8 and then 12 months, and after starting with basic midwifery, it later included infant welfare, hygiene, antenatal care, home visiting, and participation in immunization programmes, health education, and reporting of infectious diseases. More importantly, midwives were taught the harmful effects of female circumcision and instructed not to perform it. Midwives were *neither* employed nor paid by the government, and were satisfied and happy with this arrangement. However, the socio-psychological and economic climate in which they used to work and which gave them relevance and enhanced their role in society, changed. The payment they get is no longer enough to cover the increasing cost of living, and, hence, they sought other sources of supplementing their income. Circumcising young girls and recircumcising women as a plastic operation were the first activities they turned to, in order to earn more money.

### **Legislation**

Traditional medicine in the Sudan has never been condemned or prohibited in total. At times, however, the government has enacted and enforced a ban on some forms, and adopted an attitude of tolerance and ignored most traditional medical practices as long as no disturbance is officially reported. The practices that were specifically prohibited by legislation were *Pharaonic* circumcision in the Muslim Sudan, and the secret witchcraft societies in the south. Other legislations suppressed traditional medicine indirectly.

The Ministry of Health has produced several pieces of legislation and regulations for the proper practice of modern medicine. The Sudan Medical Council's terms of reference, rules, orders, and regulations were set to achieve a high standard of professional medical practice, and to maintain moral and ethical codes. There has been no clause, now or in the past, in the Sudan Medical Council's ordinance or the Ministry of Health's Public Health Acts, or any legislature in any other institution that identifies or recognizes traditional medicine or acknowledges any alternative system of health care. On the contrary, there are definite clauses that could be interpreted to the detriment of traditional medicine and its practitioners and sometimes to their customers.

As they did in many former colonies, the British introduced several concepts of health care. Amongst these was the need to promulgate laws to regulate the practice of medicine, to ensure a high standard of professional competence, and implement ethical and disciplinary codes. Other laws were devised to keep the profession a prerogative of the licensed professionals. Since its inception in 1955, the Sudan Medical Council<sup>24</sup> has followed in the footsteps of the British Medical Council. This was expected, since the Sudan was a former British colony. The systems of medical education and training followed the British tradition. In fact, Gordon Memorial College<sup>25</sup> (the predecessor of the University of Khartoum), when it was upgraded to higher education level in 1947, was affiliated to the University of London. Kitchener School of Medicine<sup>26</sup> (the predecessor of the Faculty of Medicine, University of Khartoum), was founded in 1924, and was intended to be a part of the international medical community.

Jan Stepan summed this up in the following:

“Legislation was designed to regulate the delivery of health care as a monopoly of formally educated physicians and a few other professions. Subsequently, even the practice of the allied and auxiliary health professions was limited to licensed persons.”<sup>27</sup>

Systems of control of the profession were envisaged,<sup>28</sup> and two bodies were designated to carry out these tasks: <sup>29</sup> the Sudan Medical Council, and the Ministry of Health's Public Health Board. The first is an autonomous body concerned with the medical profession (doctors,

pharmacists, and dentists). The second, a department of the Ministry of Health, regulates the paramedical profession, personnel, health facilities, and public health measures.

### **The Sudan Medical Council**

The Sudan Medical Council has made the practice of the profession of medicine (medicine, pharmacy, and dentistry) unlawful to anybody but those registered in the Council's roll. It states clearly that any person who practises medicine while not registered on the permanent or temporary roll, or any person who employs such a person, shall be sentenced before the court concerned to a term of imprisonment not exceeding two years, or a fine not exceeding five thousands pounds, or with both penalties together.

The Council defined the various specialties and the practitioners eligible for registration on its roll. Later, it provided *The Regulations for Registration of Specialists, 1405 AH (1985)*, whereby any physician [and dentist and pharmacist] who practises as a specialist without registration under these regulations shall be punished by imprisonment for a period not exceeding a month or a fine not exceeding 100 pounds.

### **The Public Health Act**

The Ministry of Health, which is responsible for health care delivery in the Sudan, limited the practice of medicine to certified and registered persons. It stipulated in the Public Health Act, 1975<sup>30</sup> that nobody other than certified persons should assume any of the functions of a human medical doctor. Any person who practises medicine while not registered on the permanent or temporary roll; ... or who prescribes any medicines to any patient with the intention of treating disease or infirmity; or who performs any surgical intervention or causes any cut or amputation on the body of any person with the intention of treatment of disease or disability, shall be sentenced to imprisonment for a period of 6 months and not exceeding 3 years and with a fine not exceeding 200 pounds.

The Act also restricted the practice of midwifery. It states that midwifery should only be practised by Government certified and registered midwives. Any person who does not abide by this law will be subject to

imprisonment for a period not exceeding one month or with a fine not exceeding 30 pounds or with both penalties together.

In line with the Medical Council's Medical Acts, the *Pharmacy and Poison Act 1963* (1963 Act No. 37)<sup>31</sup> was just as restrictive to traditional healers. It tightened the monopoly of pharmacy to licensed and registered pharmacists, and restricted drug dispensation to accredited places. Traditional medicines were completely unacknowledged.

The Act has the following provisions:

- 4 (1) Except as may be specifically provided by and of the provisions of sections 20 or 21, no person other than a person duly registered as a pharmacist under the provisions of this part shall:
  - (a) carry on business or practise as a pharmacist;
  - (b) in the course of any trade or business prepare, mix, compound, dispense or supply wholesale or by retail any drug except under the immediate supervision of a registered pharmacist;
  - (c) describe himself as a pharmaceutical chemist, chemist, pharmacist or druggist or otherwise assume, take, exhibit or in any way make use of any title, emblem, description or addition reasonably calculated to suggest that he is a registered pharmacist.

The Act provided for the licensing of pharmaceutical premises and businesses and for the registration of drugs. It was no longer lawful to practise pharmacy outside accredited places and without a license. It was also made unlawful to manufacture, import, export, distribute, sell, offer for sale, receive for resale, purchase, administer, transport, or possess any brand of drugs including, dangerous drugs, and their plant precursors, which has not been registered in the Board. Contravention of any of these items subjected any individual found guilty to imprisonment and fine.

Section 4 (3) gave the Board some leeway. It stipulated that 'notwithstanding subsection 1 of this section, the Board may, by order published in the Gazette, authorize any person, on such terms and conditions as it may think fit, to sell drugs or any class of drugs either by

wholesale or retail.' Based on this Act, the Drug Registration Regulations of 1974 were enacted. In it, the Public Health Board was entrusted with regulating the type, and establishing a register of drugs in circulation in the country.<sup>32</sup> Though the drugs here were well defined, the exemption yet provided some hope that a similar proviso could be granted to some items of the Sudanese *materia medica* in the future.

### **Utilization**

The availability of traditional recipes for people to use in modern forms goes hand-in-hand with the official recognition of the system, with political ideology and will. In spite of validated research in the Sudan and abroad, the use of medicines that have been proven valuable is limited. Various reasons have been given in justification. The commercial availability of plants in their purified or crude forms depends on heavy investment in research, pilot production, and manufacturing. In addition, poor countries have different priorities, addressing urgent and basic needs, and supporting their basic infrastructures.

In spite of reported and unreported complications in traditional practice, people seek traditional healers regularly and confide in them. They respect them, and revere and worship many. Healers throughout the country have given people continuous social and psychological support, and offered them help in different spheres of life. People also know the system's limitations very clearly and often choose intelligently which healer to consult, and, whenever there is a modern facility-a clinic or hospital -around, they could well go to it first in acute or urgent cases. As a rule, people continue to be committed and faithful to their traditional recipes and practices, though aware that healers make mistakes, some of which are fatal and unpardonable. However, in the local mind, these mistakes are part of life's eventualities. Complications of varying degrees have followed surgical interventions, and bonesetters have set bones wrongly. Non-union, and mal-union of fractures have been reported, and gangrene of limbs has occurred after tight bandaging, rendering amputation necessary. Several bonesetters have been ignorant of the relative positions of nerves and arteries, and have caused, in the process of setting bones, contractures of hand muscles with subsequent deformity and loss of function. *Habl* midwives have failed repeatedly to

deliver babies safely, or retrieve the placenta, with often-fatal results. Ignorance or neglect of basic rules of hygiene, have frequently resulted in mother and newborn tetanus. Unequipped as they have been, midwives have met all the complications a qualified medical practitioner is ever likely to meet. Many girls have lost their lives during circumcision, due to bleeding when the midwife either failed to catch a bleeding blood vessel. The rule still holds; the bereaved family of the unlucky child never discloses the identity of the midwife who performed the operation no matter how persistently the police pursue their inquiry.

### **Research in traditional medicine**

Research in traditional medicine has been encouraged and sponsored by the government since the beginning of this century, with varying emphases and degrees of enthusiasm in different periods. In general, attitudes of researchers and research institutions towards traditional medicine and its practitioners have become more sympathetic, and, understandably, more rational.

In the Sudan, modern medicine, though no more than 80 years old, has made major changes in everyday life. Up-to-date, however, facilities are unevenly distributed, and, even when they are available, are either difficult to reach, or not the first choice of the ill or their attendant relatives. Even now, between 75% and 85% of the entire population of Africa rely almost entirely on traditional medicine. In fact, recent alarming figures in some countries show that as little as only 5% of the entire population cares to avail themselves of Western medicine in the hospitals and clinics in African cities.<sup>33</sup> Similarly, over eighty percent of deliveries all over the world are said to take place outside medical establishments. Authentic figures for the Sudan are not available. Nonetheless, traditional medicine and its practitioners have generally been kept away from the main stream of modern biomedicine.

In the first years of the British reconquest of the Sudan in 1899, the colonial power recognized the importance of research that will help in understanding the country and its people better.<sup>34</sup> A lot of ethnographical and anthropological work was conducted among the various ethnic groups of the country by government expatriate staff; many occupied unique posts and established, over time, intimate relations with the

Sudanese. During their stay, either of personal initiative or following directives of the Government, observed, recorded or reported various customs including medical practices and beliefs. Also as early as 1903, the Wellcome Research Laboratories in Gordon Memorial College, Khartoum, directed attention to the need to facilitate the investigation of poisoning cases by the experimental determination of toxic agents, particularly the obscure potent substances employed by the local people. Consequently, several pioneering reports on native medical practices in different parts of the Sudan were published. Other studies covered subjects such as the fauna and flora of the country, food, water, hygiene, sanitation, customs and habits affecting health.<sup>35</sup>

Sanderson reviewed the material that was published in the *Sudan Notes and Records* since its inception in 1918 until 1964. He noted that the articles that were related to medicine were published before 1948, and that they were mainly on traditional medical lore.<sup>36</sup> However, even these were too few to mention Ahmad Abd Al-Halim's article on local medicine in the northern Sudan,<sup>37</sup> and Hussey's description of a *faki's* clinic in Muslim Sudan.<sup>38</sup> Other traditional medical data is included in the anthropological and ethnographic accounts of the different tribes of the Sudan. *The Sudan Medical Journal*, the sole organ of the medical profession, testifies to the lack of interest of Sudanese scholars in traditional medicinal lore. Apart from three articles by Ahmad Abu Al-Futuh Shandal,<sup>39</sup> Munir Beiram,<sup>40</sup> and M. A. Haseeb nothing else of note appeared in this journal.

A number of expatriate staff developed interest in Sudanese customs while conducting their official duties, and contributed substantially to our understanding of certain customs and practices. Notable of these are Ina M. Beasley,<sup>41</sup> Miss Elaine Hills-Young,<sup>42</sup> and Miss Mabel Wolff. All of whom contributed actively in the campaign for the eradication of female circumcision and other harmful female practices.

In the seventies, more organized laboratory research started. Its main objectives were to validate claims of efficacy that healers attributed to their medicinal recipes, and to analyze medico-legal samples that had been collected in cases of injury or death, which were suspected to be due to poisoning. Other studies dealt with theories and concepts of

traditional medicine, its clientele, the healers' roles, and the national *materia medica*.

In 1977, the WHO eastern Mediterranean Advisory Committee on Biomedical Research reported that traditional medicine was one of the resources of the region that had received scant attention. It consequently recommended the exploration of means of incorporating traditional healers within the health service. In addition, several WHO resolutions were passed in 1978 at the 31<sup>st</sup> World Health Assembly (WHA) regarding the promotion of traditional medicine.<sup>43</sup> These resolutions initiated a general programme to promote and support the use, development and adaptation of diagnostic, therapeutic, and rehabilitative technologies, and the proper use of medicinal drugs, appropriate for specific national systems and institutions.<sup>44</sup>

The programmes of the Organization of African Unity (OAU) on traditional medicine, also regarded the matter as one of high priority.<sup>45</sup> The Scientific, Technical, and Research Commission (STRC) of the OAU held a conference on African medicinal plants and Pharmacopoeia in Dakar (Senegal) in 1968. The conference resolved that efforts should be directed by African scientists towards finding scientific evidence for the efficacy or otherwise of traditional medicines. For its part, STRC assists in research in that field, organizes conferences, and publishes a specialized journal called *Journal of African Medicinal Plants* and a newsletter.

The Association of Medical Schools in Africa (AMSA) in 1979 deliberated exhaustively on traditional medicine, and, after passing a number of resolutions, recommended that the medical schools: teachers and learners including medical and paramedical students should recognize the role of traditional medicine in their environment, participate in research in this field with a view to identifying the positive and negative aspects of traditional medicine, and ensure that students are exposed to the practices of traditional medicine.<sup>46</sup>

In 1978, a WHO working group developed a questionnaire to collect base-line information on the state of traditional medicine in the countries of the eastern Mediterranean Region (EMRO).<sup>47</sup> On reviewing the questionnaire, EMRO noted that, though varying degrees of interest in

the field of traditional medicine were shown in all countries of the region, many problems still beset the integration of traditional medicine with the existing health delivery system. Some underlying issues were:

- How can the available manpower resources of traditional healers be effectively utilized?
- What can be done to improve the knowledge, skills, attitudes, and competence of traditional healers?
- To whom are traditional healers to be responsible and accountable?
- How should their credibility and acceptability be assessed in the community?
- To what extent does the community mobilize and support the integration of the two systems?
- Which priorities in health care should be set for traditional healers and what would be the economic implications of this?

The questionnaire, however, helped in several other ways. The range of traditional medical practices and the variety of backgrounds of beliefs, patterns of health care, and the degree of utilization of the different forms were outlined in each country of the Region. It was officially expressed in this questionnaire that in the Sudan a wide array of practices fall under the heading of traditional medicine-varied surgical, orthopaedic and midwifery practices, a wealth of medicinal recipes based on distinctive socio-cultural and magico-religious backgrounds, and rich and varied ethno-psychiatric techniques and institutions. In addition, the Islamic influences that characterise Sudanese culture have added important religious and spiritual dimensions to lay-health care delivery.

As far as research and planning policies are concerned, the story is different. The Sudan, at the highest political level, is committed to the primary health care (PHC) approach for achieving Health for all by the Year 2000. The PHC approach has been adopted because it offers the most viable strategy for attaining this collective goal, not only for its economic appeal but also because it offers the most appropriate solution to the pattern of morbidity and mortality. The approach calls for the

utilization of appropriate local resources, including traditional medicine; the aim is to bring together modern scientific medicine and tried and tested traditional practices, and to offer both within the framework of the local health system. This will entail supporting the formulation of relevant national policies and the development of practical organizational and coordination mechanisms between the health institutions, related social sectors, and community agencies.

Indeed, the Sudan's commitment to PHC preceded the Alma Ata Conference, putting the Sudan in the forefront of international sponsoring of primary health care. The National Health Programme of 1975<sup>48</sup> included a comprehensive PHC Programme,<sup>49,50</sup> that was launched in 1977. Sadly, both programme documents failed to recognise the role traditional medicine can play in national health development. Though community participation in promoting health is the mainstay of PHC, surprisingly, healers were not regarded as potential participants and contributors. Even at an educational level, traditional medicine was ignored in the PHC community health workers' manual designed in 1977.<sup>51</sup> Later revisions have not repaired this omission.

Subsequent review and evaluation missions of the National Health Programme have equally failed to identify this deficiency. One mission reviewed the PHC Action Plan. It confirmed that the services had been designed to be comprehensive, to focus on community needs through the provision of preventive and curative activities, and to satisfy the needs of under-served communities. The Review Report reiterated the basics of PHC as applied to the Sudanese plan, saying:

“Promotive services consist of participation, stimulation, and involvement by the Community Health Worker (CHW) in community development activities at village level. This is to be done in collaboration with existing social and political organizations in the village .... And that the Plan has introduced a new cadre of CHW selected by their communities .... And that PHC design relies to a large extent on community contributions for facility construction .... And that it provides for standard lists of drugs, supplies and equipment for the related levels of health care delivery system .... [It also noted, in an approving tone] that

to large extent community participation is synonymous with community donation of money for social services .... For PHC, communities provide assistance in facility construction, maintenance, upgrading and even by paying a nominal fee for services to help running costs.”<sup>52</sup>

The Mission failed to see the role traditional medical practitioners could play as community health workers already chosen and trusted by their communities; neither did it acknowledge the role these selfsame healers can play as the leaders of their communities, which they often are. It also neglected to mention any part traditional medicines might play in supplementing the essential drug list. It was clear that the system of traditional medicine was not addressed at all, let alone conceived of as a source of help.

A joint WHO/UNICEF/MOH/US AID evaluation of the implementation of PHC in four selected provinces in the Sudan was carried out during the period March 20 to April 10, 1982.<sup>53</sup> The evaluation mission reported on *dayat al-habl* (*habl* midwives) and village midwives in four provinces: Kassala, North Kordofan, Upper Nile and Bahr Al-Ghazal. No other traditional healers or practices were mentioned. The evaluation team reporting on northern Kordofan described *habl* midwives in the region saying:

“TBAs [traditional birth attendants] are fairly prevalent in North Kordofan, particularly among the nomadic community. They are involved mainly in conducting and managing the deliveries. Though the TBAs indicated no mortality or morbidity during their years of practice, tutors at the village midwives’ school reported incidence of tetanus, bleeding and both stillbirths and maternal mortality. TBAs were well recognized in the communities and receive reimbursement for their services in cash or in kind. They do not have any direct contact with the PHCU and hence they are not supervised by any health personnel. In one instance a TBA did refer a bleeding woman to CHWS. TBAs do appreciate the services rendered by the CHW and utilize it as needed. Younger TBAs expressed a need for ‘receiving training and appropriated tools’ for improving the service they render. It is important to note that the

TBAs interviewed do not perform female circumcision in the community.”<sup>54</sup>

In spite of this awareness that *habl* midwives are providing essential services, no further mention of their role is made in the report. In addition, several projects executed in the Sudan have not evaluated rationally the useful role of traditional midwives. One example is the Rural Health Support Project (RHSP) that covered wide regions of the country. This is a USAID project authorized with life-of-project funding of \$ 18 million in 1980 to strengthen the capability of the Government to provide primary health care and MCH/FP services in the project area. A mid-term evaluation was carried out in February 1985. The evaluation team failed again to see any role traditional healers could play in rural health development. It had this to say about community-based participation and community development:

“Although stressed in the project design, the RHSP has done little if anything to facilitate community-based participation, nor has it encouraged community development in the North. Nonetheless, there are several examples of existing community concern and involvement in health care. Communities have contributed to Village Health Committees and Patient Friendship Committees, as well as to Area, Rural, and Village Councils. The RHSP should build on and integrate their activities with existing community groups.

The evaluation team recommends the promotion of community participation and bottom-up planning. The project should focus efforts at the Village Council level, providing incentives and logistics for health workers to work together to plan community participation activities. We suggest an increased pivotal role for the Health Visitors and Community Health Workers.<sup>55</sup>

The team was even skeptical about the help village chiefs were giving to the PHC Programme:

“In some cases the village Chief has provided substantially for the construction of the PHC Unit, but there is a real danger here that, even with the best of motives, this undermines the feeling of community ownership of the unit (especially since the Chiefs play a

leading role in the selection of the persons to be trained as CHW's, although we have no evidence that they are overly assertive)."<sup>56</sup>

### **The Medicinal and Aromatic Herbs Research Institute**

The plant kingdom in all countries has lent itself to the trials and errors of man, and offered an unfailing treasury of medicinal ingredients. Several countries have given due attention to this field, and some have developed elaborate pharmaceutical industries. In the Sudan, the Medicinal and Aromatic Herbs Research Unit (MAHRU) was established in 1970, affiliated to the Medical Research Council of the National Council for Research, to carry out research in medicinal plants with the main emphasis on herbal taxonomic, pharmacognostic, chemical, galenic, toxicological, and pharmacological experimental research. It was also stipulated that the Unit (later Institute) should take care of research in aromatic plants and their industrial and commercial uses. In over thirty years of activity, wide areas of the country were surveyed for herbal specimens, inventories made, and a herbarium maintained for the various specimens. Taxonomic, phyto-chemical and pharmacological screening was performed on the collected samples.<sup>57</sup>

One researcher in MAHRI has lately made efforts to publish part of the amassed data. Gamal Al-Ghazali has produced a booklet entitled *Medicinal Plants of the Sudan*.<sup>58</sup> The booklet covers twenty medicinal plants popular in Erkowit. The author has described and illustrated the plants with line drawings. Each plant entry includes the vernacular and Latin names, habitat, distribution, chemical constituents, and a brief mention of uses. The booklet has the relevant references. Several publications of different sizes and qualities have also been published. These publications are all cited in the *General Bibliography* later in this book.

Khartoum Trading and Projects, a private company in Khartoum, has published an earlier booklet<sup>59</sup> describing 41 plants with profiles reminiscent of those described in MAHRU. Each entry in this booklet includes the vernacular and the Latin names, habitat, distribution in the Sudan, chemical constituents, and uses. It is neither illustrated nor referenced, and bears no hint about its authors or sources.

### **Traditional Medicine Research Institute**

Up to 1979, institutional research in traditional medicine was confined, understandably, to the field of medicinal plants. In the Sudan, however, it has been noted, and for several reasons, that though some attention was given to medicinal plants, the rest of the field of traditional medicine has been almost totally ignored. Efforts have thus been directed to make this omission good, and the idea of founding TMRI emerged.

In 1979, a memorandum entitled Organization of Research in Traditional Medicine in the Sudan was presented to the Medical Research Council for appraisal. The memo highlighted the recent official resurgence of interest in research in traditional medicine throughout the world, and the reasons behind this movement. It also outlined the field of traditional medicine, and its tremendous potential benefits for the country. The memorandum stressed the often-quoted justifications: that in traditional medicine many domains are touched on other than medicine proper and that because of this multi-disciplinary nature a national body is needed to draw up a unified policy for research. This body should also coordinate activities and foster cooperation between researchers so that duplication of effort is avoided, and manpower and money are used efficiently and effectively. It should have a policy that safeguards against the scientific isolation of workers involved in traditional medicine inside and outside the country, and against the harmful dissipation of data and material. It should also facilitate the storage, retrieval, dissemination, and exchange of knowledge. Moreover, and more importantly, it should 'generalize the matter', make research activities in traditional medicine operational, more realistic and more official.

To realize these goals, the memo suggested the establishment of what it then called the Institute for Research in Traditional Medicine, and suggested that it should be affiliated to the Medical Research Council. The proposed Institute was envisaged as functioning provisionally through three prototype units covering definitive fields of traditional medicine, namely: phytotherapy, physical therapy, and psychotherapy (including parapsychology). The fact that phytotherapy research had already been taken care of was also noted. The memo also proposed that the existing institutions in the field should work with objectives revised if

necessary to ensure effective and complete coverage. The need for in-depth studies of traditional theories and concepts of health and disease was duly stressed. Provisional responsibilities and objectives of the envisaged institute were suggested.<sup>60</sup>

The memo was not taken seriously by the Medical Research Council, and certainly not by the ad hoc committee set up to look into it. The latter did not even convene to discuss the matter, and the Council did not pursue it any further. Other avenues were sought to achieve the objectives set in the memo. This time the Ministry of Health was approached, and though the main function of the Ministry is health care delivery rather than pure research, yet the Minister of Health at the time, Mr. Khalid Hassan Abbas, responded immediately and issued two directives to form the necessary committees to look into ways of organizing the efforts necessary to make the best use of traditional medicine.<sup>61</sup> The second directive, in particular, was made in response to a programme in the Sudan Broadcasting Service given by the author of this book highlighting the importance of traditional medicine, and need for official recognition and support.<sup>62</sup>

Following the second directive, a multi-disciplinary committee was appointed by the Minister of Health, and a working paper was prepared for its perusal.<sup>63</sup> The committee unanimously endorsed the memo, and agreed on the proposals offered, namely establishing what was later called the *Traditional Medicine Research Institute*. The Committee's unanimous agreement later received the joint endorsement and support of the Ministry of Health and the *National Council for Research*. As suggested in the memo, both bodies agreed that the proposed institute should be affiliated to the *Medical Research Council*.

The *Traditional Medicine Research Institute* (TMRI) was founded in 1981, in the belief that traditional medicine is an integral part of a rich and varied indigenous culture, and that in it, many domains and disciplines other than medicine are touched on. Later, TMRI took several initiatives. For the first time in the Sudan, it brought together in one institution many scholars from human and behavioural sciences with as many others from the health sciences. Both were represented in its policy-making Board of Directors.

TMRI has been envisaged as a national action-oriented research institute with the following objectives: <sup>64</sup>

1. To draw up a national policy to stimulate, organize and direct multi-disciplinary research in traditional medicine in the Sudan.
2. To evaluate traditional medicine in the light of modern science, in order to maximize useful and effective practices and discourage harmful ones.
3. To promote the integration of valuable knowledge, attitudes, and skills in traditional medicine including appropriate foreign technologies (e.g., acupuncture) into the existing health delivery system.
4. To relate programmes of research to the country's general policies and its socio-cultural needs.

WHO, both at its Headquarters and Regional office in Alexandria,<sup>65</sup> recognised at once the ability and readiness of TMRI to contribute to its global programme of traditional medicine, and it was designated a WHO Collaborating Centre for Traditional Medicine in 1984, (see page 433).

### **Approaches**

It has been mentioned repeatedly that a large proportion of the population depended either totally or partially on traditional healing methods. It may be the only kind of health care available, but often people feel more comfortable with these methods than with Western types, which give different explanations for an illness, and use a different approach in treatment from that which they are accustomed to. TMRI has always stressed the role traditional medicine can play in primary health care. Because of the intrinsic qualities believed to be inherent in traditional medicine, and the general neglect or ignorance of policy-makers of the capabilities of traditional health management, a traditional primary health care model (TPHCM) is proposed as a strategy for research and planning. TPHCM identifies the areas in which traditional medicine can contribute to primary health care programmes. These are essentially the following:

1. Using the resources of traditional healers.
2. Supporting the essential drug list.
3. Identifying appropriate health protective and promotive practices for incorporation in general health schemes.

The model views healing at primary level as person-to-person care where the healer is identified by name. His interaction with members of his community is based on mutual understanding of the worth of each member of the group. There, everyone, including the healer, is doing his or her best, and quality control is achieved by role fulfillment, satisfaction of community members and communal peer pressure.

The model makes use of the already well-established traditional medical units to link with those of the primary care network. A major priority, hence, in this policy draft is to support the *maseeds* and the *therapeutic villages* as comprehensive social institutions. Since the arrival of Islam in the Sudan, these villages, some of which are 300 years old, have been comprehensive social institutions. It is therefore of paramount importance to identify these villages and make use of their capabilities by grafting psychiatric and other components of modern health care onto them. In addition, the model sees traditional healers as potential recruits reinforcing primary health care manpower. As early as 1948 Tigani Al-Mahi clearly coined the concept of the *therapeutic village* that was tested later in practice and has proved its worth in treating the mentally ill elsewhere in Africa.<sup>66</sup> He befriended his contemporary traditional healers and established bilateral referral systems with many of them. This arrangement helped many patients who would otherwise have been considered incurable. The model also recognizes religious healers as men of great power and authority in the Sudan; so much so, that they should be involved in the planning, implementation, and evaluation of health programmes in their respective communities if those programmes are to succeed. A basic approach adopted by TMRI is, then, to enhance working relations with the religious healers, and to implement appropriate reorientation and training programmes suggested involving them as community health workers in nomad and rural communities.

The model aims to fulfil the principle of community participation in its entirety, and in reality, not rhetoric. Training analogous to that given to

midwives is advocated for the different categories of healers. The training programmes do not aim at incorporating them into the government service, nor do they suggest a system of remuneration or supplementary income to keep them in practice. They advocate instead an approach that would enhance their competence and ensure safety in practice. Whenever efforts are made to identify trainers, devise courses, or prepare manuals for training traditional medical personnel, due attention is paid to the social status and authority of healers in general. Their autonomy, individuality, social status, and prestige are not disturbed in any way. Competitiveness between healers and other community workers is actively avoided, while co-operation and mutual support is fostered.

Women in several regions of the country have many roles within the family unit and community. They are involved in food procurement, processing, preserving, menu choice, water collection, and purification, washing and cleaning. They are the informal traditional PHC practitioners in every home, looking after the young, aged and those with special needs. They have sole charge of childcare and the upbringing of infants. Nonetheless, they are frequently under privileged, deprived and suppressed, are often of a lower educational standard than men are, and when they are employed, they are concentrated in low-paying jobs. Emphasis is given, thus, to the role women can play as community health workers on an equal footing with men in their capacity as mothers, housekeepers, sanitary overseers, and in their exclusive role as midwives.

To realize its goal, TMRI has developed several major research programmes that, besides fulfilling their objectives, helped in stimulating interest in traditional medicine, and opened channels of communication with researchers and research institutions throughout the Sudan.

Research in traditional medicine is multi-disciplinary, involving the input of many sciences and arts. It benefits greatly from the methodologies of the behavioural sciences such as sociology, anthropology, history, folklore, economics and politics. Equally, it benefits from those of the natural sciences: medicine, pharmacology, and botany, in addition to veterinary science and agriculture. The programme, thus, stresses the

need for multi-disciplinary approaches, links, coordination, and teamwork with all concerned parties. The traditional medicine programme is oriented towards the concept of PHC, self-help, self-reliance and the development of community resources. Locally, the programme aims at greater collaboration with all programmes that have a particular interest in traditional medicine. Also, for effective coordination of research activities undertaken by the national institutions and research centres, links with EMRO/WHO and WHO/TRM, Geneva are essential. Through these links, the national institutions are brought into contact with international and local funding agencies, and the exchange of technical expertise is facilitated.

#### **WHO Collaborating Centre for Research in Traditional Medicine**

Between 5-10 March 1983, Dr. B. Sankaran, Director, DTR, WHO Geneva and Dr. Taha Baasher, Regional Advisor on Mental Health, EMRO/WHO, met with nationals concerned, and visited the offices and research facilities of TMRI. The expressed interest of the Sudanese national authority for further collaboration with WHO and further development of traditional medicine research was noted. The following were the joint observations and findings regarding TMRI and its affiliates:

1. It has a good scientific and technical standing.
2. It occupies an important place in the country's research.
3. Enjoys a competent scientific and technical leadership, and has a number of qualified staff.
4. It is one of the active institutions in the Sudan National Research Council, the highest in the country, and is well supported under this central national organizational body.
5. It has the ability and readiness to contribute to WHO programme activities.

In 5-12 September 1983, Dr. O. Akerele, Manager, WHO Programme in Traditional Medicine, Geneva, visited the Sudan. He met the concerned officials and nationals, and discussed traditional medicine activities, and possible Sudanese involvement in the WHO traditional medicine

programme. It was provisionally agreed to designate TMRI a WHO Collaborating Centre, and tentative terms of reference were jointly made.

The WHO, East Mediterranean Regional Office has noted the ability and readiness of TMRI to contribute to the WHO global programme of traditional medicine. As a result, TMRI was designated a WHO Collaborating Centre for Research in Traditional Medicine on 7 March 1984 with the following terms of reference:

1. To promote research and development of traditional medicine systems in the countries of the Region considering furthering their use within the framework of national health systems.
2. To promote studies of herbal remedies used by traditional practitioners in countries of the Region, in their ethno-botanical, medical, anthropological, experimental, pharmacological, chemical, and clinical aspects.
3. To collect, analyze and disseminate information relating to traditional medicine systems,
4. To participate with other WHO Collaborating Centres for traditional medicine in joint studies aimed at the evaluation of national traditional medicine systems.
5. To report annually on activities undertaken by the Centre with respect to the objectives and achievements of investigation carried out by the Centre.
6. To perform consultant services in areas of competence of the Centre at the request of WHO and other institutions in the countries of the Region.

### **Sudan Medical Heritage Foundation**

The Sudan Medical Heritage Foundation<sup>67</sup> was established in Khartoum in 2005, and registered as a not-for-profit, non-governmental organization. At the same time, the Health Heritage Studies Centre (HHSC) was established.<sup>68</sup> Both are dedicated to research, development and conservation of Sudanese health care heritage and resources, and both were envisaged as focal points for high-level health care professionals (inside the country or in Diaspora) directly or indirectly

involved in research in health care delivery systems in the Sudan, with the following objectives: <sup>69</sup>

1. Stimulates and encourages research in all aspects of the Sudanese medical heritage by providing support for clinical research projects on the safety and efficacy of products.
2. Advocates the rational use of traditional medicine by promoting evidence-based use of traditional medicine.
3. Helps in articulating national policies that facilitate integration of traditional therapies and products that were proven effective by modern science into the national health care system and programmes.
4. Helps in developing human resources by training researchers, and educating, training, and rehabilitating traditional healthcare practitioners.
5. Participates in formulating strategies, general policies, and plans for healthcare education and fighting harmful practices in traditional medicine.
6. Participates in formulating and circulating legislations, laws, regulations, standards, and guidelines that organize research in and practice of traditional medicine including protection of endangered plant species.
7. Manages information on traditional medicine by acting as a clearing – house to facilitate information exchange, and giving advice to universities, institutions, centers, and societies working in health.

### **Sudan Museum of Health**

The establishment of the Sudan Museum of Health as a governmental or non-governmental facility is high priority in Sudan Medical Heritage Foundation proposed projects. This excellent innovative project provides a facility currently unavailable.

The Health Museum in Wellcome Research Laboratories (The current National Health Laboratories), was transferred to the buildings of the College of Health, Khartoum. It was once a popular educational institution for the public and students of science. This museum has been lost and the incident reported. We spent a few years looking for the lost

items with no luck! We, then, proposed establishment of a new one in 1982 with the inception of the Traditional Medical Research Institute and later.<sup>70</sup> A nucleus of this museum was started and actual acquisition of artifacts began in 1984.

Broadly, the Museum's mission is to enhance understanding of the history of health care in the Sudan. This is achieved through the collection, exhibition, preservation, and study of Sudan's material health culture, and understanding of Sudan's health care diversity.

The Museum will be devoted to the scholarly collection and exhibition of specimens, artifacts, and photographs showing the disease of man and animal met with in the Sudan. It will contain specimens illustrative of human pathology, entomology, tropical disease, public health, sanitation, and hygiene. The Museum will also contain artifacts and pictorial documentation of Sudan's history of medicine and traditional medical practices.

The Museum will also contain a medicinal Herbarium<sup>71</sup> and Botanical Garden (harbouring living specimens) that will generate, provide access to, and transfer knowledge on the nature, extent, and origin of botanical diversity of the Sudanese medicinal, aromatic, nutritional, and poisonous plants.

The Museum will offer a range of learning experiences for everyone, whatever his/her age or level of interest. It will maintain a Botanical Atlas, relevant Health Care Archives, Library, Image Bank, & Phytochemical Laboratories. It will sponsor fellowships, internships, field courses, and academic activities in the history and anthropology of health and ethno medicine.

The Herbarium would be used for taxonomic and ecological research, as well as for teaching and public service. It would participate in the biology and botany curricula of Sudanese Universities, and would offer specialised post-graduate programmes, as part of its role as core facility. It would be open to researchers and students to use its collections and library. It would give consultations on poisonous plants to private consulting firms and non-profits agencies.

The Herbarium mission is to generate, provide access to, and transfer knowledge on the nature, extent, and origin of botanical diversity of the Sudan. It would help in training students in systematic botany with broad training programmes in "green" biology; to optimise co-operation in research, training and collection management, and to better comply with demands to underpin (inter)national policies on conservation and sustainable use of biodiversity. The training of taxonomists and herbarium curators is considered a major task in this project.

### References and Notes

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- <sup>1</sup> Longman Dictionary of Contemporary English defines 'recognize' as: to admit (someone or something) as being real or having the right to be the stated thing; to see clearly; to be prepared to agree. Recognition in this context, then, entails more than rhetoric acknowledgement of presence or 'flamboyant statements by politicians [or researchers] as to the importance of traditional medicine as a national heritage.'
- <sup>2</sup> Stepan, Jan. Legal Aspects-Legislative Patterns. In Bannerman, R.H., Burton, John, Ch'en Wen-Chieh (eds.), *Traditional Medicine and Health Care Coverage*. World Health Organization: Geneva, 1983: 290-313.
- <sup>3</sup> Bannerman, R.H. et al, Discussion of Oyebola paper. Professional associations, ethics and discipline among Yoruba traditional healers in Nigeria, *Social Science and Medicine*, 1981, 15B.
- <sup>4</sup> He is a good friend of the freelance historian and folklorist Al-Tayyib Muhammad Al-Tayyib. He also paid me several courtesy visits while director for Traditional Medicine Research Institute, Khartoum, and welcomed wholeheartedly any invitation offered to him for an interview or to perform a show.
- <sup>5</sup> One testimonial I wrote for him was used in court as a document in his support when he was accused of causing public disturbance.
- <sup>6</sup> Sayyid Hamid Hurreiz. Zar as Ritual Psychodrama. In: The International Symposium on the Spiritual Dimension of Traditional African Medicine; 11-13 January 1988: Traditional Medicine Research Institute, Institute of African & Asian Studies, Khartoum and International African Institute, London.
- <sup>7</sup> Sayyid Hamid Hurreiz. Zar as Ritual Psychodrama. I.M. Lewis; Ahmad Al-Safi; Sayyid Hurreiz, editors. *Women's Medicine: The Zar-Bori Cult in Africa and Beyond*. Edinburgh: Edinburgh University Press; 1991: 147-155.
- <sup>8</sup> For the full text see Muhammad Ibrahim Abu Salim. *Mansburat Al-Mahdiyya*.

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- <sup>9</sup> Al-Zubair Abd Al-Mahmoud. *Irsbad Al-Badawi Li Al-Din Al-Nabawi* [Arabic]. Mekka: Matba'at Al-Hukuma; Part 1. 76 pages.
- <sup>10</sup> Muhammad Al-Tahir Ibn Yusuf Al-Tigani. *Kitab Al-Munqiz min Al-Mahalik wa Sirag Al-Murid Al-Salik* [Arabic]. Place and publisher unknown; No date. 28 pages.
- <sup>11</sup> Evans-Pritchard, E.E. Op. Cit. Page 205.
- <sup>12</sup> *Sudan Notes and Records*. Vol. 3, 204-8.
- <sup>13</sup> Zugnoni, Father J. Yilede, a secret society: Among the Gbay "Kreish", Aja, and Banda tribes of the Western District of Equatoria. *Sudan Notes and Records*: 106-111.
- <sup>14</sup> Zugnoni, Father J. Op. Cit.
- <sup>15</sup> The Unlawful Societies ordinance 1919, *Sudan Government Gazette* No. 351, 15 November 1919.
- <sup>16</sup> *Sudan Notes and Records* (Editorial). Secret societies of the Southern Sudan. *Sudan Notes and Records*; 1920; 3: 204-208.
- <sup>17</sup> The founders of these sects came from Hidjaz, Baghdad and Morocco during the Funj Kingdom (1505-1820) and earlier.
- <sup>18</sup> Lambo, T. Adeoye. Patterns of Psychiatric Care in Developing African Countries. Kiev, Ari, Editor. *Magic, Faith, and Healing*. New York: The Free Press; 1964. 443-453.
- <sup>19</sup> Lambo, T. Adeoye. Op. Cit.
- <sup>20</sup> Taha Baasher. First Tigani El Mahi Memorial Lecture. *The African Psychiatrist*; 1976; 3: 321-331.
- <sup>21</sup> The programme of the Medicinal and Aromatic Research Institute stressed the need for utilization of the resources of the *materia medica*, namely recipes of plant origin.
- <sup>22</sup> The Midwifery School was founded in 1920.
- <sup>23</sup> Sobhi El Hakim. Sudan: Replacing TBAs by Village Midwives. In: A. Mangay-Maglacas and H. Pizurki, Editors. *The Traditional Birth Attendant in Seven Countries: Case Studies in Utilization and Training*. Geneva: World Health Organization; 1981: 131-166. 211. (Public Health Papers; v. 75).
- <sup>24</sup> The Sudan Medical Council was founded by Act 7, Medical Council Ordinance, 1955, being, thus, one of the first organs to be founded by the Sudanese Parliament enactments on the eve of the country's independence, and was inaugurated in 18/7/1968. The ordinance was amended 1968, 1973, and 1406 AH. Several interim amendments were made (1978, 1981, 1983) but not sanctified.

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- <sup>25</sup> The foundation stone was laid in 5<sup>th</sup> January 1900 in memory of General Charles Gordon of the Sudan.
- <sup>26</sup> Lord Kitchener, the first Governor General of the Sudan (1898-99), suggested the establishment of a school of medicine on his last visit to the Sudan in 1914. After his death at sea in 1916, his proposal was followed up, and the school was founded in 1924, and named in his memory. It was incorporated in the University College of Khartoum in 1951. In 1959, the school granted a degree of MB, BS instead of DKSM (Diploma of Kitchener School of Medicine). M.A. Haseeb. *A Monograph on Biomedical Research in the Sudan*. Khartoum, Khartoum University Press, 1973: 3-19.
- <sup>27</sup> Stepan, Jan. Op. Cit.
- <sup>28</sup> British medical doctors from Qasr Al-‘Aini Hospital in Cairo, Egypt, who were assessors in the final examinations of the first Conjoint Board of the Royal Colleges of England, approved the school. Many graduates have since obtained the membership or fellowship of these Colleges.
- <sup>29</sup> Mansour Ali Haseeb. *A Monograph of Bio-medical Research in the Sudan: An Introduction and Bibliography*. Khartoum: Khartoum University Press; 1973. 121 pages.
- <sup>30</sup> The Sudan Medical Council promulgated this Act in 1939, and it was amended in 1975 and 1980.
- <sup>31</sup> This Act repealed and re-enacted the *Pharmacy and Poisons Ordinance*, 1936; the Act was originally promulgated by the Sudan Medical Service and its enforcement is entrusted to the Public Health Board. Some items were later referred to the Sudan Medical Council which provided the 1963 Act.
- <sup>32</sup> As yet there is no Sudan Pharmacopoeia. The British Pharmacopoeia (BP) and the British Pharmaceutical Codex (BPC) are in use in the country. Both were used in the compilation of the Sudan National Formulary, which was intended to be an easy reference to pharmaceutical preparations in general use in the Sudan. (Daoud Mustafa et al. Sudan National Formulary, Sudan Medical Council, Staples Printers St. Albans Limited: 1979: 227 pages.)
- <sup>33</sup> Odelola, A.O. Secretarial Address, 3<sup>rd</sup> OAU/STRC Inter-African Symposium on African Medicinal Plants and Traditional Pharmacopoeia. Abidjan, September 1979.
- <sup>34</sup> For more reading on the influence of the colonial government on anthropological research, see Abd Al-Ghaffar Muhammad Ahmad. Sir Edward Evans-Pritchard and the Sudan, *Sudan Notes and Records*; 1974; 55: 167-171; Major-General Sir Hubert Huddleston, Governor-General of the Anglo-Egyptian Sudan foreword to Nadel, S.F. *The Nuba: An*

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*anthropological study of the Hill Tribes of Kordofan*. London: Oxford University Press; 1947: pages xi-xiv; Professor Charles G. Seligman foreword to Evans-Pritchard, Edward E. *Witchcraft, Oracles, and Magic among the Azande*. Oxford: Clarendon Press; 1937: xv-xxv.

- <sup>35</sup> Four Reports edited by Dr. Andrew Balfour, were published in 1904, 1906, 1908 and 1911.
- <sup>36</sup> Sanderson, G.N. *Sudan Notes and Records as a Vehicle of Research on the Sudan*. *Sudan Notes and Records*; 1964; 45: 164-169.
- <sup>37</sup> Ahmed Al-Halim. Native Medicine in Northern Sudan. *Sudan Notes and Records*, 1939: 22.
- <sup>38</sup> Hussey, Eric R.J. A Feki's Clinic. *Sudan Notes and Records*; 1923; 6: 35.
- <sup>39</sup> Shandal, Ahmad Abu Al-Futuh. Circumcision and infibulation of females. *Sudan Medical Journal*; 1967; 5: 178-212.
- <sup>40</sup> Beiram, M.M.O. Traditional and Folk Medicines in Ophthalmology. *Sudan Medical Journal*; 1971; 3(9): 161-66.
- <sup>41</sup> Superintendent of Girls' Education in Omdurman from 1939 to 1942, and Controller of Girls' Education, Khartoum from 1942 till her retirement in 1949.
- <sup>42</sup> Matron, Khartoum Hospital from 1930 to 1937, Lecturer in Nursing at Kitchener School of Medicine from 1935 to 1940, and Principal, Midwives Training- School, omdurman, from 1937 till her retirement in 1943.
- <sup>43</sup> WHO, WHO Global Medium-Term Programme, 12.4 Traditional Medicine (1984-89). Geneva; September 1983; TM/MTP/83.1.
- <sup>44</sup> WHO. Seventh General Programme of Work Covering the Period 1985-89. Geneva; 1982. 100.
- <sup>45</sup> Adjanohohn, E. Contribution of the OAU/STRC Inter-African Committee on African Medicinal Plants Research and Utilization. OAU/STRC Inter-African Symposium on African Medicinal Plants and Traditional Pharmacopoeia; 25-29 September 1979; Abidjan, Ivory Coast.
- <sup>46</sup> The Association of Medical Schools in Africa. 13<sup>th</sup> Annual Meeting. Addis Ababa; 23-28 April 1979.
- <sup>47</sup> The Ministry of Health chose the author (Dr. Ahmad Al-Safi) as a source man to respond to the WHO base-line information questionnaire.
- <sup>48</sup> National Health Programme (1977/78-1983/84), Democratic Republic of the Sudan, Khartoum, 24 April 1975.

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- <sup>49</sup> Primary Health Care Programme (Eastern, Northern, Central and Western Regions of the Sudan), 1977/78-1983/84, Democratic Republic of the Sudan, Khartoum, 1<sup>st</sup>. May 1976.
- <sup>50</sup> Primary Health Care Programme Southern Region, Sudan, 1977/78-1983/84. The Democratic Republic of the Sudan, Juba, 7 February, 1976.
- <sup>51</sup> *Community Health Workers Manual*, Democratic Republic of the Sudan, Ministry of Health, Khartoum 197? (Arabic).
- <sup>52</sup> Health Resources Group for Primary Health Care, WHO Country Resource Utilization Review, Sudan, 15-28 November 1981: 10-11.
- <sup>53</sup> Evaluation: Implementation of Primary Health Care in Selected Provinces in the Sudan. American Public Health Association, International Health Programs, Washington, DC 20005.
- <sup>54</sup> Evaluation: Implementation of PHC. Op. Cit., pages E 2-10.
- <sup>55</sup> Summary of Evaluation of Rural Health Support Project. USAID Khartoum, Xerox copy, 15 February 1985.
- <sup>56</sup> Evaluation: Implementation of PHC. 1982. Op. Cit., p. E3-11.
- <sup>57</sup> These tasks were the stipulated goals of the Unit, and although work is apparently still going on, it is, in general, of low quality and certainly far less than should be achieved in that span of time. Were it not for the lack of managerial skills that prevailed for so long, and lack of resources, this facility would have contributed substantially to the field and to the country.
- <sup>58</sup> Gamal E.B. El Ghazali. *Medicinal Plants of the Sudan: Part One, Medicinal Plants of Erkowit*. Medicinal and Aromatic Plants Institute, National Council for Research, Khartoum University Press, Khartoum; 1986: 55 pages.
- <sup>59</sup> Khartoum Trading and Projects. *Medicinal and Aromatic Plants of the Sudan*. Medicinal and Aromatic Plants Unit, Dina Printing Press, Khartoum. July 1982.
- <sup>60</sup> Ahmad Al-Safi. Organization of Research in Traditional Medicine in the Sudan. A proposal document presented to the Medical Research Council, May 1980: 9 pages and a flow chart.
- <sup>61</sup> The first directive was given in Aug. 1980 and the second on 30<sup>th</sup> April, 1981. Dr. Ahmad Al-Safi was head (and reporter) of the second committee.
- <sup>62</sup> Ahmad Al-Safi. Tigani Al-Mahi: a pioneer of research in Traditional Medicine: in Sudan Broadcasting Service: Sudanese folklore Programme, prepared by Mahgoub Karrar, 1st April, 1981 (two series repeated over a month period).

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- <sup>63</sup> This working paper was the memorandum presented earlier to The medical Research Council.
- <sup>64</sup> National Council for Research Act, 1983.
- <sup>65</sup> The office was filled consecutively by two eminent Sudanese: Dr. Tigani Al-Mahi (1959-1964) and Dr. Taha Baasher (1964/7?); both were interested in traditional medicine.
- <sup>66</sup> Lambo, T. Adeoye. Patterns of Psychiatric Care in Developing African Countries. Kiev, Ari, Editor. *Magic, Faith, and Healing*. New York: The Free Press; 1964. 443 - 453.
- <sup>67</sup> Registered with the Registrar General of the Cultural and Scientific Groups of the Ministry of Culture.
- <sup>68</sup> Registered as a charitable company under the 1925 Sudan's Companies Act.
- <sup>69</sup> Dr. Ahmad Al Safi is founding Executive Director, and Professor Suad Mohammed Sulaiman is Research Director. Tele/Fax +249-183230689. Address P.O. Box 6780 (Integration office), Khartoum 1113. HQ: Flat 2 Plot 4, Block 1G, Geraif West, Khartoum, Sudan.
- <sup>70</sup> Ahmad Al-Safi. Museum of the History of Medicine and Health Culture in Sudan. Proposal memorandum presented by Traditional Medicine Research Institute, National Council for Research, Khartoum to UNESCO 1985.
- <sup>71</sup> An herbarium is a collection of well-identified, dried and pressed plants that are mounted on paper and arranged in cases in some type of retrieval scheme. The label on each specimen has information such as the plant name, the name of the person who collected the plant, and when and where it was collected. Often, information on the plant community it was growing in (such as grassland, forest, etc.), the soil type, pollinators, or plant uses are also noted on the label.

## Chapter 8

### FOREIGN INFLUENCES

We trace in this chapter and whenever pertinent in other chapters the roots of the Sudanese health culture in earlier and extant civilizations, namely that of the Nile Valley. We also identify the foreign traits that came from afar and from the neighbouring cultures that contributed to and modified the indigenous elements. Like other North African countries, the Sudan contacted and interacted with Mediterranean and Middle Eastern cultures as well as with neighbouring African states. In addition, the Pre-Islamic Arabs who came to the Sudan as traders, and after the arrival of Islam, as conquerors and missionaries, brought into the country elements of Islamic, Arabic, as well as Babylonian, Far Eastern, and Greco-Roman cultures. Other contacts came through migration, pilgrimage, the bilateral exchange of scholars and students of *fiqh* (Islamic jurisprudence). In addition, many foreign communities have settled, intermarried, and, eventually, acquired Sudanese nationality.<sup>1</sup> The Ja'afra and Coptic Egyptians, for example, have settled in various parts of the northern Sudan. The Nigerians, however, wandered through central Sudan on their way to the Muslim holy land in Makka in Saudi Arabia. En route they frequently settle, sometimes permanently. Their permanent settlements are found in the White Nile district and the Gezira. A Sultanate by the name of Myorno in Sennar is exclusively Nigerian.

Unlike many African countries, the Sudan has long borders with nine different states, and is separated by the Red Sea from Saudi Arabia and the Yemen. Many tribes live and move freely across these borders exchanging, in the process, various cultural elements. The Azande tribes, for example, move freely across the frontiers common to the Central African Republic, Zaire, and the Sudan. The 'Ababda and the Nubians share the northern frontiers with Egypt, while the Gimir, Masalit and Um-Bararu live and move freely across the Sudan's western frontier with Chad. Some branches of the Amar'ar and the Bega tribes are Sudanese, and others, Ethiopian or Eritrean. The Zubaidiya of eastern Sudan still maintain their Saudi nationality while in the Sudan. Nigerians preferred

to settle in the Sudan while journeying at ease from Nigeria in pilgrimage to Makka. Their community in the country increased steadily in time, with a large proportion holding Sudanese nationality. Health culture and traditional medicine have been particularly susceptible to these foreign influences. In this chapter, some of these influences are highlighted.

### **Arabic and Islamic influences**

Arab links with the Sudan have existed since the dawn of history. They started with the early movements of Arabs into the Sudan, which historians trace back to pre-Islamic times. The Arab traders entered the Sudan through three major routes: North Africa, West Africa, and the Red Sea. Despite these early links, definitive Arabization of the Sudan started only with the rise of Islam in the seventh century. The early Arabs did not contribute much to the spread of Islam in the country, and it was not until the 15<sup>th</sup> century that Islamization proper started, through Sufi missionaries. It is noteworthy; however, that the Islam they preached, accommodated various unorthodox practices, animistic customs and beliefs, and was, as far as the local people were concerned, a less exacting religion. This, as we will see later, had a major influence on the prevalent health beliefs and practices.

In the history of cultural exchange between the Sudan and the rest of the Muslim world, pilgrimage has been particularly important. During the annual congress, millions of Muslims from all over the world have met in the holy land. There, apart from practising religious rites, they have exchanged ideas, skills, and, as one might expect, medicinal recipes. Several Arabian, Babylonian, Greco-Roman, Far eastern, and even Egyptian elements were also introduced through the Arabs.<sup>2</sup>

The early Arabs practised frequent purgation using simple mineral and plant preparations. They believed that this is a necessary purification process that cleanses the body of harmful dirt. Furthermore, immigrant Arabs had brought with them the *materia medica* of Egyptian, Babylonian, and Greco-Roman cultures. In the Sudan, the immigrant Arabs found flora similar to theirs but with greater variety and abundance. They were, thus, able to develop their healing skills and techniques.

The Prophet Muhammad drew general guidelines for managing health and sanctioned many folk remedies. *Al-tibbb Al-Nabawi* (The Prophet's Medicine), is a generic name given to several versions of edited sayings and deeds of the Prophet Muhammad that were related to medicine and health. The versions in wide circulation in the Sudan are those of Ibn Al-Qayyim<sup>3</sup> and Al-Zahabi.<sup>4</sup>

The Arabs also widely practised cauterization, bloodletting, and cupping in managing health and disease. Similar procedures using similar or identical instruments have been identified in the clinics of northern Sudanese healers.

The Pre-Islamic Arabs excised and infibulated the female genitalia in the belief that this was an effective method of protecting shepherd girls against likely male assaults while they were out unescorted with their grazing sheep. Pre-Islamic satirical poetry defamed men by referring to their uncircumcised mothers. Similar attitudes are held by the Sudanese. The similarity in practice, and the fact that the practice is almost exclusively confined to Sudanese Muslim groups, suggests a possible Arabian origin.

Many divination procedures were evidently derived from Arabian sources (pre-Islamic and Islamic Arabia). Several amulets, invocations, incantations, divination techniques (in particular book and sand divination) are clearly derived from medieval origins.

The Sudanese also shared many of the misconceptions that prevailed in pre-Islamic Arabia. For example, in Arabian as well as Sudanese popular legend, the gazelle transmits *jinn*s (causing *junun*, lunacy in adult), and represents epilepsy (known as *habobat al-sughar*, mother of the young), in young children. The same designations are also found in Egypt and Tunisia.

With few exceptions, the list of spirits in the Muslim Sudan is Arabian. Many of them appear in ancient Arabian folk literature, which is remarkably rich in *jinn*s (spirits) and *shayatin* (devils and demons); several of these were retained in the Quran, *Sunna*, and Islamic traditions. The Sudanese and Arabian *jinn*s, however, are not identical, and in the Sudan acquired local names that differ from one area to the other.

As is clearly demonstrated in other parts of this book, the Sudanese have borrowed several theories of causation, as well as methods of diagnosis, prevention, and treatment of diseases, from Arabian sources. For example, the standard magical religious methods of ‘*azima* (incantations with spitting), *bakbur* (fumigation) and *mibaya* (erasure of holy verse) for exorcism, are common to both Arabian and Sudanese traditional practice.

Many recipes in the Sudanese *materia medica* are similar if not identical to those quoted in medieval Arabic texts. It is interesting to trace these sources and explore the extent of their influence on Sudanese practice. We mentioned earlier that the traditional healers—the *faqirs* and the *fakis*—have been literate in a predominantly illiterate society, and have made use of several medieval religious texts to promote their power within their society. Many of these healers have combined religious teaching with counseling on secular matters, and healing.

When we visited the *maseed* at Um Dubban village east of Khartoum in 1980 and other *maseeds*, we examined the bookshelves of the *faqirs* in those villages. We found a variety of books including Al-Jahizh’s *Al-Hayawan*, Avicenna’s *Al-Qanun*, and several others. This finding confirmed our speculations that Arabic source books were introduced into the Sudan with the early Arab scholars, several of whom were mentioned in the early Sudanese chronicles and a list of the most commonly found books are listed in the *General Bibliography* page 469. The books listed here and several others have equipped the Sudanese practitioners with several magical and religious formulas, and certainly a huge amount of sound secular advice. Text taken out of these books and Quranic verses have been added liberally to amulets and incantations, all of which were and still are used in conjunction with herbal therapy.

Ibn Daif Allah in his historical chronicle, *Al-Tabaqat*,<sup>5</sup> mentioned why he wrote the book, and listed the Muslim scholars in whose footsteps he followed. He named Abd Al-Ghaffar Al-Nisabouri, Al-Siyouti, and Ibn Hajar Al-‘Asqalani and Ahmad Al-Maqqarri, among others<sup>6</sup>. Apart from Al-Siyouti, none of these Arab scholars is known to have written on medicine, and even Al-Siyouti was mentioned in the chronicle for his methodology of writing rather than for his medical contributions.<sup>7</sup>

Nonetheless, the man and many of his works were well known to the Sudanese *faqirs*, and his book entitled *Al-Rahma fi Al-Tibbb wa Al-Hikma*<sup>8</sup> has been a popular manual.<sup>9</sup> It has been published several times<sup>10</sup> (undated) by Al-Halabi and Abbas Ibn Shaqroun Printing houses in Cairo, and by Maktabat Al-Thaqafa in Beirut.<sup>11</sup>

Medieval Arabic books have also been known to healers other than the *faqirs* and the *fakis*. Awad Al-Karim Muhammad Hindi, a goldsmith in Omdurman compiled a three-volume compendium of a wide range of information including a section on medicinal recipes and health promoting advices. He named the book *Mukhtarat Al-Sayigh*<sup>2</sup> and published it in Cairo in 1948. In the introduction to this work, Al-Sayigh listed his sources, which are mainly medieval: *Al-Qanun*<sup>3</sup> and *Al-Hawi* by Ibn Sina, *Al-Tazkira Al-Tibbbiya*<sup>4</sup> by Al-Antaki, *Al-Kamil* by Al-Razi, *Al-Risala*<sup>5</sup> by Al-Maridini and *Al-Tibbb Al-Nabawi* (the Prophet Muhammad's Medicine). This piece of information testifies to the fact that many Sudanese, not necessarily *faqirs*, had access to and used medieval Arabic medical books.

### **Greco-Roman influences**

The Greco-Roman philosophers (8<sup>th</sup>-6<sup>th</sup> C.B.C.) established the four humours theory, which came to dominate Arabian science and medicine and all systems derived from it throughout the world. The theory was based on a rigid classification of disease, drugs, and diet according to humoral types. This theory brought nutrition into a prominent place in health and disease, established rigid systems and regimens of diet for the sick, and formalized them as crucial parts of the healing art. Some scattered evidence, both written and oral, indicates that the Sudanese may have had some knowledge of the four humours theory as early as the 10<sup>th</sup> century A.H. as anecdotes in Ibn Daif Allah *Al-Tabaqat* indicate (see page 44 for more discussion of this theory).

### **Egyptian influences**

Due to physical proximity, through commerce and frequent invasions, Egypt has had a great influence on many aspects Sudanese life. This is naturally more marked in the northern parts of the country. It was through Egypt, that the Sudan was introduced to various other cultures.

This was because Dynastic Egypt had contacts, through commerce and conquest, with the countries of the Mediterranean region and Asia. These contacts had a great influence on Egyptian pharmacy. During the Ummayyad Caliphate, ancient Egyptian books on chemistry, medicine and astrology were translated into Arabic.

Just as in Egypt, where medicine was part of religion, people in the Sudan venerated the Nile and the Moon. Both entities appeared frequently in Sudanese rituals as well as mythology and folk literature. It was quoted in historical records that in Egypt a young woman used to be sacrificed to the Nile god *Hap* when inundation was imminent.<sup>16</sup> There is evidence that similarly, in early Sudan, people used to sacrifice the first born-son of the family.

The Egyptian influence in the realm of spirits is not as specific as that of the Arabs. In Egypt, the *qarin* or *qarina* (companion) is a double born with every individual; the Sudanese do not share this concept. In Egypt, the *ka* and the *ba* are two distinct types of soul. The *ba*, depicted as a bird, leaves the body after death and resides in heaven, visiting the burial places periodically. It may be likened to the pre-Islamic *hama* or the Sudanese *ba'ati* (ghost of a dead person) -- a non-Arabic word which might have been derived from the Arabic *ba'th* (resurrection) or from some local tongues.

In 1884, Anglo-Egyptian forces defeated the Mahdi's army, led by Abd Al-Rahman Al-Nugumi, at Tawshki. Among the Sudanese who were taken prisoners, two had formerly been interested in the trade of medicinal plants; they were known as *Al-Taiman* (the Twins). While in captivity, they added to their experience and knowledge of medicinal plants, when released, they came back to the Sudan to start the first herbal shop in the country, in Omdurman. The several shops that the *Taiman* opened throughout Omdurman and other cities by their grandsons (and peddlers faking the time-honoured trade name) had a marked influence on traditional Pharmacopoeia of the Sudan (see photo for Al Sadiq Al Nafrawi Osman grandson of Al Taiman page 741). The *Taiman* were the sole importers, and only distributors, of medicinal plants in the country for a long time.<sup>17</sup>

The intellectual exchange between Egypt and the Sudan, through the movement of several *'ulama* (religious scholars) who were educated in Al-Azhar had a real impact on traditional medical techniques and practices. Through that exchange, most medieval medical texts (Arabic and Egyptian) were introduced into the Sudan.

A few years ago, Dr. Sobhi Al-Hakim, a Sudanese Obstetrician, and Gynaecologist, deposited in the Central Records Office in Khartoum, surgical instruments and a medical manuscript. He believed that both were important historical findings. The manuscript belonged to his grandfather Ahmad Yusuf Al-Hakim<sup>18</sup> who came to the Sudan as a medical practitioner in the Egyptian Army, and worked in Donqola and Berber for over half a century. He performed different operations, including the removal of stones from the bladder and ureters, the amputation of limbs, the excision of tumours, and tooth extractions.<sup>19</sup>

We studied the manuscript, and found that it was an extract of *Al-Rahma fi Al-Tibbb wa Al-Hikma*, a book usually attributed to Galal Al-Din Al-Sioyouti. Nonetheless, we think this finding is interesting, suggesting as it does that the author, a medical graduate and a specialist in surgery with postgraduate training in Paris, retained *Al-Rahma* as a medical text worthy of being read and extracted. If Al-Hakim was serious in referring to this book, then he has helped to draw a clear picture of the type of medicine practised then in the Sudan.<sup>20</sup>

Female circumcision is known in the Sudan as *al-tabura al-far'auniyya* (Pharaonic circumcision) or more commonly *far'auniyya*, (Pharaonic). The term 'Pharaonic' suggests that the practice is of Egyptian origin, yet this is not corroborated by any evidence. In the Sudan, local derivatives of the word *far'auni* (Pharaonic) are used to denote ferociousness to describe, for example, the temper of the flooding Nile, or to signify a start of a relapse of an aggressive episode of a mental illness or, for that matter, the onset of any hot temper. We may understand this phenomenon as a way of ascribing potency to anything alien or imported; Egyptian women, for example, know *ẓar* as *al-ẓar al-sudani*.

### **Babylonian influences**

Ancient Babylonian and neighbouring cultures have influenced Sudanese traditional practices in more than one way. Babylonian traits are seen in magical practices where, in those ancient times, magic dominated all aspects of life, including medicine. Other traits could be detected most clearly in divination procedures, and in the contents of amulets and talismans, in astrology and in numerology.<sup>21</sup>

The symbols used in Sudanese amulets are similar to those of ancient Babylonian languages, and the names invoked for help or to be averted are corruptions of those of Babylonian deities. The numerical squares that are frequently drawn, are Syriac in origin, and the numerical patterns that recur in all-magical formulae are apparently sexagesimal, and, therefore, Sumerian in origin. Almost every medieval Arabic medical book that is available to the Sudanese traditional healer is rich in magical seals, numerical squares, and names reminiscent of Babylonian origins. People believe in these magical formulas so strongly that one such formula derived from *Shumus Al-Anwar* by Al-Tilmisani,<sup>22</sup> precipitated acute excitatory reactions.<sup>23</sup>

Numerology, applied to Sudanese *shulukh* (facial cosmetic scars), raises an intriguing possibility. It is popularly believed that some *shulukh* patterns are protective, and it has been noted that, in the Muslim Sudan, many patterns share the nominal figure (111) (one hundred and one). Nominal in the sense that it the figure can be inflicted vertical, horizontal, as (H), or (T). This figure is the equivalent of *Kafi* one of the ninety-nine names of God, or the equivalent of *alif*, the name of the first letter in the Arabic alphabet, a letter that is greatly esteemed in Muslim mysticism. Yusuf Fadl Hasan reviewed the subject of facial scarring in his book *Al-Shulukh* and quoted the above hypothesis but did not support it because, according to him, the numerical equivalence does not give 111, a conclusion that we think needs revision.<sup>24</sup> *Kafi* is, indeed, equivalent to 111 whether the conversion is done through the Maghribi *aiqash* list, or the Mashriqi *abgad* (see figure 6, page 714).

### **East African influences**

The Sudan shares an extensive border with neighbouring Ethiopia and Eritrea. Across this border, many tribes move freely between these

countries, speak the same languages, and share the same culture. Several cultural features have been interchanged in the process. One such is *zar*, which, researchers seem to agree, originated in Ethiopia, and diffused from there to the Sudan and other neighbouring countries. It is difficult to say whether *zar* was originally a religious function, a social cult, or a healing practice, and the origin and etymology of the word has been a subject of discussion for some time. The word itself is thought to be derived from *Zara*, a town in Iran, or from *Zar*, a village in the Yemen. Occasional reference to the Sudanese *zar* as *jama'a* (company), have misled some writers into tracing the word back to the Arabic root *yazur* (to visit).

*Zar* is most probably Ethiopian in origin, and the word an Amharic loan word derived from the ancient Agau religion of the animist Kushites, whose sky-god was called *jar*. Adopted by the Abyssinians (who were converted from Agau to Christianity), the word came to mean an evil spirit.

*Zar* was also described by Plowden in his posthumous book, *Travels in Abyssinia and Galla Country*, published in 1868. Plowden likened *zar* to the *tom-tom* dance. The practice was also mentioned by several French travellers who visited Abyssinia. In 1888, *zar* was referred to by the Dutch scientist Hurgronje, in his book on Mecca (English translation, 1937). Hurgronje traced the origin of *zar* back to Abyssinia. Later, the practice was described by the American McDonald in his book *Aspects of Islam* in 1911, in which he mentioned a relevant paper written by Madam Rushdi in 1884. George Edward Lane, in *Modern Egyptians*, first published in 1836, did not mention *zar*. It has been repeatedly asserted by researchers that a meticulous observer such as Lane could not have omitted to mention *zar*, or any similar practice, were it ever performed in the Egypt of that time.

From the Sudan, *zar* possibly spread to Egypt and Saudi Arabia. Similar practices are known in some parts of East Africa and Iran, and there is a great similarity between *zar* and the Indian practice of stirring a holy script in milk and drinking it to alleviate symptoms of disease. In the Sudan, Egypt, Ethiopia, and Saudi Arabia the practice is known as *zar*, in Somaliland *sar*, in Nigeria *bori zar* or *bori*. The *saka* possession cult among

Taita women in Kenya, and, in Morocco, the Gnawa practices for exorcising the *jinn*, share similar features with *zar*.

### West African influences

The Sudanese epigram: '*nas al-shariq ya fuqara ya shu'ara, nas al-gharib ya 'arraqa ya warraqa,*' divides the Sudan into two geographical and cultural zones: western and eastern. The western region comprises the Kordofan and Darfur regions; the eastern region represents the rest of the Muslim Sudan. The epigram describes the dominant attributes of the people of each region: those of the eastern Sudan are *fuqara* (religious scholars or mystics) and *shu'ara* (poets), and the western are either '*arraqa* (magic-mongers dealing in magical roots), or *warraqa* (medicine men who write amulets and charms serving black magic). The epigram also sums up well the type of influence West African cultures have exerted on the Sudan. The West African group that has made the most appreciable impression on the Sudan is the Nigerian. This group is known to be well versed in the magical arts, and many of them are street peddlers who sell herbs, roots, and amulets in almost all Sudanese towns.

### References and Notes

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- <sup>1</sup> The foreign communities that have settled in the Sudan since 1820 include: Coptic Egyptians, Syrians, Lebanese, Yemeni, Indians, Jews and Greeks. Ethiopians and Eritrean have always been seen as next of kin to the peoples of eastern Sudan; their movement into other parts of the Sudan has been gradual and steady.
  - <sup>2</sup> Tigani Al-Mahi. The Arabian Roots of Traditional Medicine in the Sudan. in Ahmad Al-Safi and Taha Baasher (eds.) *Tigani Al-Mahi Selected Essays*. Khartoum: Khartoum University Press, 1984: 139-43.
  - <sup>3</sup> Ibn Al-Qayyim. *Al-Tibbb Al-Nabawi*. Cairo: many editions in Arabic.
  - <sup>4</sup> Al-Zahabi. *Al-Tibbb Al-Nabawi*. Cairo: Republican Library, 1946. (Many editions, in Arabic.)
  - <sup>5</sup> Muhammad Al-Nur Ibn Daif Allah (1727-1809 or 1810). *Kitab Al-Tabaqat fi khusus Al-awliya wa 1-salihin wa 1-ulama wa I-shu'ara* (1805!) ed. Yusuf Fadl Hasan, Khartoum: Khartoum University Press, 1985.
  - <sup>6</sup> See editor's notes on these *shaihs* in Muhammad Al-Nur Ibn Daif Allah ( -1809), *Kitab Al-Tabaqat fi Khusus Al-Awliya wa 1-Salihin wa 1-Ulama wa 1-Shu'ara* (1805!) ed. Yusuf Fadl Hasan, Khartoum:

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Khartoum University Press, 1985: page 35, and the appended list of Arabic books mentioned in the book, page 417.

<sup>7</sup> Muhammad Al-Nur. Op. Cit., page 18.

<sup>8</sup> The book, however, may not have been written by Al-Siyouti at all. Haji Khalifa in *Kashf Al-Zunun* attributed the book to Al-Shaikh Mahdi Ibn Ali Ibn Ibrahim Al-Subairi Al-Yemeni Al-Muhaji Al-Maqqarri (D. 814 A.H. ), and had also seen a manuscript of the same book stating in its frontispiece that it was written by shaikh Al- Attibba (chief of physicians) Gamal Al-Din Muhammad Ibn Ibrahim Al-Mahdawi Al-Yemeni. Ibn Al-Nadim in *Al-Fibrst* was also quoted as saying that the book was written by Al-Subairi Al-Maqqarri and not by Al-Siyouti. Isam Al-Din Abd Al-Raouf, in an article called Mulafat Al-Siyouti (Al-Siyouti's Publications) contributed to *The Al-Siyouti Commemoration Conference* in Cairo 6-10 March 1976, did not mention this book among the man's publications (which were claimed to be more than 300). Whoever was the author, the book remains a constant companion to many *fakis* and *faqirs*.

<sup>9</sup> Al-Siyouti, Abu Al-Fadl Abd Al-Rahman Ibn Al-Kamal Abi Bakr Galal Al-Din (Al-Siyouti Al-Khudari Al-Shafi'i). *Al-Rahma fi Al-Tibb wa Al-Hikma* [Arabic]. Cairo: Abbas Abd Al-Salam Ibn Shaqroian; Undated; Many Editions. 223 pages.

<sup>10</sup> Haji Khalifa. *Kashf Al-Zhunun bi Asma Al-Kutub wa Al-Funun* [Arabic]. Istanbul; 1942; Many editions.

<sup>11</sup> The books named *Al-Tibb Al-Nabawi* (the Prophet Muhammad's Medicine) were many. They had been compiled by Muslim exegesists starting from the 10th century A.D. The most important are those compiled by Al-Zahabi, Ibn Qayyim Al-Jawziyya, and probably Al-Siyouti. For more discussion on this topic see Ismail H. Abd Allah. at-Tibb an-Nabawi or The Medicine of the Prophet. University of Wisconsin (unpublished paper.)

<sup>12</sup> Awad Al-Karim Muhammad Hindi (Al-Sayigh). *Mukhtarat Al-Sayigh* (The Goldsmith Collection) [Arabic]. Cairo: Maktba'at Al-Zahran; 1949; 3 vols.

<sup>13</sup> Ibn Sina (Avicenna), Abu Ali Al-Hussein Ibn Abd Allah (D. 1037 A.D., 428 A.H.). *Al-Qanun fi Al-Tibbb* [Arabic]. Rome: First edition, later published in Egypt, Iran, India, and Europe many times; 1593. Note: Avicenna referred to Dioscorides book '*Plants*' as a source.

<sup>14</sup> Ibn Al-Baitar, Dhia Al-Din Abd Allah Ibn Ahmad Ibn Muhammad Al-Maliqi (D. 1248 A.D., 646 A.H. ). *Al-Jami' Li Mufradat Al-Adwiyya wa Al-Aghzhiyya (Mufradat Ibn Al-Baitar)* [Arabic]. Cairo: Matba'at Bulaq; 1874 (1291 A.H.); 4 Vols. Note: Many manuscripts are available around the world. Also published in Baghdad, and translated into

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French (1877-1883), German (1870-1872), and Turkish. The book has many synopses.

- <sup>15</sup> Al-Maridini, Abd Allah Ibn Ali Ibn Osman (D. 769 A.H). *Al-Risala*.
- <sup>16</sup> This has been refuted by various folklorists (see page 60).
- <sup>17</sup> *Bakbur al-taiman* (*Al-Taiman* incense) is a panacea for the treatment and prevention of almost all ailments.
- <sup>18</sup> Dr. Ahmad Yusuf Al-Siddiq Al-Hahiawi, nicknamed *Al-Hakim* (1802-1893), born in Hahiya, in Al-Sharqirya, Egypt, graduated in Abu Za'bal College of Medicine, Cairo, in 1828 in the second group of students to matriculate. He specialized in surgery in France, then joined the Egyptian army in the Sudan as a medical officer. He was appointed Medical Director of Donqola and Berber hospitals, where he practised medicine and surgery till his death.
- <sup>19</sup> Boss interviewed Bimbashi Hassan Effendi Zeki, a medical officer during the siege of Khartoum, and recorded the following data about the town before its fall. He said that there were many doctors in Khartoum, the best known being Nessib Salim, who was an Egyptian who performed many operations including bladder stones, madura, wounds and abscesses. Chloroform was used as an anaesthetic, though it was viewed with a certain amount of fear at first. (Bloss, J.F.E. Notes on the Health of the Sudan Prior to the Present Government, *Sudan Notes and Records*; 1941; 24: 131).
- <sup>20</sup> Al-Hakim's brother, Yusuf, also worked as a Medical Director of Kassala hospital. He got married in that region, died and was buried there in 1863.
- <sup>21</sup> Numerology is the study of the magical meaning and occult significance of numbers. The ancient civilizations of Egypt, Babylon and China, not to mention others, shared the belief that numbers have meaning and mystic properties, and that their manipulation controls human life one way or the other. In numerology, each letter in the alphabet has an assigned numerical value for which it can be substituted, and, therefore, interpreted in divination or for magical purposes (see Figure 10, page 711).
- <sup>22</sup> Al-Tilmisani. *Shumus Al-Anwar* [Arabic]. Cairo; Many Editions.
- <sup>23</sup> Tigani Al-Mahi. Op. Cit.
- <sup>24</sup> Yusuf Fadi Hasan. *Al-Shulukh: Origin and Function in Central Sudan's Nile Valley Region* (in Arabic), Khartoum: Khartoum University Press, 1976: 83-4.

## Chapter 9

### FOREIGN IMPRESSIONS

A part from contemporary anthropologists and other interested scholars alluded to earlier in this book, many other Europeans, Americans and Arabs have visited the Sudan in the last two centuries as travellers, explorers, missionaries, historians, archaeologists, geographers, naturalists, botanists and as part of the ruling administration.

They have recorded useful information about the country, its people and prevalent customs and practices. They have contributed their fare share in studying or describing the healing methods of the people they came across and described the state of health, hygiene, sanitation, and medical practices in the early times. These sources remain our main repositories of the past of man's health in the Sudan.

Most travellers (and sojourners) did not see in the Sudanese ways of life anything more than a collection of strange and barbaric customs, and some even created several myths and stereotypes about which present day researchers are still trying to separate fact from fiction, as Tigani Al-Mahi noted.<sup>1</sup> Others made sweeping generalizations about the people—their physical characteristics, vices and virtues, the way they behaved and the beliefs they held. Nonetheless, there is much to learn from the accounts they left behind, which are, in most cases, extremely engaging. Of interest to us, here is what they wrote on the health of the country and its peoples, and how health and disease were managed. The documentaries left back by these early writers frequently proved to be of the utmost importance in tracing several medical practices. For example, much has been learnt about *zar* and *tumbura* from the writings of Frobenius,<sup>2</sup> Hurgonje,<sup>3</sup> Plowden,<sup>4</sup> Junker,<sup>5</sup> and others, female circumcision from the writings of Browne,<sup>6</sup> Burton,<sup>7</sup> and Bruce.<sup>8</sup>

Cursory comments could be found in several books of travelogue. The British administrator, traveller, and sportsman, Samuel White Baker (1821-1893), wrote many books on the Sudan but they contain little information on health. He was in the Sudan in the years 1861-65, and

travelled all over the country. He mentioned the occurrence of a bad smallpox epidemic alluded to in page 221. In 1866, he mentioned a plague that broke out in Khartoum, but he did not accurately identify the disease.<sup>9</sup>

The Sudanese historian Abbas Ibrahim Muhammad Ali reviewed critically the literary works that described some of the Sudanese ways of life and customs in the last two centuries, in a booklet entitled *The Anglo-Saxon Teutonic Images of the People of the Sudan*.<sup>10</sup> Many of his thoughts are echoed here.

The Sudanese psychiatrist and bibliophile Tigani Al-Mahi<sup>11</sup> has, with great scholarship, called into question the quality of the ethnographic literature produced by the European travellers who visited the Sudan before the First World War. Tigani Al-Mahi thought it is fair to admit that those writers were the faithful offspring of their times, and that the judgments they expressed, have more to do with the values of nineteenth-century Europe than those of the Sudan of that or any other time, where certain historical factors had contributed to their orientation, and the realities and stamp of the time had influenced and shaped the pattern of values affecting human relations and attitudes. The methodology, thus, of those writers in particular, leaves much to be desired. He said:

“The review of the literature until the First World War, for example, and in this respect I shall have to be very frank, reveals a quality which, to say the least, is fictitious and grossly incorrect; half belief and half make-believe. Many authors were curiosity-hunters rather than academics, and their predilections were obtrusively for the strange and whimsical. Their writings created more enigma than they solved. The gulf between the observer and the observed was seemingly immense.”<sup>12</sup>

Abbas Ibrahim Muhammad Ali identified some examples of bias and partiality in his above-mentioned review. He could see the predilection of those early writers for describing strange customs, on which they did not hesitate to pass moral judgments. None of them had the scholarship or deep imagination to view those customs in the social and cultural

context of the society in which those customs were dominant. He quoted a few interesting examples.

A custom they viewed with distaste was the custom of breaking off the lower two front teeth, a custom the majority of the tribes of the southern Sudan practise. An American observer, Bayard Taylor, described the practice as giving “their faces a wolfish expression.”<sup>13</sup> We alluded earlier in this chapter to the comments of Schweinfurth, who confessed that the object of this hideous mutilation is hard to determine.<sup>14</sup>

This section is not intended to be exhaustive, and does not review the work of all those who had interest in the Sudan and wrote about, rather it highlights the importance of the contribution of these writers by giving some examples. Future researchers should give this field its due attention and study it more thoroughly and systematically.

### **Muhammad Ibn Umar Al-Tunisi**

Most notable of the latest travellers in the Sudan was Al-Tunisi who reported in an organized fashion on several aspects of the land and people of Darfur of the 18<sup>th</sup> century. Of interest to us, here were his comments on health, related customs and traditions, methods of treatment of disease, and medicinal recipes used then.<sup>15</sup> His comments were alluded to in their respective chapters of this book: magical roots (page 276), castration (page 152), magic (page 88), cataract operation (page 164), divination (page 108), fevers (page 229) etc.

### **Naom Shuqair**

Naom Shuqair compiled a massive treatise on the history and geography of the 19<sup>th</sup> century Sudan with sections on the habitat and popular foods of the different tribes, manners, prevalent health customs and diseases and their treatment in different parts of the Sudan.<sup>16</sup> This book makes interesting and useful reading for both students and researchers.

### **Theodor Krump**

One of the earliest missionaries, who recorded some ethnographic notes on the Sudan, was Theodor Krump.<sup>17</sup> Except for plague and smallpox, which were dreaded by the locals, Krump wrote, no other diseases were prevalent, except abostem, ulcer, coughing, and ophthalmia; but *il mal*

*francese* (that is syphilis) was common. He also noted that cauterization was quite common as treatment for animal and man.

“In these countries they not only treat camels and donkeys in this way, but men, too. If anyone suffers from sciatica, they fetch a cotton cloth, bind it very firmly to the thickness of a thumb, set it alight, and cauterize the spine up to the neck, so that a space of two or three fingers’ width lies between each branding-mark. In a similar way, they treat colic, cauterizing both sides of the navel. To remove a headache they apply this treatment behind the ears and on the temples.”<sup>18</sup>

After Krump’s caravan travelled the *Darb Al-Arba’in* (the forty-days-route) from Egypt, they stayed for a while at Mosho at the third cataract of the Nile. There he described the household utensils (grinding mill consisting of two stones which are turned about by means of a stick or by hand in the same way as painters grind their colours), cooking vessels (earthen pots), drinking vessels (hollowed pumpkin split in the middle), foods (fowls, chickens, kids, sheep, fish, lentils, rice, beans, *kisra*<sup>19</sup> bread made of durra and dates), *bnsa* (durra beer), and the abundance of game.

### **William George Browne**

William George Browne travelled from Egypt by the *Darb Al-Arba’in* to Darfur in 1793. He settled at Kobbe, disguised as a North African Arab, until his return in 1796 by the same route. His narrative, published in 1800, though criticized for inaccuracy, remains an authority on Darfur. In it, he devoted a chapter to remarks on health conditions in the Sudan and Egypt.<sup>20</sup> Trachoma (psorophthalmia), he noted, was particularly common in Egypt and, northern Sudan. The causes of the disease, he thought, were dust and irritant fats. He also noted that the higher the social standing of the people, the less the incidence of the disease. Plague, the disease which always ravaged the Turkish empire, was epidemic in Egypt, and had been there since 1348 [the year the plague ravaged Europe]. He mentioned smallpox as the main epidemic disease, and local methods of inoculation were recorded. Scurvy was existent in Darfur, especially in years of poor crops. He described syphilis as:

“The disease which attacks the principles of generation, and destroys in its source, one among the few solaces with which human life is sparingly diversified ... does not appear in Egypt with all the terrors that mark its course in other countries.”<sup>21</sup>

At that time, he continued, the tertiary forms of syphilis-aneurysm, tabes, and general paralysis of the insane-were very common sequelae in Europe, but in the tropics, they were rare in comparison with the frequency of the disease.

Leprosy was one of the commoner diseases in Egypt and Darfur. People also suffered from tapeworms, enlarged spleens [possibly due to bilharzia or malaria], liver diseases, jaundice, herniae, hydroceles, haemorrhoids, and fistulae. Herniae were treated with locally made trusses, and haemorrhoids and fistulae with cauterization. Childbirth was particularly easy. Sunstroke was uncommon and rabies almost unknown. Aphrodisiacs such as natron, infusions of *tamarhinde* [Tamarind, *Tamarindus indica*], and *hashish* [Cannabis, *Cannabis sativa*] were in great demand as medicines.<sup>22</sup>

### **Johann Ludwig Burckhardt**

The Swiss scholar and explorer, Johann Ludwig Burckhardt (1839-1908), traversed the Sudan on his way to Makka in 1812-1814. Speaking Arabic fluently, he dressed as an Arab and travelled as a Muslim merchant. He entered the country through Wadi Halfa. In his book *Travels in Asia*,<sup>23</sup> he recorded the diseases he met with in Berber and Shendi towns in 1814.

The people of Berber, he said, were on the whole a healthy race, probably due to the situation of the town on the edge of the desert. When the Nile was in flood, a fever called *wirdee* [*wird* is a generic Arabic name for fever] occasionally became epidemic. It did not occur every year, but when it did, there was a high incidence of death among those afflicted. Plague was unknown, and he had never heard of a case south of the Assuan cataract.

Every eight or ten years, smallpox, brought in by the Suakin traders, became epidemic. A serious epidemic broke out in 1812, which, coupled with a famine, was said to have carried off over two thirds of the population. Burckhardt himself knew that over fifty members of one family died from smallpox in that year. Mild cases were few, and those

who contracted the disease were heavily pocked. The mortality rate in children was said to be less than in adults. He reported a method of inoculation called *dag el jederee* (see also page 225) and noted that it was not practised extensively. In this method, the fluid of an infected pustule was rubbed into an incision wound made in the leg of the person to be inoculated. Venereal diseases and 'ophthalmia' were common, but not as much as in Egypt. He saw one case of guinea worm at Berber, probably an imported case, and said that although the more usual places for the worm to appear were the arms and legs, he saw one case in which the worm came out in the breast.

He also noted that there was a large slave market at Shendi, and although the slaves endured great hardships, they were not as strong as their masters were. A large proportion of slaves died long before they ever reached the market, and many travellers mentioned the rapidity with which some diseases overtook the slaves after their capture.

At Shendi, a particularly fatal inflammatory fever, probably cerebro-spinal meningitis carried off large numbers of slaves. A slave who had had smallpox would sell at a higher price than one who had not. If a female slave became pregnant, her master would do his best to procure an abortion. This was done with various medicines (given orally), by beating the woman on the abdomen, or by putting the extract of the Dead Sea fruit<sup>24</sup> on a piece of cotton inside the vagina. Slaves that snored, or ground their teeth at night, fetched a poor price. If a slave had a disease which did not clear up within the time prescribed by the vendor, he or she could be returned.<sup>25</sup>

### **George August Schweinfurth**

George August Schweinfurth travelled in eastern Sudan collecting botanical species in 1864 and 1868. He also travelled as far as Khartoum, and then descended the Nile to the Azande land in the south, where he discovered the Uelle River in 1870-71. In his book *Heart of Africa*, he mentioned that leprosy existed in the southern provinces. Apart from this, he recorded little information of medical interest.<sup>26</sup>

He also had interesting comments on Sudanese morals and customs. He judged that all the Arabs had in common the same single aim of

existence: to do as little as possible and to sleep much.<sup>27</sup> He observed that the Nubians exhibited a more decided idleness and dislike for work than any other people. About the custom of extracting the lower teeth among the Negroes, he said ‘it is hard to determine, ... and is quite beyond my comprehension.’<sup>28</sup>

Several tribes in the southern Sudan were described as cannibal by early travellers and geographers. Some writers claimed to be eyewitnesses to some acts of cannibalism. Schweinfurth shared with other travellers the opinion that some southern Sudanese tribes were cannibals. He did not hesitate to assert that the Zande were anthropophagi. He even claimed that the Zande themselves did not disown their cannibalism; that on, the contrary, they gloried in their reputation as cannibals, and, because of this, they were much dreaded by other tribes.<sup>29</sup> The cannibalism of the Monbuttoo tribes, he said, was said to be unsurpassed by any nation in the world. He felt bound to record, however, that there were some Zande who turned with such aversion from any consumption of human flesh that they would refuse to eat out of the same dish with who was a cannibal.<sup>30</sup> Cannibalism was emphasized among the tribes of Idio and Bamba, known as Makaraka, were cannibals also reported on by Wilhelm Junker<sup>31</sup> in his book *Travels in Africa, during the Years 1879-1883*.<sup>32</sup>

### **The Tinnes**

The Tinnean Expedition<sup>33</sup> to the Sudan was a remarkable and tragic journey organized and financed by three illustrious Dutch women: Mme Henriette Loise Marie Tinne, her sister Mlle. Adrienne de Capellen, and Mlle. Alexandrine Tinne, Mme. Tinne’s daughter. Theodore Kotschy, co-editor of the book that contained the botanical results of the expeditions,<sup>34</sup> wrote in the preface the following:

“The principal object of this journey was a desire to learn about the Ethiopians, those inhabitants of the banks of the Nile whence it has been the custom, up to the present, to take slaves. They wished to contribute as far as they could to the abolition of traffic so shameful and already prohibited by laws. Moreover a keen love of science and new knowledge counted not a little in the motives which involved them in their perilous enterprise.”<sup>35</sup>

During the excursion, which started in July 1861, two of the women, Mme. Tinne (20/7/1863), her sister, Mme. Adrienne and Dr. Steudner, the botanist, and phytographer of the Expedition (10/4/1861), two Dutch servants, among other unidentified number of the team, died of fever. The survivors left the Sudan by way of Sawakin and Berber in March 1864.

The results of the expedition were remarkable in terms of botanic surveys covering chiefly the areas watered by the Bahr Al-Ghazal River, between 9° and 10° North Latitude and 27° and 32° East Longitude (Meridian of Greenwich).<sup>36</sup> Seventy-seven species and genera were described, 24 of which for the first time. The expedition remains to be an excellent example of collaborative scientific ventures in which the efforts of the philanthropist, naturalist, geographer, explorer, botanist, and phytographer, are gainfully combined. The plant samples were professionally collected and preserved, described, and some items were deposited in the Imperial Herbarium of the Court of Vienna. However, no evidence of anti-slavery campaign was reported on.

### **George Alexander Hoskins**

The British archaeologist George Alexander Hoskins (died 1863), visited Egypt and the Sudan in 1833. He toured the northern region, making archaeological drawings and notes throughout his tour. He wrote his memoirs in a book called *Travels in Ethiopia*. After his encounter with the Arab tribes of northern Sudan, he had this to say, sharing the view of other European travellers, that an Arab accepts whatever comes across his way with unquestioned resignation:

“Endowed with an imperturbable stock of apathy more comfortable perhaps, although not so intellectual as European philosophy, they submit to a distressing accident, which would throw one of our countrymen almost into fever, without allowing their equanimity to be in the least disturbed. ‘*Mactub min Allah*’, ‘it is written, it is the will of God,’ they explain with placid resignation, and instead of brooding over their misfortune, become immediately reconciled to it, and with amazing facility banish it from their thoughts.”<sup>37</sup>

In *The Nile Tributaries of Abyssinia*, Baker wrote:

“The name of God is coupled with every trifling incident in their life and they believed in the continual action of Divine special interference .... Nothing can happen in the usual routine of daily life without a direct connection with the Hand of God, according to the Arabs’ belief.”<sup>38</sup>

### **James Bayard Taylor**

The American diplomat, traveller, (and translator of *Faust*), James Bayard Taylor, visited the Sudan in 1851-2. He considered that the Arab fatalism gave him a calm and equable temperament under all circumstances, and ‘God wills it’ or ‘God is merciful’ was the solace of every misfortune.<sup>39</sup>

### **H.A.R. Gibb**

Some early writers alluded to above wanted to convey the message that Muslim providentialism and indolence go hand in hand, and that an Arab can never change, improve his conditions or progress unless he gets rid of his habits of resignation and laziness. Abbas provided a more recent view. He quoted the modern English Orientalist H.A.R. Gibb as saying:

“Muslim ‘fatalism’ ... does not go very much beyond that found in any community (Muslim, Christian or Hindu) in which poverty and ignorance breed resignation in the face of bodily ill, physical disasters and the violence of tyrants. The ordinary Muslim takes thought for the morrow, like any other, and he assumes, like other civilized persons, that given actions will produce given results; and even in the matter of his future in the next life he takes predestination much more lightly than the Calvinists, since he believes that, whoever they may be whom God has predestined to hell fire, they are certainly not to be found in the Orthodox Muslim community.”<sup>40</sup>

### **John Petherick**

John Petherick (1875-1942), a Welsh mining engineer, trader and explorer, lived at Al-Ubiyyid and traded in gum Arabic from Kordofan,

from 1848 to 1853. He was engaged in different activities between the years 1853-8. In 1858, he was appointed vice-consul in Khartoum until 1864, when he left office because of allegations that he was involved in the slave trade. In his writings, he had something positive to say about what other travellers considered a dirty and repugnant operation, the *dilka* or, as he calls it, the Turkish bath. This came from direct experience; he, while feverish, had undergone the procedure:

“After a little consideration, although not much liking the idea of being smeared with oil, I submitted to the operation and found its effects much less unpleasant than I anticipated. The following morning I awoke quite revived; the feverishness had entirely subsided and with a calm and refreshing sensation through my limbs and body.”<sup>41</sup>

Petherick also described how the people of Kordofan treated smallpox. He said:

“As soon as the disease is pronounced, a bed of ashes<sup>42</sup> is prepared on the ground, upon which the patient is laid in a state of nudity, and from which he is not removed until either carried to the grave, or until, by a marvel, he recovers. The only remedy applied is the juice of raw onions to the eyes when they become attacked.”<sup>43</sup>

### **Ignatius Palmme**

In 1834, Ignatius Palmme wrote his observations on the diseases of Kordofan. He said that the chief diseases are fevers, dysentery, abscesses about the neck (called *durore*) [tuberculous adenitis!],<sup>44</sup> dropsy, small pox, jiggers, skin diseases, and lues [syphilis]. For treating *durore*, he said, ‘they open the abscesses with the actual cautery, and when the matter is discharged, dress the wound with an ointment prepared of butter and clay’. He said that syphilis had been totally unknown in this region in the preceding century, and the local people had only been inoculated a few years before he wrote, when the stationing of Egyptian troops in the province, provided the impetus and the technical means. He also described how the local people of Kordofan give lavage through an enema syringe.

“The lavements [lavages] are administered in the following manner: they take the thigh bone of a fowl, and clearing away the marrow, fasten to it a portion of the intestines of a sheep, into which they pour a decoction of *qara* [pumpkin!], and then insert the pipe into the anus, compressing the gut until the whole of the contents pass into the abdomen.”<sup>45</sup>

Many travellers shared the image of the Negro as a brute, a beast or at best, a child; Pallme thought that it was necessary to treat them like children; for their mental faculties were very limited, and they were, indeed, on the lowest scale in this respect.<sup>46</sup>

As the Negroes were bestial and childish, they could not be expected to have any religion—judged most of the writers.<sup>47</sup> “Historic man believes in divinity; the tribes of central Africa know no God; are they of our Adamite race?” asked Sir Samuel Baker.<sup>48</sup> It was thought that the Negro was incapable of understanding the truths of religion. General Gordon believed that it was impossible that the Negro could ever be got to understand the love of God in Christ. He, therefore, concluded that the Negro races must pass the ‘period of their youth before they could be taught.’<sup>49</sup>

## References and Notes

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- <sup>5</sup> Junker, Dr. Wilhelm. *Travels in Africa, During the Years 1879-1883*. London: Chapman and Hall; 1891; 3 vols. : page 140.
- <sup>6</sup> Browne, W.G. *Travels in Africa, Egypt and Syria from the Year 1792 to 1798*. London; 1799.

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- <sup>7</sup> Burton, R.F. *First Footsteps in East Africa*. 1856 1st ed. London; 1966.
- <sup>8</sup> Bruce, James (1765-1777). *Travels to Discover the Source of the Nile (in the years 1768, 69, 70, 71, 72 & 73)*. Edinburgh; 1790. Vol. 4: 5.
- <sup>9</sup> See relevant publications in the *Bibliography* (in press).
- <sup>10</sup> Abbas Ibrahim Muhammad Ali. *Anglo-Saxon Teutonic Images of the People of the Sudan, 1772-1881*. African Studies Seminar Paper No. 6, Sudan Research Unit, Faculty of Arts University of Khartoum: May 1969: 35 pages (Photostat.)
- <sup>11</sup> Tigani Muhammad Al-Mahi (1911-1970), the first Sudanese psychiatrist, was a man of varied talents and interests. He was best known for his encyclopaedic knowledge of history, especially that of the Sudan, Arab and Muslim science and medicine; he was also an Egyptologist; he pioneered the studies of ethnopsychiatry and traditional medicine in the Sudan.
- <sup>12</sup> Tigani Al-Mahi. Op. Cit.
- <sup>13</sup> Bayard, Taylor. Op. Cit. Page 337.
- <sup>14</sup> Op. Cit. Page 119.
- <sup>15</sup> Muhammad Ibn Umar Al-Tunisi. *Tashbihidh Al-Adhban Bi-Sirat Bilad Al-'Arab Wa-I-Sudan* (Arabic), (Eds) Khalil M. 'Asaker and Mustafa M. Mus'ad, Cairo: Al-Dar Al-Masriya Lil-Ta'lif wal-Tarjama, 1965: 328.
- <sup>16</sup> Naom Shuqair. *Gughrafiyat wa Tariekh Al-Sudan* (1903) [Arabic]. Beirut: Dar Al-Thaqafa; Many editions, 1972.
- <sup>17</sup> Theor Krump, a member of the Catholic Franciscan order, was born about 1660 at Aichach in Bavaria (Germany). After having studied Arabic and medicine he was attached to a deputation of missionaries who in 1700 left Cairo for Gondar, at that time the residence of the Abyssinian sovereign. In the Sudan, Krump was ordered to remain behind to act as a physician at the disposal of the Fung king. In November 1702, he left the Sudan. Upon his return to Germany, Krump became a curate at Dingolfing, where he died on 8th October, 1724. (For a detailed review of Krump's work see, Herzog, Rolf. *Ethnographical Notes on the Sudan in an Early Traveller's Account. Sudan Notes and Records*; 1957; 38: 119-129.)
- <sup>18</sup> Krump, Theodor (1660-1724). *High and fruitful palm-tree of the Holy Gospel . . .* [German]. Augsburg; 1710. 510 pages. Note: The book has a title 198 words long, page 245.
- <sup>19</sup> This is described by Krump as 'our Khessere, is not made of wheat but of dura ... Krump: page 222.
- <sup>20</sup> Quoted from Bloss J.F.E. *Notes on the Health of the Sudan Prior to the Present Government. Sudan Notes and Records*; 1941; 24: 131.

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- <sup>21</sup> Browne, William George. *Travels in Africa, Egypt and Syria from the Year 1792 to 1798*. London; 1799.
- <sup>22</sup> Quoted by Bloss, J.F.E. Op. Cit: 131.
- <sup>23</sup> Burckhardt, J.L. *Travels in Asia*; 1819: pages 229 and 337.
- <sup>24</sup> This is the latex of 'usbar fruit, *Calotropis procera*, also known as sodom apple.
- <sup>25</sup> Quoted in Bloss J.F.E. Notes on the Health of the Sudan Prior to the Present Government. *Sudan Notes and Records*; 1941; 24: 131.
- <sup>26</sup> Schweinfurth, George (1836-1925). *Heart of Africa* [English translation]. London; 1873.
- <sup>27</sup> Op. Cit, Vol. 2, page 329.
- <sup>28</sup> Op. Cit, Vol. 1, page 119.
- <sup>29</sup> Op. Cit. Vol. 2, page 19.
- <sup>30</sup> Op. Cit, Vol. 2, page 19.
- <sup>31</sup> The German traveller and naturalist, Wilhelm Junker (1840-1892), explored the River Sobat and the western tributaries of the Upper White Nile, from 1876 to 1878. After some time in Europe, he came back to the Sudan in 1879. He spent four years with the Azande and Monbuttu peoples of the southern Sudan. He discovered the River Mbomu, the important northern tributary of the Uele.
- <sup>32</sup> Junker, Dr. Wilhelm. *Travels in Africa, During the Years 1879-1883*. London; 1891: pages 233-4.
- <sup>33</sup> The expedition which was sponsored and financed by these ladies was also joined by Dr. Steudner (Botanist), and M. Theodore de Heuglin, explorers, botanists and naturalists. The expedition was documented in a book published in Vienna in 1867. The book was translated into English and reviewed by Tothill, Beatrice, H. in *Sudan Notes and Records*, Volume 28, 1947: 25-44. The book is (2) feet high by eighteen inches wide and less than an inch thick, with 27 plates. Seventy seven plant species are described. The Tinne name is preserved in some species' names in the plants they described, of which 24 for the first time. The book was dedicated to Sophie Frederique Matilde, Queen of the Netherlands. The expedition started from La Haye to Egypt and Khartoum on July 18th 1861.
- <sup>34</sup> Kotschy, Theodore; Peyritsch, M, Editors. *Plantes Tinneennes: Plant: collected on the Tinnean Expedition in Central Africa by 3 Dutch ladies (1861-3 )* [French & Latin]. Vienna; 1867.

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- <sup>35</sup> Tohill, Beatrice H. Reviewer and translator. *Plantes Tinneennes* [French & Latin]. Kotschy, Theodore; Peyritsch, M., Editors. *Sudan Notes and Records*; 1947; 28: 25-44.
- <sup>36</sup> During the time of preparation for this journey, M. Theodore de Heuglin and Dr. Steudner happened to arrive in Khartoum. These travellers, as learned as they were audacious, were returning from Abyssinia wither they had been sent at the expense of all Germany to try to get news of Dr. Vogel, of whom all trace had been lost since he had penetrated into the interior of Africa. As Madame Tinne desired to contribute to the full extent of her means to the advancement of knowledge she, offered these naturalists the opportunity of joining her expedition. "From Kotachy's Preface: Tohill. Op- Cit."
- <sup>37</sup> Hoskins, G.A. *Travels in Ethiopia*. London, 1845: 67.
- <sup>38</sup> Baker, Sir Samuel White. *The Nile Tributaries of Abyssinia*. London. 1867: 128-131.
- <sup>39</sup> Taylor, Bayard. *A Journey to Central Africa*. London, 1856: 396.
- <sup>40</sup> Gibb, H.A.R. *Modern Trends in Islam*. Chicago, 1947: 22 (quoted by Abbas Op. Cit).
- <sup>41</sup> Petherick, John. *Egypt, the Sudan and Central Africa*. London: 1861: 109-11.
- <sup>42</sup> When the female poet Banouna wept her brother Amara she said she didn't want to see him die in a bed of ash (the way a patient afflicted with small pox was treated). ( **Y`gWJ.†" fT"ḡibn ḡUī ḡY" .Tf .T."ḡU bḡ•[[**
- <sup>43</sup> Petherick, John. Op. Cit.
- <sup>44</sup> Comment by A. Cruickshank.
- <sup>45</sup> Pallme, Ignatius. *Travels in Kordofan* (1844). London; 1844.
- <sup>46</sup> Pallme, Ignatius. Op. Cit., pages 108-9.
- <sup>47</sup> Abbas Ibrahim Muhammad Ali, page 27.
- <sup>48</sup> Baker, S.W. *Albert Nyanza*; 1967. Vol. ii, page 318.
- <sup>49</sup> Gordon, N.A. *Letters of C.G. Gordon to his Sister*. London; 1888: page 176.

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## PHOTO GALLERY



**Figure 1: Nuba pattens (protective against guinea worm infestation)**



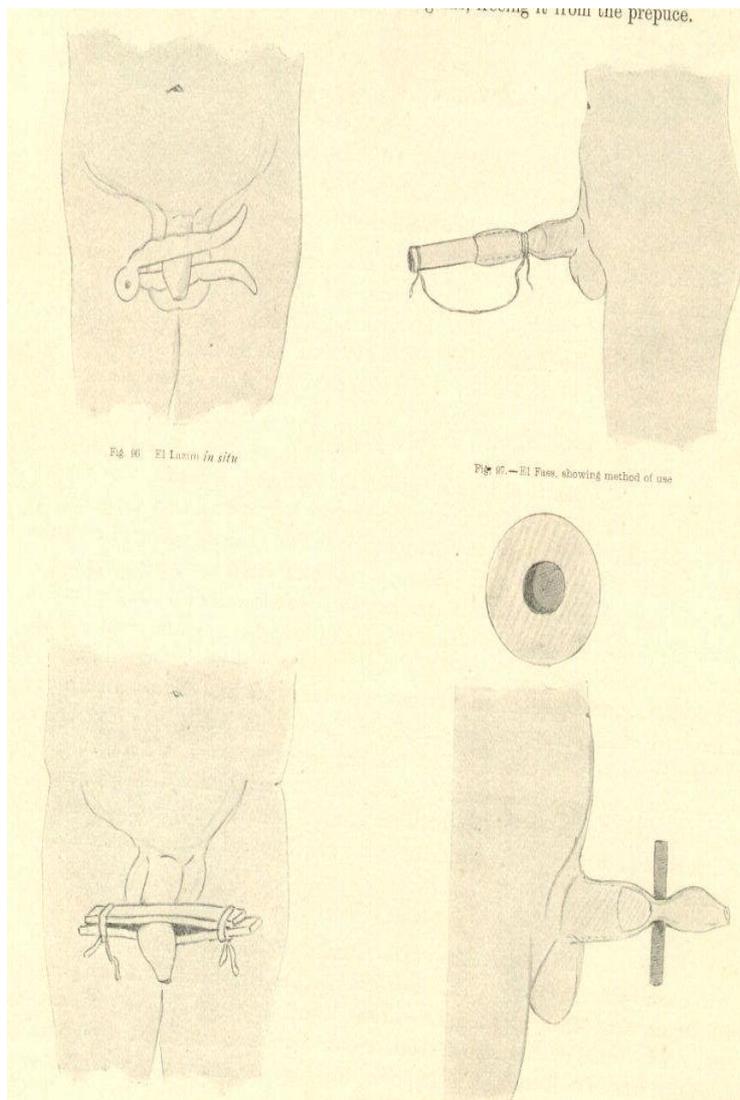
**Figure 2: Al-Hussain Wad Ahmad shrine, Damar Al-Hasaya (April 1983, in Damar Al-Hasaya, with worshippers around).**

4	9	2
3	5	7
8	1	6

Figure 3: The Magical square



Figure 4: Euwa divining board



**Figure 5: Male circumcision using al-lazim**

The Maghribi Moslem *aiqash* list.

القيمة العددية	الحرف	القيمة العددية	الحرف	القيمة العددية	الحرف
100	ق	10	ي	1	أ
200	ر	20	ك	2	ب
300	س	30	ل	3	ج
400	ت	40	م	4	د
500	ث	50	ن	5	هـ
600	خ	60	ص	6	و
700	ذ	70	ع	7	ز
800	ض	80	ف	8	ح
900	ظ	90	غ	9	ط
1000	ش				

The Mashriqi Moslem *abgad* List.

القيمة العددية	الحرف	القيمة العددية	الحرف	القيمة العددية	الحرف
100	ق	10	ي	1	أ
200	ر	20	ك	2	ب
300	ش	30	ل	3	ج
400	ت	40	م	4	د
500	ث	50	ن	5	هـ
600	خ	60	س	6	و
700	ذ	70	ع	7	ز
800	ض	80	ف	8	ح
900	ظ	90	ص	9	ط
1000	غ				

Figure 6: Arabic alphabet lists



**Figure 7: A mentally ill inmate in chains**

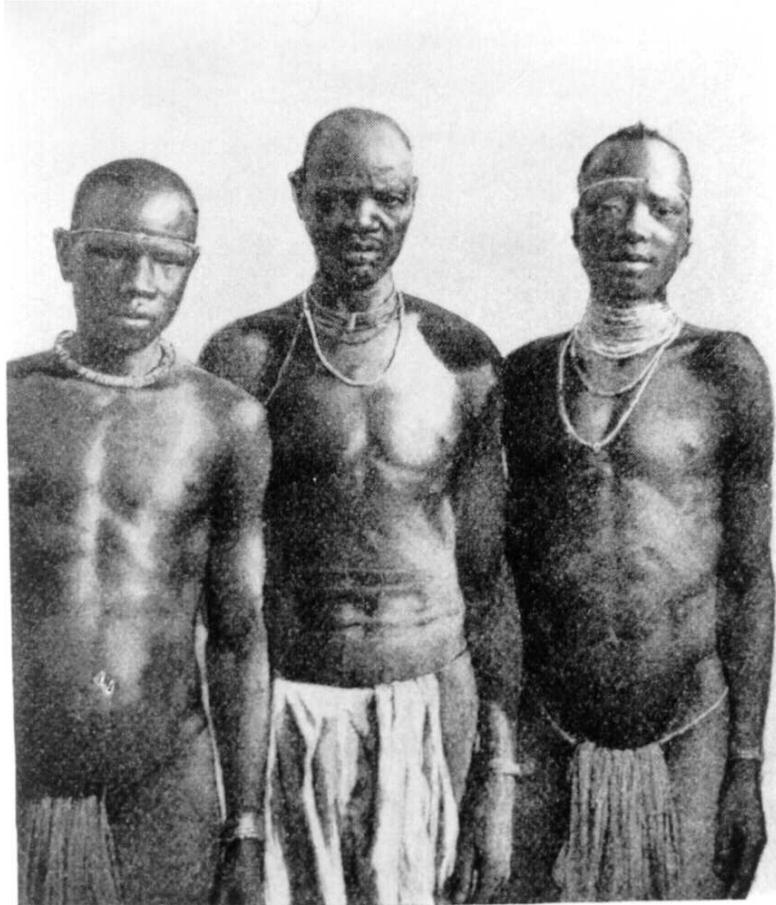
In maseed Wad Al-Faki Ali, Berber Al-Halfa, April 1983 (Al Tayib M. Al Tayib and Dr Amir Ali Hasan interviewing)



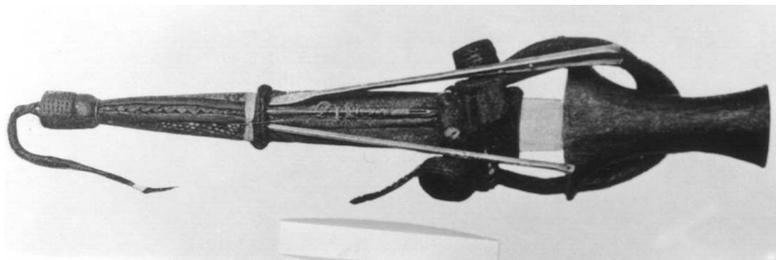
Figure 8: Love charm showing the construction of a khatim (seal).



**Figure 9: Kau athlete with amulets**  
(and beads necklaces, earring and tribal ash and lime face designs).



**Figure 10: The tying cure**



**Figure 11: Al-Sakkin (arm knife)**

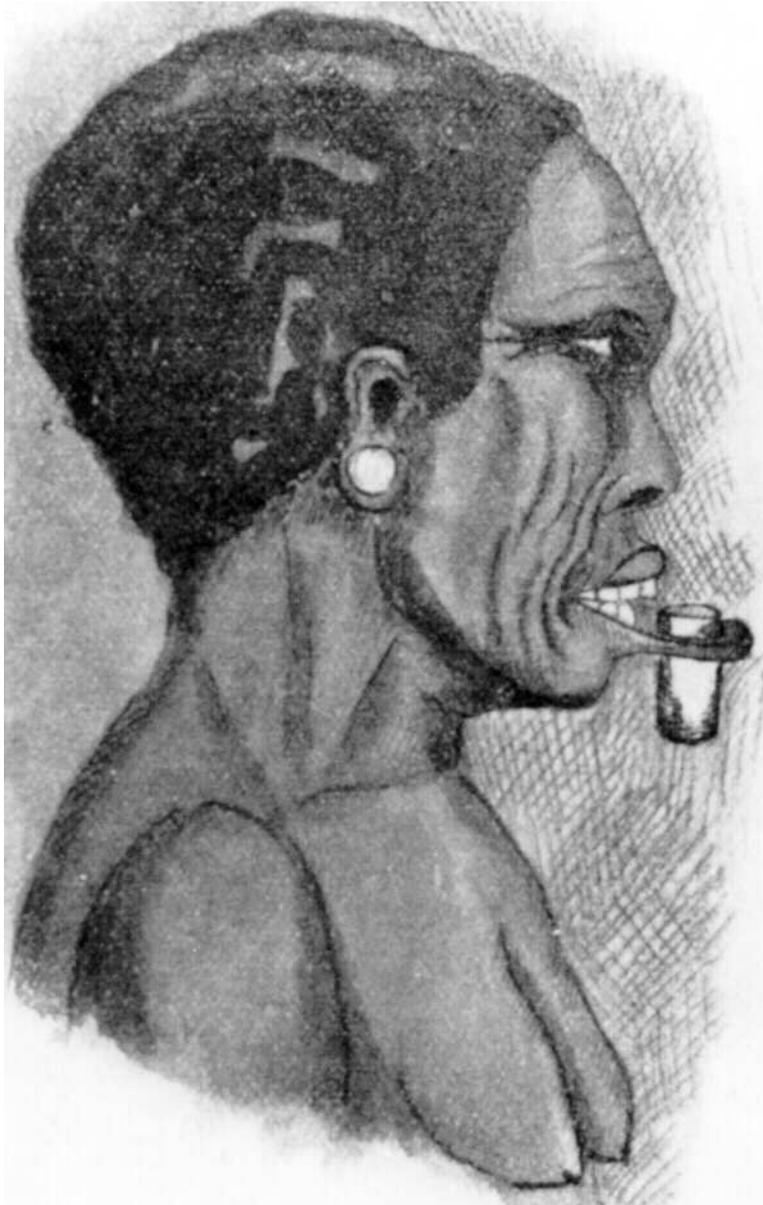
A surgical kit carrying in its sheath needles, *murvad*, *munqash*, *samandia*, and *masalla*, together with charms (written and herbal) attached to the sheath. Usually worn at the bend of the left elbow by the right-handed.



**Figure 12: Khalwa pupils washing Quran plates**  
In *bajar al-mihaya* in *maseed* Wad Al-Faki Ali in Berber Al-Halfa.



**Figure 13: Splints applied to forearm.**



**Figure 14: Ear and lip perforation (late 19<sup>th</sup> century).**  
(Nuba)



**Figure 15: A village midwife of Berber Al-Joul, April 1983.**



**Figure 16: Forehead and shoulder markings**  
(Youth, eastern Gajok)

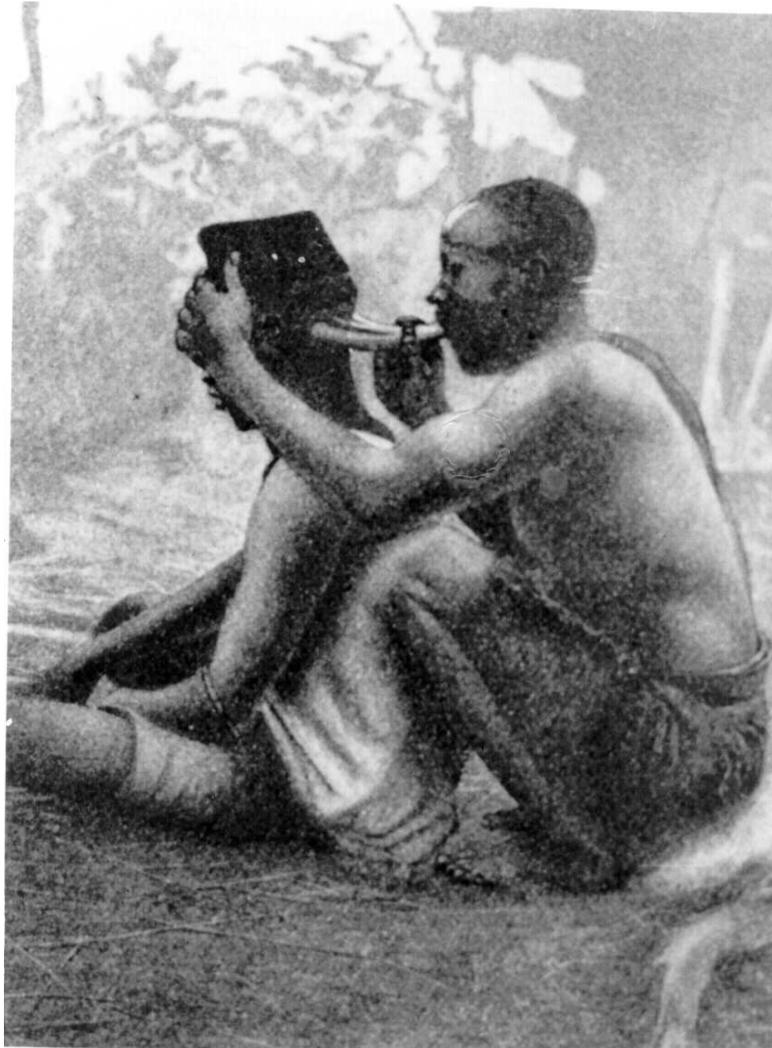


Figure 17: Cupping the napes using a cupping horn



**Figure 18: Basir Muhammad Wad Abd Al-Baqi cauterizing**  
(April 1983.)



**Figure 19: A historical rakwa and maqlouba**  
(Wad Al-Faki Ali shrine, Berber Al-Halfa, April 1983).



**Figure 20: Muzaiyina in Abbashar Abu-Bashariya shrine**  
(Berber Futuar, April 1983).



**Figure 21: Herbalist Muhammad Ahmad Al-Ansari**  
(Berber Al-Ibaidiya, Qamshab village).



**Figure 22: Zeinab bit Bati, bone setter, Omdurman, 1985.**



**Figure 23: Amulets in Kordofan**

Collected by R.G. Anderson earlier to 1913 (see reference page 48). They actually represent those used all over Muslim Sudan (see page 128).

1. Charms against the evil eye and evil spirits compiled by a Mahdi physician and presented to Dr. R.G. Anderson by the physician's son. The square case contains the paper hujab, the rounded sack contains a preparation of roots of unknown composition. The charm is designed to wear around the arm above the elbow.
2. Charm for desires to be fulfilled, designed to wear around the arm above the elbow.
3. Charm against the sting of scorpions, designed to wear around the arm above the elbow.

4. Three written charms designed to cause impotence in others. One is buried in a neighbouring grave; the other two being secretly laid below the subject's bed, designed to wear round the arm above the elbow.
5. Charm against headache.
6. Charm against toothache.
7. Charm against headache.
8. A love amulet. Four charms, two worn on level with the breasts; two on a level with the hips. Designed for suspension round the neck.
9. "3 Papers". A love charm, designed for suspension round the neck.
10. Charm against the evil eye. One case contains the paper, the second unidentified herbs, designed for suspension around the neck.
11. Charm against reptiles. One leather case containing *kasirasnil* root (unidentified binomial). The other containing a circular disc of *marul* skin (the iguana lizard). Used as a prevention and cures against the attack of reptiles. In cases of snake bite, the wound is 'freshened' by being briskly rubbed with the lizard skin, and then cauterized with the charred end of the root. Designed for suspension round the neck.
12. Stones from the grave of a Holy man for protection from illness and evil, and to bring good luck.
13. Charm against snake bite. One written, the other an unidentified root, designed to be worn round the neck.
14. Two written charms for love, designed to be worn round the neck.
15. A false charm, made for a woman, very bulky and containing only wooden blocks instead of genuine charms.

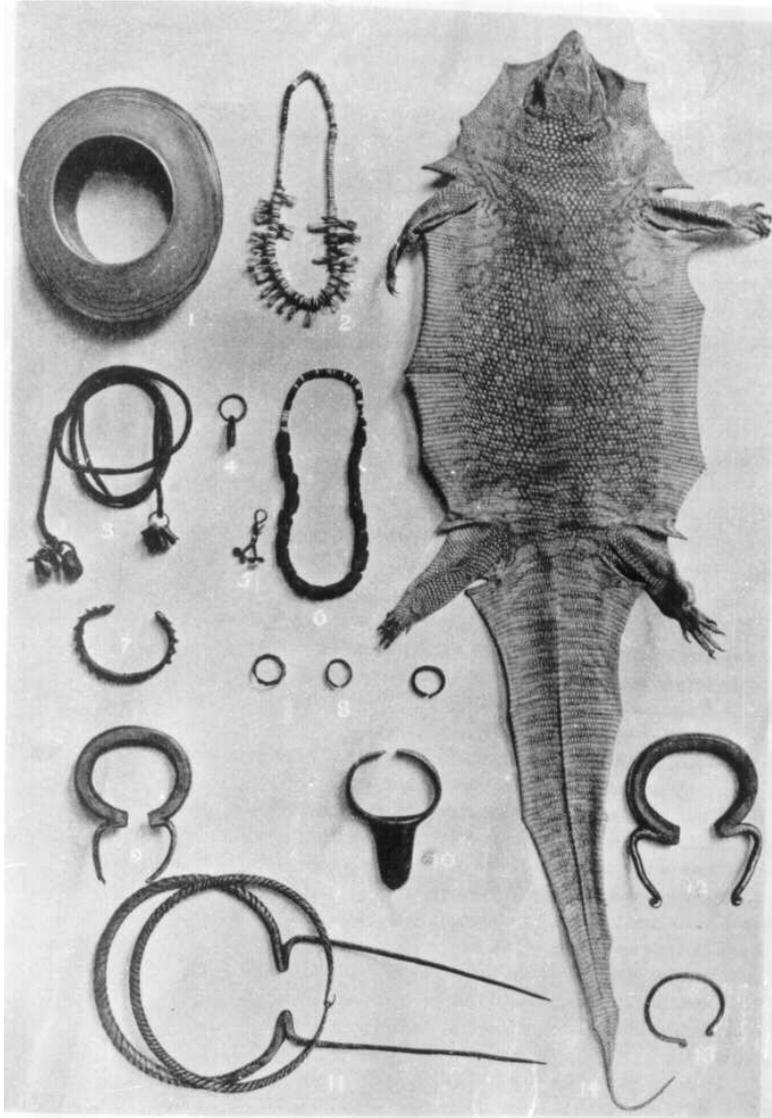


**Figure 24: Charms in Kordofan**

Collected by R.G. Anderson earlier to 1913. (see reference page 48, and material amulets page 132).

1. Al-Barad (hail). An opaque white stone worn round the wrist in order to protect the wearer's horse from horse sickness. It is supposed to fall with the hail, hence the name.
2. Hajar Al-Damm (blood stone), mounted as a ring.
3. Hajar Al-Damm, used as a neck ornament. It is placed in water as a specific cure for sunstroke and headache. In epistaxis one of these stones is tied round the forehead to check the bleeding.
4. Al-Hajar Al-Akhdar (green stone) mounted as a ring.

5. Al-Hajar Al-Akhdar (green stone), roughly cut as a neck ornament. The stone is placed in boiling water which when cool is administered locally and internally in cases of sunstroke and headache. The stone also acts as a styptic when locally applied.
6. Al-Ferous (turquoise). Worn set in a ring. Placed in hot water, which is then drunk to relieve vesical retention. Looked at the first thing in the morning it brings good luck for the rest of the day.
7. Kadug. Horn fitted with an unidentified root for protection against wounds.
8. A spurious written charm.
9. Al-Hafidha (protector). A silver charm suspended round the necks of children to protect them against the evil eye and illness arising therefrom. The inscription runs as follows: "Protector! Protect our little Ali from evil".
10. Horse charms, to protect horse and rider from illness and bad luck on the road.
11. Abu Abyad, to protect children against the ill effects of the evil eye.
12. Goza, to protect children against the ill effects of the evil eye.

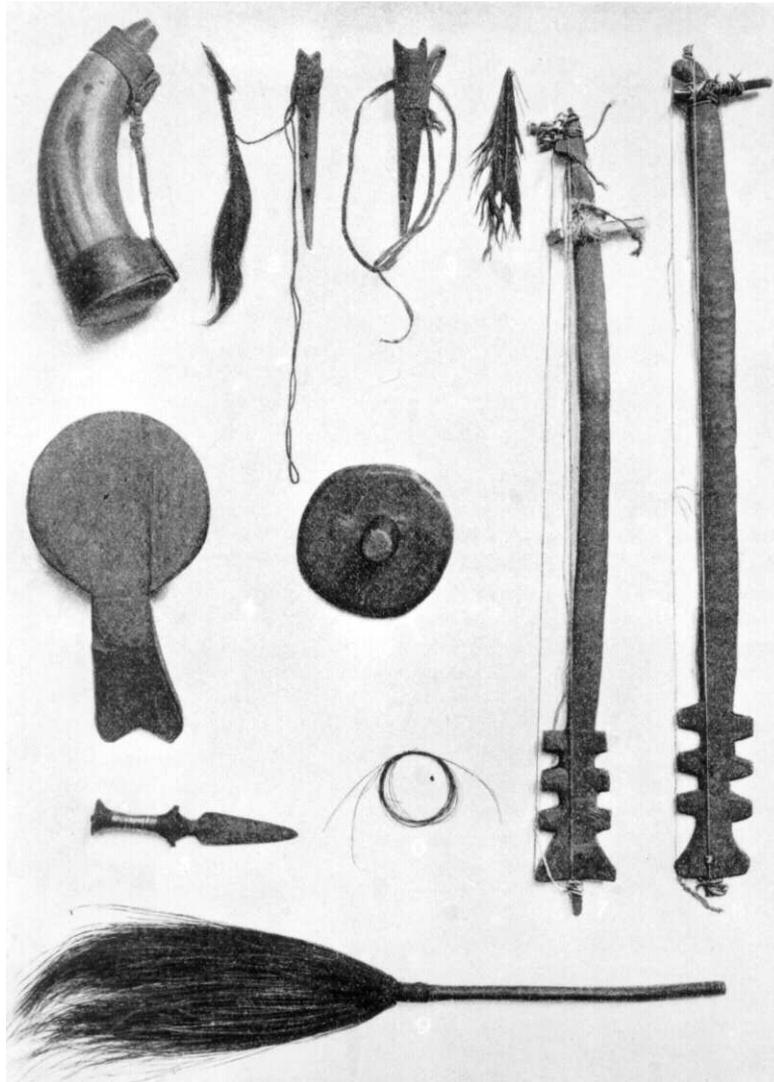


**Figure 25: Nyam Nyam and Gour charms (1)**

Collected by R.G. Anderson earlier to 1913. (see reference page 41, and material amulets and charms page 132).

1. Ivory armlet worn by the males as a sign of sex superiority, to attract and engender love, and to maintain the strength of the body. They are never under any circumstances removed, and often bite into the muscle of the limb to a terrible degree.
2. Gour tooth necklace to protect and prolong life and to render the wearer fecund.

3. Gour leather waist girdle decorated with a nut and iron bells to prevent skin diseases. Necklets of hippopotamus hide are worn for the same purpose.
4. Gour tortoise-shell on a brass ring. A charm to procure good luck in fishing and in love.
1. Gour man's brass ear-rings as love charms.
5. Gour scented wood necklace—a charm for love.
2. 7, 10, and 13. Three Gour bracelets worn by men and women, defensive and cosmetic in character. These also bear the same relation to bodily strength and fitness which most such tribal ornamentations seem to do.
3. Three Nyam Nyam brass finger rings of native make.
4. and 12 Kederu woman's 'defensive' anklet and bracelet-knives often, and spears sometimes, are carried by many women of the Bahr Al Ghazal tribes.
5. Two iron necklets worn by Kederu women. These, with many other metal ornaments of tribal Central Africa, are used not only for cosmetic effect but as a sign of wealth and for self defense. One has seen severe septic wounds inflicted by such ornaments.
6. 14 *Waarna*—lizard skin used for the prevention and cure of snake-bite and for skin diseases.



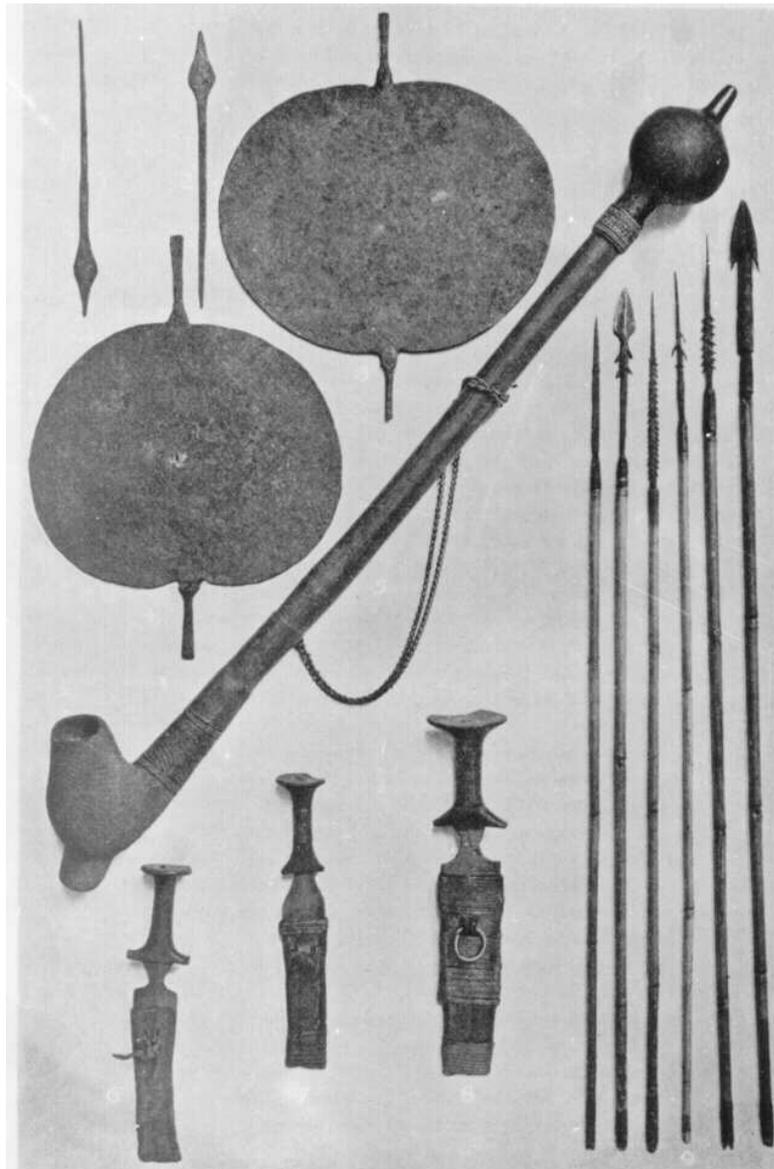
**Figure 26: Nyam Nyam and Gour charms (2)**

Collected by R.G. Anderson earlier to 1913. (See reference page 41, and material amulets and charms page 132).

1. Salt and drug horn.
2. & 3. Gour whistles used to attract game and drive off evil spirits. In the whistle is kept a greasy feather for cosmetic use.
4. Oracle of divining board of the Nyam Nyam tribe. Employed by their witchdoctors. Tribal questions, questions of life and death, guilt and innocence, diagnosis of health and disease, etc., are settled by this oracle. The surfaces of the plates having been copiously wetted with saliva and the juice of a certain berry, divination is

accomplished by the doctor striking the handle on the smaller plate sharply with each question put, the lower part being held firm. If it moves readily over the body plate, "yes" is signified; when it sticks, "no." Propitious dates, numbers, etc., are told in like manner-the date or number at which the plates cohere being the one selected.

5. Nyam Nyam witchdoctor's knife used for blood-letting, etc.
6. Giraffe hairs used as sutures.
7. & 8. Nyam Nyam stringed musical instruments used as a pastime and also in devil-dancing and divination, minus the gourd sounding board.
8. Nyam Nyam witchdoctor's switch, which seems to be a badge of office.



**Figure 27: Nyam Nyam doctors' fee, poisoned arrows, etc.**

1. 2, 3, 4. The doctors' fee. Disc and arrow-shaped iron money. The most primitive 'coinage' perhaps existent. Iron is the only metal of the country and in it lies the value of exchange. A little brass and copper are imported but knowledge of the rare metals is absolutely nil, silver and gold having no value over copper, brass and iron; ordinary coins possess no value except as ornaments.

5. Tobacco pipe in which the coarse home-grown tobacco, originally introduced by Arab traders, is smoked. Hashish, and Indian hemp, probably introduced in the same way, is grown and smoked by the Nyam Nyam tribe of southern Bahr Al-Ghazal.
6. 7, 8. Three knives, two small ones worn by women and a larger one by men. Used for all purposes, including rough attempts at surgery, circumcision (which is occasionally practised), and mutilation – removal of hands, ears, eyes, and genitalia.
9. Poisoned arrows. Ellie on extreme right arrow shows adhering poison.



**Figure 28: Surgical Instruments of Kordofan**

(Collected by R.G. Anderson (see reference page 48) earlier to 1913).

1, 2, 3, 5. Al-Samandia

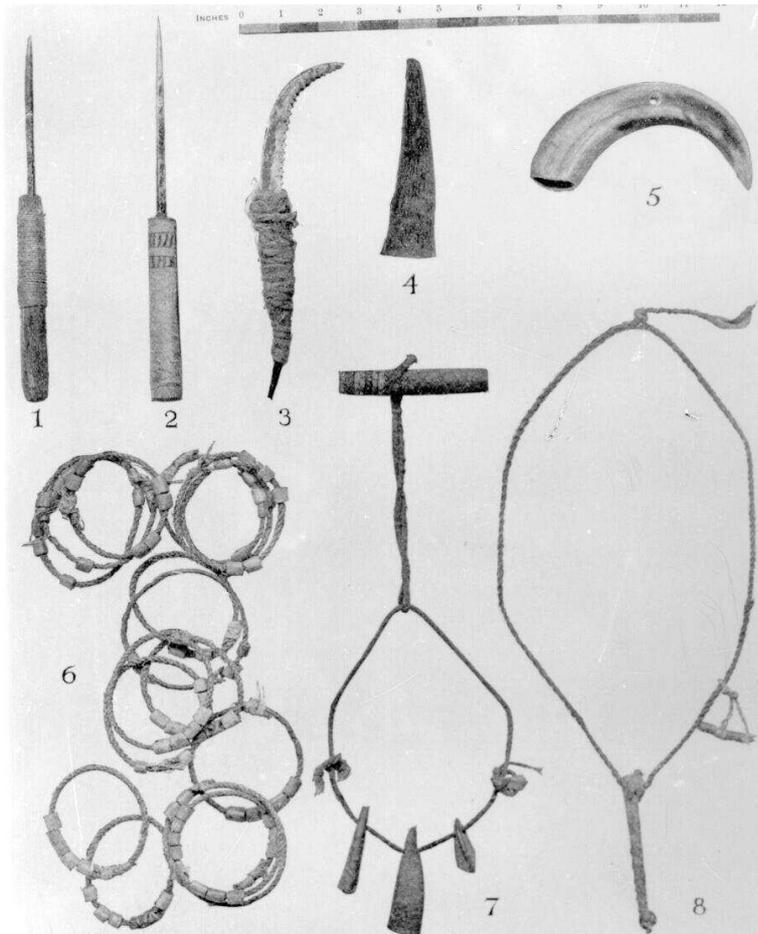
4, 7. Al-Murwad

6. Al-Risha

8. Al-Mikhray

9. Al-Ishfa

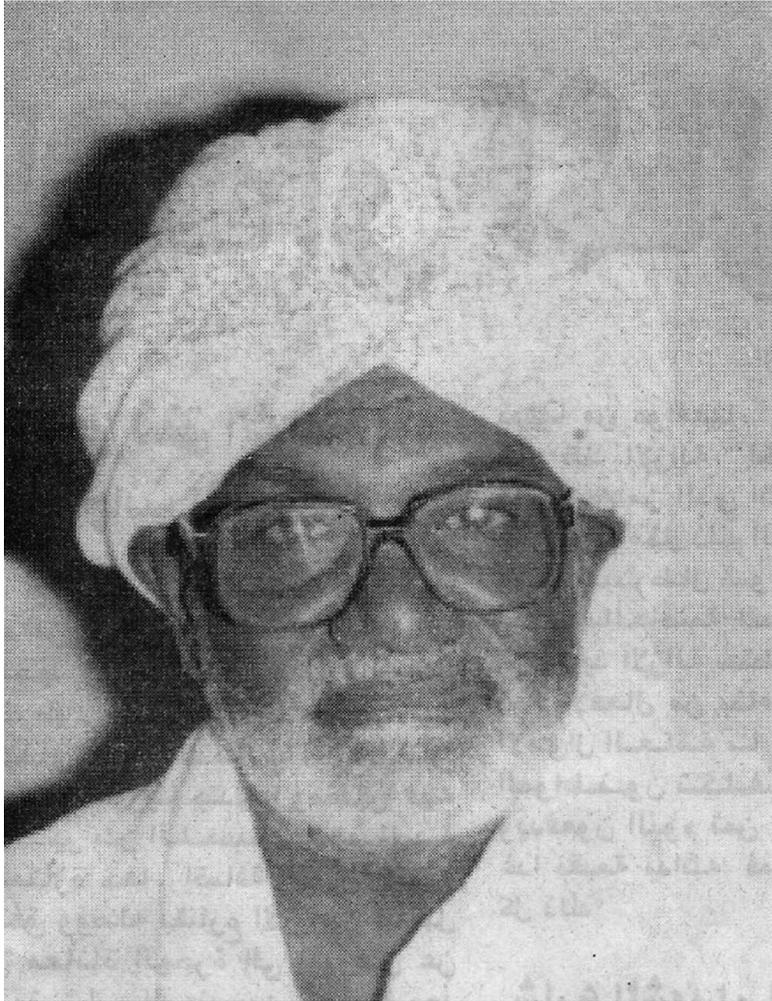
- 10, 11. Thorns for scarification purposes.
12. Al-Kamaia
13. Al-Lazim
14. Al-Fas
15. Al-Saleeha



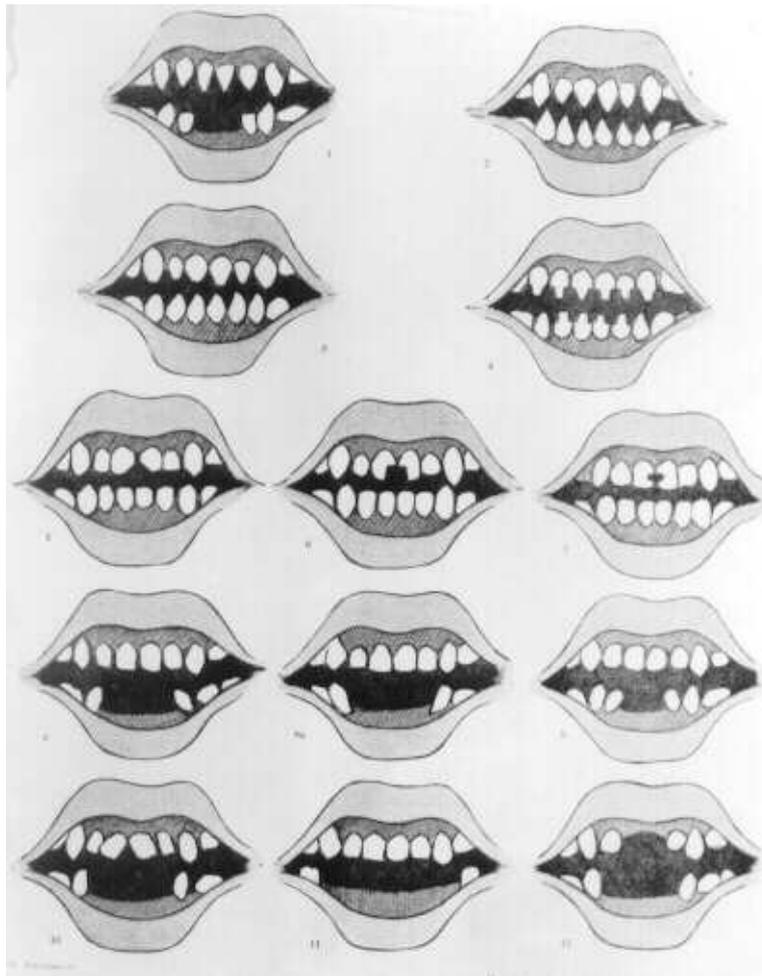
### Figure 29: Surgical instruments, charms, etc

These ethnographical specimens were collected by Dr. MacTier Pirrie in: Vallance, DJ (Dinka, Shulluk, and Burun). Notes on the ethnographical specimens collected by Fr. A. MacTier Pirrie. *Wellcome Research Laboratories Reports*; 1908, page 276.

1. & 2. Burun iron instruments with wood handle, used for extracting lower front teeth; length, nine inches and nine-and-three quarter inches respectively.
3. Shulluk grass cutter; iron, curved and serrated blade, handle bound with twine; length, nine inches.
4. Dinka of Upper Nile Province cupping instrument; cow horn; length, five inches.
5. Tooth of Warhog, worn round the neck. (Hameg tribe near Keili, Burun tribe anklets worn by a married woman, but discarded after birth of first child.
6. Burun necklace with horn-tips filled with fat, and a root (a charm to attract women), also a whistle; the seeds are a charm against lions.
7. Burun necklace, with root suspended; a medicine for dyspepsia. A little of the root is chewed.



**Figure 30: Al Sadiq Al Nafrawi Osman (grandson of Al Taiman)**



### Figure 31: Extraction and mutilation of teeth

This plate was made by R.G. Anderson (see reference page 41, and surgical methods page 146, and dental procedures page 154).

1. Extraction of lower and pointing of upper incisors among Nyam Nyam tribe.
2. & 3, 4. Sharpening and pointing of incisors and two lower canines. Various designs in used by the Zandeh Nyam Nyam.
5. & 6,7. Sharpening and notching of central upper incisors by the Avungara (Royal House).
8. & 8a, 9. Removal of all or only the central lower incisors, with alterations in direction of the unopposed teeth. (Gebelawi Nayam Nyam, Makrakka, Bagaro and Gour).
10. Extraction of four lower, with separation of upper central incisors. (Bkka)
11. & 12 Extraction of four lower incisors and two lower canines and two upper incisors. (Gour).